FREEPORT-MCMORAN INC
Form 10-K
February 15, 2019

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

FORM 10-K

(Mark One)
[X] ANNUAL REPORT
PURSUANT TO SECTION 13
OR 15(d) OF THE SECURITIES
EXCHANGE ACT OF 1934
For the fiscal year ended
December 31, 2018
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:
001-11307-01
Freeport-McMoRan
Inc.
(Exact name of
registrant as
specified in its
charter)

Delaware	74-2480931
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

333 North Central Avenue	
Phoenix, Arizona	85004-2189
(Address of principal executive offices)	(Zip Code)

(602) 366-8100
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, par value $0.10 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
þ Yes o 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. o Yes þ 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. þ Yes o No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). þ Yes o 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 the 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. þ

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

þ Large accelerated filer o Accelerated filer o Non-accelerated filer o Smaller reporting company o Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

o Yes þ No

The aggregate market value of common stock held by non-affiliates of the registrant was $22.4 billion on June 30, 2018.

Common stock issued and outstanding was 1,449,058,885 shares on January 31, 2019, and 1,448,998,940 shares on June 30, 2018.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of our proxy statement for our 2019 annual meeting of stockholders are incorporated by reference into Part III (Items 10, 11, 12, 13 and 14) of this report.

FREEPORT-McMoRan INC.

TABLE OF CONTENTS

Table of Contents

PART I

Items 1. and 2. Business and Properties.

All of our periodic reports filed with the United States (U.S.) Securities and Exchange Commission (SEC) pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available, free of charge, through our website, www.fcx.com, including our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports. These reports and amendments are available through our website as soon as reasonably practicable after we electronically file or furnish such material to the SEC.

References to “we,” “us” and “our” refer to Freeport-McMoRan Inc. (FCX) and its consolidated subsidiaries. References to “Notes” refer to the Notes to Consolidated Financial Statements included herein (refer to Item 8), and references to “MD&A” refer to Management’s Discussion and Analysis of Financial Condition and Results of Operations included herein (refer to Item 7).

GENERAL

We are a leading international mining company with headquarters in Phoenix, Arizona. Our company was incorporated under the laws of the state of Delaware on November 10, 1987. We operate large, long-lived geographically diverse assets with significant proven and probable reserves of copper, gold and molybdenum, and we are the world’s largest publicly traded copper producer. Our portfolio of assets includes the Grasberg minerals district in Indonesia, one of the world’s largest copper and gold deposits; and significant mining operations in the Americas, including the large-scale Morenci minerals district in North America and the Cerro Verde operation in South America.

We believe that we have a high-quality portfolio of long-lived copper assets positioned to generate long-term value. We have commenced a project to develop the Lone Star oxide ores near the Safford operation in eastern Arizona, and PT Freeport Indonesia (PT-FI) has several projects in the Grasberg minerals district related to the development of its large-scale, long-lived, high-grade underground ore bodies. We are also pursuing other opportunities to enhance our mines’ net present values, and we continue to advance studies for future development of our copper resources, the timing of which will be dependent on market conditions.

On December 21, 2018, we completed the transaction with the Indonesian government regarding PT-FI’s long-term mining rights and share ownership. We expect our share of future cash flows of the expanded PT-FI asset base, combined with the cash proceeds received in the transaction, to be comparable to our share of anticipated future cash flows under PT-FI’s former Contract of Work (COW) and joint venture arrangements with Rio Tinto plc (Rio Tinto Joint Venture).

As a result of the transaction, PT Indonesia Asahan Aluminium’s (Persero) (PT Inalum), an Indonesian state-owned enterprise, and PT Indonesia Papua Metal Dan Mineral’s (PTI - formerly known as PT Indocopper Investama) collective share ownership of PT-FI totals 51.24 percent and our share ownership is 48.76 percent. The arrangements provide for us and the other pre-transaction PT-FI shareholders to retain the economics of the revenue and cost sharing arrangements under the former Rio Tinto Joint Venture. As a result, our economic interest in PT-FI, including our share of PT-FI's net income, is expected to approximate 81 percent from 2019 through 2022. Refer to Note 2 for further discussion of the PT-FI divestment transaction.

We, PT-FI, PTI and PT Inalum also entered into a shareholders agreement at closing, which includes provisions related to the governance and management of PT-FI, and establishes our control over the management of PT-FI's operations. Concurrent with closing the transaction, the Indonesian government granted PT-FI a new special mining license (IUPK) to replace its former COW, enabling PT-FI to conduct operations in the Grasberg minerals district through 2041. Under the terms of the IUPK, PT-FI has been granted an extension of mining rights through 2031, with

rights to extend mining rights through 2041, subject to PT-FI completing the construction of a new smelter in Indonesia within five years of closing the transaction and fulfilling its defined fiscal obligations to the Indonesian government. Refer to Note 13 and Item 1A. “Risk Factors” for further discussion of PT-FI’s IUPK.

During the three years ended December 31, 2018, we have taken actions to restore our balance sheet strength through a combination of asset sale and capital market transactions, which primarily occurred during 2016. Refer to Notes 2 and 10 for further discussion of these transactions. These actions, combined with cash flow from operations, resulted in net reductions of debt totaling $9.3 billion during the three years ended December 31, 2018.

Following are our ownership interests at December 31, 2018, in operating mines through our subsidiaries, Freeport Minerals Corporation (FMC) and PT-FI:

a. Prior to December 21, 2018, we owned 90.64 percent of PT-FI and PT-FI had an unincorporated joint venture with Rio Tinto. Refer to Note 2 for further discussion of the PT-FI divestment transaction and Note 3 for discussion of the former Rio Tinto Joint Venture.

b. FMC has a 72 percent undivided interest in Morenci via an unincorporated joint venture. Refer to Note 3 for further discussion.

At December 31, 2018, our estimated consolidated recoverable proven and probable mineral reserves totaled 119.6 billion pounds of copper, 30.8 million ounces of gold and 3.78 billion pounds of molybdenum. Following is a summary of our estimated consolidated recoverable proven and probable mineral reserves at December 31, 2018, by geographic location (refer to “Mining Operations” for further discussion):

	Copper	Gold	Molybdenum
North America	42 %	2 %	81 % [a]
South America	28	—	19
Indonesia	30	98	—
	100 %	100 %	100 %

a. Our Henderson and Climax molybdenum mines contain 20 percent of our estimated consolidated recoverable proven and probable molybdenum reserves, and our North America copper mines contain 61 percent.

In North America, we operate seven copper mines - Morenci, Bagdad, Safford, Sierrita and Miami in Arizona, and Chino and Tyrone in New Mexico, and two molybdenum mines - Henderson and Climax in Colorado. In addition to copper, certain of our North America copper mines also produce molybdenum concentrate, gold and silver. In South America, we operate two copper mines - Cerro Verde in Peru and El Abra in Chile. In addition to copper, the Cerro Verde mine also produces molybdenum concentrate and silver. In Indonesia, PT-FI operates in the Grasberg minerals district. In addition to copper, the Grasberg minerals district also produces gold and silver.

Following is a summary of the geographic location of our consolidated copper, gold and molybdenum production for the year 2018 (refer to "Mining Operations" for further information):

	Copper	Gold	Molybdenum	
North America	37 %	1 %	71 %	[a]
South America	33	—	29	
Indonesia	30	99	—	
	100 %	100 %	100 %	

a. Our Henderson and Climax molybdenum mines produced 37 percent of our consolidated molybdenum production, and our North America copper mines produced 34 percent.

The geographic locations of our operating mines are shown on the world map below.

COPPER, GOLD AND MOLYBDENUM

Following is a brief discussion of our primary natural resources – copper, gold and molybdenum. For further discussion of historical and current market prices of these commodities, refer to MD&A and Item 1A. "Risk Factors."

Copper

Copper is an internationally traded commodity, and its prices are determined by the major metals exchanges – the London Metal Exchange (LME), New York Mercantile Exchange (NYMEX) and Shanghai Futures Exchange. Prices on these exchanges generally reflect the worldwide balance of copper supply and demand, and can be volatile and cyclical. During 2018, the LME copper settlement price averaged $2.96 per pound, ranging from a low of $2.64 per pound to a high of $3.29 per pound, and was $2.71 per pound at December 31, 2018.

In general, demand for copper reflects the rate of underlying world economic growth, particularly in industrial production and construction. According to Wood Mackenzie, a widely followed independent metals market consultant, copper's end-use markets (and their estimated shares of total consumption) are construction (30 percent), consumer products (25 percent), electrical applications (24 percent), transportation (11 percent) and industrial machinery (10 percent). We believe copper will continue to be essential in these basic uses as well as contribute significantly to new technologies for energy efficiencies, to advance communications and to enhance public health. Examples of areas we believe will require additional copper in the future include: (i) high efficiency motors, which consume up to 75 percent more copper than a standard motor; (ii) electric vehicles, which consume up to four times the amount of copper in terms of weight compared to vehicles of similar size with an internal combustion engine, and require copper-intensive charging station infrastructure to refuel; and (iii) renewable energy such as wind and solar, which consume four to five times the amount of copper compared to traditional fossil fuel generated power.

Table of Contents

Gold
Gold is used for jewelry, coinage and bullion as well as various industrial and electronic applications. Gold can be readily sold on numerous markets throughout the world. Benchmark prices are generally based on London Bullion Market Association (London) quotations. During 2018, the London PM gold price averaged $1,268 per ounce, ranging from a low of $1,178 per ounce to a high of $1,355 per ounce, and was $1,279 per ounce on December 28, 2018 (there was no London PM gold price quote on December 31, 2018).

Molybdenum
Molybdenum is a key alloying element in steel and the raw material for several chemical-grade products used in catalysts, lubrication, smoke suppression, corrosion inhibition and pigmentation. Molybdenum, as a high-purity metal, is also used in electronics such as flat-panel displays and in super alloys used in aerospace. Reference prices for molybdenum are available in several publications, including Metals Week, CRU Report and Metal Bulletin. During 2018, the weekly average price of molybdenum quoted by Metals Week averaged $11.93 per pound, ranging from a low of $10.67 per pound to a high of $12.97 per pound, and was $11.88 per pound at December 31, 2018.

PRODUCTS AND SALES

Our consolidated revenues for 2018 primarily included sales of copper (75 percent), gold (17 percent) and molybdenum (6 percent). Copper concentrate sales to PT Smelting (PT-FI's 25-percent-owned copper smelter and refinery in Indonesia) totaled 12 percent of our consolidated revenues for the years ended December 31, 2018 and 2017, which is the only customer that accounted for 10 percent or more of our consolidated revenues during the three years ended December 31, 2018. Refer to Note 16 for a summary of our consolidated revenues and operating income (loss) by business segment and geographic area.

Copper Products
We are one of the world's leading producers of copper concentrate, cathode and continuous cast copper rod. During 2018, 59 percent of our mined copper was sold in concentrate, 21 percent as cathode and 20 percent as rod from our North America operations. The copper ore from our mines is generally processed either by smelting and refining or by solution extraction and electrowinning (SX/EW) as described below.

Copper Concentrate. We produce copper concentrate at six of our mines in which mined ore is crushed and treated to produce a copper concentrate with copper content of approximately 20 to 30 percent. In North America, copper concentrate is produced at the Morenci, Bagdad, Sierrita and Chino mines, and a significant portion is shipped to our Miami smelter in Arizona for further processing. Copper concentrate is also produced at the Cerro Verde mine in Peru and the Grasberg minerals district in Indonesia.

Copper Cathode. We produce copper cathode at our electrolytic refinery located in El Paso, Texas, and at nine of our mines.

SX/EW cathode is produced from the Morenci, Bagdad, Safford, Sierrita, Miami, Chino and Tyrone mines in North America, and from the Cerro Verde and El Abra mines in South America. For ore subject to the SX/EW process, the ore is placed on stockpiles and copper is extracted from the ore by dissolving it with a weak sulphuric acid solution. The copper content of the solution is increased in two additional SX stages, and then the copper-bearing solution undergoes an EW process to produce cathode that is, on average, 99.99 percent copper. Our copper cathode is used as the raw material input for copper rod, brass mill products and for other uses.

Copper cathode is also produced at Atlantic Copper (our wholly owned copper smelting and refining unit in Spain) and PT Smelting. Copper concentrate is smelted (i.e., subjected to extreme heat) to produce copper anode, which weighs between 800 and 900 pounds and has an average copper content of 99.5 percent. The anode is further treated

by electrolytic refining to produce copper cathode, which weighs between 100 and 350 pounds and has an average copper content of 99.99 percent. Refer to “Mining Operations - Smelting Facilities and Other Mining Properties” for further discussion of Atlantic Copper and PT Smelting.

Continuous Cast Copper Rod. We manufacture continuous cast copper rod at our facilities in El Paso, Texas; Norwich, Connecticut; and Miami, Arizona, primarily using copper cathode produced at our North America copper mines.

Table of Contents

Copper Sales

North America. The majority of the copper produced at our North America copper mines and refined in our El Paso, Texas, refinery is consumed at our rod plants to produce copper rod which is sold to wire and cable manufacturers. The remainder of our North America copper production is sold in the form of copper cathode or copper concentrate under U.S. dollar-denominated annual contracts. Cathode and rod contract prices are generally based on the prevailing Commodity Exchange Inc. (COMEX - a division of NYMEX) monthly average settlement price for the month of shipment and include a premium. Generally, copper cathode is sold to rod, brass or tube fabricators. During 2018, 17 percent of our North America mines' copper concentrate sales volumes were shipped to Atlantic Copper for smelting and refining and sold as copper anode and copper cathode.

South America. Production from our South America mines is sold as copper concentrate or copper cathode under U.S. dollar-denominated, annual and multi-year contracts. During 2018, our South America mines sold approximately 77 percent of their copper production in concentrate and 23 percent as cathode.

Substantially all of South America's copper concentrate and cathode sales contracts provide final copper pricing in a specified future month (generally one to four months from the shipment date) primarily based on quoted LME monthly average settlement copper prices. Revenues from South America's concentrate sales are recorded net of royalties and treatment charges (i.e., fees paid to smelters that are generally negotiated annually). In addition, because a portion of the metals contained in copper concentrate is unrecoverable from the smelting process, revenues from South America's concentrate sales are also recorded net of allowances for unrecoverable metals, which are a negotiated term of the contracts and vary by customer.

Indonesia. PT-FI sells its production in the form of copper concentrate, which contains significant quantities of gold and silver, primarily under U.S. dollar-denominated, long-term contracts. PT-FI also sells a small amount of copper concentrate in the spot market. Following is a summary of PT-FI's aggregate percentage of concentrate sales to unaffiliated third parties, PT Smelting and Atlantic Copper for the years ended December 31:

	2018	2017	2016
Third parties	60 %	54 %	56 %
PT Smelting	38	46	42
Atlantic Copper	2	—	2
	100%	100%	100%

Substantially all of PT-FI's concentrate sales contracts provide final copper pricing in a specified future month (generally one to four months from the shipment date) primarily based on quoted LME monthly average settlement copper prices. Revenues from PT-FI's concentrate sales are recorded net of royalties, export duties, treatment charges and allowances for unrecoverable metals.

Gold Products and Sales

We produce gold almost exclusively from the Grasberg minerals district. Gold is primarily sold as a component of our copper concentrate or in slimes, which are a product of the smelting and refining process at Atlantic Copper. Gold generally is priced at the average London price for a specified month near the month of shipment. Revenues from gold sold as a component of our copper concentrate are recorded net of treatment and refining charges, royalties, export duties and allowances for unrecoverable metals. Revenues from gold sold in slimes are recorded net of refining charges.

Molybdenum Products and Sales

We are the world's largest producer of molybdenum and molybdenum-based chemicals. In addition to production from the Henderson and Climax molybdenum mines, we produce molybdenum concentrate at certain of the North America copper mines and the Cerro Verde copper mine in Peru. The majority of our molybdenum concentrate is processed in

our own conversion facilities. Our molybdenum sales are primarily priced based on the average published Metals Week price for the month prior to the month of shipment.

LABOR MATTERS

At December 31, 2018, we employed approximately 26,800 people (12,200 in North America, 7,100 in Indonesia, 6,100 in South America and 1,400 in Europe and other locations). We also had contractors that employ personnel at many of our operations, including approximately 23,400 at the Grasberg minerals district in Indonesia, 8,800 in North America, 5,900 at our South America mining operations and 700 in Europe and other locations. Employees represented by unions at December 31, 2018, are listed below, with the number of employees represented and the expiration date of the applicable union agreements:

Location	Number of Unions	Number of Union-Represented Employees	Expiration Date
PT-FI – Indonesia	2	5,010	September 2019
Cerro Verde – Peru	1	3,304	August 2021
El Abra – Chile	2	705	April 2020
Atlantic Copper – Spain	3	465	December 2019 [a]
Kokkola - Finland	3	418	November 2020
Rotterdam – The Netherlands	1	52	September 2019
Kisanfu – Africa Exploration	2	51	N/A [b]
Stowmarket - United Kingdom	1	42	May 2020

a. The Collective Labor Agreement between Atlantic Copper and its workers' unions expired in December 2015, but was extended through December 2019 by mutual agreement of both parties in accordance with Spanish law.

b. The Collective Labor Agreement between Kisanfu and its unions has no expiration date, but can be amended at any time in accordance with an established process.

Refer to Item 1A. "Risk Factors" for further information on labor matters.

ENVIRONMENTAL AND RECLAMATION MATTERS

The cost of complying with environmental laws and regulations is fundamental to and a substantial cost of our business. For information about environmental regulation, litigation and related costs, refer to Item 1A. "Risk Factors" and Notes 1 and 12.

COMPETITION

The top 10 producers of copper comprise approximately 45 percent of total worldwide mined copper production. We currently rank second among those producers, with approximately seven percent of estimated total worldwide mined copper production. Our competitive position is based on the size, quality and grade of our ore bodies and our ability to manage costs compared with other producers. We have a diverse portfolio of mining operations with varying ore grades and cost structures. Our costs are driven by the location, grade and nature of our ore bodies, and the level of input costs, including energy, labor and equipment. The metals markets are cyclical, and our ability to maintain our competitive position over the long term is based on our ability to acquire and develop quality deposits, hire and retain a skilled workforce, and to manage our costs.

Table of Contents

MINING OPERATIONS

Following are maps and descriptions of our mining operations in North America (including both copper and molybdenum operations), South America and Indonesia.

North America
In the U.S., most of the land occupied by our copper and molybdenum mines, concentrators, SX/EW facilities, smelter, refinery, rod mills, molybdenum roasters and processing facilities is owned by us or is located on unpatented mining claims owned by us. Certain portions of our Bagdad, Sierrita, Miami, Chino, Tyrone, Henderson and Climax operations are located on government-owned land and are operated under a Mine Plan of Operations or other use permit. We hold various federal and state permits or leases on government land for purposes incidental to mine operations.

Morenci

We own a 72 percent undivided interest in Morenci, with the remaining 28 percent owned by Sumitomo Metal Mining Arizona, Inc. (15 percent) and SMM Morenci, Inc. (13 percent). Each partner takes in kind its share of Morenci's production.

Morenci is an open-pit copper mining complex that has been in continuous operation since 1939 and previously was mined through underground workings. Morenci is located in Greenlee County, Arizona, approximately 50 miles northeast of Safford on U.S. Highway 191. The site is accessible by a paved highway and a railway spur.

The Morenci mine is a porphyry copper deposit that has oxide, secondary sulfide and primary sulfide mineralization. The predominant oxide copper mineral is chrysocolla. Chalcocite is the most important secondary copper sulfide mineral, with chalcopyrite as the dominant primary copper sulfide.

The Morenci operation consists of two concentrators capable of milling 115,000 metric tons of ore per day, which produce copper and molybdenum concentrate; a 68,000 metric ton-per-day, crushed-ore leach pad and stacking system; a low-grade run-of-mine (ROM) leaching system; four SX plants; and three EW tank houses that produce copper cathode. Total EW tank house capacity is approximately 900 million pounds of copper per year. Morenci's available mining fleet consists of one hundred and twenty-six 236-metric ton haul trucks loaded by 13 shovels with bucket sizes ranging from 47 to 57 cubic meters, which are capable of moving an average of 815,000 metric tons of material per day.

Morenci's production, including our joint venture partner's share, totaled 1.0 billion pounds of copper and 9 million pounds of molybdenum in 2018, 1.0 billion pounds of copper and 12 million pounds of molybdenum in 2017, and 1.1 billion pounds of copper and 15 million pounds of molybdenum in 2016.

Morenci is located in a desert environment with rainfall averaging 13 inches per year. The highest bench elevation is 2,000 meters above sea level, and the ultimate pit bottom is expected to have an elevation of 840 meters above sea level. The Morenci operation encompasses approximately 73,950 acres, comprising 51,150 acres of patented mining claims and other fee lands, 20,050 acres of unpatented mining claims held on public land and 2,750 acres of land held by state or federal permits, easements and rights-of-way.

Table of Contents

The Morenci operation's electrical power is primarily sourced from Tucson Electric Power Company, Arizona Public Service Company and the Luna Energy facility in Deming, New Mexico. Although we believe the Morenci operation has sufficient water sources to support current operations, we are a party to litigation that may impact our water right claims or rights to continued use of currently available water supplies, which could adversely affect our water supply for the Morenci operation. Refer to Item 1A. "Risk Factors" and Item 3. "Legal Proceedings" for further discussion.

Bagdad

Our wholly owned Bagdad mine is an open-pit copper and molybdenum mining complex located in Yavapai County in west-central Arizona. It is approximately 60 miles west of Prescott and 100 miles northwest of Phoenix. The property can be reached by Arizona Highway 96, which ends at the town of Bagdad. The closest railroad is at Hillside, Arizona, 24 miles southeast on Arizona Highway 96. The open-pit mining operation has been ongoing since 1945, and prior mining was conducted through underground workings.

The Bagdad mine is a porphyry copper deposit containing both sulfide and oxide mineralization. Chalcopyrite and molybdenite are the dominant primary sulfides and are the primary economic minerals in the mine. Chalcocite is the most common secondary copper sulfide mineral, and the predominant oxide copper minerals are chrysocolla, malachite and azurite.

The Bagdad operation consists of a 75,000 metric ton-per-day concentrator that produces copper and molybdenum concentrate, an SX/EW plant that can produce up to 32 million pounds per year of copper cathode from solution generated by low-grade stockpile leaching, and a pressure-leach plant to process molybdenum concentrate. The available mining fleet consists of thirty 235-metric ton haul trucks loaded by five shovels with bucket sizes ranging from 30 to 48 cubic meters, which are capable of moving an average of 250,000 metric tons of material per day.

Bagdad's production totaled 199 million pounds of copper and 10 million pounds of molybdenum in 2018, 173 million pounds of copper and 9 million pounds of molybdenum in 2017, and 177 million pounds of copper and 8 million pounds of molybdenum in 2016.

Bagdad is located in a desert environment with rainfall averaging 15 inches per year. The highest bench elevation is 1,200 meters above sea level, and the ultimate pit bottom is expected to be 310 meters above sea level. The Bagdad operation encompasses approximately 21,750 acres, comprising 21,150 acres of patented mining claims and other fee lands and 600 acres of unpatented mining claims.

Bagdad receives electrical power from Arizona Public Service Company. We believe the Bagdad operation has sufficient water sources to support current operations.

Table of Contents

Safford

Our wholly owned Safford mine has been in operation since 2007 and is an open-pit copper mining complex located in Graham County, Arizona, 8 miles north of the town of Safford and 170 miles east of Phoenix. The site is accessible by paved county road off U.S. Highway 70.

The Safford mine includes two copper deposits that have oxide mineralization overlaying primary copper sulfide mineralization. The predominant oxide copper minerals are chrysocolla and copper-bearing iron oxides with the predominant copper sulfide material being chalcopyrite.

The property is a mine-for-leach project and produces copper cathode. The operation consists of two open pits feeding a crushing facility with a capacity of 103,000 metric tons per day. The crushed ore is delivered to leach pads by a series of overland and portable conveyors. Leach solutions feed a SX/EW facility with a capacity of 240 million pounds of copper per year. A sulfur burner plant is also in operation at Safford, providing a cost-effective source of sulphuric acid used in SX/EW operations. The available mining fleet consists of thirty-three 235-metric ton haul trucks loaded by six shovels with bucket sizes ranging from 34 to 47 cubic meters, which are capable of moving an average of 340,000 metric tons of material per day.

Safford’s copper production totaled 123 million pounds in 2018, 150 million pounds in 2017 and 230 million pounds in 2016.

Through exploration drilling, we have identified a significant resource at our wholly owned Lone Star project located near the Safford operation. An initial project to develop the Lone Star oxide ores commenced in first-quarter 2018, with first production expected by the end of 2020. Initial production from the Lone Star oxide ores is expected to average approximately 200 million pounds of copper per year. Total capital costs, including mine equipment and pre-production stripping, are expected to approximate $850 million and will benefit from the utilization of existing infrastructure at the adjacent Safford operation. As of December 31, 2018, approximately $290 million has been incurred for this project. The project also advances exposure to a significant sulfide resource. We expect to incorporate recent positive drilling and ongoing results in our future development plans.

Safford is located in a desert environment with rainfall averaging 10 inches per year. The highest bench elevation is 1,768 meters above sea level, and the ultimate pit bottom is expected to have an elevation of 808 meters above sea level. The Safford operation encompasses approximately 125,000 acres, comprising 36,000 acres of patented lands, 73,000 acres of unpatented lands and 16,000 acres of land held by federal permit.

The Safford operation’s electrical power is primarily sourced from Tucson Electric Power Company, Arizona Public Service Company and the Luna Energy facility. Although we believe the Safford operation has sufficient water sources to support current operations as well as the Lone Star project, we are a party to litigation that may impact our water right claims or rights to continued use of currently available water supplies, which could adversely affect our water supply for the Safford operation. Refer to Item 1A. “Risk Factors” and Item 3. “Legal Proceedings” for further discussion.

Table of Contents

Sierrita

Our wholly owned Sierrita mine has been in operation since 1959 and is an open-pit copper and molybdenum mining complex located in Pima County, Arizona, approximately 20 miles southwest of Tucson and 7 miles west of the town of Green Valley and Interstate Highway 19. The site is accessible by a paved highway and by rail.

The Sierrita mine is a porphyry copper deposit that has oxide, secondary sulfide and primary sulfide mineralization. The predominant oxide copper minerals are malachite, azurite and chrysocolla. Chalcocite is the most important secondary copper sulfide mineral, and chalcopyrite and molybdenite are the dominant primary sulfides.

The Sierrita operation includes a 100,000 metric ton-per-day concentrator that produces copper and molybdenum concentrate. Sierrita also produces copper from a ROM oxide-leaching system. Cathode copper is plated at the Twin Buttes EW facility, which has a design capacity of approximately 50 million pounds of copper per year. The Sierrita operation also has molybdenum facilities consisting of a leaching circuit, two molybdenum roasters and a packaging facility. The molybdenum facilities process molybdenum concentrate produced by Sierrita, from our other mines and from third-party sources. The available mining fleet consists of twenty-two 235-metric ton haul trucks loaded by three shovels with bucket sizes ranging from 34 to 56 cubic meters, which are capable of moving an average of 175,000 metric tons of material per day.

Sierrita's production totaled 152 million pounds of copper and 16 million pounds of molybdenum in 2018, 160 million pounds of copper and 15 million pounds of molybdenum in 2017, and 162 million pounds of copper and 14 million pounds of molybdenum in 2016.

Sierrita is located in a desert environment with rainfall averaging 12 inches per year. The highest bench elevation is 1,160 meters above sea level, and the ultimate pit bottom is expected to be 440 meters above sea level. The Sierrita operation, including the adjacent Twin Buttes site (refer to "Smelting Facilities and Other Mining Properties" for further discussion), encompasses approximately 37,650 acres, comprising 13,300 acres of patented mining claims and 24,350 acres of split-estate lands.

Sierrita receives electrical power through long-term contracts with the Tucson Electric Power Company. Although we believe the Sierrita operation has sufficient water sources to support current operations, we are a party to litigation that may impact our water rights claims or rights to continued use of currently available water supplies, which could adversely affect our water supply for the Sierrita operation. Refer to Item 1A. "Risk Factors" and Item 3. "Legal Proceedings" for further discussion.

Table of Contents

Miami

Our wholly owned Miami mine is an open-pit copper mining complex located in Gila County, Arizona, 90 miles east of Phoenix and 6 miles west of the city of Globe on U.S. Highway 60. The site is accessible by a paved highway and by rail.

The Miami mine is a porphyry copper deposit that has leachable oxide and secondary sulfide mineralization. The predominant oxide copper minerals are chrysocolla, copper-bearing clays, malachite and azurite. Chalcocite and covellite are the most important secondary copper sulfide minerals.

Since about 1915, the Miami mining operation had processed copper ore using both flotation and leaching technologies. The design capacity of the SX/EW plant is 200 million pounds of copper per year. Miami is no longer mining ore, but currently produces copper through leaching material already placed on stockpiles, which is expected to continue until 2023. Miami's copper production totaled 16 million pounds in 2018, 19 million pounds in 2017 and 25 million pounds in 2016.

Miami is located in a desert environment with rainfall averaging 18 inches per year. The highest bench elevation is 1,390 meters above sea level, and mining advanced the pit bottom to an elevation of 810 meters above sea level. Subsequent sloughing of material into the pit has filled it back to an elevation estimated to be 900 meters above sea level. The Miami operation encompasses approximately 9,100 acres, comprising 8,750 acres of patented mining claims and other fee lands and 350 acres of unpatented mining claims.

Miami receives electrical power through long-term contracts with the Salt River Project and natural gas through long-term contracts with El Paso Natural Gas as the transporter. We believe the Miami operation has sufficient water sources to support current operations.

Chino and Tyrone

Chino
Our wholly owned Chino mine is an open-pit copper mining complex located in Grant County, New Mexico, approximately 15 miles east of the town of Silver City off of State Highway 180. The mine is accessible by paved roads and by rail. Chino has been in operation since 1910.

Table of Contents

The Chino mine is a porphyry copper deposit with adjacent copper skarn deposits. There is leachable oxide, secondary sulfide and millable primary sulfide mineralization. The predominant oxide copper mineral is chrysocolla. Chalcocite is the most important secondary copper sulfide mineral, and chalcopyrite and molybdenite the dominant primary sulfides.

The Chino operation consists of a 36,000 metric ton-per-day concentrator that produces copper and molybdenum concentrate, and a 150 million pound-per-year SX/EW plant that produces copper cathode from solution generated by ROM leaching. The available mining fleet consists of thirty-seven 240-metric ton haul trucks loaded by four shovels with bucket sizes ranging from 31 to 48 cubic meters, which are capable of moving an average of 235,000 metric tons of material per day.

Chino's copper production totaled 173 million pounds in 2018, 215 million pounds in 2017 and 308 million pounds in 2016.

Chino is located in a desert environment with rainfall averaging 16 inches per year. The highest bench elevation is 2,250 meters above sea level, and the ultimate pit bottom is expected to be 1,460 meters above sea level. The Chino operation encompasses approximately 118,600 acres, comprising 113,200 acres of patented mining claims and other fee lands and 5,400 acres of unpatented mining claims.

Chino receives power from the Luna Energy facility and from the open market. We believe Chino has sufficient water resources to support current operations. Refer to Item 1A. "Risk Factors" for discussion of risks associated with recently proposed legislation in New Mexico related to water quality standards.

Tyrone

Our wholly owned Tyrone mine is an open-pit copper mining complex which has been in operation since 1967. It is located in Grant County, New Mexico, 10 miles south of Silver City, New Mexico, along State Highway 90. The site is accessible by paved road and by rail.

The Tyrone mine is a porphyry copper deposit. Mineralization is predominantly secondary sulfide consisting of chalcocite, with leachable oxide mineralization consisting of chrysocolla.

Copper processing facilities consist of a SX/EW operation with a maximum capacity of approximately 100 million pounds of copper cathode per year. The available mining fleet consists of seven 240-metric ton haul trucks loaded by one shovel with a bucket size of 47 cubic meters, which is capable of moving an average of 49,000 metric tons of material per day.

Tyrone's copper production totaled 55 million pounds in 2018, 61 million pounds in 2017 and 76 million pounds in 2016.

Tyrone is located in a desert environment with rainfall averaging 16 inches per year. The highest bench elevation is 2,000 meters above sea level, and the ultimate pit bottom is expected to have an elevation of 1,475 meters above sea level. The Tyrone operation encompasses approximately 35,200 acres, comprising 18,750 acres of patented mining claims and other fee lands and 16,450 acres of unpatented mining claims.

Tyrone receives electrical power from the Luna Energy facility and from the open market. We believe the Tyrone operation has sufficient water resources to support current operations. Refer to Item 1A. "Risk Factors" for discussion of risks associated with recently proposed legislation in New Mexico related to water quality standards.

12

Table of Contents

Henderson and Climax

Henderson
Our wholly owned Henderson molybdenum mine has been in operation since 1976 and is located 42 miles west of Denver, Colorado, off U.S. Highway 40. Nearby communities include the towns of Empire, Georgetown and Idaho Springs. The Henderson mill site is located 15 miles west of the mine and is accessible from Colorado State Highway 9. The Henderson mine and mill are connected by a 10-mile conveyor tunnel under the Continental Divide and an additional five-mile surface conveyor. The tunnel portal is located five miles east of the mill.

The Henderson mine is a porphyry molybdenum deposit, with molybdenite as the primary sulfide mineral.

The Henderson operation consists of a large block-cave underground mining complex feeding a concentrator with a current capacity of approximately 32,000 metric tons per day. Henderson has the capacity to produce approximately 18 million pounds of molybdenum per year. The majority of the molybdenum concentrate produced is shipped to our Fort Madison, Iowa, processing facility. The available underground mining equipment fleet consists of fourteen 9-metric ton load-haul-dump (LHD) units and seven 73-metric ton haul trucks, which deliver ore to a gyratory crusher feeding a series of three overland conveyors to the mill stockpiles.

Henderson’s molybdenum production totaled 14 million pounds in 2018, 12 million pounds in 2017 and 10 million pounds in 2016.

The Henderson mine is located in a mountainous region with the main access shaft at 3,180 meters above sea level. The main production levels are currently at elevations of 2,200 and 2,350 meters above sea level. This region experiences significant snowfall during the winter months.

The Henderson mine and mill operations encompass approximately 11,900 acres, comprising 11,850 acres of patented mining claims and other fee lands and a 50-acre easement with the U.S. Forest Service for the surface portion of the conveyor corridor.

Henderson operations receive electrical power through long-term contracts with Xcel Energy and natural gas through long-term contracts with BP Energy Company (with Xcel Energy as the transporter). We believe the Henderson operation has sufficient water resources to support current operations. Refer to Item 1A. “Risk Factors” for discussion of risks associated with recently proposed legislation in Colorado related to water quality standards.

Climax
Our wholly owned Climax mine is located 13 miles northeast of Leadville, Colorado, off Colorado State Highway 91 at the top of Fremont Pass. The mine is accessible by paved roads.

The Climax ore body is a porphyry molybdenum deposit, with molybdenite as the primary sulfide mineral.

The Climax open-pit mine includes a 25,000 metric ton-per-day mill facility. Climax has the capacity to produce approximately 30 million pounds of molybdenum per year. The available mining fleet consists of ten 177-metric ton haul trucks loaded by two hydraulic shovels with bucket sizes of 34 cubic meters, which are capable of moving an average of 90,000 metric tons of material per day.

Molybdenum production from Climax totaled 21 million pounds in 2018, 20 million pounds in 2017 and 16 million pounds in 2016.

Table of Contents

The Climax mine is located in a mountainous region. The highest bench elevation is approximately 4,050 meters above sea level, and the ultimate pit bottom is expected to have an elevation of approximately 3,100 meters above sea level. This region experiences significant snowfall during the winter months.

The operations encompass approximately 14,350 acres, consisting primarily of patented mining claims and other fee lands.

Climax operations receive electrical power through long-term contracts with Xcel Energy and natural gas through long-term contracts with Anadarko Energy and BP Energy Company (with Xcel Energy as the transporter). We believe the Climax operation has sufficient water resources to support current operations. Refer to Item 1A. “Risk Factors” for discussion of risks associated with recently proposed legislation in Colorado related to water quality standards.

South America

At our operations in South America, mine properties and facilities are controlled through mining claims or concessions under the general mining laws of the relevant country. The claims or concessions are owned or controlled by the operating companies in which we or our subsidiaries have a controlling ownership interest. Roads, power lines and aqueducts are controlled by easements.

Cerro Verde

We have a 53.56 percent ownership interest in Cerro Verde, with the remaining 46.44 percent held by SMM Cerro Verde Netherlands B.V. (21.0 percent), Compañia de Minas Buenaventura S.A.A. (19.58 percent) and other stockholders whose shares are publicly traded on the Lima Stock Exchange (5.86 percent).

Cerro Verde is an open-pit copper and molybdenum mining complex that has been in operation since 1976 and is located 20 miles southwest of Arequipa, Peru. The site is accessible by paved highway. Cerro Verde’s copper cathode and concentrate production that is not sold locally is transported approximately 70 miles by truck and by rail to the Port of Matarani for shipment to international markets.

The Cerro Verde mine is a porphyry copper deposit that has oxide, secondary sulfide and primary sulfide mineralization. The predominant oxide copper minerals are brochantite, chrysocolla, malachite and copper “pitch.” Chalcocite and covellite are the most important secondary copper sulfide minerals. Chalcopyrite and molybdenite are the dominant primary sulfides.

Cerro Verde’s operations benefit from its large-scale, long-lived reserves and cost efficiencies. During 2018, Cerro Verde received a modified environmental permit allowing it to operate its existing concentrator facilities at rates up to 409,500 metric tons of ore per day.

Cerro Verde’s operation consists of an open-pit copper mine, a 409,500 metric ton-per-day concentrator, and SX/EW leaching facilities. Leach copper production is derived from a 39,000 metric ton-per-day crushed leach facility and a 100,000 metric ton-per-day ROM leach system. This SX/EW leaching operation has a capacity of approximately 200 million pounds of copper per year.

The available fleet consists of thirty-four 290-metric ton haul trucks and ninety-three 230-metric ton haul trucks loaded by twelve electric shovels with bucket sizes ranging in size from 33 to 57 cubic meters and two hydraulic

Table of Contents

shovels with a bucket size of 21 cubic meters. This fleet is capable of moving an average of approximately 975,000 metric tons of material per day.

Cerro Verde's production totaled 1.0 billion pounds of copper and 28 million pounds of molybdenum in 2018, 1.1 billion pounds of copper and 27 million pounds of molybdenum in 2017, and 1.1 billion pounds of copper and 21 million pounds of molybdenum in 2016.

Cerro Verde is located in a desert environment with rainfall averaging 1.5 inches per year and is in an active seismic zone. The highest bench elevation is 2,750 meters above sea level, and the ultimate pit bottom is expected to be 1,553 meters above sea level. The Peruvian general mining law and Cerro Verde's mining stability agreement grant the surface rights of mining concessions located on government land. Additional government land, if obtained after 1997, must be leased or purchased. Cerro Verde has a mining concession covering approximately 182,000 acres, including access to 14,600 acres granted through an easement from the Regional Government of Arequipa, plus 144 acres of owned property, and 367 acres of rights-of-way outside the mining concession area.

Cerro Verde receives electrical power, including hydro-generated power, under long-term contracts with Kallpa Generación SA, ElectroPeru and Engie Energia Peru S.A.

Water for our Cerro Verde processing operations comes from renewable sources through a series of storage reservoirs on the Rio Chili watershed that collect water primarily from seasonal precipitation. We believe the Cerro Verde operation has sufficient water resources to support current operations. For further discussion of risks associated with the availability of water, see Item 1A. "Risk Factors."

El Abra

We own a 51 percent interest in El Abra, and the remaining 49 percent interest is held by the state-owned copper enterprise Corporación Nacional del Cobre de Chile (CODELCO).

El Abra is an open-pit copper mining complex that has been in operation since 1996 and is located 47 miles north of Calama in Chile's El Loa province, Region II. The site is accessible by paved highway and by rail.

The El Abra mine is a porphyry copper deposit that has sulfide and oxide mineralization. The predominant primary sulfide copper minerals are bornite and chalcopyrite. There is a minor amount of secondary sulfide mineralization as chalcocite. The oxide copper minerals are chrysocolla and pseudomalachite. There are lesser amounts of copper-bearing clays and tenorite.

The El Abra operation consists of an open-pit copper mine and a SX/EW facility with a capacity of 500 million pounds of copper cathode per year from a 125,000 metric ton-per-day crushed leach circuit and a similar-sized ROM leaching operation. The available fleet consists of twenty-two 266-metric ton haul trucks loaded by four shovels with buckets ranging in size from 29 to 41 cubic meters, which are capable of moving an average of 214,000 metric tons of material per day.

El Abra's copper production totaled 200 million pounds in 2018, 173 million pounds in 2017 and 220 million pounds in 2016. Beginning in the second half of 2015, El Abra operated at reduced rates to achieve lower operating and labor costs, defer capital expenditures and extend the life of the existing operations. El Abra resumed operating at full capacity during 2018.

Table of Contents

We continue to evaluate a large-scale expansion at El Abra to process additional sulfide material and to achieve higher recoveries. El Abra's large sulfide resource could potentially support a major mill project similar to facilities constructed at Cerro Verde. Technical and economic studies are being advanced to determine the optimal scope and timing for the project.

El Abra is located in a desert environment with rainfall averaging less than one inch per year and is in an active seismic zone. Refer to MD&A and Item 1A. "Risk Factors" for discussion of recent weather-related events at El Abra that are expected to impact its production volumes and costs. The highest bench elevation is 4,195 meters above sea level, and the ultimate pit bottom is expected to be 3,415 meters above sea level. El Abra controls a total of approximately 169,400 acres of mining claims covering the ore deposit, stockpiles, process plant, and water wellfield and pipeline. In addition, El Abra has land surface rights for the road between the processing plant and the mine, the water wellfield, power transmission lines and for the water pipeline from the Salar de Ascotán aquifer.

El Abra currently receives electrical power under a long-term contract with Engie Energia Chile S.A. Water for our El Abra processing operations comes from the continued pumping of groundwater from the Salar de Ascotán aquifer pursuant to regulatory approval. We believe El Abra has sufficient water rights and regulatory approvals to support current operations. For a discussion of risks associated with the availability of water, refer to Item 1A. "Risk Factors."

Indonesia

Ownership. PT-FI is a limited liability company organized under the laws of the Republic of Indonesia. On December 21, 2018, we completed the transaction with the Indonesian government regarding PT-FI's long-term mining rights and share ownership (refer to Note 2 for further discussion). Following the transaction, we have a 48.76 percent share ownership in PT-FI and the remaining 51.24 percent share ownership is collectively held by PT Inalum (an Indonesian state-owned enterprise) and PTI (which is expected to be owned by PT Inalum and the provincial/regional government in Papua, Indonesia). The arrangements related to the transaction also provide for us and the other pre-transaction PT-FI shareholders to retain the economics of the revenue and cost sharing arrangements under the former Rio Tinto Joint Venture. As a result, our economic interest in PT-FI is expected to approximate 81 percent from 2019 through 2022.

IUPK. Concurrent with closing the transaction, the Indonesian government granted PT-FI an IUPK to replace its former COW, enabling PT-FI to conduct operations in the Grasberg minerals district through 2041. Under the terms of the IUPK, PT-FI has been granted an extension of mining rights through 2031, with rights to extend mining rights through 2041, subject to PT-FI completing the construction of a new smelter in Indonesia within five years of closing the transaction and fulfilling its defined fiscal obligations to the Indonesian government. The IUPK, and related documentation, contains legal and fiscal terms and is legally enforceable through 2041. In addition, we, as a foreign investor, have rights to resolve investment disputes with the Indonesian government through international

Table of Contents

arbitration. Refer to Note 13 and Item 1A. “Risk Factors” for discussion of PT-FI’s IUPK and risks associated with our Indonesia mining operations.

PT-FI has applied for a one-year extension of its export license, which currently expires on February 16, 2019. Export licenses are valid for one year periods, subject to review and approval by the Indonesian government every six months, depending on smelter construction progress.

Grasberg Minerals District. PT-FI operates in the remote highlands of the Sudirman Mountain Range in the province of Papua, Indonesia, which is on the western half of the island of New Guinea. Since 1967, we and our predecessors have been the only operator of exploration and mining activities in the approximately 24,600-acre operating area.

The Grasberg minerals district has three operating mines, the Grasberg open pit, the Deep Ore Zone (DOZ) underground mine and the Big Gossan underground mine. In September 2015, PT-FI initiated pre-commercial production, which represents ore extracted during the development phase for the purpose of obtaining access to the ore body, at the Deep Mill Level Zone (DMLZ) underground mine.

As further discussed in MD&A, PT-FI continues to advance several projects in the Grasberg minerals district related to the development of its large-scale, long-lived, high-grade underground ore bodies located beneath and nearby the Grasberg open pit. In aggregate, these underground ore bodies are expected to produce large-scale quantities of copper and gold following the transition from the Grasberg open pit operations where PT-FI is currently mining the final phase. Refer to Item 1A. “Risk Factors” for discussion of risks associated with development projects and underground mines.

Substantial progress has been made to prepare for the transition to mining of the Grasberg Block Cave (GBC) underground mine. First undercut blasting occurred in September 2018, first drawbell blasting occurred in December 2018 and cave production is scheduled for the first half of 2019. All underground mining levels and the ore flow system are being commissioned. As PT-FI transitions mining from the open pit to underground, its production is expected to be significantly lower in 2019 and 2020, compared to 2018. Metal production is expected to improve significantly by 2021 following a ramp-up period. GBC production rates over the next five years are expected to ramp up to 130,000 metric tons of ore per day.

PT-FI’s production, including the former Rio Tinto Joint Venture share, totaled 1.2 billion pounds of copper and 2.7 million ounces of gold in 2018, 1.0 billion pounds of copper and 1.6 million ounces of gold in 2017, and 1.1 billion pounds of copper and 1.1 million ounces of gold in 2016.

Our principal source of power for all of our Indonesia operations is a coal-fired power plant that we built in 1998. Diesel generators supply peaking and backup electrical power generating capacity. A combination of naturally occurring mountain streams and water derived from our underground operations provides water for our operations. Our Indonesian operations are in an active seismic zone and experience average annual rainfall of approximately 200 inches.

Grasberg Open Pit

PT-FI began open-pit mining of the Grasberg ore body in 1990. PT-FI is currently mining the final phase of the Grasberg open pit and expects to transition to the GBC in the first half of 2019.

Production from the ore stockpiles, which are located outside of the pit limits, is expected to continue through the end of 2019. Production in the open pit is currently at the 3,265- to 3,055-meter elevation level and totaled 49 million metric tons of ore in 2018, which provided 75 percent of PT-FI’s 2018 mill feed.

The current open-pit equipment fleet consists of over 500 units. The larger mining equipment directly associated with production includes an available fleet of 99 haul trucks with payloads of 200 metric tons and 15 shovels with bucket sizes ranging from 17 to 42 cubic meters, which are capable of moving an average of 275,000 metric tons of material per day.

Ore milled from the Grasberg open pit averaged 133,300 metric tons per day in 2018, 101,800 metric tons per day in 2017 and 119,700 metric tons per day in 2016.

Table of Contents

DOZ Underground Mine
The DOZ ore body lies vertically below the now depleted Intermediate Ore Zone. PT-FI began production from the DOZ ore body in 1989 using open-stope mining methods, but suspended production in 1991 in favor of production from the Grasberg open pit. Production resumed in 2000 using the block-cave method and is at the 3,110-meter elevation level.

The DOZ is a mature block-cave mine that previously operated at 80,000 metric tons of ore per day. Current operating rates from the DOZ underground mine are driven by the value of the incremental DOZ ore grade compared to the ore from the Grasberg open pit and ore grade material from the development of the DMLZ and GBC underground mines. Ore milled from the DOZ underground mine averaged 33,800 metric tons of ore per day in 2018, 31,200 metric tons of ore per day in 2017 and 38,000 metric tons of ore per day in 2016. Production at the DOZ underground mine is expected to continue through 2022.

The DOZ mine fleet consists of 154 pieces of mobile equipment. The primary mining equipment directly associated with production and development includes an available fleet of 44 LHD units and 20 haul trucks. Each production LHD unit typically carries approximately 11 metric tons of ore. Using ore passes and chutes, the LHD units transfer ore into 55 to 60 metric ton capacity haul trucks. The trucks dump into two gyratory crushers, and the ore is then conveyed to the surface stockpiles for processing.

Big Gossan Underground Mine
The Big Gossan mine lies underground and adjacent to the current mill site. It is a tabular, near vertical ore body with approximate dimensions of 1,200 meters along strike and 800 meters down dip with varying thicknesses from 20 meters to 120 meters. The mine utilizes a blasthole stoping method with delayed paste backfill. Stopes of varying sizes are mined and the ore dropped down passes to a truck haulage level. Trucks are chute loaded and transport the ore to a jaw crusher. The crushed ore is then hoisted vertically via a two-skip production shaft to a level where it is loaded onto a conveyor belt. The belt carries the ore to one of the main underground conveyors where the ore is transferred and conveyed to the surface stockpiles for processing.

Ore milled from the Big Gossan underground mine averaged 3,800 metric tons per day in 2018, 600 metric tons per day in 2017 and 900 metric tons per day in 2016. Production at the Big Gossan underground mine is expected to continue through 2041.

The Big Gossan mine fleet consists of over 78 pieces of mobile equipment, which includes 13 LHD units and 10 haul trucks used in development and production activities.

DMLZ Underground Mine
The DMLZ ore body lies below the DOZ underground mine at the 2,590-meter elevation and represents the downward continuation of mineralization in the Ertsberg East Skarn system and neighboring Ertsberg porphyry.

During third-quarter 2018, PT-FI commenced hydraulic fracturing activities to manage rock stresses and pre-condition the DMLZ underground mine for large-scale production following mining induced seismic activity experienced in 2017 and 2018. Results to date have been effective in managing rock stresses and pre-conditioning the cave. PT-FI expects to commence the ramp-up of production in the DMLZ underground mine by mid-2019 and to reach full production rates of 80,000 metric tons per day in 2022. Estimates of timing of future production continue to be reviewed and may be modified as additional information becomes available. Production at the DMLZ underground mine is expected to continue through 2041.

Ore milled from the DMLZ underground mine averaged 3,200 metric tons of ore per day in both 2018 and 2017, and 4,400 metric tons per day in 2016.

The DMLZ mine fleet consists of over 240 pieces of mobile equipment, which includes 25 LHD units and 14 haul trucks used in production and development activities.

Description of Indonesia Ore Bodies. Our Indonesia ore bodies are located within and around two main igneous intrusions, the Grasberg monzodiorite and the Ertsberg diorite. The host rocks of these ore bodies include both carbonate and clastic rocks that form the ridge crests and upper flanks of the Sudirman Range, and the igneous rocks of monzonitic to dioritic composition that intrude them. The igneous-hosted ore bodies (the Grasberg open pit and GBC, and portions of the DOZ) occur as vein stockworks and disseminations of copper sulfides, dominated by chalcopyrite and, to a lesser extent, bornite. The sedimentary-rock hosted ore bodies (portions of the DOZ and all of

Table of Contents

the Big Gossan) occur as “magnetite-rich, calcium/magnesian skarn” replacements, whose location and orientation are strongly influenced by major faults and by the chemistry of the carbonate rocks along the margins of the intrusions.

The copper mineralization in these skarn deposits is dominated by chalcopyrite, but higher bornite concentrations are common. Moreover, gold occurs in significant concentrations in all of the district’s ore bodies, though rarely visible to the naked eye. These gold concentrations usually occur as inclusions within the copper sulfide minerals, though, in some deposits, these concentrations can also be strongly associated with pyrite.

The following diagram indicates the relative elevations (in meters) of our reported Indonesia ore bodies.
The following map, which encompasses an area of 42 square kilometers (16 square miles), indicates the relative positions and sizes of our reported Indonesia ore bodies and their locations.

Table of Contents

Smelting Facilities and Other Mining Properties

Atlantic Copper. Our wholly owned Atlantic Copper smelter and refinery is located on land concessions from the Huelva, Spain, port authorities, which are scheduled to expire in 2039.

The design capacity of the smelter is approximately 300,000 metric tons of copper per year, and the refinery has a capacity of 286,000 metric tons of copper per year. Atlantic Copper produced 295,300 metric tons of copper anode from its smelter and 283,100 metric tons of copper cathode from its refinery in 2018; 283,100 metric tons of copper anode from its smelter and 271,400 metric tons of copper cathode from its refinery in 2017; and 296,900 metric tons of copper anode from its smelter and 285,800 metric tons of copper cathode from its refinery in 2016.

Following is a summary of Atlantic Copper's concentrate purchases from unaffiliated third parties and our copper mining operations for the years ended December 31:

	2018	2017	2016
Third parties	77 %	67 %	77 %
North America copper mines	14	18	13
South America mining	5	15	7
Indonesia mining	4	—	3
	100%	100%	100%

Atlantic Copper's major maintenance turnarounds typically occur approximately every eight years, with shorter-term maintenance turnarounds in the interim. Atlantic Copper completed a 79-day major maintenance turnaround in 2013, a 16-day maintenance turnaround in 2015 and a 27-day maintenance turnaround in 2017. A 15-day maintenance turnaround is scheduled for third-quarter 2019.

PT Smelting. PT-FI's former COW required us to construct, or cause to be constructed, a smelter in Indonesia if we and the Indonesian government determined that such a project would be economically viable. In 1995, following the completion of a feasibility study, we entered into agreements relating to the formation of PT Smelting, an Indonesian company, and the construction of the copper smelter and refinery in Gresik, Indonesia. PT Smelting owns and operates the smelter and refinery. PT-FI owns 25 percent of PT Smelting, with the remainder owned by Mitsubishi Materials Corporation (60.5 percent), Mitsubishi Corporation RtM Japan Ltd. (9.5 percent) and JX Nippon Mining & Metals Corporation (5 percent).

PT-FI's contract with PT Smelting requires PT-FI to supply 100 percent of the copper concentrate requirements (at market rates subject to a minimum or maximum treatment charge rate) necessary for PT Smelting to produce 205,000 metric tons of copper annually on a priority basis. PT-FI may also sell copper concentrate to PT Smelting at market rates for quantities in excess of 205,000 metric tons of copper annually. PT-FI supplied 90 percent of PT Smelting's concentrate requirements in 2018, 93 percent in 2017 and 88 percent in 2016.

In early 2017, the Indonesian government issued new regulations to address exports of unrefined metals, including copper concentrate and anode slimes, and other matters related to the mining sector. These regulations permit the export of anode slimes, which is necessary for PT Smelting to continue operating. As a result of labor disturbances and a delay in the renewal of its export license for anode slimes, PT Smelting's operations were shut down from mid-January 2017 until early March 2017. PT Smelting has applied for a one-year extension of its anode slimes export license, which currently expires February 26, 2019.

PT Smelting produced 258,800 metric tons of copper anode from its smelter and 257,600 metric tons of copper cathode from its refinery in 2018; 245,800 metric tons of copper anode from its smelter and 247,800 metric tons of copper cathode from its refinery in 2017; and 255,700 metric tons of copper anode from its smelter and 241,700 metric tons of copper cathode from its refinery in 2016.

PT Smelting's maintenance turnarounds (which range from two weeks to a month to complete) typically are expected to occur approximately every two years, with short-term maintenance turnarounds in the interim. The next major maintenance turnaround is scheduled for 2020. PT Smelting completed a 25-day maintenance turnaround during 2016, and a 30-day maintenance turnaround during 2018. In addition to PT Smelting's scheduled annual maintenance in November 2018, PT Smelting also experienced downtime in December 2018 caused by unscheduled maintenance at its sole-source oxygen supplier. This resulted in a temporary shutdown of PT Smelting's operations in December 2018.

Table of Contents

Miami Smelter. We own and operate a smelter at our Miami mining operation in Arizona. The smelter has been operating for approximately 100 years and has been upgraded numerous times during that period to implement new technologies, improve production and comply with air quality requirements. In 2018, the Miami smelter completed the installation of emission control equipment that allows it to operate in compliance with current air quality standards. Refer to Item 1A. “Risk Factors” for further discussion.

The Miami smelter processes copper concentrate primarily from our North America copper mines. Concentrate processed through the smelter totaled 729,900 metric tons in 2018, 612,600 metric tons in 2017 and 673,300 metric tons in 2016. In addition, because sulphuric acid is a by-product of smelting concentrate, the Miami smelter is also the most significant source of sulphuric acid for our North America leaching operations.

Major maintenance turnarounds (which take approximately three weeks to complete) are anticipated to occur approximately every three years for the Miami smelter, with short-term maintenance turnarounds in the interim. The Miami smelter completed a major maintenance turnaround in second-quarter 2017, and the next major maintenance turnaround is scheduled for 2020.

Rod & Refining Operations. Our Rod & Refining operations consist of conversion facilities located in North America, including a refinery in El Paso, Texas; rod mills in El Paso, Texas, Norwich, Connecticut, and Miami, Arizona; and a specialty copper products facility in Bayway, New Jersey. We refine our copper anode production from our Miami smelter at our El Paso refinery. The El Paso refinery has the potential to operate at an annual production capacity of about 900 million pounds of copper cathode, which is sufficient to refine all of the copper anode we produce at our Miami smelter. Our El Paso refinery also produces nickel carbonate, copper telluride and autoclaved slimes material containing gold, silver, platinum and palladium.

Molybdenum Conversion Facilities. We process molybdenum concentrate at our conversion plants in the U.S. and Europe into such products as technical-grade molybdic oxide, ferromolybdenum, pure molybdic oxide, ammonium molybdates and molybdenum disulfide. We operate molybdenum roasters in Sierrita, Arizona; Fort Madison, Iowa; and Rotterdam, the Netherlands, and we operate a molybdenum pressure-leach plant in Bagdad, Arizona. We also produce ferromolybdenum for customers worldwide at our conversion plant located in Stowmarket, United Kingdom.

Freeport Cobalt. In March 2013, we acquired a cobalt chemical refinery in Kokkola, Finland, and the related sales and marketing business which provided direct end-market access for the cobalt hydroxide production at the Tenke Fungurume (Tenke) mine in the Democratic Republic of Congo, in which we held an interest prior to our sale of TF Holdings Limited (TFHL) in 2016. We are the operator of Freeport Cobalt with an effective 56 percent ownership interest. The remaining effective ownership interest is held by Lundin Mining Corporation (24 percent) and La Générale des Carrières et des Mines (20 percent). The Kokkola refinery has an annual refining capacity of approximately 15,000 metric tons of cobalt.

As further discussed in Note 2, we continue to market the Freeport Cobalt assets.

Other North America Copper Mines. We also have five non-operating copper mines – Ajo, Bisbee, Tohono, Twin Buttes and Christmas, which are located in Arizona – that have been on care-and-maintenance status for several years and would require new or updated environmental studies, new permits, and additional capital investment, which could be significant, to return them to operating status.

Mining Development Projects and Exploration Activities

Capital expenditures for mining operations totaled $2.0 billion (including $1.2 billion for major projects) in 2018, $1.4 billion (including $0.9 billion for major projects) in 2017 and $1.6 billion (including $1.2 billion for major projects) in 2016. Capital expenditures for major projects during 2018 were primarily associated with underground development

activities in the Grasberg minerals district and development of the Lone Star oxide project. Capital expenditures for major projects during 2017 and 2016 were primarily associated with the Cerro Verde expansion project and ongoing underground development activities in the Grasberg minerals district. Refer to MD&A for projected capital expenditures for the year 2019.

PT-FI has also committed to construct a new smelter in Indonesia by December 21, 2023. PT-FI is initiating front-end engineering and design and intends to pursue financing, commercial and potential partner arrangements for this project, which has a preliminary estimated capital cost in the $3 billion range. The economics of the new smelter will be borne by PT-FI's shareholders according to their respective long-term share ownership percentages.

Table of Contents

We have several projects and potential opportunities to expand production volumes, extend mine lives and develop large-scale underground ore bodies. As further discussed in MD&A, our near-term major development projects primarily include the underground development activities in the Grasberg minerals district and development of the Lone Star oxide project. Considering the long-term nature and large size of our development projects, actual costs and timing could vary from estimates. Additionally, in response to market conditions, the timing of our expenditures will continue to be reviewed. We continue to review our mine development and processing plans to maximize the value of our mineral reserves.

We also have an additional long-term underground mine development project in the Grasberg minerals district for the Kucing Liar ore body, which lies on the southern flank of and underneath the southern portion of the Grasberg open pit at the 2,605-meter elevation level. We expect to mine the Kucing Liar ore body using the block-cave method; aggregate capital cost estimates for development of the Kucing Liar ore body are projected to approximate $3.8 billion (which are expected to be made between 2020 and 2032). Additionally, our current mine development plans include approximately $6.0 billion of capital expenditures at our processing facilities to optimize the handling of underground ore types once the Grasberg open-pit operations cease. We expect substantially all of these expenditures to be made between 2019 and 2034. The timing and development of this project is currently being reviewed.

Our mining exploration activities are generally associated with our existing mines focusing on opportunities to expand reserves and resources to support development of additional future production capacity. Exploration results continue to indicate opportunities for significant future potential reserve additions in North America and South America. Exploration spending associated with mining operations totaled $78 million in 2018, $72 million in 2017 and $44 million in 2016. Refer to MD&A for projected exploration expenditures for the year 2019.

Refer to Item 1A. “Risk Factors” for further discussion of risks associated with mine development projects and exploration activities and of risks associated with PT-FI’s IUPK.

Sources and Availability of Energy, Natural Resources and Raw Materials
Our copper mining operations require significant energy, principally diesel, electricity, coal and natural gas, most of which is obtained from third parties under long-term contracts. Energy represented approximately 20 percent of our copper mine site operating costs in 2018, including purchases of approximately 220 million gallons of diesel fuel; 8,150 gigawatt hours of electricity at our North America and South America copper mining operations (we generate all of our power at our Indonesia mining operation); 740 thousand metric tons of coal for our coal power plant in Indonesia; and 1 million MMBtu (million British thermal units) of natural gas at certain of our North America mines. Based on current cost estimates, energy will approximate 20 percent of our copper mine site operating costs in 2019.

Our mining operations also require significant quantities of water for mining, ore processing and related support facilities. The loss of water rights for any of our mines, in whole or in part, or shortages of water to which we have rights, could require us to curtail or shut down mining operations. For a further discussion of risks and legal proceedings associated with the availability of water, refer to Item 1A. “Risk Factors” and Item 3. “Legal Proceedings.”

Sulphuric acid is used in the SX/EW process and is produced as a by-product of the smelting process at our smelters and from our sulfur burners at the Safford mine. Sulphuric acid needs in excess of the sulphuric acid produced by our operations are purchased from third parties.

Table of Contents

Community and Human Rights

We have adopted policies that govern our working relationships with the communities where we operate and are designed to guide our practices and programs in a manner that respects human rights and the culture of the local people impacted by our operations. We continue to make significant expenditures on community development, education, training and cultural programs, which include:

- comprehensive job training programs
- clean water and sanitation projects
- public health programs, including malaria control and human immunodeficiency virus
- agricultural assistance programs
- small and medium enterprise development programs
- basic education programs
- cultural promotion and preservation programs
- community infrastructure development
- charitable donations

In December 2000, we endorsed the joint U.S. State Department-British Foreign Office Voluntary Principles on Human Rights and Security (Voluntary Principles). We participated in developing these Voluntary Principles with other major natural resource companies and international human rights organizations and they are incorporated into our human rights policy. The Voluntary Principles provide guidelines for our security programs, including interaction with host-government security personnel, private security contractors and our internal security employees.

Our human rights policy, most recently updated in August 2017, reflects our full commitment to the United Nations Guiding Principles on Business and Human Rights. We have embarked on a program to plan and conduct site-level human rights impact assessments (HRIA) at our global operations.

HRIAs help us to embed human rights considerations into our business practices, including site-level sustainable development risk registers. We completed a HRIA at our Cerro Verde operation in Peru in 2017 and at our New Mexico mining operations in 2018. We also participate in a multi-industry human rights working group to gain insight from peer companies. We believe that our social and economic development programs are responsive to the issues raised by the local communities near our areas of operation and help us maintain good relations with the surrounding communities and avoid disruptions of mining operations. As part of our ongoing commitment to sustainable community development, we make significant investments in social programs, including in-kind support and administration, across our global operations. Over the last three years, these investments have averaged $150 million per year. Nevertheless, social and political instability in the areas of our operations may adversely impact our mining operations. Refer to Item 1A. “Risk Factors” for further discussion.

South America. Cerro Verde has provided a variety of community support projects over the years. Following engagements with regional and local governments, civic leaders and development agencies, in 2006, Cerro Verde committed to support the costs for a new potable water treatment plant to serve Arequipa. In addition, an agreement was reached with the Peruvian government for development of a water storage network that was financed by Cerro Verde and a distribution network that was financed by the Cerro Verde Civil Association.

Cerro Verde reached an agreement with the Regional Government of Arequipa, the National Government, the local water utility company and other local institutions to allow it to finance, engineer and construct a wastewater treatment plant for the city of Arequipa, which was completed in 2015. The wastewater treatment plant supplements existing

water supplies to support Cerro Verde's concentrator expansion and also improves the local water quality, enhances agriculture products grown in the area and reduces the risk of waterborne illnesses. In addition to these projects, Cerro Verde annually makes significant community development investments in the Arequipa region.

Security Matters. Consistent with our operating permits in Peru and our commitment to protect our employees and property, we have taken steps to provide a safe and secure working environment. As part of its security program, Cerro Verde maintains its own internal security department. Both employees and contractors perform functions such as protecting company facilities, monitoring shipments of supplies and products, assisting in traffic control and aiding in emergency response operations. The security department receives human rights and Voluntary Principles training annually. Some contractors assigned to protection of expatriate personnel are armed. These contractors also receive training in defensive driving and firearms handling. Cerro Verde's costs for its internal civilian security department totaled $8 million in both 2018 and 2017 and $6 million in 2016.

Table of Contents

Cerro Verde, like all businesses and residents of Peru, relies on the Peruvian government for the maintenance of public order, upholding the rule of law and the protection of personnel and property. The Peruvian government is responsible for employing police personnel and directing their operations. Cerro Verde has limited public security forces in support of its operation, with the arrangement defined through a memorandum of understanding with the Peruvian National Police. Cerro Verde's share of support costs for government-provided security approximated $1 million in each of the years 2018, 2017 and 2016.

Indonesia. In 1996, PT-FI established the Freeport Partnership Fund for Community Development (the Partnership Fund) through which PT-FI has made available funding and technical assistance to support community development initiatives in the areas of health, education, economic development and local infrastructure. PT-FI has committed through June 2019 to provide one percent of its annual revenue for the development of the local communities in its area of operations through the Partnership Fund. PT-FI recorded costs of $55 million in 2018, $44 million in 2017 and $33 million in 2016 for this commitment.

The Amungme and Kamoro Community Development Organization (Lembaga Pengembangan Masyarakat Amungme dan Kamoro or LPMAK) oversees disbursement of the program funds we contribute to the Partnership Fund. LPMAK is governed by a board of commissioners and a board of directors, which are comprised of representatives from the local Amungme and Kamoro tribal communities, government leaders, church leaders, and one representative of PT-FI on each board. The Amungme and Kamoro people are original inhabitants of the land in our area of operations. In addition to the Partnership Fund, PT-FI makes significant annual investments in public health, education, community infrastructure and local economic development.

Security Matters. Consistent with our ongoing commitment to protect our employees and property, we have taken steps to provide a safe and secure working environment. As part of its security program, PT-FI maintains its own internal civilian security department. Both employees and contractors are unarmed and perform functions such as protecting company facilities, monitoring shipments of supplies and products, assisting in traffic control and aiding in emergency response operations. The security department receives human rights training annually.

PT-FI's costs for its internal civilian security department totaled $59 million in 2018, $54 million in 2017 and $58 million in 2016.

PT-FI, like all businesses and residents of Indonesia, relies on the Indonesian government for the maintenance of public order, upholding the rule of law and protection of personnel and property. The Grasberg minerals district has been designated by the Indonesian government as one of Indonesia's vital national assets. This designation results in the police, and to a lesser extent, the military, playing a significant role in protecting the area of our operations. The Indonesian government is responsible for employing police and military personnel and directing their operations.

From the outset of PT-FI's operations, the Indonesian government has looked to PT-FI to provide logistical and infrastructure support and assistance for these necessary services because of the limited resources of the Indonesian government and the remote location of and lack of development in Papua. PT-FI's financial support of the Indonesian government security institutions assigned to PT-FI's operations area represents a prudent response to PT-FI's requirements and commitments to protect its workforce and property, and better ensuring that personnel are properly fed and lodged and have the logistical resources to patrol PT-FI's roads and secure its area of operations. In addition, the provision of such support is consistent with our philosophy of responsible corporate citizenship, and reflects our commitment to pursue practices that promote human rights.

PT-FI's support costs for the government-provided security totaled $27 million in 2018, $23 million in 2017 and $20 million in 2016. This supplemental support consists of various infrastructure and other costs, including food, housing, fuel, travel, vehicle repairs, allowances to cover incidental and administrative costs, and community assistance

programs conducted by the military and police.

Refer to Item 1A. “Risk Factors” for further discussion of security risks in Indonesia.

Table of Contents

Mining Production and Sales Data

	Years Ended December 31,					
	Production			Sales		
COPPER (millions of recoverable pounds)	2018	2017	2016	2018	2017	2016
(FCX's net interest in %)						
North America						
Morenci (72%)[a]	684	737	848	700	713	855
Bagdad (100%)	199	173	177	197	164	180
Safford (100%)	123	150	230	127	154	229
Sierrita (100%)	152	160	162	154	154	162
Miami (100%)	16	19	25	16	18	27
Chino (100%)	173	215	308	176	217	308
Tyrone (100%)	55	61	76	56	61	75
Other (100%)	2	3	5	2	3	5
Total North America	1,404	1,518	1,831	1,428	1,484	1,841
South America						
Cerro Verde (53.56%)	1,049	1,062	1,108	1,051	1,062	1,105
El Abra (51%)	200	173	220	202	173	227
Total South America	1,249	1,235	1,328	1,253	1,235	1,332
Indonesia						
Grasberg minerals district[b]	1,160	984	1,063	1,130	981	1,054
Consolidated - continuing operations	3,813	3,737	4,222[c]	3,811 [d]	3,700 [d]	4,227 [c,d]
Less noncontrolling interests	695	670	722	694	670	723
Net	3,118	3,067	3,500	3,117	3,030	3,504
Average realized price per pound (continuing operations)				$2.91	$2.93	$2.28
GOLD (thousands of recoverable ounces)						
North America (100%)	23	23	27	23	22	25
Indonesia[b]	2,416	1,554	1,061	2,366	1,540	1,054
Consolidated	2,439	1,577	1,088	2,389	1,562	1,079
Less noncontrolling interests	228	145	99	223	144	99
Net	2,211	1,432	989	2,166	1,418	980
Average realized price per ounce				$1,254	$1,268	$1,238
MOLYBDENUM (millions of recoverable pounds)						
Henderson (100%)	14	12	10	N/A	N/A	N/A
Climax (100%)	21	20	16	N/A	N/A	N/A
North America copper mines (100%)[a]	32	33	33	N/A	N/A	N/A
Cerro Verde (53.56%)	28	27	21	N/A	N/A	N/A
Consolidated	95	92	80	94	95	74
Less noncontrolling interest	13	13	9	13	12	6
Net	82	79	71	81	83	68
Average realized price per pound				$12.50	$9.33	$8.33

a. Amounts are net of Morenci's undivided joint venture partners' interest; effective May 31, 2016, our undivided interest in Morenci was prospectively reduced from 85 percent to 72 percent (refer to Note 2 for further discussion).

b. Amounts are net of the former Rio Tinto Joint Venture interest. On December 21, 2018, we completed the transaction with the Indonesian government regarding PT-FI's long-term mining rights and share ownership, resulting in a reduction of our share ownership in PT-FI from 90.64 percent to 48.76 percent (refer to Note 2 for further discussion). Our economic interest in PT-FI is expected to approximate 81 percent from 2019 through 2022.

c. Excludes 425 million pounds of copper production and 424 million pounds of copper sales associated with discontinued operations. In November 2016, we completed the sale of our interest in TFHL, through which we held

an interest in the Tenke mine (refer to Note 2 for further discussion).

d. Excludes purchased copper of 356 million pounds in 2018, 273 million pounds in 2017 and 188 million pounds in 2016.

Table of Contents

Mineral Reserves

Proven and probable reserves were determined by the use of mapping, drilling, sampling, assaying and evaluation methods generally applied in the mining industry, as more fully discussed below. The term “reserve,” as used in the reserve data presented here, means that part of a mineral deposit that can be economically and legally extracted or produced at the time of the reserve determination. The term “proven reserves” means reserves for which (i) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; (ii) grade and/or quality are computed from the results of detailed sampling; and (iii) the sites for inspection, sampling and measurements are spaced so closely and the geologic character is sufficiently defined that size, shape, depth and mineral content of reserves are well established. The term “probable reserves” means reserves for which quantity and grade are computed from information similar to that used for proven reserves but the sites for sampling are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven reserves, is high enough to assume continuity between points of observation.

Our mineral reserve estimates are based on the latest available geological and geotechnical studies. We conduct ongoing studies of our ore bodies to optimize economic values and to manage risk. We revise our mine plans and estimates of recoverable proven and probable mineral reserves as required in accordance with the latest available studies. Refer to Item 1A. “Risk Factors” for discussion of risks associated with our estimates of proven and probable reserves.

Estimated recoverable proven and probable reserves at December 31, 2018, were determined using $2.50 per pound for copper in North America and South America and $2.00 per pound for copper in Indonesia, $1,000 per ounce for gold and $10 per pound for molybdenum. Reserves for Indonesia would not significantly change if assessed under a long-term price of $2.50 per pound of copper as PT-FI’s reserve plan is mill-constrained by the term of its IUPK, which contains rights to extend mining rights through 2041.

For the three-year period ended December 31, 2018, LME copper settlement prices averaged $2.65 per pound, London PM gold prices averaged $1,259 per ounce and the weekly average price for molybdenum quoted by Metals Week averaged $8.85 per pound. In late 2015, we incorporated changes in the commercial pricing structure for our molybdenum-based chemical products to enable continuation of chemical-grade production.

The estimated recoverable proven and probable reserves presented in the table below represent the estimated metal quantities from which we expect to be paid after application of estimated metallurgical recovery rates and smelter recovery rates, where applicable. Recoverable reserves are that part of a mineral deposit that we estimate can be economically and legally extracted or produced at the time of the reserve determination.

	Estimated Recoverable Proven and Probable Mineral Reserves at December 31, 2018		
	Copper[a] (billion pounds)	Gold (million ounces)	Molybdenum (billion pounds)
North America	49.9	0.6	3.06
South America	33.5	—	0.72
Indonesia	36.2 [b]	30.2 [b]	—
Consolidated basis[c]	119.6	30.8	3.78
Net equity interest[d]	86.8	17.0	3.44

a. Estimated consolidated recoverable copper reserves include 2.0 billion pounds in leach stockpiles and 0.6 billion pounds in mill stockpiles (refer to “Mill and Leach Stockpiles” for further discussion).

b. Includes 13.0 billion pounds of copper and 10.1 million ounces of gold associated with PT-FI's acquisition of the Rio Tinto Joint Venture interest. Preliminary estimated recoverable proven and probable reserves from Indonesia

reflect estimates of minerals that can be recovered through 2041. Refer to Item 1A. “Risk Factors.”

c. Consolidated reserves represent estimated metal quantities after reduction for joint venture partner interests at the Morenci mine in North America (refer to Note 3 for further discussion of our Morenci joint venture). Excluded from the table above are our estimated recoverable proven and probable reserves of 393.1 million ounces of silver, which were determined using $15 per ounce and include 55.7 million ounces associated with PT-FI's acquisition of the Rio Tinto Joint Venture interest.

d. Net equity interest reserves represent estimated consolidated metal quantities further reduced for noncontrolling interest ownership (refer to Note 3 for further discussion of our ownership in subsidiaries). Excluded from the table above are our estimated recoverable proven and probable reserves of 269.3 million ounces of silver. Our net equity interest for estimated metal quantities in Indonesia reflects approximately 81 percent from 2019 through 2022 and 48.76 percent from 2023 through 2041.

Table of Contents

		Estimated Recoverable Proven and Probable Mineral Reserves at December 31, 2018									
		Proven Reserves					Probable Reserves				
			Average Ore Grade					Average Ore Grade			
	Processing Method	Million metric tons	Copper %	Gold g/t	Moly %	Silver g/t	Million metric tons	Copper %	Gold g/t	Moly %	Silver g/t
North America											
Morenci	Mill	665	0.34	—	0.02	—	245	0.32	—	0.02	—
	Crushed leach	446	0.52	—	—	—	110	0.47	—	—	—
	ROM leach	2,222	0.17	—	—	—	931	0.16	—	—	—
Bagdad	Mill	1,721	0.34	—	[a] 0.02	1.43	625	0.30	—	[a] 0.02	1.26
	ROM leach	13	0.27	—	—	—	67	0.17	—	—	—
Safford, including Lone Star	Crushed leach	665	0.45	—	—	—	174	0.41	—	—	—
Sierrita	Mill	2,972	0.23	—	[a] 0.02	1.36	397	0.20	—	[a] 0.02	1.16
Chino, including Cobre	Mill	168	0.54	0.05	0.01	0.93	106	0.54	0.04	0.01	0.92
	ROM leach	112	0.29	—	—	—	9	0.26	—	—	—
Tyrone	ROM leach	49	0.26	—	—	—	6	0.21	—	—	—
Henderson	Mill	58	—	—	0.18	—	13	—	—	0.13	—
Climax	Mill	158	—	—	0.15	—	10	—	—	0.09	—
		9,249					2,693				
South America											
Cerro Verde	Mill	830	0.36	—	0.01	1.90	3,361	0.36	—	0.01	1.89
	Crushed leach	26	0.40	—	—	—	37	0.27	—	—	—
	ROM leach	18	0.21	—	—	—	52	0.15	—	—	—
El Abra	Crushed leach	488	0.44	—	—	—	200	0.40	—	—	—
	ROM leach	9	0.17	—	—	—	8	0.18	—	—	—
		1,371					3,658				
Indonesia											
DMLZ	Mill	78	0.99	0.83	—	4.64	354	0.91	0.75	—	4.36
Grasberg open pit	Mill	1	2.65	5.70	—	7.97	4	1.08	1.51	—	3.12
DOZ	Mill	14	0.54	0.67	—	2.29	37	0.48	0.53	—	2.23
Big Gossan	Mill	18	2.42	1.03	—	15.15	39	2.24	1.02	—	13.50
GBC	Mill	316	1.11	0.86	—	3.86	647	0.89	0.66	—	3.54
Kucing Liar[b]	Mill	131	1.31	1.09	—	6.60	218	1.19	0.99	—	5.59
		558					1,299				
Total FCX - 100% Basis		11,178					7,650				

a. Grade rounds to less than 0.01 g/t.
b. Would require additional capital investment, which could be significant, to bring into production.

The reserve table above and the tables on the following pages utilize the abbreviations described below:

- g/t – grams per metric ton
- Moly – Molybdenum

Table of Contents

Estimated Recoverable Proven and Probable Mineral Reserves at December 31, 2018 (continued)

	Processing Method	Proven and Probable Million metric tons	Average Ore Grade Copper %	Gold g/t	Moly %	Silver g/t	Recoveries[a] Copper %	Gold %	Moly %	Silver %
North America										
Morenci	Mill	910	0.33	—	0.02	—	79.8	—	49.4	—
	Crushed leach	556	0.51	—	—	—	78.3	—	—	—
	ROM leach	3,153	0.16	—	—	—	42.4	—	—	—
Bagdad	Mill	2,346	0.33	—	[b] 0.02	1.39	86.2	59.1	70.8	49.3
	ROM leach	80	0.19	—	—	—	24.7	—	—	—
Safford, including Lone Star	Crushed leach	839	0.44	—	—	—	71.4	—	—	—
Sierrita	Mill	3,369	0.23	—	[b] 0.02	1.34	82.1	60.0	78.1	49.3
Chino, including Cobre	Mill	274	0.54	0.04	0.01	0.93	80.4	74.6	26.0	75.2
	ROM leach	121	0.29	—	—	—	44.4	—	—	—
Tyrone	ROM leach	55	0.25	—	—	—	52.5	—	—	—
Henderson	Mill	71	—	—	0.17	—	—	—	89.9	—
Climax	Mill	168	—	—	0.15	—	—	—	89.6	—
		11,942								
South America										
Cerro Verde	Mill	4,191	0.36	—	0.01	1.89	86.2	—	54.2	44.7
	Crushed leach	63	0.33	—	—	—	81.1	—	—	—
	ROM leach	70	0.17	—	—	—	47.9	—	—	—
El Abra	Crushed leach	688	0.43	—	—	—	54.5	—	—	—
	ROM leach	17	0.18	—	—	—	41.6	—	—	—
		5,029								
Indonesia										
DMLZ	Mill	432	0.92	0.76	—	4.41	86.8	79.2	—	64.4
Grasberg open pit	Mill	5	1.26	1.98	—	3.66	91.8	89.1	—	43.2
DOZ	Mill	51	0.50	0.57	—	2.25	90.1	85.3	—	67.9
Big Gossan	Mill	57	2.30	1.02	—	14.02	91.4	67.8	—	63.7
GBC	Mill	963	0.96	0.72	—	3.64	84.0	63.2	—	55.7
Kucing Liar[c]	Mill	349	1.24	1.03	—	5.97	85.2	45.7	—	40.4
		1,857								
Total FCX - 100% Basis		18,828								

a. Recoveries are net of estimated mill and smelter losses.
b. Grade rounds to less than 0.01 g/t.
c. Would require additional capital investment, which could be significant, to bring into production.

Table of Contents

Estimated Recoverable Proven and Probable Mineral Reserves
at December 31, 2018
(continued)

			Recoverable Reserves			
			Copper	Gold	Moly	Silver
	FCX's Interest	Processing Method	billion lbs.	million ozs.	billion lbs.	million ozs.
North America						
Morenci	72%	Mill	5.3	—	0.18	—
		Crushed leach	4.9	—	—	—
		ROM leach	4.9	—	—	—
Bagdad	100%	Mill	14.6	0.1	0.74	51.5
		ROM leach	0.1	—	—	—
Safford, including Lone Star	100%	Crushed leach	5.9	—	—	—
Sierrita	100%	Mill	13.8	0.2	1.42	71.3
Chino, including Cobre	100%	Mill	2.6	0.3	0.01	6.2
		ROM leach	0.4	—	—	—
Tyrone	100%	ROM leach	0.2	—	—	—
Henderson	100%	Mill	—	—	0.24	—
Climax	100%	Mill	—	—	0.50	—
			52.7	0.6	3.09	129.0
Recoverable metal in stockpiles[a]			1.6	—	0.02	—
100% operations			54.3	0.6	3.11	129.0
Consolidated			49.9	0.6	3.06	129.0
Net equity interest			49.9	0.6	3.06	129.0
South America						
Cerro Verde	53.56%	Mill	28.4	—	0.71	113.7
		Crushed leach	0.4	—	—	—
		ROM leach	0.1	—	—	—
El Abra	51%	Crushed leach	3.6	—	—	—
		ROM leach	—	[b] —	—	—
			32.5	—	0.71	113.7
Recoverable metal in stockpiles[a]			1.0	—	0.01	1.8
100% operations			33.5	—	0.72	115.5
Consolidated			33.5	—	0.72	115.5
Net equity interest			17.8	—	0.38	61.9
Indonesia						
DMLZ	c	Mill	7.6	8.4	—	39.5
Grasberg open pit	c	Mill	0.1	0.3	—	0.3
DOZ	c	Mill	0.5	0.8	—	2.5
Big Gossan	c	Mill	2.6	1.3	—	16.3
GBC	c	Mill	17.2	14.1	—	62.8
Kucing Liar	c	Mill	8.1	5.2	—	27.0
			36.1	30.1	—	148.4
Recoverable metal in stockpiles[a]			0.1	0.1	—	0.2
100% operations			36.2	30.2	—	148.6
Consolidated			36.2	30.2	—	148.6

Net equity interest	19.1	16.4	—	78.4
Total FCX – 100% basis	124.0	30.8	3.83	393.1
Total FCX – Consolidated basis[d]	119.6	30.8	3.78	393.1
Total FCX – Net equity interest[e]	86.8	17.0	3.44	269.3

a. Refer to “Mill and Leach Stockpiles” for additional information.

b. Pounds round to less than 0.1 billion pounds of copper.

c. On December 21, 2018, we completed the transaction with the Indonesian government regarding PT-FI’s long-term mining rights and share ownership, resulting in a reduction of our share ownership in PT-FI from 90.64 percent to 48.76 percent (refer to Note 2 for further discussion).

d. Consolidated reserves represent estimated metal quantities after reduction for Morenci’s joint venture partner interests (refer to Note 3 for further discussion).

e. Net equity interest represents estimated consolidated metal quantities further reduced for noncontrolling interest ownership (refer to Note 3 for further discussion of our ownership in subsidiaries). Our net equity interest for estimated metal quantities in Indonesia reflects approximately 81 percent from 2019 through 2022 and 48.76 percent from 2023 through 2041.

Table of Contents

In defining our open-pit reserves, we apply a "variable cutoff grade" strategy. The objective of this strategy is to maximize the net present value of our operations. We use a "break-even cutoff grade" to define the in-situ reserves for our underground ore bodies. The break-even cutoff grade is defined for a metric ton of ore as that equivalent copper grade, once produced and sold, that generates sufficient revenue to cover all operating and administrative costs associated with our production.

Our copper mines may contain other commercially recoverable metals, such as gold, molybdenum and silver. We value all commercially recoverable metals in terms of a copper equivalent percentage to determine a single cutoff grade. Copper equivalent percentage is used to express the relative value of multi-metal ores in terms of one metal. The calculation expresses the relative value of the ore using estimates of contained metal quantities, metals prices as used for reserve determination, recovery rates, treatment charges and royalties. Our molybdenum properties use a molybdenum cutoff grade.

The table below shows the minimum cutoff grade by process for each of our existing ore bodies as of December 31, 2018:

	Copper Equivalent Cutoff Grade (Percent)			Molybdenum Cutoff Grade (Percent)
	Mill	Crushed Leach	ROM Leach	Mill
North America				
Morenci	0.17	0.12	0.03	—
Bagdad	0.15	—	0.08	—
Safford, including Lone Star	—	0.08	—	—
Sierrita	0.15	—	—	—
Chino, including Cobre	0.19	—	0.05	—
Tyrone	—	—	0.03	—
Henderson	—	—	—	0.12
Climax	—	—	—	0.05
South America				
Cerro Verde	0.15	0.12	0.08	—
El Abra	—	0.11	0.06	—
Indonesia				
DMLZ	0.89	—	—	—
Grasberg open pit	0.25	—	—	—
DOZ	0.89	—	—	—
Big Gossan	1.77	—	—	—
GBC	0.80	—	—	—
Kucing Liar	0.97	—	—	—

Table of Contents

Drill hole spacing data is used by mining professionals, such as geologists and geological engineers, in determining the suitability of data coverage (on a relative basis) in a given deposit type and mining method scenario so as to achieve a given level of confidence in the resource estimate. Drill hole spacing is only one of several criteria necessary to establish resource classification. Drilling programs are typically designed to achieve an optimum sample spacing to support the level of confidence in results that apply to a particular stage of development of a mineral deposit.

The following table sets forth the average drill hole spacing based on average sample distance or drill pattern spacing for proven and probable ore reserves by process type:

		Average Drill Hole Spacing (in Meters)			
		Proven		Probable	
	Mining Unit	Mill	Leach	Mill	Leach
North America					
Morenci	Open Pit	86	86	122	122
Bagdad	Open Pit	86	86	122	122
Safford, including Lone Star	Open Pit	—	86	—	122
Sierrita	Open Pit	73	—	104	—
Chino	Open Pit	43	86	86	122
Cobre	Open Pit	61	61	91	91
Tyrone	Open Pit	—	86	—	86
Henderson	Block Cave	47	—	96	—
Climax	Open Pit	61	—	91	—
South America					
Cerro Verde	Open Pit	55	55	110	110
El Abra	Open Pit	—	75	—	120
Indonesia					
DMLZ	Block Cave	21	—	63	—
Grasberg open pit	Open Pit	25	—	51	—
DOZ	Block Cave	22	—	55	—
Big Gossan	Open Stope	12	—	35	—
GBC	Block Cave	28	—	66	—
Kucing Liar		39	—	96	—

Block
Cave

31

Table of Contents

Production Sequencing

The following chart illustrates our current plans for sequencing and producing our proven and probable reserves at each of our ore bodies and the years in which we currently expect production from each ore body and related stockpiles. Our proven and probable ore reserves in Indonesia reflect estimates of minerals that can be recovered through the end of 2041, and our current mine plan and planned operations are based on the assumption that PT-FI will comply with its obligations under the IUPK and receive the second 10-year extension from 2031 through 2041 (refer to Item 1A. “Risk Factors” and Note 13 for further discussion). Production volumes are typically lower in the first few years for each ore body as development activities are ongoing and as the mine ramps up to full production and production volumes may also be lower as the mine reaches the end of its life. The sequencing dates shown in the chart below include development activity that results in metal production. The ultimate timing of the start of production from our undeveloped mines is dependent upon a number of factors, including the results of our exploration and development efforts, and may vary from the dates shown below. In addition, we develop our mine plans based on maximizing the net present value from the ore bodies. Significant additional capital expenditures will be required at many of these mines in order to achieve the life-of-mine plans reflected below.

Mill and Leach Stockpiles

Mill and leach stockpiles generally contain lower grade ores that have been extracted from an ore body and are available for metal recovery. Mill stockpiles contain sulfide ores and recovery of metal is through milling, concentrating, smelting and refining or, alternatively, by concentrate leaching. Leach stockpiles contain oxide ores and certain secondary sulfide ores and recovery of metal is through exposure to acidic solutions that dissolve contained copper and deliver it in solution to extraction processing facilities.

Because it is impracticable to determine copper contained in mill and leach stockpiles by physical count, reasonable estimation methods are employed. The quantity of material delivered to mill and leach stockpiles is based on surveyed volumes of mined material and daily production records. Sampling and assaying of blasthole cuttings determine the estimated copper grades of material delivered to mill and leach stockpiles.

Table of Contents

Expected copper recovery rates for mill stockpiles are determined by metallurgical testing. The recoverable copper in mill stockpiles, once entered into the production process, can be produced into copper concentrate almost immediately.

Expected copper recovery rates for leach stockpiles are determined using small-scale laboratory tests, small- to large-scale column testing (which simulates the production process), historical trends and other factors, including mineralogy of the ore and rock type. Total copper recovery in leach stockpiles can vary significantly from a low percentage to more than 90 percent depending on several variables, including processing methodology, processing variables, mineralogy and particle size of the rock. For newly placed material on active stockpiles, as much as 80 percent of total copper recovery may be extracted during the first year, and the remaining copper may be recovered over many years. Processes and recovery rates are monitored regularly, and recovery rate estimates are adjusted periodically as additional information becomes available and as related technology changes.

Following are our stockpiles and the estimated recoverable copper contained within those stockpiles as of December 31, 2018:

	Million Metric Tons	Average Ore Grade (%)	Recovery Rate (%)	Recoverable Copper (billion pounds)	
Mill stockpiles					
Cerro Verde	104	0.27	74.1	0.5	
Grasberg minerals district	13	0.49	71.6	0.1	
	117			0.6	
Leach stockpiles					
Morenci	6,596	0.24	1.6	0.5	
Bagdad	499	0.25	0.4	—	[a]
Safford, including Lone Star	289	0.43	8.5	0.3	
Sierrita	650	0.15	9.9	0.2	
Miami	498	0.39	1.5	0.1	
Chino, including Cobre	1,743	0.25	3.7	0.4	
Tyrone	1,148	0.28	2.1	0.1	
Cerro Verde	488	0.47	5.0	0.2	
El Abra	744	0.44	4.5	0.3	
	12,655			2.1	
Total FCX - 100% basis				2.7	
Total FCX - Consolidated basis[b]				2.6	
Total FCX - Net equity interest[c]				2.1	

a. Rounds to less than 0.1 billion pounds of recoverable copper.

b. Consolidated stockpiles represent estimated metal quantities after reduction for Morenci's joint venture partner interests. Refer to Note 3 for further discussion.

c. Net equity interest represents estimated consolidated metal quantities further reduced for noncontrolling interest ownership (refer to Note 3 for further discussion of our ownership in subsidiaries). Our net equity interest for estimated metal quantities in Grasberg minerals district reflects approximately 81 percent from 2019 through 2022 and 48.76 percent from 2023 through 2041.

Mineralized Material

We hold various properties containing mineralized material that we believe could be brought into production should market conditions warrant. However, permitting and significant capital expenditures would be required before operations could commence at these properties. Mineralized material is a mineralized body that has been delineated by appropriately spaced drilling and/or underground sampling to support the reported tonnage and average metal grades. Such a deposit cannot qualify as recoverable proven and probable reserves until legal and economic feasibility are confirmed based upon a comprehensive evaluation of development costs, unit costs, grades, recoveries and other material factors. Estimated mineralized materials as presented on the following page were assessed using prices of $3.00 per pound for copper, $1,200 per ounce for gold, $12 per pound for molybdenum and $20 per ounce for silver. Refer to Item 1A. “Risk Factors” for discussion of risks associated with our estimates of mineralized material.

Table of Contents

Estimated Mineralized Material
at December 31, 2018

		Milling Material					Leaching Material		Total Mineralized Material
	FCX's Interest	Million metric tons	Copper %	Gold g/t	Moly %	Silver g/t	Million metric tons	Copper %	Million metric tons
North America									
Morenci	72%	1,192	0.28	—	0.02	—	1,584	0.18	2,776
Bagdad	100%	474	0.32	— [a]	0.02	1.4	2	0.14	476
Safford, including Lone Star	100%	665	0.52	0.07	—	1.4	792	0.30	1,457
Sierrita	100%	1,378	0.17	— [a]	0.02	1.0	—	—	1,378
Chino, including Cobre	100%	236	0.41	0.02	0.01	0.7	24	0.22	260
Tyrone	100%	—	—	—	—	—	157	0.23	157
Henderson	100%	103	—	—	0.14	—	—	—	103
Climax	100%	357	—	—	0.16	—	—	—	357
Ajo	100%	585	0.37	0.06	0.01	0.8	—	—	585
Cochise/Bisbee	100%	—	—	—	—	—	306	0.44	306
Sanchez	100%	—	—	—	—	—	211	0.28	211
Tohono	100%	279	0.68	—	—	—	291	0.66	570
Twin Buttes	100%	359	0.46	—	0.03	4.9	144	0.20	503
Christmas	100%	398	0.37	0.05	— [a]	1.0	—	—	398
South America									
Cerro Verde	53.56%	1,242	0.35	—	0.01	1.8	17	0.20	1,259
El Abra	51%	2,124	0.40	0.02	0.01	1.3	138	0.25	2,262
Indonesia									
Grasberg minerals district	48.76%	2,613	0.68	0.60	—	3.6	—	—	2,613
Africa									
Kisanfu[b]	95%	77	1.83	—	—	—	64	2.39	141
Total FCX - 100% basis		12,082					3,730		15,812
Total FCX - Consolidated basis[c]		11,748					3,285		15,033
Total FCX - Net equity interest[d]		8,788					3,206		11,994

a. Amounts not shown because of rounding.
b. Stated tonnage also includes cobalt (0.95 percent for milling material and 0.97 percent for leaching material).
c. Consolidated basis represents estimated mineralized materials after reduction for Morenci's joint venture partner interests. Refer to Note 3 for further discussion.
d. Net equity interest represents estimated consolidated mineralized material further reduced for noncontrolling interest ownership. Refer to Note 3 for further discussion of our ownership in subsidiaries.

Table of Contents

OIL AND GAS OPERATIONS

As further discussed in Note 2, during the three years ended December 31, 2018, we completed the sales of substantially all of our oil and gas properties. As a result, our portfolio of oil and gas assets at December 31, 2018, included natural gas production onshore in South Louisiana and oil production offshore in California, which had estimated proved developed reserves of 7.2 million barrels of oil equivalents (MMBOE).

Exploration and Development Activities
Capital expenditures associated with oil and gas properties totaled $2 million in 2018, and we have no plans to incur significant capital expenditures associated with oil and gas properties in future periods. Capital expenditures for our oil and gas operations totaled $34 million in 2017 and $1.2 billion in 2016 (including $0.6 billion incurred for Gulf of Mexico and $0.5 billion for changes in capital expenditure accruals).

Production and Sales Data
Oil and gas sales totaled 3.1 MMBOE in 2018 and 4.6 MMBOE in 2017. Oil and gas production and sales for the year 2016 totaled 47.1 MMBOE, including 34.4 million barrels (MMBbls) of oil, 65.1 billion cubic feet of natural gas and 1.8 MMBbls of natural gas liquids.

Productive Wells
At December 31, 2018 and 2017, the total number of active producing oil and gas wells was not significant. At December 31, 2016, we had working interests in 120 gross (94 net) active producing oil wells and 640 gross (100 net) active producing natural gas wells.

Drilling Activities
As of and for the years ended December 31, 2018 and 2017, there were no exploratory or development wells drilled or in progress. During the year ended December 31, 2016, we drilled 3 gross (2 net) exploratory productive wells and 9 gross (5 net) development productive wells.

Item 1A. Risk Factors.

This report contains “forward-looking statements” within the meaning of United States (U.S.) federal securities laws. Forward-looking statements are all statements other than statements of historical facts, such as projections or expectations relating to ore grades and milling rates; production and sales volumes; unit net cash costs; operating cash flows; capital expenditures; our expectations regarding our share of PT Freeport Indonesia’s (PT-FI) future cash flows through 2022; PT-FI’s development, financing, construction and completion of a new smelter in Indonesia; exploration efforts and results; development and production activities, rates and costs; liquidity; tax rates; supply of and demand for, and the impact of, copper, gold and molybdenum price changes; the impact of deferred intercompany profits on earnings; reserve estimates; future dividend payments; and share purchases and sales.

We undertake no obligation to update any forward-looking statements. We caution readers that forward-looking statements are not guarantees of future performance and our actual results may differ materially from those anticipated, expected, projected or assumed in the forward-looking statements. Important factors that can cause our actual results to differ materially from those anticipated in the forward-looking statements include the following:

Financial risks

Fluctuations in the market prices of copper, gold and molybdenum have caused and may continue to cause significant volatility in our financial performance and in the trading prices of our debt and common stock. Extended declines in the market prices of copper, gold and, to a lesser extent, molybdenum could adversely affect our earnings, cash flows

and asset values and, if sustained, may adversely affect our ability to repay debt.

Our financial results will vary with fluctuations in the market prices of the commodities we produce, primarily copper and gold, and to a lesser extent molybdenum. An extended decline in market prices of these commodities could have a material adverse effect on our financial results, the value of our assets and/or our ability to repay our debt and meet our other fixed obligations; and may depress the trading prices of our common stock and of our publicly traded debt securities.

Table of Contents

Additionally, if market prices for our primary commodities decline for a sustained 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 may be unable to decrease our costs in an amount sufficient to offset reductions in revenues, in which case we may incur losses, and those losses may be material.

Fluctuations in commodities prices are caused by varied and complex factors beyond our control, including global supply and demand balances and inventory levels; global economic and political conditions; international regulatory, trade and tax policies, including national tariffs; commodities investment activity and speculation; interest rates; the strength of the U.S. dollar compared to foreign currencies; the price and availability of substitute products; and changes in technology. Volatility in global economic growth, particularly in developing economies, has the potential to adversely affect future demand and prices for commodities. Geopolitical uncertainty and protectionism, including the United Kingdom's plans to exit from the European Union (commonly referred to as Brexit), have the potential to inhibit international trade and negatively impact business confidence, which creates the risk of constraints on our ability to trade in certain markets and has the potential to increase price volatility.

Copper prices may be affected by demand from China, which has become the largest consumer of refined copper in the world, and by changes in demand for industrial, commercial and residential products containing copper. Rising trade tensions between the U.S. and China and efforts by the Chinese government to reduce debt levels contributed to a recent slowdown in China's growth. A continued slowing in China's economic growth and demand and continued trade tensions between the U.S. and China could result in lower copper prices which could have a material adverse impact on our business and results of operations, including cash flow. The adoption and expansion of trade restrictions, changes in the state of China-U.S. relations, including the current trade war, or other governmental action related to tariffs or trade agreements or policies are difficult to predict and could adversely affect demand for our products, our costs, our customers, our suppliers, and the U.S. economy, which in turn could have a material adverse effect on our business, results of operations, or financial condition.

Copper prices have fluctuated historically, with London Metal Exchange (LME) copper settlement prices ranging from $1.96 per pound to $3.29 per pound during the three years ended December 31, 2018. LME copper settlement prices averaged $2.96 per pound in 2018, $2.80 per pound in 2017 and $2.21 per pound in 2016. The LME copper settlement price was $2.71 per pound on December 31, 2018, and $2.79 per pound on January 31, 2019.

Factors affecting gold prices may include the relative strength of the U.S. dollar to other currencies, inflation and interest rate expectations, purchases and sales of gold by governments and central banks, demand from China and India, two of the world's largest consumers of gold, and global demand for jewelry containing gold. The London PM gold price averaged $1,268 per ounce in 2018, $1,257 per ounce in 2017 and $1,250 per ounce in 2016. The London PM gold price was $1,279 per ounce on December 28, 2018 (there was no London PM gold price quote on December 31, 2018), and $1,323 per ounce on January 31, 2019.

The Metals Week Molybdenum Dealer Oxide weekly average price averaged $11.93 per pound in 2018, $8.21 per pound in 2017 and $6.47 per pound in 2016. The Metals Week Molybdenum Dealer Oxide weekly average price was $11.88 per pound on December 31, 2018, and $10.95 per pound on January 31, 2019.

Declines in prices of commodities we sell could result in metals inventory adjustments and impairment charges for our long-lived assets. Other events that could result in impairment of our long-lived assets include, but are not limited to, decreases in estimated proven and probable mineral reserves and any event that might have a material adverse effect on current and future expected mine production costs.

Our debt and other financial commitments may limit our financial and operating flexibility.

At December 31, 2018, our total consolidated debt was $11.1 billion (see Note 8) and our total consolidated cash was $4.2 billion. We also have various other financial commitments, including reclamation and environmental obligations, take-or-pay contracts and leases. For further information, refer to the risk factor below relating to mine closure and reclamation regulations and plugging and abandonment obligations related to our remaining oil and gas properties.

Table of Contents

Our level of indebtedness and other financial commitments could have important consequences to our business, including the following:

- Limiting our flexibility in planning for, or reacting to, changes in the industry in which we operate;
- Increasing our vulnerability to general adverse economic and industry conditions;
- Limiting our ability to fund future working capital, capital expenditures and/or material contingencies, to engage in future development activities, or to otherwise realize the value of our assets and opportunities fully because of the need to dedicate a substantial portion of our cash flows from operations to payments on our debt;
- Requiring us to sell assets to reduce debt; or
- Placing us at a competitive disadvantage compared to our competitors that have less debt and/or fewer financial commitments.

Any failure to comply with the financial and other covenants in our debt agreements may result in an event of default that would allow the creditors to accelerate maturities of the related debt, which in turn may trigger cross-acceleration or cross-default provisions in other debt agreements. Our available cash and liquidity may not be sufficient to fully repay borrowings under our debt instruments that are accelerated upon an event of default.

From August 2015 through November 2016, we sold 326.5 million shares of our common stock under registered at-the-market equity programs, which generated $3.5 billion in gross proceeds (refer to Note 10). In addition, during 2016, we issued 48.1 million shares of our common stock in connection with the settlement of two drilling rig contracts (refer to Note 13) and 27.7 million shares of our common stock in exchange for $369 million of FCX senior notes (refer to Note 10). Any additional issuance of equity capital to fund operations, reduce debt, improve our financial position or for other purposes, may have a negative impact on our stock price.

As of January 31, 2019, our senior unsecured debt was rated “BB“ with a stable outlook by Standard & Poor’s (S&P), “BB+” with a negative outlook by Fitch Ratings (Fitch), and “Ba2” with a stable outlook by Moody’s Investors Service (Moody’s). There is no assurance that our credit ratings will not be downgraded in the future.

Certain of our debt agreements, including our revolving credit facility, use the London Interbank Offered Rate (LIBOR) as a reference rate. In July 2017, the United Kingdom’s Financial Conduct Authority, which regulates LIBOR, announced that it intends to phase out LIBOR by the end of 2021. If LIBOR is unavailable after 2021, our debt with interest rates that are indexed to LIBOR will be determined using various alternative methods to the extent provided for in our agreements, which could result in increases in interest rates on such debt. Further, we may need to renegotiate our debt agreements and the loans that utilize LIBOR to replace LIBOR with the new standard that is established by the U.S. Alternative Rate Reference Committee, which is currently expected to be the Secured Overnight Bank Financing Rate.

Mine closure and reclamation regulations impose substantial costs on our operations and include requirements that we provide financial assurance supporting those obligations. We also have plugging and abandonment obligations related to our remaining oil and gas properties, and are required to provide bonds or other forms of financial assurance in connection with those properties. Changes in or the failure to comply with these requirements could have a material adverse effect on us.

We are required by U.S. federal and state laws and regulations to provide financial assurance sufficient to allow a third party to implement approved closure and reclamation plans for our mining properties if we are unable to do so.

The U.S. Environmental Protection Agency (EPA) and state agencies may also require financial assurance for investigation and remediation actions that are required under settlements of enforcement actions under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) or similar state laws. Refer to Note 12 for additional information regarding our financial assurance obligations.

With respect to our mining operations, most of our financial assurance obligations are imposed by state laws that vary significantly by jurisdiction, depending on how each state regulates land use and groundwater quality. Although Section 108(b) of CERCLA has required EPA to identify classes of facilities that must establish evidence of financial responsibility since CERCLA was adopted in 1980, currently, there are no financial assurance requirements for

Table of Contents

active mining operations under CERCLA. In response to litigation initiated by several environmental organizations against EPA and a subsequent settlement, EPA proposed financial assurance regulations for the hard rock mining industry in January 2017, which were vigorously opposed by us and others in the mining industry. As proposed, the rules would have imposed financial responsibility obligations on U.S. hard rock mining operations that are unnecessary, duplicative of existing state and other federal requirements, and unreasonable. Our initial calculations suggested that the financial responsibility amounts would be difficult, if not impossible, for us and others to meet with corporate resources, and would be extremely expensive, if not impossible, to finance with third-party financial instruments such as letters of credit, bonds or insurance. In December 2017, EPA withdrew its proposed rules and in February 2018, EPA published its final decision that additional financial assurance regulations for the hard rock mining industry would not be needed given the existing state and federal regulatory programs that became effective in March 2018. In May 2018, environmental organizations filed a petition for review with the U.S. Court of Appeals for the District of Columbia. We and others in the mining industry intervened in the case. If the court remands the rule back to EPA for reconsideration, a re-proposal of rules similar in nature to EPA's 2017 proposed rules would severely harm the international competitiveness of the U.S. hard rock mining industry and would materially and adversely affect our cash flows, results of operations and financial condition.

We are also subject to financial assurance requirements in connection with our remaining oil and gas properties under both state and federal laws, including financial responsibility required under the Oil Pollution Act of 1990 to cover containment and cleanup costs resulting from an oil spill. In 2016, the U.S. Bureau of Ocean Energy Management (BOEM) issued revised requirements for lessees operating in federal waters to secure the cost of plugging, abandoning, decommissioning and/or removing wells, platforms and pipelines at the end of production. The revised requirements eliminate previously provided waivers from requirements to post security. In early 2017, the BOEM announced a delay in the implementation of certain aspects of the rules pending further review and in June 2017, BOEM further extended the start date for implementation indefinitely. This extension currently remains in effect. If implemented, the new requirements could require us to post security in the form of bonds or similar assurances. The cost for bonds or other forms of assurances can be substantial, and there is no assurance that they can be obtained in all cases.

As of December 31, 2018, our financial assurance obligations totaled $1.2 billion for closure and reclamation/restoration costs of U.S. mining sites, and $0.5 billion for plugging and abandonment obligations of our remaining oil and gas properties. A substantial portion of our financial assurance obligations are satisfied by FCX and subsidiary guarantees and financial capability demonstrations. Our ability to continue to provide guarantees and financial capability demonstrations depends on state and other regulatory requirements, our financial performance and our financial condition. Other forms of assurance, such as letters of credit and surety bonds, are costly to provide and, depending on our financial condition and market conditions, may be difficult or impossible to obtain. Failure to provide the required financial assurance could result in the closure of the affected properties.

Refer to Notes 1 and 12, for further discussion of our environmental and asset retirement obligations.

Unanticipated litigation or negative developments in pending litigation or with respect to other contingencies could have a material adverse effect on our cash flows, results of operations and financial condition.

We are involved in numerous legal proceedings and subject to other contingencies that have arisen or may arise in the ordinary course of our business or are associated with environmental issues, including those described in Note 12 and in Item 3. "Legal Proceedings" involving matters such as remediation, restoration and reclamation of environmental contamination, claims of personal injury or property damage arising from such contamination or from exposure to substances such as lead, arsenic, asbestos, talc and other allegedly toxic substances, disputes over water rights, and disputes with foreign governments or regulatory authorities over royalties, taxes, rights and obligations under concession or other agreements, or other matters. We are also involved periodically in other reviews, inquiries,

investigations and other proceedings initiated by or involving government agencies, some of which may result in adverse judgments, settlements, fines, penalties, injunctions or other relief. In addition, from time to time we are involved in disputes over the allocation of environmental remediation obligations at Superfund and other sites. The outcome of litigation is inherently uncertain and adverse developments or outcomes can result in significant monetary damages, penalties, other sanctions or injunctive relief against us, limitations on our property rights, or regulatory interpretations that increase our operating costs. Management does not believe, based on currently available information, that the outcome of any individual legal proceeding will have a material adverse effect on our financial condition, although individual or cumulative outcomes could be material to our operating

Table of Contents

results for a particular period, depending on the nature and magnitude of the outcome and the operating results for the period.

With respect to the asbestos and talc exposure cases described in Note 12, there has been a recent significant increase in the number of cases alleging the presence of asbestos contamination in talc-based personal care products and in cases alleging exposure to talc products that are not alleged to be contaminated with asbestos. In these cases, plaintiffs allege serious health risks and often fatal diseases, including mesothelioma and ovarian cancer, allegedly caused by long-term use of talc-based cosmetic and personal care products. Nationwide trial results in these cases have ranged from outright dismissals to very large jury awards of both compensatory and punitive damages. The primary targets have been the producers of those products, but defendants in many of these cases also include talc miners. Cyprus Amax Minerals Company (CAMC), an indirect wholly owned subsidiary of FCX is one of those targets. One of CAMC's wholly owned subsidiaries, Cyprus Mines Corporation, was involved in talc mining until 1992 when it exited that business. CAMC has contractual indemnification rights, subject to limited reservations, against the ultimate successor to the business, which has acknowledged those indemnification obligations and has taken responsibility for all cases tendered to it to date. However, on February 13, 2019, the indemnitor filed for Chapter 11 bankruptcy protection, and CAMC is in the very early stages of evaluating the potential implications of that filing.

We may be adversely impacted by increased liabilities and costs related to our defined benefit pension plans.

We sponsor two defined benefit pension plans for certain current and former employee in the U.S. and a few pension plans for non-U.S. locations which provide for specified payments after retirement. The major defined benefit pension plans are funded with trust assets invested in a diversified portfolio of securities and other investments. Changes in regulatory requirements or the market value of plan assets, investment returns, interest rates and mortality rates may affect the funded status of our defined benefit pension plans and cause volatility in the net periodic benefit cost, future funding requirements of the plans and the funded status as recorded on the balance sheet. A sustained period of low or insufficient returns could require us to fund our pension plans to a greater extent than anticipated. Refer to Note 9 for further discussion.

International risks

Our international operations are subject to political, economic, social and regional risks of doing business in countries outside the U.S.

We are a U.S.-based mining company with substantial assets located outside of the U.S. We conduct international mining operations in Indonesia, Peru and Chile and exploration activities in various foreign jurisdictions. Accordingly, in addition to the usual risks associated with conducting business in countries outside the U.S., our business may be adversely affected by political, economic, social and regional uncertainties in each of these countries. Risks of conducting business in countries outside the U.S. include:

- Delays in obtaining or renewing, or the inability to obtain, maintain or renew, or the renegotiation, cancellation, revocation or forced modification of existing contracts, leases, licenses, permits or other agreements and/or approvals;

- Expropriation or nationalization of property, protectionism, restrictions on repatriation of earnings or capital, or other currency controls;

- Changes in the host country's laws, regulations and policies, including, but not limited to, those relating to labor, taxation, royalties, duties, tariffs, divestment, imports, exports (including restrictions on the export of copper concentrates, copper and/or gold), trade regulations, currency and environmental matters (including land use and water use), which because of rising "resource nationalism" in countries around the world, may impose increasingly

onerous requirements on foreign operations and investment;

- Political instability, bribery, extortion, corruption, civil unrest, acts of war, guerrilla activities, insurrection and terrorism;

- Changes in the aspirations and expectations of local communities in which we operate with respect to our contributions to employee health and safety, infrastructure and community development and other factors that may affect our social license to operate, all of which lead to increased costs;

Table of Contents

- Risk of loss associated with trespass, local artisanal or illegal mining, theft and vandalism;

- Changes in U.S. trade, tax, immigration or other policies that may harm relations with foreign countries or result in retaliatory policies, including the U.S.-China trade war that began in 2018 which, if prolonged, could have a significant adverse effect on global trade and the global economy;

- Increases in training and other costs and challenges relating to requirements by governmental entities to employ the nationals of the country in which a particular operation is located;

- Foreign exchange controls, fluctuations in foreign currency exchange rates and inflation; and

- The risk of having to submit to the jurisdiction of an international court or arbitration panel or having to enforce the judgment of an international court or arbitration panel against a sovereign nation within its own territory.

Our insurance does not cover most losses caused by the above described risks. Accordingly, our exploration, development and production activities outside of the U.S. may be substantially affected by many unpredictable factors beyond our control, some of which could have a material adverse effect on our cash flows, results of operations and financial condition.

Our international operations must comply with the U.S. Foreign Corrupt Practices Act and similar anti-corruption and anti-bribery laws of the other jurisdictions in which we operate. There has been a substantial increase in the global enforcement of these laws in recent years. We operate in certain jurisdictions that have experienced governmental and private sector corruption to some degree, and, in certain circumstances, compliance with anti-corruption and anti-bribery laws and heightened expectations of enforcement authorities may be in tension with certain local customs and practices. There can be no assurance that our internal control policies and procedures will always protect us from misinterpretation of or noncompliance with applicable laws and internal policies, recklessness, fraudulent behavior, dishonesty or other inappropriate acts committed by our affiliates, employees, agents or contractors. As such, our corporate policies and processes may not prevent or detect all potential breaches of law or other governance practices. Any violation of those laws could result in significant criminal or civil fines and penalties, litigation, and loss of operating licenses or permits, and may damage our reputation, which could have a material adverse effect on our cash flows, results of operations and financial condition.

We are involved in several significant tax proceedings and other tax disputes with Indonesian and Peruvian tax authorities (refer to Note 12 for further discussion of these matters). Other risks specific to certain countries in which we operate are discussed in more detail below.

Because our mining operation in Indonesia is a significant operating asset, our business may be adversely affected by political, economic and social uncertainties in Indonesia.

Our Indonesia mining operations include the Grasberg minerals district, one of the world’s largest copper and gold deposits. These operations are conducted by our subsidiary PT-FI pursuant to a special mining license (IUPK) issued by the Indonesian government on December 21, 2018, which replaced PT-FI’s former Contract of Work (COW) entered into in December 1991. Under the terms of the IUPK, PT-FI has been granted an extension of mining rights through 2031, with rights to extend its mining rights through 2041, subject to, among other things, PT-FI completing the construction of a new smelter in Indonesia by December 21, 2023, and fulfilling its defined fiscal obligations to the Indonesian government. Refer to Note 13 for a summary of the IUPK’s key fiscal terms.

PT-FI has applied for a one-year extension of its export license, which currently expires on February 16, 2019. Export licenses are valid for one year periods, subject to review and approval by the Indonesian government every six months, depending on smelter construction progress.

Maintaining a good working relationship with the Indonesian government is important because of the significance of our Indonesia operations to our business, and because our mining operations there are among Indonesia's most significant business enterprises. The Grasberg minerals district has been designated by the Indonesian government as one of Indonesia's vital national assets. Partially because of its significance to Indonesia's economy, the environmentally sensitive area where it is located, and the number of people employed, our Indonesia operations have been the subject of political debates and of criticism in the Indonesian press, and have been the target of

Table of Contents

protests and occasional violence. Improper management of our working relationship with the Indonesian government could lead to a disruption of operations and/or impact our reputation in Indonesia and in the region where we operation, which could adversely affect our business. In addition, PT Indonesia Asahan Aluminium (Persero) (PT Inalum), a shareholder in PT-FI, is an Indonesian state-owned enterprise. Disputes between us and PT Inalum may result in litigation or arbitration, which could increase our expenses and distract our officers and directors from focusing their time and effort on our business.

The Indonesian mining industry is subject to extensive regulation within Indonesia, and there have been major developments in laws and regulations applicable to mining concession holders, some of which have conflicted with PT-FI's contractual rights in the past. In particular, the enactment of Law No. 4 of 2009 on Coal and Mineral Mining on January 12, 2009 (the Mining Law) replaced the previous regulatory framework which allowed concession holders, including PT-FI, to conduct mining activities in Indonesia under a contract of work system. The Mining Law, which sets out the regulatory framework for the mining industry in Indonesia, only contains substantive principles and leaves many specific issues to be addressed in implementing regulations, some of which have conflicted with PT-FI's contractual rights in the past, including, but not limited to, regulations that imposed a progressive export duty on copper concentrate, restricted exports of copper concentrate and anode slimes, increased royalty rates, and required payment of a smelter assurance bond to support a commitment to construct a new smelter in Indonesia (refer to Note 13 for further discussion of the smelter assurance bond). In January 2017, PT-FI suspended exports through April 2017 in response to these Mining Law regulations.

The Mining Law stipulated that previously granted mining rights (through a contract of work) would continue to be valid until expiry, subject to certain adjustments. PT-FI's former COW was concluded pursuant to the 1967 Foreign Capital Investment Law, which provided basic guarantees of remittance rights and protection against nationalization, a framework for economic incentives and basic rules regarding other rights and obligations of foreign investors. The initial term of PT-FI's former COW was scheduled to expire in 2021 and explicitly provided that it could be extended for two 10-year periods subject to Indonesian government approval, which could not be withheld or delayed unreasonably. Prior to the issuance of the IUPK to PT-FI in December 2018, PT-FI had been engaged in discussions with the Indonesian government since 2012 regarding various provisions of its former COW, including extending its term. Notwithstanding provisions in PT-FI's former COW prohibiting it from doing so, the Indonesian government sought to modify PT-FI's former COW to address provisions contained in the Mining Law and implementing regulations adopted thereunder, some of which were not required under or conflicted with PT-FI's former COW, including, but not limited to (i) restrictions on PT-FI's basic right to export mining products; (ii) imposition of additional export duties; (iii) imposition of excess surface water taxes (refer to Note 12); (iv) imposition of new requirement to build additional smelter capacity in Indonesia; (v) unreasonable withholding and delay in granting approval of two successive ten-year extensions of the term of the former COW; and (vi) imposition of new divestment requirements.

We cannot assure you that future regulatory changes affecting the mining industry in Indonesia will not be introduced or unexpectedly repealed, or that new interpretations of existing laws and regulations will not be issued, which could adversely affect our business, financial condition and results of operations.

In 2019, Indonesia will hold national legislative elections. The presidential election will be held in April 2019, with a run-off in August 2019, if required. Political considerations leading up to these elections could affect the country's policies pertaining to foreign investment, which could adversely affect our Indonesia mining operations.

We will not mine all of PT-FI's ore reserves in the Grasberg minerals district before the initial term of PT-FI's IUPK expires in 2031 and the IUPK may not be extended through 2041 if PT-FI fails to abide by the terms and conditions of the IUPK and applicable laws and regulations.

As discussed in the above risk factor, “Because our mining operation in Indonesia is a significant operating asset, our business may be adversely affected by political, economic and social uncertainties in Indonesia”, on December 21, 2018, PT-FI was granted a new IUPK to replace its former COW, enabling PT-FI to conduct operations in the Grasberg minerals district through 2041. Under the terms of the IUPK, PT-FI has been granted mining rights through 2031, with rights to extend its mining rights through 2041, subject to, among other things, PT-FI completing the construction of a new smelter in Indonesia by December 21, 2023, and fulfilling its defined fiscal obligations to the Indonesian government. Refer to Note 13 for a summary of the IUPK’s key fiscal terms.

Table of Contents

The IUPK also requires PT-FI to pay duties on concentrate exports of 5 percent, declining to 2.5 percent when smelter development progress exceeds 30 percent, and eliminated when smelter development progress exceeds 50 percent. Smelter development progress will be determined by an independent verifier appointed by the Ministry of Energy and Mineral Resources (MEMR) and subject to approval by the MEMR. PT-FI is initiating front-end engineering and design and intends to pursue financing, commercial and potential partner arrangements for this project, which has a preliminary estimated capital cost in the $3 billion range. The economics of the new smelter will be borne by PT-FI's shareholders according to their respective long-term share ownership percentages. PT-FI's ability to raise and service significant new sources of capital will be a function of macroeconomic conditions, future market prices as well as PT-FI's operational performance, cash flow and debt position, among other factors. Financing may not be available when needed or, if available, the terms of such financing may not be favorable to PT-FI.

Our proven and probable ore reserves in Indonesia reflect estimates of minerals that can be recovered through the end of 2041, and PT-FI's current long-term mine plan and planned operations are based on the assumption that PT-FI will abide by the terms and conditions of the IUPK and will be granted the 10-year extension from 2031 through 2041. As a result, we will not mine all of these ore reserves during the initial term of the IUPK. Prior to the end of 2031, we expect to mine 53 percent of aggregate proven and probable recoverable ore at December 31, 2018, representing 57 percent of our net equity share of recoverable copper reserves and 64 percent of our net equity share of recoverable gold reserves.

If PT-FI does not complete the construction of a new smelter in Indonesia by December 21, 2023, or fulfill its defined fiscal obligations to the Indonesian government as set forth in the IUPK, the IUPK will likely not be extended from 2031 to 2041, and we would be unable to mine all of PT-FI's ore reserves in the Grasberg minerals district, which would adversely affect our business, results of operations and financial position.

Operational risks

Our mining operations are subject to operational risks that could adversely affect our business and our underground mining operations can be particularly dangerous.

Our mines are very large in scale and, by their nature are subject to significant operational risks, some of which are outside of our control, and many of which are not covered fully, or in some cases even partially, by insurance. These operational risks, which could materially and adversely affect our business, operating results and cash flow, include earthquakes, rainstorms, floods, and other natural disasters; equipment failures; accidents; wall failures and rock slides in our open-pit mines, and structural collapses of our underground mines or tailings impoundments; and lower than expected ore grades or recovery rates.

Since late January 2019, our El Abra operation in Chile has experienced heavy rainfall and electrical storms, resulting in a suspension of operations since February 4, 2019. We have been unable to assess damages because of poor road conditions and inaccessible areas and we do not currently know when normal operations will resume. We estimate the impact on 2019 production will approximate 8 million pounds of copper through mid-February 2019, and additional impacts of approximately 600 thousand pounds of copper per day are expected until normal operations resume.

Underground mining operations can be particularly dangerous, and in May 2013, a tragic accident, which resulted in 28 fatalities and 10 injuries, occurred at PT-FI when the rock structure above the ceiling of an underground training facility collapsed. PT-FI temporarily suspended mining and processing activities at the Grasberg complex to conduct inspections and resumed open-pit mining and concentrating activities in June 2013, and underground operations in July 2013. No assurance can be given that similar events will not occur in the future.

In addition to the usual risks encountered in the mining industry, our Indonesia mining operations involve additional

risks given that such operations are located in steep mountainous terrain in a remote area of Indonesia. These conditions have required us to overcome special engineering difficulties and develop extensive infrastructure facilities. The area also receives considerable rainfall, which has led to periodic floods and mudslides. Further, the mine site is also in an active seismic area and has experienced earth tremors from time to time. Our insurance may not sufficiently cover an unexpected natural or operating disaster.

The waste rock (including overburden) and tailings produced in our mining operations represent our largest volume of waste material. Managing the volume of waste rock and tailings presents significant environmental, safety and

Table of Contents

engineering challenges and risks primarily relating to structural stability, geochemistry, water quality and dust generation. Management of this waste is regulated in the jurisdictions where we operate and our programs are designed to be in compliance with applicable national, state and local laws, permits and approved environmental impact studies. We maintain large leach pads and tailings impoundments containing viscous material, which are effectively large dams that must be engineered, constructed and monitored to ensure structural stability and avoid leakages or structural collapse. Our tailings impoundments in arid areas must have effective programs to suppress fugitive dust emissions, and we must effectively monitor and treat acid rock drainage at all of our operations. In Indonesia, we use a river transport system for tailings management, which presents other risks, as discussed below.

We currently operate 19 tailings storage facilities and manage 55 that are inactive or have been reclaimed (approximately two-thirds of these have been reclaimed). The failure of tailings and other impoundments at any of our mining operations could cause severe, and in some cases catastrophic, property and environmental damage and loss of life, and we apply significant financial resources and both internal and external technical resources to the safe management of all those facilities. The importance of careful design, management and monitoring of large impoundments has been emphasized in recent years, including as recently as January 2019, by large scale tailings dam failures at unaffiliated mines, which resulted in numerous fatalities and caused extensive property and environmental damage. Our tailings management and stewardship program, which involves qualified external Engineers of Record and periodic oversight by independent External Tailings Review Boards at numerous operations, complies with the tailings governance framework on preventing catastrophic failure of tailings storage facilities adopted in December 2016 by the International Council on Mining and Metals (ICMM) and required to be implemented by ICMM members. We continue to enhance our existing practices and work with ICMM members on additional initiatives to strengthen critical controls for the design, operation and closure of tailings storage facilities in an effort to reduce the risk of severe or catastrophic failure of tailings storage facilities but no assurance can be given that these events will not occur in the future.

Labor unrest, violence, activism and civil and religious strife could disrupt our operations and may adversely affect our business, financial condition, results of operations and prospects.

As of December 31, 2018, approximately 37 percent of our global labor force was covered by collective bargaining agreements and approximately 21 percent of our global labor force was covered by agreements that have expired and are currently being negotiated or will expire during 2019.

Labor agreements are negotiated on a periodic basis, and may not be renewed on reasonably satisfactory terms to us or at all. If we do not successfully negotiate new collective bargaining agreements with our union workers, we may incur prolonged strikes and other work stoppages at our mining operations, which could adversely affect our financial condition and results of operations. Additionally, if we enter into a new labor agreement with any union that significantly increases our labor costs relative to our competitors, our ability to compete may be materially and adversely affected. Refer to Items 1. and 2., “Business and Properties,” for additional information regarding labor matters, and expiration dates of such agreements.

We could also experience labor disruptions such as work stoppages, work slowdowns, union organizing campaigns, strikes, or lockouts that could adversely affect our operations. For example, during third-quarter 2016, PT-FI experienced labor productivity issues and a 10-day work stoppage that began in late September 2016. These labor productivity issues continued during fourth-quarter 2016 and the first half of 2017. Beginning in mid-April 2017, PT-FI experienced a high level of worker absenteeism, which unfavorably impacted mining and milling rates. A significant number of employees and contractors elected to participate in an illegal strike action beginning in May 2017, and were subsequently deemed to have voluntarily resigned under existing Indonesian laws and regulations resulting in increased costs associated with employee severance. We cannot predict whether additional labor disruptions will occur. Significant reductions in productivity or protracted work stoppages at one or more of our

operations could significantly reduce our production and sales volumes or disrupt operations, which could adversely affect our cash flow, results of operations and financial condition.

Indonesia has long faced separatist movements and civil and religious strife in a number of provinces. Several separatist groups have sought increased political independence for the province of Papua, where our Grasberg minerals district is located. In Papua, there have been sporadic attacks on civilians by separatists and sporadic but highly publicized conflicts between separatists and the Indonesian military and police. In addition, illegal miners have periodically clashed with police who have attempted for years to move them away from our facilities. Social,

Table of Contents

economic and political instability in Papua could materially and adversely affect us if it results in damage to our property or interruption of our Indonesia operations.

In 2009, a series of shooting incidents occurred within the PT-FI project area, including along the road leading to our mining and milling operations. The shooting incidents continued on a sporadic basis through January 2015. During this time, there were 20 fatalities and more than 50 injuries to our employees, contractor employees, government security personnel and civilians. The next shooting incident occurred in August 2017, and a series of shooting incidents continued on a sporadic basis within the PT-FI project area and in nearby areas through August 2018, resulting in two fatalities and 25 injuries. In December 2018, a mass shooting incident targeting a highway construction crew occurred in a remote mountain area approximately 100 miles east of the PT-FI project area, resulting in at least 19 fatalities and several reported as missing. PT-FI continues to monitor the situation in the region.

The safety of our workforce is a critical concern, and PT-FI continues to work with the Indonesian government to address security issues within the PT-FI project area and in nearby areas. We continue to limit the use of the road leading to our mining and milling operations to secured convoys, including transport of personnel by armored vehicles in designated areas.

We cannot predict whether additional incidents will occur that could disrupt or suspend our operations. If other disruptive incidents occur, they could adversely affect our results of operations and financial condition in ways that we cannot predict at this time.

Our mining operations depend on the availability of significant quantities of secure water supplies.

Our mining operations require physical availability and secure legal rights to significant quantities of water for mining and ore processing activities, and related support facilities. Most of our North America and South America mining operations are in areas where competition for water supplies is significant. Continuous production at our mines is dependent on many factors, including our ability to maintain our water rights and claims, and the continuing physical availability of the water supplies.

As discussed in Item 3 “Legal Proceedings”, in Arizona, where our operations use both surface and groundwater, we are a participant in an active general stream adjudication in which Arizona courts have been attempting, for over 40 years, to quantify and prioritize surface water claims for the Gila River, one of the state’s largest river systems. This stream adjudication primarily affects our Morenci, Safford and Sierrita mines. The adjudication is addressing the state law claims of thousands of competing users, including us, as well as significant federal water claims that are potentially adverse to the state law claims of both surface water and groundwater users. Groundwater is treated differently from surface water under Arizona law, which historically allowed landowners to pump subsurface water, subject only to the requirement of putting it to “reasonable use.” However, court decisions in the adjudication have concluded that some underground water constitutes “subflow” that is to be treated legally as surface water and is therefore subject to the Arizona doctrine of prior appropriation and subject to the adjudication and potentially unavailable to groundwater pumpers in the absence of valid surface water claims. Any re-characterization of groundwater as surface water could affect the ability of consumers, farmers, ranchers, municipalities, and industrial users like us to continue to access water supplies that have been relied on for decades. Because we are a user of both groundwater and surface water in Arizona, we are an active participant in the adjudication proceedings. Given the legal and technical complexity of these adjudications, their long history, and their long-term legal, economic and political implications, it is difficult to predict the timing or the outcome of these proceedings. If we are not able to satisfactorily resolve the issues being addressed in the adjudications, our ability to pump groundwater could be diminished or curtailed, and our operations at Morenci, Safford and Sierrita could be adversely affected unless we are able to acquire alternative resources.

Water for our Cerro Verde operation in Peru comes from renewable sources through a series of storage reservoirs on the Rio Chili watershed that collects water primarily from seasonal precipitation. As a result of occasional drought conditions, temporary supply shortages are possible that could affect our Cerro Verde operations.

Water for our El Abra mining operation in Chile comes from the continued pumping of groundwater from the Salar de Ascotán aquifer. In 2010, El Abra obtained regulatory approval for the continued pumping of groundwater from the Salar de Ascotán aquifer for its sulfide processing plant, which began operations in 2011. The agreement to pump from this aquifer is subject to continued monitoring of the aquifer level to ensure that environmentally

Table of Contents

sensitive areas are not impacted by our pumping. If impact occurs, we would have to reduce pumping to restore water levels, which could have an adverse effect on production from El Abra.

Although we typically have sufficient water for our Indonesian operations (the area receives considerable rainfall that has led to periodic floods and mudslides), lower rainfall could affect our water supply availability from time to time.

Although each of our mining operations currently has access to sufficient water supplies to support current operational demands, as discussed above some supplies are subject to adjudication proceedings, the outcome of which we cannot predict, and the availability of additional supplies that may be required for potential future expansions is uncertain. While we are taking actions to acquire additional back-up water supplies, such supplies may not be available at acceptable cost, or at all, so that the loss of a water right or currently available water supply could force us to curtail operations or force premature closures, thereby increasing and/or accelerating costs or foregoing profitable operations.

Development projects are inherently risky and may require more capital than anticipated, which could adversely affect our business. The development of our underground mines and operations are also subject to other unique risks.

Mine development projects typically require a number of years and significant expenditures during the development phase before production is possible. Currently, our major mining projects include underground development activities in the Grasberg minerals district, which currently constitutes approximately 30 percent of our estimated consolidated recoverable proven and probable copper reserves, and development of the Lone Star oxide project in Arizona. There are many risks and uncertainties inherent in all development projects including, but not limited to, unexpected or difficult geological formations or conditions, potential delays, cost overruns, lower levels of production during ramp-up periods, shortages of material or labor, construction defects, breakdowns and injuries to persons and property. The development of our underground mines and operations are also subject to other unique risks including, but not limited to, underground fires or floods, ventilating harmful gases, fall-of-ground accidents, and seismic activity resulting from unexpected or difficult geological formations or conditions. While we anticipate taking all measures that we deem reasonable and prudent in connection with the development of our underground mines to safely manage production, there is no assurance that these risks will not cause schedule delays, revised mine plans, injuries to persons and property, or increased capital costs, any of which may have a material adverse impact on our cash flows, results of operations and financial condition. Additionally, although we devote significant time and resources to our project planning, approval and review processes, many of our development projects are highly complex and rely on factors that are outside of our control, which may cause us to underestimate the time and capital required to complete a development project.

For example, in September 2015, we initiated pre-commercial production at the Deep Mill Level Zone (DMLZ) underground mine in the Grasberg minerals district. During second-quarter 2018, PT-FI revised its mine plans to incorporate a slower ramp-up of the DMLZ underground mine following the continuing occurrence of mining induced seismic activity experienced in 2017 and 2018. PT-FI commenced hydraulic fracturing activities during third-quarter 2018 to manage rock stresses and pre-condition the DMLZ underground mine for large-scale production. Although results to date have been effective in managing rock stresses, we cannot predict whether additional occurrences of seismic activity or other unexpected geological activity will occur that could cause schedule delays or additional revisions to PT-FI’s mine plans, which could adversely affect our cash flows, results of operations and financial condition. PT-FI currently expects the DMLZ to reach full production rates of 80,000 metric tons per day in 2022; however, estimates of timing of future production continue to be reviewed and may be modified as additional information becomes available.

Our decision to develop a project is typically based on the results of feasibility studies, which estimate the anticipated economic returns of a project. In addition, the economic feasibility of development projects is based on many factors,

including the accuracy of estimated reserves, estimated capital and operating costs, and estimated future prices of the relevant commodity. Consolidated capital expenditures are expected to approximate $2.4 billion for the year 2019, including $1.5 billion for major mining projects primarily associated with underground development activities in the Grasberg minerals district and development of the Lone Star oxide project.

New development projects have no operating history upon which to base estimates of future cash flow. The actual costs, production rates and economic returns of our development projects may differ materially from our estimates, which may have a material adverse impact on our cash flows, results of operations and financial condition.

Table of Contents

We must continually replace reserves depleted by production but exploration is highly speculative and our exploration activities may not result in additional discoveries.

Our existing mineral reserves will be depleted over time by production from our operations. Because our profits are primarily derived from our mining operations, our ability to replenish our mineral reserves is essential to our long-term success. Depleted reserves can be replaced in several ways, including expanding known ore bodies, by locating new deposits or acquiring interests in reserves from third parties. Exploration is highly speculative in nature, involves many risks and uncertainties, requires substantial capital expenditures, and is frequently unsuccessful in discovering significant mineralization. Accordingly, our current or future exploration programs may not result in the discovery of additional deposits that can be produced profitably. Even if significant mineralization is discovered, it will likely take many years from the initial phases of exploration until commencement of production, during which time the economic feasibility of production may change. We may not be able to discover, enhance, develop or acquire reserves in sufficient quantities to maintain or grow our current reserve levels, which could negatively affect our cash flow, results of operations and financial condition.

Estimates of proven and probable reserves and mineralized material are uncertain and the volume and grade of ore actually recovered may vary from our estimates.

Estimates of recoverable proven and probable reserves have been calculated in accordance with Industry Guide 7 as required by the Securities Exchange Act of 1934. There are numerous uncertainties inherent in estimating mineral reserves. Such estimates are, to a large extent, based on the average prices for the commodities we produce, primarily copper, gold and molybdenum, and interpretations of geologic data obtained from drill holes and other exploration techniques, which data may not necessarily be indicative of future results. Our mineral reserve estimates are based on the latest available geological and geotechnical studies. We conduct ongoing studies of our ore bodies to optimize economic values and to manage risk. We revise our mine plans and estimates of recoverable proven and probable mineral reserves as required in accordance with the latest available studies. Geological assumptions about our mineralization that are valid at the time of estimation may change significantly when new information becomes available.

Estimates of proven and probable reserves that will be recovered, or the cost at which we anticipate reserves will be recovered, are based on uncertain assumptions. The uncertain global financial outlook may affect economic assumptions related to reserve recovery and may require reserve revisions. Changes to reserve estimates could affect our asset carrying values and may also negatively impact our future financial condition and results.

In addition, if the market prices for the commodities we produce decline from recent levels, if production costs increase or recovery rates decrease, or if applicable laws and regulations are adversely changed, we can offer no assurance that the indicated level of recovery will be realized or that mineral reserves can be mined or processed profitably. If we determine that certain of our estimated proven and probable reserves have become uneconomic, this may ultimately lead to a reduction in our aggregate reported reserves which could have a material adverse effect on our business, financial condition and results of operations.

Additionally, the term “mineralized material” does not indicate proven and probable reserves as defined by the U.S. Securities and Exchange Commission. Mineralized material is a mineralized body that has been delineated by appropriately spaced drilling and/or underground sampling to support the reported tonnage and average metal grades. Such a deposit cannot qualify as recoverable proven and probable reserves until legal and economic feasibility are confirmed based upon a comprehensive evaluation of development costs, unit costs, grades, recoveries and other material factors and are, therefore, subject to considerable uncertainty. Accordingly, no assurance can be given that the estimated mineralized material not included in reserves will become proven and probable reserves.

Our operations are subject to extensive laws and regulations, some of which require permits and other approvals. These regulations increase our costs and in some circumstances may delay or suspend our operations.

Our operations are subject to extensive and complex laws and regulations that are subject to change and to changing interpretation by governmental agencies and other bodies vested with broad supervisory authority. As a mining company, compliance with environmental legal requirements is an integral and costly part of our business. For additional information, see “Environmental risks” below. We are also subject to extensive regulation of worker health and safety, including the requirements of the U.S. Occupational Safety and Health Act and similar laws of

Table of Contents

other jurisdictions. In the U.S., the operation of our mines is subject to regulation by the U.S. Mine Safety and Health Administration (MSHA) under the Federal Mine Safety and Health Act of 1977 (Mine Act). MSHA inspects our mines on a regular basis and issues citations and orders when it believes a violation has occurred under the Mine Act. Additionally in the U.S. various state agencies have concurrent jurisdiction arising under state law that regulate worker health and safety in both our industrial facilities and mines. If regulatory inspections result in an alleged violation, we may be subject to fines and penalties and, in instances of alleged significant violations, our mining operations or industrial facilities could be subject to temporary or extended closures. Refer to Exhibit 95 to this annual report on Form 10-K for additional information regarding certain orders and citations issued by MSHA for our operations during the year ended December 31, 2018.

Many other governmental bodies regulate other aspects of our operations, and our failure to comply with these legal requirements can result in substantial penalties. In addition, new laws and regulations or changes to existing laws and regulations and new interpretations of existing laws and regulations by courts or regulatory authorities occur regularly, but are difficult to predict. Any such variations could have a material adverse effect on our cash flow, results of operations and financial condition.

Our business is dependent upon information technology systems, which may be adversely affected by disruptions, damage, failure and risks associated with implementation and integration.

Our strategy of operating large, long-lived, geographically diverse assets has been increasingly dependent on our ability to become fully integrated and highly automated. Many of our business and operational processes are heavily dependent on traditional and emerging technology systems to conduct day-to-day operations, improve safety and efficiency, and lower costs. As our dependence on information systems, including those of our third party service providers and vendors, grows, we become more vulnerable to an increasing threat of continually evolving cybersecurity risks.

Cybersecurity incidents are increasing in frequency and magnitude. These incidents may include, but are not limited to, installation of malicious software, phishing, credential attacks, unauthorized access to data and other advanced and sophisticated cybersecurity breaches and threats, including threats that increasingly target critical operational technologies and process control networks. If any of these threats materialize, we could be subject to manipulation or improper use of our systems and networks, production downtimes, communication interruption or other disruptions and delays to our operations or to the transportation of products or infrastructure utilized by our operations, unauthorized release of proprietary, commercially sensitive, confidential or otherwise protected information, the corruption of data, significant health and safety consequences, environmental damage, loss of intellectual property, fines and litigation, damage to our reputation or financial losses from remedial actions, any of which could have a material adverse effect on our cash flow, results of operations and financial condition. We have experienced targeted and non-targeted cybersecurity incidents in the past and may experience them in the future. While these cybersecurity incidents did not result in any material loss to us or interrupt our day-to-day operations, there can be no assurance that we will not experience any such losses in the future.

We believe we have implemented appropriate measures to mitigate potential risks. However, given the unpredictability of the timing and the evolving nature and scope of information technology disruptions, the various procedures and controls we use to monitor and protect against these threats and to mitigate our potential risks to such threats may not be sufficient in preventing cybersecurity incidents from materializing. Further, as cybersecurity threats continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate vulnerabilities to cybersecurity threats.

We could also be adversely affected by system or network disruptions if new or upgraded information technology systems are defective, not installed properly or not properly integrated into our operations. Various measures have

been implemented to manage our risks related to the system implementation and modification, but system modification failures could have a material adverse effect on our business, financial position and results of operations and could, if not successfully implemented, adversely impact the effectiveness of our internal controls over financial reporting.

Table of Contents

Environmental risks

Our operations are subject to complex, evolving and increasingly stringent environmental laws and regulations. Compliance with environmental regulatory requirements involves significant costs and may constrain existing operations or expansion opportunities.

Our operations, both in the U.S. and internationally, are subject to extensive environmental laws and regulations governing the generation, storage, treatment, transportation and disposal of hazardous substances; solid waste disposal; air emissions; wastewater discharges; remediation, restoration and reclamation of environmental contamination, including mine closures and reclamation; well plug and abandonment requirements; protection of endangered and protected species and designation of critical habitats; and other related matters. In addition, we must obtain regulatory permits and approvals to start, continue and expand operations.

Our Miami, Arizona, smelter processes approximately half of the aggregate copper concentrate produced by our North America copper mines. EPA regulations required us to invest approximately $230 million in new pollution control equipment to reduce sulfur dioxide (SO_2) to meet both regional haze requirements and to allow the Arizona Department of Environmental Quality (ADEQ) to demonstrate compliance with EPA's SO_2 ambient air quality standards. The new SO_2 pollution control equipment was operational as of the January 1, 2018, deadline imposed by EPA and the Miami smelter has been in compliance with both the regional haze requirements and the ADEQ rules. ADEQ also has two SO_2 monitors in the Miami area that continually read ambient SO_2 levels, and during 2018, there were several instances in which ADEQ's monitors read SO_2 levels that exceeded the specified level. We are engaged in discussions with ADEQ and conducting an ongoing investigation of the cause of the ambient levels. We cannot guarantee that we will not be required to modify our system or install additional equipment to address findings or reflect new requirements or for other reasons, which could result in significant costs, including increased capital expenditures and operating costs, and could adversely impact our business.

Laws such as CERCLA and similar state laws may expose us to joint and several liability for environmental damages caused by our operations, or by previous owners or operators of properties we acquired or are currently operating or at sites where we sent materials for processing, recycling or disposal. As discussed in more detail in the next risk factor, we have substantial obligations for environmental remediation on mining properties previously owned or operated by Freeport Minerals Corporation (FMC) and certain of its affiliates. Noncompliance with these laws and regulations could result in material penalties or other liabilities. In addition, compliance with these laws may from time to time result in delays in or changes to our development or expansion plans. Compliance with these laws and regulations imposes substantial costs, which we expect will continue to increase over time because of increased regulatory oversight, adoption of increasingly stringent environmental standards, as well as other factors.

New or revised environmental regulatory requirements are frequently proposed, many of which result in substantially increased costs for our business, including those regarding financial assurance in the financial risk factor above.

In 2015, EPA adopted rules that added remote "tributaries" into the regulatory definition of "waters of the United States" that are protected by the Clean Water Act, thereby imposing significant additional restrictions on land uses in remote areas with only tenuous connections to active waterways. These rules were challenged by multiple states and industry parties and litigation is ongoing. EPA has moved forward to rescind these rules and reconsider the definition of "waters of the United States" to clarify the scope of waters federally regulated under the Clean Water Act. A pre-publication version of a proposed revised definition of "waters of the United States" was issued by EPA and the U.S. Army Corps of Engineers in December 2018. If adopted in final form as proposed, federal permitting requirements under the Clean Water Act could be less stringent which would limit or eliminate our need to obtain federal permits for future expansions at our operations in Arizona and New Mexico. However, there can be no assurance that the proposed revised definition will be adopted as proposed or that it will not be challenged by environmental groups.

Regulations have been considered at various governmental levels to increase federal financial responsibility requirements both for mine closure and reclamation and for oil and gas decommissioning. In January 2019, legislative bills were introduced in both Colorado and New Mexico that would eliminate self-bonding and parent company guarantees for financial assurance for mine closure and reclamation activities. We are working to retain flexibility in financial assurance forms at our operations, but if enacted as proposed, we would be precluded from using parent company guarantees for any financial assurance obligations associated with our Colorado and New Mexico operations, which would result in increased costs. The legislative bill introduced in Colorado would also

Table of Contents

require proof of an end date for water treatment as a condition of permit issuance authorizing mining operations. Also in January 2019, legislation was proposed in New Mexico that would require water quality standards to be applied at the point of discharge to groundwater. Adoption of these or similar new environmental regulations or more stringent application of existing regulations may materially increase our costs, threaten certain operating activities and constrain our expansion opportunities.

Our mining operations are subject to regulations under the Endangered Species Act (ESA) that are intended to protect species listed by the Department of Interior's Fish & Wildlife Service (FWS) as endangered or threatened, along with critical habitat designated by FWS for these listed species. The regulations limit the ability of landowners, including us, to obtain federal permits or authorizations needed for expansion of our operations, and may also affect our ability to obtain, retain or deliver water to some operations. These regulations were revised in 2016 to expand the ability of FWS to designate critical habitat in areas that are not occupied by a listed species. As part of its plan to modernize the implementation of the ESA, the FWS issued proposed rules in July 2018 that, if finalized, could mitigate, but not eliminate, potential regulatory constraints on mining operations under the ESA, and change some aspects of the revised regulations adopted in 2016. FWS is also evaluating whether certain species should still be listed under the ESA, and reconsidering critical habitat that was proposed but never finalized. Environmental groups have aggressively challenged FWS's regulatory reforms. No assurances can be made that restrictions relating to conservation will not have an adverse impact on expansion of our operations or not result in delays in project development, constraints on exploration and constraints on operations in impacted areas.

We incurred environmental capital expenditures and other environmental costs (including our joint venture partners' shares) to comply with applicable environmental laws and regulations that affect our operations totaling $0.4 billion in 2018, $0.5 billion in 2017 and $0.4 billion in 2016. For 2019, we expect to incur approximately $0.5 billion of aggregate environmental capital expenditures and other environmental costs. The timing and amounts of estimated payments could change as a result of changes in regulatory requirements, changes in scope and costs of reclamation and plug and abandonment activities, the settlement of environmental matters and the rate at which actual spending occurs on continuing matters.

We incur significant costs for remediating environmental conditions on properties that have not been operated in many years.

FMC and its subsidiaries, and many of their affiliates and predecessor companies, have been involved in exploration, mining, milling, smelting and manufacturing in the U.S. for more than a century. Activities that occurred in the late 19th century and the 20th century prior to the advent of modern environmental laws were not subject to environmental regulation and were conducted before American industrial companies fully understood the long-term effects of their operations on the surrounding environment.

With the passage of CERCLA in 1980, companies like FMC became legally responsible for remediating hazardous substances released into the environment from properties owned or operated by them as well as properties where they arranged for disposal of such substances, irrespective of when the release to the environment occurred or who caused it. That liability is often asserted on a joint and several basis with other prior and subsequent owners, operators and arrangers, meaning that each owner or operator of the property is, and each arranger may be, held fully responsible for the remediation, although in many cases some or all of the other responsible parties no longer exist, do not have the financial ability to respond or cannot be found. As a result, because of our acquisition of FMC in 2007, many of the subsidiary companies we now own are potentially responsible for a wide variety of environmental remediation projects throughout the U.S., and we expect to spend substantial sums annually for many years to address those remediation issues. We are also subject to claims where the release of hazardous substances is alleged to have damaged natural resources. At December 31, 2018, we had more than 100 active remediation projects in 26 U.S. states. In addition, FMC and certain affiliates and predecessor companies were parties to agreements relating to the

transfer of businesses or properties that contained indemnification provisions relating to environmental matters, and from time to time these provisions become the source of claims against us.

At December 31, 2018, we had $1.5 billion recorded in our consolidated balance sheet for environmental obligations attributable to CERCLA or analogous state programs and for estimated future costs associated with environmental matters at closed facilities or closed portions of operating facilities.

Table of Contents

Our environmental obligation estimates are primarily based upon:

- Our knowledge and beliefs about complex scientific and historical facts and circumstances that in many cases occurred many decades ago;

- Our beliefs and assumptions regarding the nature, extent and duration of remediation activities that we will be required to undertake and the estimated costs of those remediation activities, which are subject to varying interpretations; and

- Our beliefs regarding the requirements that are imposed on us by existing laws and regulations and, in some cases, the clarification of uncertain regulatory requirements that could materially affect our environmental obligation estimates.

Significant adjustments to these estimates are likely to occur in the future as additional information becomes available. The actual environmental costs may exceed our current and future accruals for these costs, and any such changes could be material.

In addition, remediation standards imposed by EPA and state environmental agencies have generally become more stringent over time and may become even more stringent in the future. Imposition of more stringent remediation standards, particularly for arsenic and lead in soils, poses a risk that additional remediation work could be required at our active remediation sites and at sites that we have already remediated to the satisfaction of the responsible governmental agencies, and may increase the risk of toxic tort litigation.

EPA is considering how to reduce lead exposure in the environment under multiple environmental programs. Certain federal and state health agencies also support lower lead cleanup levels. The timing for these EPA activities is unclear, but any reduction in lead cleanup levels could result in material increases to our environmental reserves for ongoing residential property cleanup projects near former smelter sites.

Refer to Note 12 for further discussion of our environmental obligations.

Our Indonesia mining operations create difficult and costly environmental challenges, and future changes in environmental laws, or unanticipated environmental impacts from those operations, could require us to incur increased costs.

Mining operations on the scale of our Indonesia operations involve significant environmental risks and challenges. Our primary challenge is to dispose of the large amount of crushed and ground rock material, called tailings, that results from the process by which we physically separate the copper-, gold- and silver-bearing materials from the ore that we mine. Our tailings management plan, which has been approved by the Indonesian government, uses the unnavigable river system in the highlands near our mine to transport the tailings to an engineered area in the lowlands where the tailings and natural sediments are managed in a deposition area. Lateral levees have been constructed to help contain the footprint of the tailings and to limit their impact in the lowlands.

Another major environmental challenge is managing overburden, which is the rock that must be moved aside in the mining process to reach the ore. In the presence of air, water and naturally occurring bacteria, some overburden can generate acid rock drainage, or acidic water containing dissolved metals that, if not properly managed, can adversely affect the environment. In addition, certain overburden stockpiles are subject to erosion caused by the large amounts of rainfall, with the eroded stockpile material eventually being deposited in the lowlands tailings management area; this additional material influences the deposition of finer sediment material in the estuary, as well as presents the potential for increased environmental impacts. The Grasberg overburden stockpiles have experienced significant erosion, exacerbated by unanticipated work stoppages that adversely affected our ability to manage certain overburden

stockpiles. The current tailings deposition management plan as well as environmental monitoring programs take into account the presence of this overburden in the lowlands tailings management area.

In the past, certain Indonesian government officials have raised questions with respect to our tailings and overburden management plans, including a suggestion that we implement a pipeline system rather than the river transport system for tailings management and disposition. Because our Indonesia mining operations are remotely located in steep mountainous terrain and in an active seismic area, a pipeline system would be costly, difficult to construct and maintain, and more prone to catastrophic failure, and could therefore involve significant potentially

Table of Contents

adverse environmental issues. Based on our own studies and others conducted by third parties we do not believe that a pipeline system is necessary or practical.

In October 2017, Indonesia's Ministry of Environment and Forestry (the MOEF) notified PT-FI of administrative sanctions related to certain activities that it indicated are not reflected in PT-FI's environmental permit. The MOEF also notified PT-FI that certain operational activities were inconsistent with factors set forth in PT-FI's environmental permitting studies and that additional monitoring and improvements need to be undertaken related to air quality, water drainage, treatment and handling of certain wastes, and tailings management. In April 2018, the MOEF issued decrees imposing unattainable environmental standards related to PT-FI's controlled riverine tailings management system. The decrees included a six-month transition period and conflicted with PT-FI's approved environmental management programs and existing environmental permits. In December 2018, the MOEF issued a revised environmental permit to PT-FI to address many of the operational activities that it alleged were inconsistent with earlier studies. The remaining administrative sanctions are being resolved through adoption of revised practices and, in a few situations, PT-FI has agreed with the MOEF on an appropriate multi-year work plan, including the closure of an overburden stockpile.

PT-FI and the MOEF also established a new framework for continuous improvement in environmental practices in PT-FI's operations, including initiatives that PT-FI will pursue to increase tailings retention and to evaluate large-scale beneficial uses of tailings within Indonesia. The MOEF issued a new decree that incorporates various initiatives and studies to be completed by PT-FI during 2019 targeting continuous improvement in a manner that would not impose new technical risks or significant long-term costs to PT-FI's operations. The new framework enables PT-FI to maintain compliance with site-specific standards and provides for ongoing monitoring by the MOEF. Refer to Note 12 for further discussion.

We cannot assure you that future environmental changes affecting the mining industry in Indonesia will not be introduced or unexpectedly altered or repealed, or that new interpretations of existing environmental laws and regulations will not be issued, which might have a significant impact on PT-FI.

Our copper mining operations require significant energy and regulation of greenhouse gas emissions and climate change issues may increase our costs and adversely affect our operations.

Our copper mining operations require significant energy, principally diesel, electricity, coal and natural gas, most of which is obtained from third parties under long-term contracts. Energy represented approximately 20 percent of our copper mine site operating costs in 2018, and are expected to approximate 20 percent of our copper mine site operating costs in 2019.

Carbon-based energy is a significant input in our operations, although haul truck diesel use and the amount of purchased power that is derived from fossil fuel or renewable sources varies significantly depending on site production and country-specific circumstances. The potential physical impacts of climate change on our operations are highly uncertain, and would vary by operation based on particular geographic circumstances. As a result of the Paris Agreement reached during the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change in 2015, a number of governments have pledged "Nationally Determined Contributions" to control and reduce greenhouse gas emissions. In the U.S., several states, including Colorado and New Mexico, have advanced goals reducing or eliminating fossil-fuel based energy production. Transitions to renewable and other energy sources could, among other things, increase our operating and energy costs depending on the scope and magnitude of increased regulation of fossil-fuel based energy production, including greenhouse gas emissions.

Other risks

Our holding company structure may impact our ability to service debt and our stockholders' ability to receive dividends.

We are a holding company with no material assets other than the capital stock and intercompany receivables of our subsidiaries. As a result, our ability to repay our indebtedness and pay dividends is dependent on the generation of cash flow by our subsidiaries and their ability to make such cash available to us, by dividend, loan, debt repayment or otherwise. Our subsidiaries do not have any obligation to make funds available to us to repay our indebtedness or pay dividends. Dividends from subsidiaries that are not wholly owned are shared with other equity owners. Cash at our international operations is also typically subject to foreign withholding taxes upon repatriation into the U.S.

Table of Contents

In addition, our subsidiaries may not be able to, or be permitted to, make distributions to us or repay loans to us, to enable us to repay our indebtedness or pay dividends. Each of our subsidiaries is a distinct legal entity and, under certain circumstances, legal restrictions, as well as the financial condition and operating requirements of our subsidiaries, may limit our ability to obtain cash from our subsidiaries. Certain of our subsidiaries are parties to credit agreements that restrict their ability to make distributions or loan repayments to us if such subsidiary is in default under such agreements, or to transfer substantially all of the assets of such subsidiary without the consent of the lenders.

Our rights to participate in any distribution of our subsidiaries' assets upon their liquidation, reorganization or insolvency would generally be subject to the prior claims of the subsidiaries' creditors, including any trade creditors.

Anti-takeover provisions in our charter documents and Delaware law may make an acquisition of us more difficult.

Anti-takeover provisions in our charter documents and Delaware law may make an acquisition of us more difficult. These provisions:

- Authorize the Board to issue preferred stock without stockholder approval and to designate the rights, preferences and privileges of each class; if issued, such preferred stock would increase the number of outstanding shares of our capital stock and could include terms that may deter an acquisition of us;
- Establish advance notice requirements for nominations to the Board or for proposals that can be presented at stockholder meetings;
- Limit who may call stockholder meetings; and
- Require the approval of the holders of two thirds of our outstanding common stock to enter into certain business combination transactions, subject to certain exceptions, including if the consideration to be received by our common stockholders in the transaction is deemed to be a fair price.

These provisions may discourage potential takeover attempts, discourage bids for our common stock at a premium over market price or adversely affect the market price of, and the voting and other rights of the holders of, our common stock. These provisions could also discourage proxy contests and make it more difficult for stockholders to elect directors other than the candidates nominated by the Board.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may prohibit large stockholders from consummating a merger with, or acquisition of, us.

These provisions may deter an acquisition of us that might otherwise be attractive to our stockholders.

Item 1B. Unresolved Staff Comments.

Not applicable.

Item 3. Legal Proceedings.

We are involved in numerous legal proceedings that arise in the ordinary course of our business or are associated with environmental issues. We are also involved periodically in reviews, inquiries, investigations and other proceedings initiated by or involving government agencies, some of which may result in adverse judgments, settlements, fines,

penalties, injunctions or other relief. Management does not believe, based on currently available information, that the outcome of any legal proceeding will have a material adverse effect on our financial condition; although individual or cumulative outcomes could be material to our operating results for a particular period, depending on the nature and magnitude of the outcome and the operating results for the period.

Table of Contents

Below is a discussion of our material legal proceedings not otherwise required to be disclosed in Note 12. Refer to Note 12 for discussion of additional material legal proceedings.

Water Rights Adjudications

Our operations in the western United States (U.S.) require significant secure quantities of water for mining and ore processing activities, and related support facilities. Continuous operation of our mines is dependent on, among other things, our ability to maintain our water rights and claims and the continuing physical availability of the water supplies. In the arid western U.S., where certain of our mines are located, water rights are often contested, and disputes over water rights are generally time-consuming, expensive and not necessarily dispositive unless they resolve both actual and potential claims. The loss of a water right, or a currently available water supply could force us to curtail operations, or force premature closures, thereby increasing and/or accelerating costs or foregoing profitable operations.

At our North America operations, certain of our water supplies are supported by surface water rights, which give us the right to use public waters for a statutorily defined beneficial use at a designated location. In Arizona, where our operations use both surface and groundwater, we are a participant in an active general stream adjudication in which Arizona courts have been attempting, for over 40 years, to quantify and prioritize surface water claims for the Gila River, one of the state's largest river systems. This stream adjudication primarily affects our Morenci, Safford and Sierrita mines. The adjudication is addressing the state law claims of thousands of competing users, including us, as well as significant federal water claims that are potentially adverse to the state law claims of both surface water and groundwater users. Groundwater is treated differently from surface water under Arizona law, which historically allowed land owners to pump unlimited quantities of subsurface water, subject only to the requirement of putting it to "reasonable use." However, court decisions in the adjudication have concluded that some underground water constitutes "subflow" that is to be treated legally as surface water and is therefore subject to the Arizona doctrine of prior appropriation and to the adjudication, and potentially unavailable to groundwater pumpers in the absence of valid surface water claims. Any re-characterization of groundwater as surface water could affect the ability of consumers, farmers, ranchers, municipalities, and industrial users like us to continue to access water supplies that have been relied on for decades. Because we are a user of both groundwater and surface water in Arizona, we are an active participant in the adjudication proceeding.

In Re The General Adjudication of All Rights to Use Water in the Gila River System and Sources, Maricopa County, Superior Court, Cause Nos. W-1 (Salt), W-2 (Verde), W-3 (Upper Gila), and W-4 (San Pedro). This case was originally initiated in 1974 with the filing of a petition with the Arizona State Land Department and was consolidated and transferred to the Maricopa County Superior Court in 1981. The principal parties, in addition to us, include: the state of Arizona; the Gila Valley Irrigation District; the Franklin Irrigation District; the San Carlos Irrigation and Drainage District; the Salt River Project; the San Carlos Apache Tribe; the Gila River Indian Community (GRIC); and the U.S. on behalf of those tribes, on its own behalf, and on behalf of the White Mountain Apache Tribe, the Fort McDowell Mohave-Apache Indian Community, the Salt River Pima-Maricopa Indian Community, and the Payson Community of Yavapai Apache Indians.

Prior to January 1, 1983, various Indian tribes filed suits in the U.S. District Court in Arizona claiming superior rights to water being used by many other parties, including us, and claiming damages for prior use in derogation of their allegedly superior rights. These federal proceedings have been stayed pending the Arizona Superior Court adjudications and some have been settled.

In 2005, the Maricopa County Superior Court directed the Arizona Department of Water Resources (ADWR) to prepare detailed recommendations regarding the delineation of the "subflow" zone of the San Pedro River, a tributary of the Gila River. Underground water within the subflow zone is presumed to constitute appropriable subflow rather than

groundwater. Although we have minimal interests in the San Pedro River Basin, a decision that re-characterizes groundwater in that basin as appropriable surface water may set a precedent for other river systems in Arizona that could have material implications for many commercial, industrial, municipal and agricultural users of groundwater, including our Arizona operations. In 2017, the court approved ADWR's proposed subflow zone delineation. No party has appealed that decision.

In 2014, ADWR submitted a proposal for the development of procedures for "cone of depression" analyses to determine whether a well located outside of the subflow zone creates a cone of depression that intersects the subflow zone. Based on the cone of depression analyses, wells outside of the subflow zone could be subject to the jurisdiction of the adjudication court. In the absence of a valid surface water claim to support the pumping, owners

Table of Contents

of wells deemed to be depleting the subflow zone through their cones of depression may be subject to claims that they must refrain from pumping or must pay damages. In January 2017, ADWR issued a report containing its recommended cone of depression test and a trial was held in March 2018 concerning ADWR's recommended action.

On November 14, 2018, the court's Special Master issued a final decision rejecting ADWR's recommended test, instead adopting our position that a numeric model capable of accounting for complexities of the aquifer system should be used. The Special Master also confirmed that this initial cone of depression test is for determining which wells are subject to the jurisdiction of the adjudication court, not proving that a well is pumping subflow or establishing how much of a well's production is subflow. Those matters will be determined by a subsequent "subflow depletion test," which has not yet been formulated. Our adversaries are expected to seek review of the Special Master's November 2018 final decision. Objections must be filed with the Superior Court in May 2019.

In December 2018, ADWR submitted its initial report on the "subflow depletion test," which will specify the methodology a well owner must use to quantify the portion of the water drawn from a well that is subflow as opposed to groundwater. A status conference has been scheduled in February 2019 to identify issues to be addressed during this phase of the litigation and to discuss future case deadlines.

As part of the Gila River adjudication, the U.S. has asserted numerous claims for express and implied "reserved" surface water and groundwater rights on Indian and non-Indian federal lands throughout Arizona. These claims are related to reservations of federal land for specific purposes (e.g., Indian reservations, national parks, military bases and wilderness areas). Unlike state law-based water rights, federal reserved water rights are given priority in the prior appropriation system based on the date the land was reserved, not the date that water was first used on the land. In addition, federal reserved water rights, if recognized by the court, may enjoy greater protection from groundwater pumping than is accorded to state law-based water rights.

In multiple instances, the U.S. asserts a right to all water in a particular watershed that was not effectively appropriated under state law prior to the establishment of the federal reservation. This creates risks for both surface water users and groundwater users because such expansive claims may severely impede competing uses of water within the same watershed. Because there are numerous federal reservations in watersheds across Arizona, the reserved water right claims of the U.S. pose a significant risk to multiple operations, including Morenci and Safford in the Upper Gila River watershed, and Sierrita in the Santa Cruz watershed. Because federal reserved water rights may adversely affect water uses at each of these operations, we have been actively involved in litigation over these claims. Because federal reserved water rights have not yet been quantified, the task of determining how much water each federal reservation may use has been left to the Gila River adjudication court. Several "contested cases" to quantify reserved water rights for particular federal reservations in Arizona are currently pending in the adjudication and one was recently resolved. That case, In re Aravaipa Canyon Wilderness Area was to resolve the U.S.'s claims to water for the Aravaipa Canyon Wilderness Area. The case was tried in 2015 and the court issued a decision in December 2018 supportive of our position on almost all issues, including rejection of the government's core argument that wilderness areas are entitled to all water that was not appropriated at the time the reservation was created. We believe the rulings in this case will support our positions in other pending federal reserved right cases, including these: In re Fort Huachuca, which involves the U.S.'s claims to water for an Arizona army base and is awaiting a decision following a trial which concluded in February 2017; In re Redfield Canyon Wilderness Area, which involves the U.S.'s claims to water for another wilderness area and is awaiting a decision following a trial which concluded in May 2017; and In re San Pedro Riparian National Conservation Area, which involves the U.S.'s claims to water for a national conservation area, which is currently in trial.

Given the legal and technical complexity of these adjudications, their long history, and their long-term legal, economic and political implications, it is difficult to predict the timing or the outcome of these proceedings. If we are not able satisfactorily resolve the issues being addressed in the adjudications, our ability to pump groundwater could

be diminished or curtailed, and our operations at Morenci, Safford and Sierrita could be adversely affected unless we are able to acquire alternative resources.

Environmental Legal Proceedings

Louisiana Parishes Coastal Erosion Cases
Certain FCX affiliates have been named as defendants, along with numerous co-defendants, in 13 cases out of a total of 42 cases filed in Louisiana state courts by six south Louisiana parishes (Cameron, Jefferson, Plaquemines, St. Bernard, St. John the Baptist and Vermilion), alleging that certain oil and gas exploration and production

Table of Contents

operations and sulphur mining and production operations in coastal Louisiana have contaminated and damaged coastal wetlands, and caused significant land loss along the Louisiana coast, resulting in increased risk of damage from storm-generated surges and flooding and accelerated saltwater intrusion. The State of Louisiana, through the Attorney General and separately through the Louisiana Department of Natural Resources, has intervened in the litigation in support of the parishes' claims. Specifically, the cases allege the defendants failed to obtain and/or comply with required coastal use permits in violation of the Louisiana State and Local Coastal Resources Management Act of 1978, and seek unspecified damages for the alleged statutory violations, and restoration of the properties at issue to their original condition. Five of the 42 cases were previously scheduled for trials in state courts beginning in early 2019; however, the state court proceedings have been stayed while federal courts in the Eastern and Western Districts of Louisiana consider the defendants' second effort to remove the cases from state courts to federal courts. Certain FCX affiliates have been named as defendants in two of the five cases that had been set for trial, both originally filed on November 8, 2013: Parish of Plaquemines v. ConocoPhillips Company et al, 25th Judicial District Court, Plaquemines Parish, Louisiana; No. 60-982, Div. B, which was set for jury trial in state court in August 2019; and Parish of Plaquemines v. Hilcorp Energy Company et al, 25th Judicial District Court, Plaquemines Parish, Louisiana; No. 60-999, Div. B, which was set for jury trial in state court in January 2020. Plaintiffs have not alleged specific monetary demands. FCX intends to vigorously defend these matters.

Item 4. Mine Safety Disclosures.

The safety and health of all employees is our highest priority. Management believes that safety and health considerations are integral to, and compatible with, all other functions in the organization and that proper safety and health management will enhance production and reduce costs. Our approach towards the health and safety of our workforce is to continuously improve performance through implementing robust management systems and providing adequate training, safety incentive and occupational health programs.

Our objective is zero work place injuries and occupational illnesses. We measure progress toward achieving our objective against regularly established benchmarks, including measuring company-wide Total Recordable Incident Rates (TRIR). Our TRIR (including contractors) per 200,000 man-hours worked was 0.71 in 2018, 0.75 in 2017 and 0.64 in 2016. The metal mining sector industry average per 200,000 man-hours worked reported by the U.S. Mine Safety and Health Administration was 1.74 in 2017 and 1.93 in 2016. The metal mining sector industry average for 2018 was not available at the time of this filing.

Refer to Exhibit 95.1 for mine safety disclosures required in accordance with Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K.

Executive Officers of the Registrant.

Certain information as of January 31, 2019, about our executive officers is set forth in the following table and accompanying text:

Name	Age	Position or Office
Richard C. Adkerson	72	Vice Chairman of the Board, President and Chief Executive Officer
Kathleen L. Quirk	55	Executive Vice President and Chief Financial Officer
Harry M. "Red" Conger, IV	63	President and Chief Operating Officer - Americas

Richard C. Adkerson has served as Vice Chairman of the Board since June 2013, President since January 2008 and also from April 1997 to March 2007, Chief Executive Officer since December 2003 and a director since October 2006. Mr. Adkerson previously served as Chief Financial Officer from October 2000 to December 2003.

Kathleen L. Quirk has served as Executive Vice President since March 2007 and Chief Financial Officer since December 2003. Ms. Quirk previously served as Treasurer from February 2000 to August 2018 and as Senior Vice President from December 2003 to March 2007. Ms. Quirk also serves on the Board of Directors of Vulcan Materials Company.

Harry M. “Red” Conger, IV has served as Chief Operating Officer - Americas since July 2015, and as President - Americas since 2007. Mr. Conger has also served as President and Chief Operating Officer - Rod and Refining since October 2014. He previously served as Chief Operating Officer - Africa Mining from July 2015 to December 2016. Prior to 2007, he served in a number of senior operations positions at Phelps Dodge Corporation.

PART II

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

Unregistered Sales of Equity Securities

None.

Common Stock

Our common shares trade on the New York Stock Exchange (NYSE) under the symbol "FCX." At January 31, 2019, there were 12,520 holders of record of our common stock.

Common Stock Dividends

In December 2015, the FCX Board of Directors (the Board) suspended the annual common stock dividend. Accordingly, there were no common stock dividends paid in 2017 or 2016. In February 2018, the Board reinstated a cash dividend on our common stock. See Note 10 for further discussion. The declaration of dividends is at the discretion of our Board and will depend upon our financial results, cash requirements, future prospects and other factors deemed relevant.

Issuer Purchases of Equity Securities

The following table sets forth information with respect to shares of FCX common stock purchased by us during the three months ended December 31, 2018:

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid Per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs[a]	(d) Maximum Number of Shares That May Yet Be Purchased Under the Plans or Programs[a]
October 1-31, 2018	—	—	—	23,685,500
November 1-30, 2018	—	—	—	23,685,500
December 1-31, 2018	—	—	—	23,685,500
Total	—	—	—	23,685,500

a. On July 21, 2008, the Board approved an increase in our open-market share purchase program for up to 30 million shares. The program does not have an expiration date.

Table of Contents

Item 6. Selected Financial Data.

FREEPORT-McMoRan INC.
SELECTED FINANCIAL AND OPERATING DATA

	Years Ended December 31,				
	2018	2017	2016	2015	2014
CONSOLIDATED FINANCIAL DATA	(In millions, except per share amounts)				
Revenues	$18,628	$16,403	$14,830 [a]	$14,607 [a]	$20,001 [a]
Operating income (loss)[b]	$4,754 [c,d]	$3,690 [e]	$(2,729) [f]	$(13,512) [g]	$(298) [h]
Net income (loss) from continuing operations	$2,909 [i,j,k,l]	$2,029 [i,j,k]	$(3,832) [j,k]	$(12,180) [l]	$(1,022) [j,k]
Net (loss) income from discontinued operations[m]	$(15)	$66	$(193)	$91	$277
Net income (loss) attributable to common stock	$2,602	$1,817	$(4,154) [n]	$(12,236)	$(1,308)
Diluted net income (loss) per share attributable to common stock:					
Continuing operations	$1.79	$1.21	$(2.96)	$(11.32)	$(1.37)
Discontinued operations	(0.01)	0.04	(0.20)	0.01	0.11
	$1.78	$1.25	$(3.16)	$(11.31)	$(1.26)
Weighted-average common shares outstanding:					
Basic	1,449	1,447	1,318	1,082	1,039
Diluted	1,458	1,454	1,318	1,082	1,039
Dividends declared per share of common stock	$0.20	$—	$—	$0.2605	$1.25
Operating cash flows	$3,863	$4,666	$3,737	$3,220	$5,631
Capital expenditures	$1,971	$1,410	$2,813	$6,353	$7,215
At December 31:					
Cash and cash equivalents	$4,217	$4,526	$4,262	$193	$315
Property, plant, equipment and mine development costs, net	$28,010	$22,994	$23,348	$24,245	$22,927
Oil and gas properties, net	$—	$—	$74	$7,093	$19,274
Assets held for sale, including current portion[o]	$—	$—	$5	$4,862	$4,829
Total assets	$42,216	$37,302	$37,317	$46,577	$58,674
Total debt, including current portion	$11,141	$13,229	$16,126	$20,428	$18,970
Redeemable noncontrolling interest	$—	$—	$—	$764	$751
Total stockholders' equity	$9,798	$7,977	$6,051	$7,828	$18,287

The selected consolidated financial data shown above is derived from our audited consolidated financial statements. These historical results are not necessarily indicative of results that you can expect for any future period. You should read this data in conjunction with Items 7. and 7A. Management's Discussion and Analysis of Financial Condition and Results of Operations and Quantitative and Qualitative Disclosures about Market Risks (MD&A) and Item 8. Financial Statements and Supplementary Data thereto contained in our annual report on Form 10-K for the year ended December 31, 2018. All references to income or losses per share are on a diluted basis, unless otherwise noted.

a. Includes net noncash mark-to-market (losses) gains associated with crude oil and natural gas derivative contracts totaling $(41) million ($(41) million to net loss attributable to common stock or $(0.03) per share) in 2016, $(319) million ($(198) million to net loss attributable to common stock or $(0.18) per share) in 2015 and $627 million ($389 million to net loss attributable to common stock or $0.37 per share) in 2014.

b. Includes net charges (credits) for adjustments to environmental obligations and related litigation reserves of $57 million ($57 million to net income attributable to common stock or $0.04 per share) in 2018, $210 million ($210 million to net income attributable to common stock or $0.14 per share) in 2017, $(16) million ($(16) million to net loss attributable to common stock or $(0.01) per share) in 2016, $43 million ($28 million to net loss attributable to common stock or $0.03 per share) in 2015 and $76 million ($50 million to net loss attributable to common stock or $0.05 per share) in 2014.

c. The year 2018 includes net credits totaling $96 million ($156 million to net income attributable to common stock or $0.11 per share) consisting of gains on sales of assets totaling $208 million, partly offset by net charges of $69 million associated with Cerro Verde’s collective labor agreement and $43 million mostly associated with depreciation expense at Freeport Cobalt for the period December 2016 through December 2017, which was suspended while it was classified as held for sale.

d. The year 2018 also includes net charges at PT Freeport Indonesia (PT-FI) totaling $223 million ($110 million to net income attributable to common stock or $0.08 per share) consisting of $69 million for surface water tax disputes with the local regional tax authority in Papua, Indonesia, $32 million for assessments of prior period permit fees with Indonesia's Ministry of Environment and Forestry, $72 million for disputed payroll withholding taxes for prior years and other tax settlements, and $62 million to write-off certain previously capitalized project costs for the new smelter in Indonesia, partly offset by inventory adjustments totaling $12 million.

Table of Contents

e. The year 2017 includes net charges totaling $68 million to operating income ($12 million to net income attributable to common stock or $0.01 per share) consisting of charges totaling $125 million for workforce reductions at PT-FI and other net charges of $24 million mostly for asset impairments and metals inventory adjustments, partly offset by net gains on sales of assets totaling $81 million primarily associated with oil and gas transactions.

f. The year 2016 includes net charges totaling $4.9 billion to operating loss ($4.8 billion to net loss attributable to common stock or $3.67 per share) consisting of (i) $4.3 billion for impairment of oil and gas properties, (ii) $926 million for drillship settlements/idle rig and contract termination costs, (iii) $196 million for other charges at oil and gas operations primarily associated with inventory adjustments, asset impairment and other restructuring charges and (iv) $69 million for charges at mining operations for metals inventory adjustments, PT-FI asset retirement and Cerro Verde social commitments, partly offset by (v) net gains on sales of assets totaling $649 million mostly associated with the Morenci and Timok transactions, and net of estimated losses associated with assets held for sale.

g. The year 2015 includes net charges totaling $13.8 billion to operating loss ($12.0 billion to net loss attributable to common stock or $11.10 per share) consisting of (i) $13.1 billion for impairment of oil and gas properties, (ii) $338 million for metals inventory adjustments, (iii) $188 million for charges at oil and gas operations primarily associated with other asset impairment and inventory adjustments, idle/terminated rig costs and prior year mineral tax assessments related to the California properties, (iv) $145 million for charges at mining operations primarily associated with asset impairment, restructuring and other net charges and (v) $18 million for executive retirement benefits, partly offset by (vi) a net gain of $39 million for the sale of our interest in the Luna Energy power facility.

h. The year 2014 includes net charges totaling $4.8 billion to operating loss ($3.6 billion to net loss attributable to common stock or $3.46 per share) consisting of (i) $3.7 billion for impairment of oil and gas properties, (ii) $1.7 billion to impair the full carrying value of goodwill, (iii) $46 million for charges at oil and gas operations primarily associated with idle/terminated rig costs and inventory adjustments and (iv) $6 million for adjustments to molybdenum inventories, partly offset by (v) net gains on sales of assets of $717 million primarily from the sale of our 80 percent interests in the Candelaria and Ojos del Salado mining operations.

i. Includes net charges at Cerro Verde related to disputed royalty matters for prior years totaling $195 million to net income attributable to common stock ($0.13 per share) in 2018 and $186 million to net income attributable to common stock ($0.13 per share) in 2017. Net charges for 2018 consist of charges (credits) of $14 million to operating income, $370 million to interest expense, $22 million to other expense, net of $35 million of net income tax benefits and $176 million to noncontrolling interests. Net charges for 2017 consist of $203 million to operating income, $145 million to interest expense and $7 million to provision for income taxes, net of $169 million to noncontrolling interests. Refer to Note 12 for further discussion.

j. Includes after-tax net gains (losses) on early extinguishment and exchanges of debt totaling $7 million (less than $0.01 per share) in 2018, $21 million ($0.01 per share) in 2017, $26 million ($0.02 per share) in 2016 and $3 million (less than $0.01 per share) in 2014.

k. As further discussed in “Consolidated Results - Income Taxes” contained in MD&A, amounts include net tax credits (charges) of $632 million ($574 million net of noncontrolling interests or $0.39 per share) in 2018, $438 million ($0.30 per share) in 2017, $370 million ($374 million net of noncontrolling interests or $0.28 per share) in 2016 and $(121) million ($(103) million net of noncontrolling interests or $(0.10) per share) in 2014.

l. The year 2018 includes a gain of $19 million to net income attributable to common stock or $0.01 per share for interest received on tax refunds. The year 2015 includes a gain of $92 million to net loss attributable to common stock or $0.09 per share related to net proceeds received from insurance carriers and other third parties related to the shareholder derivative litigation settlement.

m. Discontinued operations reflects the results of TF Holdings Limited (TFHL), through which we held an interest in the Tenke Fungurume (Tenke) mine until it was sold on November 16, 2016, and includes charges for allocated interest expense associated with the portion of the term loan that was required to be repaid as a result of the sale. Net (loss) income from discontinued operations in 2018 and 2017 primarily reflect adjustments to the fair value of the potential contingent consideration related to the sale and will continue to be adjusted through December 31, 2019. The year 2016 also includes a net charge of $198 million for the loss on disposal.

n.

Includes a gain on redemption of a redeemable noncontrolling interest of $199 million ($0.15 per share) associated with the settlement of a preferred stock obligation. Refer to Note 2 for further discussion.

o. In accordance with accounting guidelines, the assets and liabilities of TFHL have been presented as held for sale in the consolidated balance sheets for all periods presented.

Table of Contents

FREEPORT-McMoRan INC.
SELECTED FINANCIAL AND OPERATING DATA (Continued)

	Years Ended December 31,				
	2018	2017	2016	2015	2014
CONSOLIDATED MINING (CONTINUING OPERATIONS)[a,b]					
Copper (millions of recoverable pounds)					
Production	3,813	3,737	4,222	3,568	3,457
Sales, excluding purchases	3,811	3,700	4,227	3,603	3,463
Average realized price per pound	$2.91	$2.93	$2.28	$2.42	$3.09
Gold (thousands of recoverable ounces)					
Production	2,439	1,577	1,088	1,257	1,214
Sales, excluding purchases	2,389	1,562	1,079	1,247	1,248
Average realized price per ounce	$1,254	$1,268	$1,238	$1,129	$1,231
Molybdenum (millions of recoverable pounds)					
Production	95	92	80	92	95
Sales, excluding purchases	94	95	74	89	95
Average realized price per pound	$12.50	$9.33	$8.33	$8.70	$12.74
NORTH AMERICA COPPER MINES					
Operating Data, Net of Joint Venture Interests[c]					
Copper (millions of recoverable pounds)					
Production	1,404	1,518	1,831	1,947	1,670
Sales, excluding purchases	1,428	1,484	1,841	1,988	1,664
Average realized price per pound	$2.96	$2.85	$2.24	$2.47	$3.13
Molybdenum (millions of recoverable pounds)					
Production	32	33	33	37	33
100% Operating Data					
Leach operations					
Leach ore placed in stockpiles (metric tons per day)	681,400	679,000	737,400	913,000	1,011,500
Average copper ore grade (percent)	0.24	0.28	0.31	0.26	0.25
Copper production (millions of recoverable pounds)	951	1,016	1,120	1,086	963
Mill operations					
Ore milled (metric tons per day)	301,000	299,500	300,500	312,100	273,800
Average ore grade (percent):					
Copper	0.35	0.39	0.47	0.49	0.45
Molybdenum	0.02	0.03	0.03	0.03	0.03
Copper recovery rate (percent)	87.8	86.4	85.5	85.4	85.8
Copper production (millions of recoverable pounds)	719	788	958	1,020	828
SOUTH AMERICA MINING[b]					
Copper (millions of recoverable pounds)					
Production	1,249	1,235	1,328	869	1,151
Sales	1,253	1,235	1,332	871	1,135
Average realized price per pound	$2.87	$2.97	$2.31	$2.38	$3.08
Molybdenum (millions of recoverable pounds)					
Production	28	27	21	7	11
Leach operations					
Leach ore placed in stockpiles (metric tons per day)	195,200	142,800	149,100	208,400	246,400
Average copper ore grade (percent)	0.33	0.37	0.41	0.44	0.48

Copper production (millions of recoverable pounds)	287	255	328	430	491
Mill operations					
Ore milled (metric tons per day)	387,600	360,100	353,400	152,100	180,500
Average ore grade:					
Copper (percent)	0.38	0.44	0.43	0.46	0.54
Molybdenum (percent)	0.01	0.02	0.02	0.02	0.02
Copper recovery rate (percent)	84.3	81.2	85.8	81.5	88.1
Copper production (millions of recoverable pounds)	962	980	1,000	439	660

Table of Contents

FREEPORT-McMoRan INC.
SELECTED FINANCIAL AND OPERATING DATA (Continued)

	Years Ended December 31,				
	2018	2017	2016	2015	2014
INDONESIA MINING					
Operating Data, Net of Rio Tinto Joint Venture Interest[d]					
Copper (millions of recoverable pounds)					
Production	1,160	984	1,063	752	636
Sales	1,130	981	1,054	744	664
Average realized price per pound	$2.89	$3.00	$2.32	$2.33	$3.01
Gold (thousands of recoverable ounces)					
Production	2,416	1,554	1,061	1,232	1,130
Sales	2,366	1,540	1,054	1,224	1,168
Average realized price per ounce	$1,254	$1,268	$1,237	$1,129	$1,229
100% Operating Data					
Ore milled (metric tons per day)	178,100	140,400	165,700	162,500	120,500
Average ore grade:					
Copper (percent)	0.98	1.01	0.91	0.67	0.79
Gold (grams per metric ton)	1.58	1.15	0.68	0.79	0.99
Recovery rates (percent):					
Copper	91.8	91.6	91.0	90.4	90.3
Gold	84.7	85.0	82.2	83.4	83.2
Production:					
Copper (millions of recoverable pounds)	1,227	996	1,063	752	651
Gold (thousands of recoverable ounces)	2,697	1,554	1,061	1,232	1,132
MOLYBDENUM MINES					
Molybdenum production (millions of recoverable pounds)	35	32	26	48	51
Ore milled (metric tons per day)	27,900	22,500	18,300	34,800	39,400
Average molybdenum ore grade (percent)	0.18	0.20	0.21	0.2	0.19
OIL AND GAS OPERATIONS[e]					
Sales Volumes:					
Oil (million barrels)	1.4	1.8	34.4	35.3	40.1
Natural gas (billion cubic feet)	10.1	15.8	65.1	89.7	80.8
Natural gas liquids (NGLs) (million barrels)	0.1	0.2	1.8	2.4	3.2
Million barrels of oil equivalents	3.1	4.6	47.1	52.6	56.8
Average Realizations:					
Oil (per barrel)	$54.13	$40.71	$39.13	$57.11	$90.00
Natural gas (per million British thermal units)	$3.15	$3.18	$2.38	$2.59	$4.23
NGLs (per barrel)	$44.11	$30.65	$18.11	$18.90	$39.73

a. Excludes the results from the Tenke mine, which is reported as discontinued operations.
b. Includes the results of the Candelaria and Ojos del Salado mines prior to their sale in November 2014.
c. Net of Morenci's joint venture interest; effective May 31, 2016, our undivided interest in Morenci was prospectively reduced from 85 percent to 72 percent. Refer to Note 2 for further discussion.
d. Prior to December 21, 2018, PT-FI had an unincorporated joint venture with Rio Tinto. Refer to Notes 2 and 3 for further discussion.
e. During the three years ended December 31, 2018, we completed sales of substantially all of our oil and gas assets. Refer to Note 2 for further discussion.

60

Table of Contents

Items 7. and 7A. Management's Discussion and Analysis of Financial Condition and Results of Operations and Quantitative and Qualitative Disclosures About Market Risk.

In Management's Discussion and Analysis of Financial Condition and Results of Operations and Quantitative and Qualitative Disclosures About Market Risk (MD&A), "we," "us" and "our" refer to Freeport-McMoRan Inc. (FCX) and its consolidated subsidiaries. The results of operations reported and summarized below are not necessarily indicative of future operating results (refer to "Cautionary Statement" for further discussion). References to "Notes" are Notes included in our Notes to Consolidated Financial Statements. Throughout MD&A, all references to earnings or losses per share are on a diluted basis, unless otherwise noted. Additionally, in accordance with accounting guidelines, TF Holdings Limited (TFHL), through which we held a controlling interest in the Tenke Fungurume (Tenke) mine until it was sold on November 16, 2016, is reported as a discontinued operation for all periods presented.

OVERVIEW

We are a leading international mining company with headquarters in Phoenix, Arizona. We operate large, long-lived, geographically diverse assets with significant proven and probable reserves of copper, gold and molybdenum. We are the world's largest publicly traded copper producer. Our portfolio of assets includes the Grasberg minerals district in Indonesia, one of the world's largest copper and gold deposits; and significant mining operations in the Americas, including the large-scale Morenci minerals district in North America and the Cerro Verde operation in South America.

We believe that we have a high-quality portfolio of long-lived copper assets positioned to generate long-term value. We have commenced a project to develop the Lone Star oxide ores near the Safford operation in eastern Arizona, and PT Freeport Indonesia (PT-FI) has several projects in the Grasberg minerals district related to the development of its large-scale, long-lived, high-grade underground ore bodies (refer to "Operations - Indonesia Mining" for further discussion of PT-FI's transition mining from the open pit to underground). We are also pursuing other opportunities to enhance our mines' net present values, and we continue to advance studies for future development of our copper resources, the timing of which will be dependent on market conditions.

Net income (loss) attributable to common stock totaled $2.6 billion in 2018, $1.8 billion in 2017 and $(4.2) billion in 2016. Our results in 2018, compared to 2017, benefited from higher copper and gold sales volumes, higher gains on sales of assets and lower adjustments to environmental obligations, partly offset by higher income tax expense mostly at our international operations. Our results for the year 2016 were unfavorably impacted by charges of $5.4 billion at oil and gas operations primarily for the impairment of oil and gas properties, drillship settlements and contract termination costs. Refer to "Consolidated Results" for discussion of items impacting our consolidated results for the three years ended December 31, 2018.

At December 31, 2018, we had $4.2 billion in consolidated cash and cash equivalents, $11.1 billion in total debt, and no borrowings and approximately $3.5 billion available under our revolving credit facility.

As further discussed in Note 2, in December 2018, we completed the transaction with the Indonesian government regarding PT-FI's long-term mining rights and share ownership. We expect our share of future cash flows of the expanded PT-FI asset base, combined with the cash proceeds received in the transaction, to be comparable to our share of anticipated future cash flows under PT-FI's former Contract of Work (COW) and joint venture arrangements with Rio Tinto plc (Rio Tinto Joint Venture).

As a result of the transaction, PT Indonesia Asahan Aluminium's (Persero) (PT Inalum) and PT Indonesia Papua Metal Dan Mineral's (PTI - formerly known as PT Indocopper Investama) collective share ownership of PT-FI totals 51.24 percent and our share ownership is 48.76 percent. The arrangements provide for us and the other pre-transaction PT-FI shareholders to retain the economics of the revenue and cost sharing arrangements under the former Rio Tinto Joint

Venture. As a result, our economic interest in PT-FI is expected to approximate 81 percent from 2019 through 2022.

We, PT-FI, PTI and PT Inalum also entered into a shareholders agreement, which governs certain matters with respect to the governance and management of PT-FI in connection with their ownership of shares in PT-FI, and establishes our control over the management of PT-FI's operations. Concurrent with closing the transaction, the Indonesian government granted PT-FI a new special mining license (IUPK) to replace its former COW, enabling PT-FI to conduct operations in the Grasberg minerals district through 2041. Under the terms of the IUPK, PT-FI has

Table of Contents

been granted an extension of mining rights through 2031, with rights to extend mining rights through 2041, subject to PT-FI completing the construction of a new smelter in Indonesia within five years of closing the transaction and fulfilling its defined fiscal obligations to the Indonesian government. Refer to Note 13 and "Risk Factors" contained in Part I, Item 1A. of our annual report on Form 10-K for the year ended December 31, 2018, for further discussion of PT-FI's IUPK.

We have significant mineral reserves, resources and future development opportunities within our portfolio of mining assets. At December 31, 2018, our estimated consolidated recoverable proven and probable mineral reserves totaled 119.6 billion pounds of copper, 30.8 million ounces of gold and 3.78 billion pounds of molybdenum. Refer to "Critical Accounting Estimates – Mineral Reserves" for further discussion.

During 2018, production from our mines totaled 3.8 billion pounds of copper, 2.4 million ounces of gold and 95 million pounds of molybdenum. Following is a summary of the geographic locations of our consolidated copper, gold and molybdenum production in 2018:

	Copper	Gold	Molybdenum
North America	37 %	1 %	71 % [a]
South America	33	—	29
Indonesia	30	99	—
	100 %	100 %	100 %

a. Our Henderson and Climax molybdenum mines produced 37 percent of consolidated molybdenum production, and our North America copper mines produced 34 percent.

Copper production from the Grasberg open-pit mine in Indonesia, Morenci mine in North America and Cerro Verde mine in Peru together totaled 76 percent of our consolidated copper production in 2018.

OUTLOOK

We continue to view the long-term outlook for our business positively, supported by limitations on supplies of copper and by the requirements for copper in the world's economy. Our financial results vary as a result of fluctuations in market prices primarily for copper, gold and molybdenum, as well as other factors. World market prices for these commodities have fluctuated historically and are affected by numerous factors beyond our control. Refer to "Markets" for further discussion. Because we cannot control the price of our products, the key measures that management focuses on in operating our business are sales volumes, unit net cash costs, operating cash flow and capital expenditures.

Sales Volumes

Following are our projected consolidated sales volumes for 2019 (which reflects a transition year) and actual consolidated sales volumes for 2018:

	2019 (Projected)	2018 (Actual)
Copper (millions of recoverable pounds):		
North America copper mines	1,400	1,428
South America mining	1,270	1,253
Indonesia mining	615	1,130
Total	3,285	3,811
Gold (thousands of recoverable ounces)	785	2,389
Molybdenum (millions of recoverable pounds)	94	[a] 94

a.

Projected molybdenum sales include 35 million pounds produced by our Molybdenum mines and 59 million pounds produced by our North America and South America copper mines.

Table of Contents

Consolidated sales for first-quarter 2019 are expected to approximate 825 million pounds of copper, 255 thousand ounces of gold and 24 million pounds of molybdenum. As PT-FI transitions mining from the open pit to underground, its production is expected to be significantly lower in 2019 and 2020, compared to 2018. Metal production is expected to improve significantly by 2021 following a ramp-up period. Projected sales volumes for the year 2019 are dependent on operational performance, weather-related conditions, and other factors. For other important factors that could cause results to differ materially from projections, refer to “Cautionary Statement,” and “Risk Factors” contained in Part I, Item 1A. of our annual report on Form 10-K for the year ended December 31, 2018.

Consolidated Unit Net Cash Costs

Assuming average prices of $1,300 per ounce of gold and $12.00 per pound of molybdenum for 2019 and achievement of current sales volume and cost estimates, consolidated unit net cash costs (net of by-product credits) for our copper mines are expected to average $1.73 per pound of copper in 2019. The impact of price changes on 2019 consolidated unit net cash costs would approximate $0.01 per pound for each $50 per ounce change in the average price of gold and $0.03 per pound for each $2 per pound change in the average price of molybdenum. Quarterly unit net cash costs vary with fluctuations in sales volumes and realized prices, primarily for gold and molybdenum. Refer to “Consolidated Results – Production and Delivery Costs” for further discussion of consolidated production costs for our mining operations.

Consolidated Operating Cash Flow

Our consolidated operating cash flows vary with sales volumes, prices realized from copper, gold and molybdenum sales, production costs, income taxes, other working capital changes and other factors. Based on current sales volume and cost estimates, and assuming average prices of $2.75 per pound of copper, $1,300 per ounce of gold and $12.00 per pound of molybdenum, our consolidated operating cash flows are estimated to approximate $1.8 billion (net of $0.2 billion in working capital uses and timing of other tax payments) for the year 2019. Estimated consolidated operating cash flows in 2019 also reflect a projected income tax provision of $0.5 billion (refer to “Consolidated Results - Income Taxes” for further discussion of our projected income tax rate for the year 2019). The impact of price changes during 2019 on operating cash flows would approximate $315 million for each $0.10 per pound change in the average price of copper, $40 million for each $50 per ounce change in the average price of gold and $130 million for each $2 per pound change in the average price of molybdenum.

Consolidated Capital Expenditures

Consolidated capital expenditures are expected to approximate $2.4 billion in 2019, including $1.5 billion for major mining projects primarily associated with underground development activities in the Grasberg minerals district and development of the Lone Star oxide project.

MARKETS

World prices for copper, gold and molybdenum can fluctuate significantly. During the period from January 2009 through December 2018, the London Metal Exchange (LME) copper settlement price varied from a low of $1.38 per pound in 2009 to a record high of $4.60 per pound in 2011; the London Bullion Market Association (London) PM gold price fluctuated from a low of $810 per ounce in 2009 to a record high of $1,895 per ounce in 2011, and the Metals Week Molybdenum Dealer Oxide weekly average price ranged from a low of $4.46 per pound in 2015 to a high of $18.60 per pound in 2010. Copper, gold and molybdenum prices are affected by numerous factors beyond our control as described further in our “Risk Factors” contained in Part I, Item 1A. of our annual report on Form 10-K for the year ended December 31, 2018.

Table of Contents

This graph presents LME copper settlement prices and combined reported stocks of copper at the LME, Commodity Exchange Inc., a division of the New York Mercantile Exchange (NYMEX), and the Shanghai Futures Exchange from January 2009 through December 2018. Beginning in mid-2014, copper prices declined because of concerns about slowing growth rates in China, a stronger United States (U.S.) dollar and a broad-based decline in commodity prices, but improved throughout 2017. Beginning in second-quarter 2018, copper prices declined in response to global trade actions initiated by the U.S., lower economic growth in China and globally, and concerns about rising interest rates and a stronger U.S. dollar. For the year 2018, LME copper settlement prices ranged from a low of $2.64 per pound to a high of $3.29 per pound, averaged $2.96 per pound and closed at $2.71 per pound on December 31, 2018. The LME copper settlement price was $2.79 per pound on January 31, 2019.

We believe the underlying long-term fundamentals of the copper business remain positive, supported by the significant role of copper in the global economy and a challenging long-term supply environment attributable to difficulty in replacing existing large mines' output with new production sources. Future copper prices are expected to be volatile and are likely to be influenced by demand from China and emerging markets, as well as economic activity in the U.S. and other industrialized countries, the timing of the development of new supplies of copper and production levels of mines and copper smelters.

Table of Contents

This graph presents London PM gold prices from January 2009 through December 2018. An improving economic outlook, stronger U.S. dollar and positive equity performance contributed to lower demand for gold since 2014. During 2018, London PM gold prices ranged from a low of $1,178 per ounce to a high of $1,355 per ounce, averaged $1,268 per ounce and closed at $1,279 per ounce on December 28, 2018 (there was no London PM gold price quote on December 31, 2018). The London PM gold price was $1,323 per ounce on January 31, 2019.

This graph presents the Metals Week Molybdenum Dealer Oxide weekly average price from January 2009 through December 2018. Molybdenum prices have declined beginning in mid-2014 because of weaker demand from global steel and stainless steel producers, but rebounded starting in 2016. During 2018, the weekly average price for molybdenum ranged from a low of $10.67 per pound to a high of $12.97 per pound, averaged $11.93 per pound and was $11.88 per pound on December 31, 2018. The Metals Week Molybdenum Dealer Oxide weekly average price was $10.95 per pound on January 31, 2019.

Table of Contents

CRITICAL ACCOUNTING ESTIMATES

MD&A is based on our consolidated financial statements, which have been prepared in conformity with generally accepted accounting principles (GAAP) in the U.S. The preparation of these statements requires that we make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. We base these estimates on historical experience and on assumptions that we consider reasonable under the circumstances; however, reported results could differ from those based on the current estimates under different assumptions or conditions. The areas requiring the use of management's estimates are also discussed in Note 1 under the subheading "Use of Estimates." Management has reviewed the following discussion of its development and selection of critical accounting estimates with the Audit Committee of our Board of Directors (the Board).

Mineral Reserves

Recoverable proven and probable reserves are the part of a mineral deposit that can be economically and legally extracted or produced at the time of the reserve determination. The determination of reserves involves numerous uncertainties with respect to the ultimate geology of the ore bodies, including quantities, grades and recovery rates. Estimating the quantity and grade of mineral reserves requires us to determine the size, shape and depth of our ore bodies by analyzing geological data, such as samplings of drill holes, tunnels and other underground workings. In addition to the geology of our mines, assumptions are 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. Our estimates of recoverable proven and probable mineral reserves are prepared by and are the responsibility of our employees. A majority of these estimates are reviewed annually and verified by independent experts in mining, geology and reserve determination.

At December 31, 2018, our consolidated estimated recoverable proven and probable reserves were assessed using long-term prices of $2.50 per pound for copper in North America and South America and $2.00 per pound of copper in Indonesia, $1,000 per ounce of gold and $10 per pound of molybdenum. Reserves for Indonesia would not significantly change if assessed under a long-term price of $2.50 per pound of copper as PT-FI's reserve plan is mill-constrained by the term of its IUPK, which contains rights to extend mining rights through 2041. The following table summarizes changes in our estimated consolidated recoverable proven and probable copper, gold and molybdenum reserves during 2018 and 2017:

	Copper[a] (billion pounds)	Gold (million ounces)	Molybdenum (billion pounds)
Consolidated reserves at December 31, 2016	86.8	26.1	2.95
Net additions (revisions)	3.6	(1.0)	(0.02)
Production	(3.7)	(1.6)	(0.09)
Consolidated reserves at December 31, 2017	86.7	23.5	2.84
PT-FI acquisition of Rio Tinto Joint Venture interest	13.0	10.1	—
Other net additions (revisions)	23.7[b]	(0.4)	1.04[c]
Production	(3.8)	(2.4)	(0.10)
Consolidated reserves at December 31, 2018	119.6	30.8	3.78

a. Includes estimated recoverable metals contained in stockpiles. See below for additional discussion of recoverable copper in stockpiles.

b. Primarily reflects an increase in the copper price assumption from $2.00 per pound to $2.50 per pound for determining reserves in North America and South America.

c. Primarily reflects an increase in molybdenum reserves at North America copper mines and the Cerro Verde mine in Peru.

Refer to Note 20 and “Risk Factors” contained in Part I, Item 1A. of our annual report on Form 10-K for the year ended December 31, 2018, for further information regarding, and risks associated with, our estimated recoverable proven and probable mineral reserves.

As discussed in Note 1, we depreciate our life-of-mine mining and milling assets and values assigned to proven and probable mineral reserves using the unit-of-production (UOP) method based on our estimated recoverable proven and probable mineral reserves. Because the economic assumptions used to estimate mineral reserves may change from period to period and additional geological data is generated during the course of operations, estimates of reserves may change, which could have a significant impact on our results of operations, including changes to prospective depreciation rates and impairments of long-lived asset carrying values. Excluding impacts associated

Table of Contents

with changes in the levels of finished goods inventories and based on projected copper sales volumes, if estimated copper reserves at our mines were 10 percent higher at December 31, 2018, we estimate that our annual depreciation, depletion and amortization (DD&A) expense for 2019 would decrease by $44 million ($22 million to net income attributable to common stock), and a 10 percent decrease in copper reserves would increase DD&A expense by $53 million ($26 million to net income attributable to common stock). We perform annual assessments of our existing assets in connection with the review of mine operating and development plans. If it is determined that assigned asset lives do not reflect the expected remaining period of benefit, any change could affect prospective DD&A rates.

As discussed below and in Note 1, we review and evaluate our long-lived assets for impairment when events or changes in circumstances indicate that the related carrying amount of such assets may not be recoverable, and changes to our estimates of recoverable proven and probable mineral reserves could have an impact on our assessment of asset recoverability.

Recoverable Copper in Stockpiles

We record, as inventory, applicable costs for copper contained in mill and leach stockpiles that are expected to be processed in the future based on proven processing technologies. Mill and leach stockpiles are evaluated periodically to ensure that they are stated at the lower of weighted-average cost or net realizable value (refer to Note 4 and “Consolidated Results” for further discussion of inventory adjustments recorded for the three years ended December 31, 2018). Accounting for recoverable copper from mill and leach stockpiles represents a critical accounting estimate because (i) it is impracticable to determine copper contained in mill and leach stockpiles by physical count, thus requiring management to employ reasonable estimation methods and (ii) recovery rates from leach stockpiles can vary significantly. Refer to Note 1 for further discussion of our accounting policy for recoverable copper in stockpiles.

At December 31, 2018, estimated consolidated recoverable copper was 2.0 billion pounds in leach stockpiles (with a carrying value of $2.2 billion) and 0.6 billion pounds in mill stockpiles (with a carrying value of $0.5 billion).

Impairment of Long-Lived Assets

As discussed in Note 1, we assess the carrying values of our long-lived mining assets when events or changes in circumstances indicate that the related carrying amounts of such assets may not be recoverable. In evaluating our long-lived mining assets for recoverability, we use estimates of pre-tax undiscounted future cash flows of our individual mines. Estimates of future cash flows are derived from current business plans, which are developed using near-term metal price forecasts reflective of the current price environment and management’s projections for long-term average metal prices. In addition to near- and long-term metal price assumptions, other key assumptions include estimates of commodity-based and other input costs; proven and probable mineral reserves estimates, including the timing and cost to develop and produce the reserves; value beyond proven and probable mineral reserve estimates (refer to Note 1); and the use of appropriate discount rates in the measurement of fair value. We believe our estimates and models used to determine fair value are similar to what a market participant would use. As quoted market prices are unavailable for our individual mining operations, fair value is determined through the use of after-tax discounted estimated future cash flows.

For the three years ended December 31, 2018, we concluded there were no events or changes in circumstances that would indicate that the carrying amount of our long-lived mining assets might not be recoverable.

In addition to decreases in future metal price assumptions, other events that could result in future impairment of our long-lived mining assets include, but are not limited to, decreases in estimated recoverable proven and probable mineral reserves and any event that might otherwise have a material adverse effect on mine site production levels or costs. Refer to “Risk Factors” contained in Part I, Item 1A. of our annual report on Form 10-K for the year ended December 31, 2018.

Environmental Obligations

Our current and historical operating activities are subject to various national, state and local environmental laws and regulations that govern the protection of the environment, and compliance with those laws requires significant expenditures. Environmental expenditures are charged to expense or capitalized, depending upon their future economic benefits. The guidance provided by U.S. GAAP requires that liabilities for contingencies be recorded when it is probable that obligations have been incurred, and the cost can be reasonably estimated. At December 31, 2018, environmental obligations recorded in our consolidated balance sheet totaled $1.5 billion, which reflect obligations for environmental liabilities attributed to the Comprehensive Environmental Response,

Table of Contents

Compensation, and Liability Act of 1980 (CERCLA) or analogous state programs and for estimated future costs associated with environmental matters. Refer to Notes 1 and 12 for further discussion of environmental obligations, including a summary of changes in our estimated environmental obligations for the three years ended December 31, 2018.

Accounting for environmental obligations represents a critical accounting estimate because changes to environmental laws and regulations and/or circumstances affecting our operations could result in significant changes to our estimates, which could have a significant impact on our results of operations. We perform a comprehensive annual review of our environmental obligations and also review changes in facts and circumstances associated with these obligations at least quarterly. Judgments and estimates are based upon currently available facts, existing technology, presently enacted laws and regulations, remediation experience, whether or not we are a potentially responsible party (PRP), the ability of other PRPs to pay their allocated portions and take into consideration reasonably possible outcomes. Our cost estimates can change substantially as additional information becomes available regarding the nature or extent of site contamination, updated cost assumptions (including increases and decreases to cost estimates), changes in the anticipated scope and timing of remediation activities, the settlement of environmental matters, required remediation methods and actions by or against governmental agencies or private parties.

Asset Retirement Obligations

We record the fair value of our estimated asset retirement obligations (AROs) associated with tangible long-lived assets in the period incurred. Fair value is measured as the present value of cash flow estimates after considering inflation and a market risk premium. Our cost estimates are reflected on a third-party cost basis and comply with our legal obligation to retire tangible long-lived assets in the period incurred. These cost estimates may differ from financial assurance cost estimates for reclamation activities because of a variety of factors, including obtaining updated cost estimates for reclamation activities, the timing of reclamation activities, changes in scope and the exclusion of certain costs not considered reclamation and closure costs. At December 31, 2018, AROs recorded in our consolidated balance sheet totaled $2.5 billion, including $0.5 billion associated with our remaining oil and gas operations. Refer to Notes 1 and 12 for further discussion of reclamation and closure costs, including a summary of changes in our AROs for the three years ended December 31, 2018.

Generally, ARO activities are specified by regulations or in permits issued by the relevant governing authority, and management judgment is required to estimate the extent and timing of expenditures. Accounting for AROs represents a critical accounting estimate because (i) we will not incur most of these costs for a number of years, requiring us to make estimates over a long period, (ii) reclamation and closure laws and regulations could change in the future and/or circumstances affecting our operations could change, either of which could result in significant changes to our current plans, (iii) the methods used or required to plug and abandon non-producing oil and gas wellbores, remove platforms, tanks, production equipment and flow lines, and restore the wellsite could change, (iv) calculating the fair value of our AROs requires management to estimate projected cash flows, make long-term assumptions about inflation rates, determine our credit-adjusted, risk-free interest rates and determine market risk premiums that are appropriate for our operations and (v) given the magnitude of our estimated reclamation, mine closure and wellsite abandonment and restoration costs, changes in any or all of these estimates could have a significant impact on our results of operations.

Taxes

In preparing our annual consolidated financial statements, we estimate the actual amount of income taxes currently payable or receivable as well as deferred income tax assets and liabilities attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities of a change in tax rates or laws is recognized in income in the period in which such changes are enacted.

Our operations are in multiple jurisdictions where uncertainties arise in the application of complex tax regulations. Some of these tax regimes are defined by contractual agreements with the local government, while others are defined by general tax laws and regulations. We and our subsidiaries are subject to reviews of our income tax filings and other tax payments, and disputes can arise with the taxing authorities over the interpretation of our contracts or laws. Final taxes paid may be dependent upon many factors, including negotiations with taxing authorities. In certain jurisdictions, we must pay a portion of the disputed amount to the local government in order to formally appeal an assessment. Such payment is recorded as a receivable if we believe the amount is collectible.

Table of Contents

A valuation allowance is provided for those deferred income tax assets for which the weight of available evidence suggests that the related benefits will not be realized. In determining the amount of the valuation allowance, we consider estimated future taxable income or loss as well as feasible tax planning strategies in each jurisdiction. If we determine that we will not realize all or a portion of our deferred income tax assets, we will increase our valuation allowance. Conversely, if we determine that we will ultimately be able to realize all or a portion of the related benefits for which a valuation allowance has been provided, all or a portion of the related valuation allowance will be reduced.

Our valuation allowances totaled $4.5 billion at December 31, 2018, which covered all of our U.S. foreign tax credits, U.S. federal net operating loss carryforwards, foreign net operating loss carryforwards, and substantially all of our U.S. state net operating losses. Refer to Note 11 for further discussion.

CONSOLIDATED RESULTS

	Years Ended December 31,			
	2018	2017	2016	
SUMMARY FINANCIAL DATA	(in millions, except per share amounts)			
Revenues[a,b]	$18,628	$16,403	$14,830	[c]
Operating income (loss)[a,d,e]	$4,754	[f,g] $3,690	[h] $(2,729)	[i]
Net income (loss) from continuing operations[j,k,l]	$2,909	[m,n] $2,029	[n] $(3,832)	
Net (loss) income from discontinued operations[o]	$(15)	$66	$(193)	
Net income (loss) attributable to common stock	$2,602	$1,817	$(4,154)	[p]
Diluted net income (loss) per share attributable to common stock:				
Continuing operations	$1.79	$1.21	$(2.96)	
Discontinued operations	(0.01)	0.04	(0.20)	
	$1.78	$1.25	$(3.16)	
Diluted weighted-average common shares outstanding	1,458	1,454	1,318	
Operating cash flows[q]	$3,863	$4,666	$3,737	
Capital expenditures	$1,971	$1,410	$2,813	
At December 31:				
Cash and cash equivalents	$4,217	$4,526	$4,262	
Total debt, including current portion	$11,141	$13,229	$16,126	

a. Refer to Note 16 for a summary of revenues and operating income by operating division.

b. Includes adjustments to embedded derivatives for provisionally priced concentrate and cathode sales (refer to Note 14).

c. Includes net noncash mark-to-market losses associated with crude oil and natural gas derivative contracts totaling $41 million ($41 million to net loss attributable to common stock or $0.03 per share). Refer to Note 14 for further discussion.

d. Includes net gains on sales of assets totaling $208 million ($208 million to net income attributable to common stock or $0.14 per share) in 2018, $81 million ($81 million to net income attributable to common stock or $0.06 per share) in 2017 and $649 million ($649 million to net loss attributable to common stockholders or $0.49 per share) in 2016. Refer to Note 2 and “Net Gain on Sales of Assets” below for further discussion.

e. Includes net charges (credits) for adjustments to environmental obligations and related litigation reserves of $57 million ($57 million to net income attributable to common stock or $0.04 per share) in 2018, $210 million ($210 million to net income attributable to common stock or $0.14 per share) in 2017 and $(16) million ($(16) million to net loss attributable to common stock or $(0.01) per share) in 2016.

f. The year 2018 includes net charges of $112 million ($52 million to net income attributable to common stock or $0.04 per share) consisting of $69 million for Cerro Verde’s new three-year collective labor agreement (CLA) and

$43 million mostly associated with depreciation expense at Freeport Cobalt for the period December 2016 through December 2017, which was suspended while it was classified as held for sale.

g. The year 2018 also includes net charges at PT-FI of $223 million ($110 million to net income attributable to common stock or $0.08 per share) consisting of $69 million for surface water tax disputes with the local regional tax authority in Papua, Indonesia, $32 million for assessments of prior period permit fees with Indonesia's Ministry of Environment and Forestry (MOEF), $72 million for disputed payroll withholding taxes for prior years and other tax settlements, and $62 million to write-off certain previously capitalized project costs for the new smelter in Indonesia, partly offset by inventory adjustments totaling $12 million.

Table of Contents

h. The year 2017 includes net charges of $149 million ($93 to net income attributable to common stock or $0.06 per share) mostly associated with workforce reductions at PT-FI.

i. The year 2016 also includes charges of $5.5 billion ($5.5 billion to net loss attributable to common stockholders or $4.16 per share) consisting of (i) $4.3 billion to reduce the carrying value of oil and gas properties pursuant to full cost accounting rules, (ii) $1.1 billion of other net oil and gas charges, primarily for drillship settlements/idle rig costs, the termination of contracts for support vessels and equipment, inventory adjustments, asset impairment and restructuring charges, and (iii) $69 million of net charges at mining operations primarily reflecting inventory adjustments, PT-FI asset retirement and Cerro Verde social commitments.

j. Includes net gains on early extinguishment and exchanges of debt totaling $7 million (less than $0.01 per share) in 2018, $21 million ($0.01 per share) in 2017 and $26 million ($0.02 per share) in 2016. Refer to Note 8 for further discussion.

k. Includes net tax credits of $632 million ($574 million net of noncontrolling interests or $0.39 per share) in 2018, $438 million ($0.30 per share) in 2017 and $370 million ($374 million net of noncontrolling interests or $0.28 per share) in 2016. Refer to “Income Taxes” below for further discussion.

l. We defer recognizing profits on intercompany sales until final sales to third parties occur. Refer to “Operations - Smelting & Refining” for a summary of net impacts from changes in these deferrals.

m. Includes interest received on tax refunds totaling $30 million ($19 million to net income attributable to common stock or $0.01 per share), mostly associated with the refund of PT-FI’s prior years’ tax receivables.

n. Includes net charges associated with disputed Cerro Verde royalties for prior years of $195 million to net income attributable to common stock ($0.13 per share) in 2018 and $186 million to net income attributable to common stock ($0.13 per share) in 2017. Net charges for the year 2018 consist of charges to production and delivery costs ($14 million), interest expense ($370 million) and other expense ($22 million), net of income tax benefits ($35 million) and noncontrolling interests ($176 million). Net charges for the year 2017 primarily reflect charges to production and delivery ($203 million), interest expense ($145 million) and income taxes ($7 million), net of noncontrolling interests ($169 million). Refer to Note 12 for further discussion.

o. Primarily reflects adjustments to the estimated fair value of contingent consideration related to the November 2016 sale of our interest in TFHL, which will continue to be adjusted through December 31, 2019.

p. Includes a gain on redemption of noncontrolling interest of $199 million ($0.15 per share) for the settlement of a preferred stock obligation. Refer to Note 2 for further discussion.

q. Includes net working capital (uses) sources and timing of other tax payments of $(0.6) billion in 2018, $0.6 billion in 2017 and $87 million in 2016.

	Years Ended December 31,		
	2018	2017	2016[a]
SUMMARY OPERATING DATA			
Copper (millions of recoverable pounds)			
Production	3,813	3,737	4,222
Sales, excluding purchases	3,811	3,700	4,227
Average realized price per pound	$2.91	$2.93	$2.28
Site production and delivery costs per pound[b]	$1.76	$1.60	$1.42
Unit net cash costs per pound[b]	$1.07	$1.19	$1.26
Gold (thousands of recoverable ounces)			
Production	2,439	1,577	1,088
Sales, excluding purchases	2,389	1,562	1,079
Average realized price per ounce	$1,254	$1,268	$1,238
Molybdenum (millions of recoverable pounds)			
Production	95	92	80
Sales, excluding purchases	94	95	74

Average realized price per pound	$12.50	$9.33	$8.33

a. Excludes results from the Tenke mine, which is reported as a discontinued operation.

b. Reflects per pound weighted-average production and delivery costs and unit net cash costs (net of by-product credits) for all copper mines, before net noncash and other costs. For reconciliations of the per pound unit costs by operating division to production and delivery costs applicable to sales reported in our consolidated financial statements, refer to “Product Revenues and Production Costs.”

Table of Contents

Revenues

Consolidated revenues totaled $18.6 billion in 2018, $16.4 billion in 2017 and $14.8 billion in 2016. Our revenues primarily include the sale of copper concentrate, copper cathode, copper rod, gold in concentrate and molybdenum. Following is a summary of changes in our consolidated revenues between periods (in millions):

	2018	2017
Consolidated revenues - prior year	$16,403	$14,830
Mining operations:		
Higher (lower) sales volumes:		
Copper	326	(1,201)
Gold	1,049	598
Molybdenum	(9)	175
(Lower) higher averaged realized prices:		
Copper	(76)	2,405
Gold	(33)	47
Molybdenum	299	95
Adjustments for prior year provisionally priced copper sales	(151)	76
Higher revenues from sales of purchased copper	264	361
Higher Atlantic Copper revenues	270	202
Higher royalties and export duties	(130)	(63)
Lower oil sales volumes	(17)	(1,269)
Other, including intercompany eliminations	433	147
Consolidated revenues - current year	$18,628	$16,403

Mining Operations

Sales Volumes. Higher copper sales volumes in 2018, compared to 2017, primarily reflect higher operating rates in Indonesia. Lower copper sales volumes in 2017, compared to 2016, primarily reflect lower sales volumes in North America mainly caused by lower ore grades.

Higher gold sales volumes in 2018, compared with 2017, primarily reflect higher operating rates and ore grades at PT-FI. Higher gold sales volumes in 2017, compared with 2016, primarily reflect higher ore grades at PT-FI.

Consolidated molybdenum sales volumes in 2018 approximated 2017 sales volumes. Higher molybdenum sales volumes in 2017, compared with 2016, primarily reflect increased demand and higher production.

Refer to “Operations” for further discussion of sales volumes at our mining operations.

Realized Prices. Our consolidated revenues can vary significantly as a result of fluctuations in the market prices of copper, gold and molybdenum. In 2018, our average realized prices were 1 percent lower for copper and gold and 34 percent higher for molybdenum in 2018, compared with 2017. In 2017, our average realized prices were 29 percent higher for copper, 2 percent higher for gold and 12 percent higher for molybdenum, compared with 2016.

As discussed below and in “Disclosures About Market Risks-Commodity Price Risk”, substantially all of our copper concentrate and cathode sales contracts provide final copper pricing in a specified future month (generally one to four months from the shipment date). We record revenues and invoice customers at the time of shipment based on then-current LME prices, which results in an embedded derivative on provisionally priced concentrate and cathode sales that is adjusted to fair value through earnings each period until final pricing on the date of settlement. Average realized copper prices include net adjustments to current period provisionally priced copper sales totaling $(240) million for 2018, $408 million for 2017 and $257 million for 2016. Refer to Note 14 for a summary of total

adjustments to prior period and current period provisionally priced sales.

Prior Year Provisionally Priced Copper Sales. Net adjustments to prior years' provisionally priced copper sales recorded in consolidated revenues totaled $(70) million in 2018, $81 million in 2017 and $5 million in 2016. Refer to Note 14 for a summary of total adjustments to prior period and current period provisionally priced sales.

Table of Contents

Purchased Copper. We purchase copper cathode primarily for processing by our Rod & Refining operations. Purchased copper volumes totaled 356 million pounds in 2018, 273 million pounds in 2017 and 188 million pounds in 2016.

Atlantic Copper Revenues. Atlantic Copper revenues totaled $2.3 billion in 2018, $2.0 billion in 2017 and $1.8 billion in 2016. Higher Atlantic Copper revenues in 2018, compared with 2017, primarily reflect higher copper and gold sales volumes. Higher Atlantic Copper revenues in 2017, compared with 2016, primarily reflect higher copper prices.

Royalties and Export Duties. Primarily reflects royalties for sales from PT-FI that will vary with the volume of metal sold and the prices of copper and gold. PT-FI also pays export duties until development progress for the new smelter in Indonesia exceeds 50 percent. Refer to Note 13 for a summary of PT-FI's royalties and export duties.

Oil & Gas Operations
Oil sales volumes totaled 1.4 million barrels (MMBbls) in 2018, 1.8 MMBbls in 2017 and 34.4 MMBbls in 2016. During the three years ended December 31, 2018, we completed the sales of substantially all of our oil and gas properties. As a result, oil sales volumes have significantly declined in 2018 and 2017, compared to 2016.

Production and Delivery Costs
Consolidated production and delivery costs totaled $11.7 billion in 2018, $10.3 billion in 2017 and $10.7 billion in 2016. Higher production and delivery costs in 2018, compared to 2017, primarily reflected higher mining and milling costs in North America and South America and higher copper purchases at our rod and refining operations. Lower production and delivery costs in 2017, compared to 2016, primarily reflected lower costs related to our oil and gas operations because of the sale of substantially all of our oil and gas properties in late 2016.

The year 2018 included net charges at PT-FI totaling $223 million (refer to the "Summary Financial Data" table above for a summary of these charges) and charges at Cerro Verde totaling $69 million related to its new three-year CLA.

The year 2017 included charges totaling $203 million associated with disputed royalties at Cerro Verde for prior years and $120 million associated with workforce reductions at PT-FI.

The year 2016 included charges totaling $926 million associated with drillship settlements/idle rig and contract termination costs at U.S. oil and gas operations.

Mining Unit Site Production and Delivery Costs
Site production and delivery costs for our copper mining operations primarily include labor, energy and commodity-based inputs, such as sulphuric acid, reagents, liners, tires and explosives. Consolidated unit site production and delivery costs (before net noncash and other costs) for our copper mines averaged $1.76 per pound of copper in 2018, $1.60 per pound in 2017 and $1.42 per pound in 2016. Higher consolidated unit site production and delivery costs in 2018, compared with 2017, primarily reflected higher mining and milling costs at our North America and South America mining operations as well as charges associated with Cerro Verde's new three-year CLA. Higher consolidated unit site production and delivery costs in 2017, compared with 2016, primarily reflected lower consolidated copper sales volumes and higher mining, milling and employee costs at our South America mining operations. Refer to "Operations – Unit Net Cash Costs" for further discussion of unit net cash costs associated with our operating divisions, and to "Product Revenues and Production Costs" for reconciliations of per pound costs by operating division to production and delivery costs applicable to sales reported in our consolidated financial statements.

Our copper mining operations require significant amounts of energy, principally diesel, electricity, coal and natural gas, most of which is obtained from third parties under long-term contracts. Energy represented approximately 20 percent of our copper mine site operating costs in 2018, including purchases of approximately 220 million gallons of

diesel fuel; 8,150 gigawatt hours of electricity at our North America and South America copper mining operations (we generate all of our power at our Indonesia mining operation); 740 thousand metric tons of coal for our coal power plant in Indonesia; and 1 million MMBtu (million British thermal units) of natural gas at certain of our North America mines. Based on current cost estimates, energy will approximate 20 percent of our copper mine site operating costs for 2019.

Table of Contents

Depreciation, Depletion and Amortization
Depreciation will vary under the UOP method as a result of changes in sales volumes and the related UOP rates at our mining operations. Consolidated DD&A totaled $1.75 billion in 2018, $1.7 billion in 2017 and $2.5 billion in 2016. The year 2018 included $31 million of depreciation expense at Freeport Cobalt from December 2016 through December 2017 that was suspended while it was classified as held for sale. Lower DD&A in 2017, compared with 2016, primarily reflected the impact of the sale of substantially all of our oil and gas properties in late 2016.

Impairment of Oil and Gas Properties
Under full cost accounting rules, we recognized impairment charges totaling $4.3 billion in 2016 primarily for U.S. oil and gas properties. Refer to Note 1 for further discussion.

Selling, General and Administrative Expenses
Consolidated selling, general and administrative expenses totaled $443 million in 2018, $477 million in 2017 and $597 million in 2016. Selling, general and administrative expenses included oil and gas contract termination costs of $17 million in 2017 and $85 million for restructuring costs in 2016.

Consolidated selling, general and administrative expenses were net of capitalized general and administrative expenses at our oil and gas operations totaling $78 million in 2016; no such costs were capitalized in subsequent periods.

Mining Exploration and Research Expenses
Consolidated exploration and research expenses for our mining operations totaled $105 million in 2018, $93 million in 2017 and $63 million in 2016. Our mining exploration activities are generally associated with our existing mines, focusing on opportunities to expand reserves and resources to support development of additional future production capacity. A drilling program to further delineate the Lone Star resource continues to indicate significant additional mineralization in this district, with higher ore grades than our other North America copper mines. Exploration results continue to indicate opportunities for significant future potential reserve additions in North America and South America. Exploration spending is expected to approximate $65 million in 2019.

Environmental Obligations and Shutdown Costs
Environmental obligation costs reflect net revisions to our long-term environmental obligations, which vary from period to period because of changes to environmental laws and regulations, the settlement of environmental matters and/or circumstances affecting our operations that could result in significant changes in our estimates (refer to “Critical Accounting Estimates – Environmental Obligations” for further discussion). Shutdown costs include care-and-maintenance costs and any litigation, remediation or related expenditures associated with closed facilities or operations. Net charges for environmental obligations and shutdown costs totaled $89 million in 2018, $244 million in 2017 and $14 million in 2016. Higher costs in 2018 and 2017, compared with 2016, primarily reflect adjustments to environmental obligations resulting from revised cost estimates. Refer to Note 12 for environmental obligations and litigation matters.

Net Gain on Sales of Assets
Net gain on sales of assets totaled $208 million in 2018, primarily reflecting gains on sales of assets, adjustments to the carrying value of assets no longer held for sale and fair value adjustments associated with contingent consideration related to the 2016 sale of onshore California oil and gas properties. Relative to 2018, we realized $50 million in contingent consideration related to the 2016 sale of oil and gas properties, which was received in 2019, and we would receive additional contingent consideration related to this transaction consisting of $50 million per year for 2019 and 2020 if the price of Brent crude oil averages over $70 per barrel in each of these calendar years.

Net gain on sales of assets totaled $81 million in 2017, primarily associated with oil and gas transactions and adjustments to assets held for sale.

Net gain on sales of assets totaled $649 million in 2016, primarily related to the gains recognized for the Morenci and Timok transactions, partly offset by estimated losses on assets held for sale. Net gain on sales of assets for the year 2016 also included $183 million for contingent consideration, including $150 million associated with the sale of the Deepwater Gulf of Mexico (GOM) oil and gas properties, and $33 million for the fair value of the potential $150 million in contingent consideration from the sale of the onshore California oil and gas properties discussed above.

Table of Contents

Refer to Note 2 for further discussion of dispositions.

Interest Expense, Net

Consolidated interest costs (before capitalization and excluding interest expense associated with disputed Cerro Verde royalties) totaled $671 million in 2018, $777 million in 2017 and $854 million in 2016. Lower interest expense in 2018 and 2017, compared to 2016, reflects a decrease in total debt. Interest expense associated with disputed Cerro Verde royalties (refer to Note 12 for further discussion) totaled $370 million in 2018 and $145 million in 2017.

Capitalized interest varies with the level of expenditures for our development projects and average interest rates on our borrowings, and totaled $96 million in 2018, $121 million in 2017 and $99 million in 2016. Refer to “Operations” and “Capital Resources and Liquidity – Investing Activities” for further discussion of current development projects.

Net Gain on Early Extinguishment and Exchanges of Debt

Net gain on early extinguishment and exchanges of debt totaled $7 million in 2018, $21 million in 2017 and $26 million in 2016. Refer to Note 8 for further discussion.

Other Income (Expense), Net

Other income (expense), net primarily includes foreign currency translation adjustments and interest income, and totaled $76 million in 2018, $(8) million in 2017 and $(14) million in 2016. The year 2018, compared to the year 2017, reflects higher interest income and $30 million of interest received on tax refunds, mostly associated with the refund of PT-FI’s prior years’ tax receivables.

Income Taxes

Following is a summary of the approximate amounts used in the calculation of our consolidated income tax (provision) benefit from continuing operations for the years ended December 31 (in millions, except percentages):

	2018				2017			
	Income (Loss)[a]	Effective Tax Rate	Income Tax (Provision) Benefit		Income (Loss)[a]	Effective Tax Rate	Income Tax (Provision) Benefit	
U.S.	$352	7%	$ (24)	[b,c]	$41	(156)%	$ 64	[d]
South America	706	43%	(303)		1,059	41%	(439)	
Indonesia	3,027	42%	(1,284)	[e]	2,033	43%	(869)	
U.S. tax reform	—	N/A	123	[f]	—	N/A	393	[f]
Cerro Verde royalty dispute	(406)	N/A	35	[g]	(348)	N/A	(7)	[g]
Change in PT-FI tax rates	—	N/A	504	[h]	—	N/A	—	
Eliminations and other	213	N/A	(42)		117	N/A	(25)	
Consolidated FCX	$3,892	25%	$ (991)		$2,902	30%	$ (883)	

	2016			
	Income (Loss)[a]	Effective Tax Rate	Income Tax (Provision) Benefit	
U.S.	$(865)	41%	$ 357	[i]
South America	501	43%	(216)	[j]
Indonesia	1,058	42%	(442)	
Impairment of oil and gas properties	(4,317)	N/A	—	[k]
Eliminations and other	151	N/A	(70)	
Consolidated FCX	$(3,472)	(11)%	$ (371)	

a. Represents income (loss) from continuing operations by geographic location before income taxes and equity in affiliated companies' net earnings.

b. The year 2018 includes net tax credits of $9 million for changes in valuation allowances and a tax credit of $5 million associated with the settlement of a state income tax examination.

c. The year 2018 also includes a tax charge of $29 million associated with adjustments to the calculation of transition tax resulting from recently released guidance by the U.S. Internal Revenue Service.

Table of Contents

d. The year 2017 includes net tax credits of $24 million for changes in valuation allowances and $21 million associated with alternative minimum tax (AMT) credit carryforwards, which are not related to the AMT credits resulting from U.S. tax reform that are presented separately in the above tables.

e. Includes a tax credit of $20 million ($17 million net of noncontrolling interest) for adjustments to PT-FI's historical tax positions.

f. The Tax Cuts and Jobs Act (the Act), which was enacted on December 22, 2017, included significant modifications to U.S. tax laws and created many new complex tax provisions. In December 2018, we completed our analysis of the Act and recognized benefits totaling $123 million ($119 million net of noncontrolling interest) in 2018 associated with AMT credit refunds. During 2017, we recorded net tax benefits related to specific provisions of the Act totaling $393 million, reflecting the reversal of valuation allowances associated with anticipated refunds of AMT credits through 2021 ($272 million) and a decrease in corporate income tax rates ($121 million).

g. Refer to Note 12 for a summary of charges related to Cerro Verde’s disputed royalties for prior years.

h. Reflects a tax credit of $504 million ($453 million net of noncontrolling interest) resulting from the change in PT-FI's tax rates in accordance with its IUPK.

i. Includes tax credits of $357 million associated with AMT credits, changes to valuation allowances and net operating loss carryback claims.

j. Includes a net tax credit of $13 million ($17 million net of noncontrolling interests) related to changes in Peruvian tax rules.

k. As a result of the impairment to U.S. oil and gas properties, we recorded tax charges to establish valuation allowances against U.S. federal and state deferred tax assets that will not generate a future benefit.

Our consolidated effective income tax rate is a function of the combined effective tax rates for the jurisdictions in which we operate. Accordingly, variations in the relative proportions of jurisdictional income result in fluctuations to our consolidated effective income tax rate. Assuming achievement of current sales volume and cost estimates and average prices of $2.75 per pound for copper, $1,300 per ounce for gold and $12.00 per pound for molybdenum for 2019, we estimate our consolidated effective tax rate for the year 2019 would approximate 46 percent (comprised of an estimated effective rate of 0 percent on U.S. income, 38 percent on Indonesia income and 40 percent on South America income). Because of our U.S. tax position, we do not record a financial statement impact for income or losses generated in the U.S.; therefore, our consolidated effective rate is generally higher than the international rates at lower copper prices and lower than international rates at higher copper prices.

Refer to Note 11 for further discussion of income taxes.

Net (Loss) Income from Discontinued Operations

In November 2016, we completed the sale of our interest in TFHL. In accordance with accounting guidelines, the results of TFHL have been reported as discontinued operations for all periods presented. Net (loss) income from discontinued operations totaled $(15) million in 2018 and $66 million in 2017, primarily reflecting adjustments to the estimated fair value of contingent consideration related to the sale of our interest in TFHL, which will continue to be adjusted through December 31, 2019. Net loss from discontinued operations of $193 million in 2016 primarily reflected the loss on disposal. Refer to Note 2 for further discussion.

Gain on Redemption and Preferred Dividends Attributable to Redeemable Noncontrolling Interest

In connection with the December 2016 sale of the Deepwater GOM oil and gas properties, we settled a preferred stock obligation, which resulted in the recognition of a $199 million gain on redemption. Refer to Note 2 for further discussion.

OPERATIONS

North America Copper Mines

We operate seven open-pit copper mines in North America – Morenci, Bagdad, Safford, Sierrita and Miami in Arizona, and Chino and Tyrone in New Mexico. All of the North America mining operations are wholly owned, except for Morenci.

We record our undivided joint venture interest in Morenci using the proportionate consolidation method. In May 2016, we completed the sale of an additional 13 percent undivided interest in Morenci. As a result of the transaction, our undivided interest in Morenci was prospectively reduced from 85 percent to 72 percent. Refer to Note 2 for further discussion.

Table of Contents

The North America copper mines include open-pit mining, sulfide ore concentrating, leaching and solution extraction/electrowinning (SX/EW) operations. A majority of the copper produced at our North America copper mines is cast into copper rod by our Rod & Refining segment. The remainder of our North America copper sales is in the form of copper cathode or copper concentrate, a portion of which is shipped to Atlantic Copper (our wholly owned smelter). Molybdenum concentrate, gold and silver are also produced by certain of our North America copper mines.

Operating and Development Activities. We have significant undeveloped reserves and resources in North America and a portfolio of potential long-term development projects. Future investments will be undertaken based on the results of economic and technical feasibility studies, and are dependent on market conditions. We continue to study opportunities to reduce the capital intensity of our potential long-term development projects.

Through exploration drilling, we have identified a significant resource at our wholly owned Lone Star project located near the Safford operation in eastern Arizona. An initial project to develop the Lone Star oxide ores commenced in first-quarter 2018, with first production expected by the end of 2020. Initial production from the Lone Star oxide ores is expected to average approximately 200 million pounds of copper per year. Total capital costs, including mine equipment and pre-production stripping, are expected to approximate $850 million and will benefit from the utilization of existing infrastructure at the adjacent Safford operation. As of December 31, 2018, approximately $290 million has been incurred for this project. The project also advances exposure to a significant sulfide resource. We expect to incorporate recent positive drilling and ongoing results in our future development plans.

Operating Data. Following is summary operating data for the North America copper mines for the years ended December 31:

	2018	2017	2016	
Operating Data, Net of Joint Venture Interests				
Copper (millions of recoverable pounds)				
Production	1,404	1,518	1,831	
Sales, excluding purchases	1,428	1,484	1,841	[a]
Average realized price per pound	$ 2.96	$ 2.85	$ 2.24	
Molybdenum (millions of recoverable pounds)				
Production[b]	32	33	33	
100% Operating Data				
Leach operations				
Leach ore placed in stockpiles (metric tons per day)	681,400	679,000	737,400	
Average copper ore grade (percent)	0.24	0.28	0.31	
Copper production (millions of recoverable pounds)	951	1,016	1,120	
Mill operations				
Ore milled (metric tons per day)	301,000	299,500	300,500	
Average ore grade (percent):				
Copper	0.35	0.39	0.47	
Molybdenum	0.02	0.03	0.03	
Copper recovery rate (percent)	87.8	86.4	85.5	
Copper production (millions of recoverable pounds)	719	788	958	

a. Included approximately 60 million pounds of copper from the 13 percent undivided interest in Morenci that we sold in May 2016.

b. Refer to “Consolidated Results” for our consolidated molybdenum sales volumes, which include sales of molybdenum produced at the North America copper mines.

Copper sales volumes from our North America copper mines totaled 1.4 billion pounds in 2018, 1.5 billion pounds in 2017 and 1.8 billion pounds in 2016. The decreases in 2018 and 2017, compared with 2016, primarily reflect lower ore grades.

North America copper sales are estimated to approximate 1.4 billion pounds of copper in 2019. Refer to “Outlook” for projected molybdenum sales volumes.

Table of Contents

Unit Net Cash Costs. Unit net cash costs per pound of copper is a measure intended to provide investors with information about the cash-generating capacity of our mining operations expressed on a basis relating to the primary metal product for our respective operations. We use this measure for the same purpose and for monitoring operating performance by our mining operations. This information differs from measures of performance determined in accordance with U.S. GAAP and should not be considered in isolation or as a substitute for measures of performance determined in accordance with U.S. GAAP. This measure is presented by other metals mining companies, although our measure may not be comparable to similarly titled measures reported by other companies.

Gross Profit per Pound of Copper and Molybdenum

The following tables summarize unit net cash costs and gross profit per pound of copper at our North America copper mines for the three years ended December 31, 2018. Refer to "Product Revenues and Production Costs" for an explanation of the "by-product" and "co-product" methods and a reconciliation of unit net cash costs per pound to production and delivery costs applicable to sales reported in our consolidated financial statements.

	2018			2017		
	By-Product Method	Co-Product Method		By-Product Method	Co-Product Method	
		Copper	Molybdenum[a]		Copper	Molybdenum[a]
Revenues, excluding adjustments	$2.96	$2.96	$ 11.64	$2.85	$2.85	$ 7.80
Site production and delivery, before net noncash and other costs shown below	1.94	1.77	9.03	1.63	1.52	5.75
By-product credits	(0.26)	—	—	(0.17)	—	—
Treatment charges	0.11	0.10	—	0.10	0.10	—
Unit net cash costs	1.79	1.87	9.03	1.56	1.62	5.75
DD&A	0.25	0.23	0.73	0.29	0.27	0.54
Noncash and other costs, net	0.07	0.06	0.17	0.06	0.06	0.07
Total unit costs	2.11	2.16	9.93	1.91	1.95	6.36
Revenue adjustments, primarily for pricing on prior period open sales	—	—	—	—	—	—
Gross profit per pound	$0.85	$0.80	$ 1.71	$0.94	$0.90	$ 1.44
Copper sales (millions of recoverable pounds)	1,426	1,426		1,481	1,481	
Molybdenum sales (millions of recoverable pounds)[a]			32			33

a. Reflects sales of molybdenum produced by certain of the North America copper mines to our molybdenum sales company at market-based pricing.

Our North America copper mines have varying cost structures because of differences in ore grades and characteristics, processing costs, by-product credits and other factors. During 2018, average unit net cash costs (net of by-product credits) for the North America copper mines ranged from $1.55 per pound to $2.63 per pound at the individual mines and averaged $1.79 per pound. Higher average unit net cash costs (net of by-product credits) of $1.79 in 2018, compared with $1.56 per pound in 2017, primarily reflected higher mining and milling costs, partly offset by higher molybdenum credits.

Because certain assets are depreciated on a straight-line basis, North America's average unit depreciation rate may vary with asset additions and the level of copper production and sales. North America's average unit depreciation rate is expected to be lower in 2019, compared to 2018, as a result of reserve additions. See "Critical Accounting Estimates-Mineral Reserves" for further discussion.

Average unit net cash costs (net of by-product credits) for our North America copper mines are expected to approximate $1.86 per pound of copper in 2019, based on achievement of current sales volume and cost

estimates and assuming an average molybdenum price of $12.00 per pound. North America's average unit net cash costs in 2019 would change by approximately $0.04 per pound for each $2 per pound change in the average price of molybdenum.

Table of Contents

	2017			2016		
	By-Product Method	Co-Product Method		By-Product Method	Co-Product Method	
		Copper	Molyb-denum[a]		Copper	Molyb-denum[a]
Revenues, excluding adjustments	$2.85	$2.85	$ 7.80	$2.24	$2.24	$ 6.34
Site production and delivery, before net noncash and other costs shown below	1.63	1.52	5.75	1.41	1.34	4.91
By-product credits	(0.17)	—	—	(0.12)	—	—
Treatment charges	0.10	0.10	—	0.11	0.10	—
Unit net cash costs	1.56	1.62	5.75	1.40	1.44	4.91
DD&A	0.29	0.27	0.54	0.29	0.27	0.60
Noncash and other costs, net	0.06	0.06	0.07	0.04	0.04	0.06
Total unit costs	1.91	1.95	6.36	1.73	1.75	5.57
Revenue adjustments, primarily for pricing on prior period open sales	—	—	—	—	—	—
Gross profit per pound	$0.94	$0.90	$ 1.44	$0.51	$0.49	$ 0.77
Copper sales (millions of recoverable pounds)	1,481	1,481		1,836	1,836	
Molybdenum sales (millions of recoverable pounds)[a]			33			33

a. Reflects sales of molybdenum produced by certain of the North America copper mines to our molybdenum sales company at market-based pricing.

Unit net cash costs (net of by-product credits) for our North America copper mines increased to $1.56 per pound of copper in 2017, compared with $1.40 per pound in 2016, primarily reflecting lower copper sales volumes.

South America Mining

We operate two copper mines in South America – Cerro Verde in Peru (in which we own a 53.56 percent interest) and El Abra in Chile (in which we own a 51 percent interest), which are consolidated in our financial statements.

South America mining includes open-pit mining, sulfide ore concentrating, leaching and SX/EW operations. Production from our South America mines is sold as copper concentrate or cathode under long-term contracts. Our South America mines also sell a portion of their copper concentrate production to Atlantic Copper. In addition to copper, the Cerro Verde mine produces molybdenum concentrate and silver.

Operating and Development Activities. Cerro Verde's expanded operations benefit from its large-scale, long-lived reserves and cost efficiencies. Cerro Verde's concentrator facilities have continued to perform well, with average mill throughput rates of 387,600 metric tons of ore per day for the year 2018. During 2018, Cerro Verde received a modified environmental permit allowing it to operate its existing concentrator facilities at rates up to 409,500 metric tons of ore per day.

We continue to evaluate a large-scale expansion at El Abra to process additional sulfide material and to achieve higher recoveries. El Abra's large sulfide resource could potentially support a major mill project similar to facilities constructed at Cerro Verde. Technical and economic studies are being advanced to determine the optimal scope and timing of the project.

Table of Contents

Operating Data. Following is summary operating data for our South America mining operations for the years ended December 31.

	2018	2017	2016
Copper (millions of recoverable pounds)			
Production	1,249	1,235	1,328
Sales	1,253	1,235	1,332
Average realized price per pound	$ 2.87	$ 2.97	$ 2.31
Molybdenum (millions of recoverable pounds)			
Production[a]	28	27	21
Leach operations			
Leach ore placed in stockpiles (metric tons per day)	195,200	142,800	149,100
Average copper ore grade (percent)	0.33	0.37	0.41
Copper production (millions of recoverable pounds)	287	255	328
Mill operations			
Ore milled (metric tons per day)	387,600	360,100	353,400
Average ore grade (percent):			
Copper	0.38	0.44	0.43
Molybdenum	0.01	0.02	0.02
Copper recovery rate (percent)	84.3	81.2	85.8
Copper production (millions of recoverable pounds)	962	980	1,000

a. Refer to “Consolidated Results” for our consolidated molybdenum sales volumes, which include sales of molybdenum produced at Cerro Verde.

Consolidated copper sales volumes from South America of 1.25 billion pounds in 2018 were approximately 1 percent higher than 1.24 billion pounds in 2017, primarily reflecting higher mining and milling rates, partly offset by lower ore grades.

Lower consolidated copper sales volumes from South America of 1.24 billion pounds in 2017, compared with 1.33 billion pounds in 2016, primarily reflected lower recovery rates at Cerro Verde and lower ore grades at El Abra.

Copper sales from South America mines are expected to approximate 1.3 billion pounds of copper in 2019. Refer to “Outlook” for projected molybdenum sales volumes. Since late January 2019, our El Abra operation has experienced heavy rainfall and electrical storms, resulting in a suspension of operations since February 4, 2019. We have been unable to assess damages because of poor road conditions and inaccessible areas and we do not currently know when normal operations will resume. We estimate the impact on 2019 production will approximate 8 million pounds of copper through mid-February 2019, and additional impacts of approximately 600 thousand pounds of copper per day are expected until normal operations resume.

Unit Net Cash Costs. Unit net cash costs per pound of copper is a measure intended to provide investors with information about the cash-generating capacity of our mining operations expressed on a basis relating to the primary metal product for our respective operations. We use this measure for the same purpose and for monitoring operating performance by our mining operations. This information differs from measures of performance determined in accordance with U.S. GAAP and should not be considered in isolation or as a substitute for measures of performance determined in accordance with U.S. GAAP. This measure is presented by other metals mining companies, although our measure may not be comparable to similarly titled measures reported by other companies.

Gross Profit per Pound of Copper

The following tables summarize unit net cash costs and gross profit per pound of copper at our South America mining operations for the three years ended December 31, 2018. Unit net cash costs per pound of copper are reflected under the by-product and co-product methods as the South America mining operations also had sales of molybdenum and silver. Refer to “Product Revenues and Production Costs” for an explanation of the “by-product” and “co-product” methods and a reconciliation of unit net cash costs per pound to production and delivery costs applicable to sales reported in our consolidated financial statements.

Table of Contents

	2018		2017		2016	
	By-Product Method	Co-Product Method	By-Product Method	Co-Product Method	By-Product Method	Co-Product Method
Revenues, excluding adjustments	$2.87	$ 2.87	$2.97	$ 2.97	$2.31	$ 2.31
Site production and delivery, before net noncash and other costs shown below	1.79 [a]	1.65	1.59	1.49	1.26	1.20
By-product credits	(0.24)	—	(0.18)	—	(0.10)	—
Treatment charges	0.19	0.19	0.22	0.22	0.24	0.24
Royalty on metals	0.01	0.01	0.01	0.01	0.01	—
Unit net cash costs	1.75	1.85	1.64	1.72	1.41	1.44
DD&A	0.44	0.40	0.43	0.39	0.41	0.39
Noncash and other costs, net	0.06 [b]	0.06	0.19 [b]	0.18	0.03	0.03
Total unit costs	2.25	2.31	2.26	2.29	1.85	1.86
Revenue adjustments, primarily for pricing on prior period open sales	(0.03)	(0.03)	0.03	0.03	0.01	0.01
Gross profit per pound	$0.59	$ 0.53	$0.74	$ 0.71	$0.47	$ 0.46
Copper sales (millions of recoverable pounds)	1,253	1,253	1,235	1,235	1,332	1,332

a. Includes $0.06 per pound of copper for the year 2018 associated with charges for Cerro Verde's new three-year CLA.

b. Includes charges totaling $0.01 per pound of copper for the year 2018 and $0.16 per pound of copper for the year 2017, associated with disputed Cerro Verde royalties for prior years (refer to Note 12 for further discussion).

During 2018, unit net cash costs (net of by-product credits) for the South America mines averaged $1.75 per pound, including $1.67 per pound of copper for the Cerro Verde mine and $2.13 per pound for the El Abra mine. Higher average unit net cash costs (net of by-product credits) for our South America mining operations in 2018, compared with $1.64 per pound in 2017, primarily reflected higher mining and milling costs and costs associated with Cerro Verde’s new three-year CLA, partly offset by higher by-product credits.

Unit net cash costs (net of by-product credits) for our South America mining operations increased to $1.64 per pound of copper in 2017, compared with $1.41 per pound in 2016, primarily reflecting lower sales volumes and higher mining, milling and employee costs at Cerro Verde, partly offset by higher by-product credits.

Revenues from Cerro Verde’s concentrate sales are recorded net of treatment charges, which will vary with Cerro Verde’s sales volumes and the price of copper.

Because certain assets are depreciated on a straight-line basis, South America’s unit depreciation rate may vary with asset additions and the level of copper production and sales. South America’s average unit depreciation rate is expected to be lower in 2019, compared to 2018, as a result of reserve additions. See “Critical Accounting Estimates-Mineral Reserves” for further discussion.

Revenue adjustments primarily result from changes in prices on provisionally priced copper sales recognized in prior periods. Refer to “Consolidated Results - Revenues” for further discussion of adjustments to prior period provisionally priced copper sales.

Average unit net cash costs (net of by-product credits) for our South America mining operations are expected to approximate $1.66 per pound of copper in 2019, based on current sales volume and cost estimates and assuming average prices of $12.00 per pound of molybdenum in 2019.

Indonesia Mining

We operate PT-FI's mining operations, in which we own a 48.76 percent interest and consolidate in our financial statements. PT-FI's assets include one of the world's largest copper and gold deposits at the Grasberg minerals district in Papua, Indonesia. PT-FI produces copper concentrate that contains significant quantities of gold and silver.

Substantially all of PT-FI's copper concentrate is sold under long-term contracts, and in 2018, approximately 38 percent of PT-FI's copper concentrate was sold to PT Smelting (PT-FI's 25 percent-owned smelter and refinery in Gresik, Indonesia).

Table of Contents

Regulatory Matters. On December 21, 2018, we completed the transaction with the Indonesian government regarding PT-FI's long-term mining rights and share ownership. We expect our share of future cash flows of the expanded PT-FI asset base, combined with the cash proceeds received in the transaction, to be comparable to our share of anticipated future cash flows under PT-FI's former COW and Rio Tinto Joint Venture.

In connection with the transaction, a 40 percent share ownership in PT-FI was issued to PT Inalum and PTI (which is expected to be owned by PT Inalum and the provincial/regional government in Papua) and the Rio Tinto Joint Venture interests were effectively merged into PT-FI. As a result, PT Inalum's and PTI's collective share ownership of PT-FI totals 51.24 percent and our share ownership is 48.76 percent. The arrangements provide for us and the other pre-transaction PT-FI shareholders to retain the economics of the revenue and cost sharing arrangements under the former Rio Tinto Joint Venture. As a result, our economic interest in PT-FI is expected to approximate 81 percent from 2019 through 2022.

We, PT-FI, PTI and PT Inalum also entered into a shareholders agreement at closing, which includes provisions related to the governance and management of PT-FI, and establishes our control over the management of PT-FI's operations. As a result, we continue to consolidate PT-FI in our financial statements.

Refer to Note 2 for further discussion of the transaction.

Concurrent with closing the transaction, the Indonesian government granted PT-FI an IUPK to replace its former COW, enabling PT-FI to conduct operations in the Grasberg minerals district through 2041. Under the terms of the IUPK, PT-FI has been granted an extension of mining rights through 2031, with rights to extend mining rights through 2041, subject to PT-FI completing the construction of a new smelter in Indonesia within five years of closing the transaction and fulfilling its defined fiscal obligations to the Indonesian government. The IUPK, and related documentation, contains legal and fiscal terms and is legally enforceable through 2041. In addition, we, as a foreign investor, have rights to resolve investment disputes with the Indonesian government through international arbitration. Refer to Note 13 for further discussion of PT-FI's IUPK.

Refer to "Risk Factors" contained in Part I, Item 1A. of our annual report on Form 10-K for the year ended December 31, 2018, for further discussion of risks associated with our mining operations in Indonesia.

Operating and Development Activities. PT-FI is currently mining the final phase of the Grasberg open pit and expects to transition to the Grasberg Block Cave (GBC) underground mine in the first half of 2019.

PT-FI continues to advance several projects in the Grasberg minerals district related to the development of its large-scale, long-lived, high-grade underground ore bodies. In aggregate, these underground ore bodies are expected to produce large-scale quantities of copper and gold following the transition from the Grasberg open pit.

PT-FI's estimated annual capital spending on underground mine development projects is expected to average $0.7 billion per year over the next four years, net of scheduled contributions from PT Inalum. In accordance with applicable accounting guidance, aggregate costs (before scheduled contributions from PT Inalum), which are expected to average $0.9 billion per year through 2022, will be reflected as an investing activity in FCX's cash flow statement, and contributions from PT Inalum, which are expected to average approximately $0.17 billion per year through 2022, will be reflected as a financing activity. Considering the long-term nature and size of these projects, actual costs could vary from these estimates.

PT-FI has also committed to construct a new smelter in Indonesia by December 21, 2023. PT-FI has reviewed various process technologies and is initiating front-end engineering and design for the selected technology and intends to pursue financing, commercial and potential partner arrangements for this project, which has a preliminary estimated

capital cost in the $3 billion range. The economics of PT-FI's share of the new smelter will be borne by PT-FI's shareholders according to their respective long-term share ownership percentages.

The following provides additional information on the continued development of the Common Infrastructure project, the GBC underground mine and the Deep Mill Level Zone (DMLZ) ore body that lies below the Deep Ore Zone (DOZ) underground mine.

Common Infrastructure and GBC Underground Mine. In 2004, PT-FI commenced its Common Infrastructure project to provide access to its large undeveloped underground ore bodies located in the Grasberg minerals district through a tunnel system located approximately 400 meters deeper than its existing underground tunnel system. In addition

Table of Contents

to providing access to our underground ore bodies, the tunnel system will enable PT-FI to conduct future exploration in prospective areas associated with currently identified ore bodies. The tunnel system was completed to the Big Gossan terminal and development of the GBC and DMLZ underground mines is advancing using the Common Infrastructure project tunnels as access.

The GBC underground mine accounts for approximately half of our recoverable proven and probable reserves in Indonesia. Substantial progress has been made to prepare for the transition to mining of the GBC underground mine. First undercut blasting occurred in September 2018, first drawbell blasting occurred in December 2018 and cave production is scheduled for the first half of 2019. All underground mining levels and the ore flow system are being commissioned. Production rates over the next five years are expected to ramp up to 130,000 metric tons per day.

Mine development capital for the GBC underground mine and associated Common Infrastructure is expected to approximate $6.8 billion, including $3.9 billion incurred through December 31, 2018 ($0.6 billion during 2018).

DMLZ. The DMLZ ore body lies below the DOZ mine at the 2,590-meter elevation and represents the downward continuation of mineralization in the Ertsberg East Skarn system and neighboring Ertsberg porphyry. In September 2015, PT-FI initiated pre-commercial production that represented ore extracted during the development phase for the purpose of obtaining access to the ore body. During third-quarter 2018, PT-FI commenced hydraulic fracturing activities to manage rock stresses and pre-condition the DMLZ underground mine for large-scale production following mining induced seismic activity experienced in 2017 and 2018. Results to date have been effective in managing rock stresses and pre-conditioning the cave. PT-FI expects to commence the ramp-up of production in the DMLZ underground mine by mid-2019 and to reach full production rates of 80,000 metric tons per day in 2022. Estimates of timing of future production continue to be reviewed and may be modified as additional information becomes available.

Mine development capital costs for the DMLZ underground mine are expected to approximate $3.3 billion, including $2.5 billion incurred through December 31, 2018 (approximately $0.4 billion during 2018).

Table of Contents

Operating Data. Following is summary operating data for our Indonesia mining operations for the years ended December 31.

	2018	2017	2016
Operating Data, Net of Rio Tinto Joint Venture Interest[a]			
Copper (millions of recoverable pounds)			
Production	1,160	984	1,063
Sales	1,130	981	1,054
Average realized price per pound	$ 2.89	$ 3.00	$ 2.32
Gold (thousands of recoverable ounces)			
Production	2,416	1,554	1,061
Sales	2,366	1,540	1,054
Average realized price per ounce	$ 1,254	$ 1,268	$ 1,237
100% Operating Data			
Ore milled (metric tons per day):[b]			
Grasberg open pit	133,300	101,800	119,700
DOZ underground mine	33,800	31,200	38,000
DMLZ underground mine	3,200	3,200	4,400
GBC underground mine	4,000	3,600	2,700
Big Gossan underground mine	3,800	600	900
Total	178,100	140,400	165,700
Average ore grade:			
Copper (percent)	0.98	1.01	0.91
Gold (grams per metric ton)	1.58	1.15	0.68
Recovery rates (percent):			
Copper	91.8	91.6	91.0
Gold	84.7	85.0	82.2
Production (recoverable):			
Copper (millions of pounds)	1,227	996	1,063
Gold (thousands of ounces)	2,697	1,554	1,061

a. Operating data through December 21, 2018, is net of the former Rio Tinto Joint Venture interest. Refer to Note 2 for further discussion.

b. Amounts represent the approximate average daily throughput processed at PT-FI's mill facilities from each producing mine and from development activities that result in metal production.

Higher copper and gold sales volumes from our Indonesia mining operations of 1.1 billion pounds of copper and 2.4 million ounces of gold in 2018, compared with 1.0 billion pounds of copper and 1.5 million ounces of gold in 2017, primarily reflected higher milling rates and gold ore grades.

Sales volumes from our Indonesia mining operations totaled 1.0 billion pounds of copper and 1.5 million ounces of gold in 2017, compared with 1.1 billion pounds of copper and 1.1 million ounces of gold in 2016. Lower copper sales volumes in 2017 primarily reflected the impact of regulatory restrictions on PT-FI's concentrate exports at the beginning of 2017, partly offset by higher copper ore grades. Higher gold sales volumes in 2017 primarily reflected higher gold ore grades.

As PT-FI transitions mining from the open pit to underground, production is expected to be significantly lower in 2019 and 2020, compared to 2018. Metal production is expected to improve significantly by 2021 following a

ramp-up period. Consolidated sales volumes from Indonesia mining are expected to approximate 615 million pounds of copper and 785 thousand ounces of gold in 2019. Indonesia mining's projected sales volumes and unit net cash costs for the year 2019 are dependent on a number of factors, including operational performance, timing of shipments, workforce productivity and the Indonesian government’s extension of PT-FI’s export license. PT-FI has applied for a one-year extension of its export license, which currently expires on February 16, 2019.

Unit Net Cash Costs. Unit net cash costs per pound of copper is a measure intended to provide investors with information about the cash-generating capacity of our mining operations expressed on a basis relating to the

Table of Contents

primary metal product for our respective operations. We use this measure for the same purpose and for monitoring operating performance by our mining operations. This information differs from measures of performance determined in accordance with U.S. GAAP and should not be considered in isolation or as a substitute for measures of performance determined in accordance with U.S. GAAP. This measure is presented by other metal mining companies, although our measure may not be comparable to similarly titled measures reported by other companies.

Gross Profit per Pound of Copper and per Ounce of Gold

The following tables summarize the unit net cash (credits) costs and gross profit per pound of copper and per ounce of gold at our Indonesia mining operations for the three years ended December 31, 2018. Refer to "Product Revenues and Production Costs" for an explanation of "by-product" and "co-product" methods and a reconciliation of unit net cash (credits) costs per pound to production and delivery costs applicable to sales reported in our consolidated financial statements.

	2018			2017		
	By-Product Method	Co-Product Method		By-Product Method	Co-Product Method	
		Copper	Gold		Copper	Gold
Revenues, excluding adjustments	$2.89	$2.89	$1,254	$3.00	$3.00	$1,268
Site production and delivery, before net noncash and other costs shown below	1.48	0.77	335	1.57	0.94	396
Gold and silver credits	(2.69)	—	—	(2.05)	—	—
Treatment charges	0.26	0.14	59	0.27	0.16	67
Export duties	0.16	0.08	36	0.12	0.07	30
Royalty on metals	0.21	0.11	48	0.17	0.10	47
Unit net cash (credits) costs	(0.58)	1.10	478	0.08	1.27	540
DD&A	0.54	0.28	121	0.57	0.34	142
Noncash and other costs, net	0.21 [a]	0.11	48	0.17 [b]	0.10	42
Total unit costs	0.17	1.49	647	0.82	1.71	724
Revenue adjustments, primarily for pricing on prior period open sales	(0.03)	(0.03)	7	0.04	0.04	6
PT Smelting intercompany profit (loss)	0.04	0.03	12	(0.02)	(0.01)	(7)
Gross profit per pound/ounce	$2.73	$1.40	$626	$2.20	$1.32	$543
Copper sales (millions of recoverable pounds)	1,130	1,130		981	981	
Gold sales (thousands of recoverable ounces)			2,366			1,540

a. Includes $0.20 per pound of copper primarily associated with PT-FI net charges (refer to "Consolidated Results" for a summary of these charges).

b. Includes $0.12 per pound of copper of costs charged directly to production and delivery costs as a result of workforce reductions.

A significant portion of PT-FI's costs are fixed, and unit costs vary depending on volumes and other factors. As a result of higher gold and silver credits and sales volumes, Indonesia had unit net cash (credits) costs (including gold and silver credits) of $(0.58) per pound of copper in 2018, compared with $0.08 per pound in 2017.

Treatment charges vary with the volume of metals sold and the price of copper, and royalties vary with the volume of metals sold and the prices of copper and gold.

PT-FI's export duties totaled $180 million in 2018, $115 million in 2017 and $96 million in 2016, and PT-FI's royalties totaled $238 million in 2018, $173 million in 2017 and $131 million in 2016. Refer to Note 13 for further discussion of PT-FI's export duties and royalties.

Revenue adjustments primarily result from changes in prices on provisionally priced copper sales recognized in prior periods. Refer to “Consolidated Results - Revenues” for further discussion of adjustments to prior period provisionally priced copper sales.

PT Smelting intercompany profit (loss) represents the change in the deferral of 25 percent of PT-FI’s profit on sales to PT Smelting. Refer to “Operations - Smelting & Refining” for further discussion.

Table of Contents

Because of the fixed nature of a large portion of Indonesia's costs, unit net cash costs vary from quarter to quarter depending on copper and gold volumes. Assuming an average gold price of $1,300 per ounce for 2019 and achievement of current sales volume and cost estimates, unit net cash costs (net of gold and silver credits) for Indonesia mining are expected to approximate $1.55 per pound of copper in 2019. Unit net cash costs are expected to decline significantly following the ramp-up of production. Indonesia mining's unit net cash costs for the year 2019 would change by approximately $0.06 per pound for each $50 per ounce change in the average price of gold.

	2017			2016		
	By-Product Method	Co-Product Method		By-Product Method	Co-Product Method	
		Copper	Gold		Copper	Gold
Revenues, excluding adjustments	$3.00	$3.00	$1,268	$2.32	$2.32	$1,237
Site production and delivery, before net noncash and other costs shown below	1.57	0.94	396	1.61	1.04	553
Gold and silver credits	(2.05)	—	—	(1.30)	—	—
Treatment charges	0.27	0.16	67	0.28	0.18	97
Export duties	0.12	0.07	30	0.09	0.06	31
Royalty on metals	0.17	0.10	47	0.13	0.07	47
Unit net cash costs	0.08	1.27	540	0.81	1.35	728
DD&A	0.57	0.34	142	0.36	0.24	125
Noncash and other costs, net	0.17 [a]	0.10	42	0.05	0.03	17
Total unit costs	0.82	1.71	724	1.22	1.62	870
Revenue adjustments, primarily for pricing on prior period open sales	0.04	0.04	6	—	—	16
PT Smelting intercompany loss	(0.02)	(0.01)	(7)	(0.02)	(0.02)	(8)
Gross profit per pound/ounce	$2.20	$1.32	$543	$1.08	$0.68	$375
Copper sales (millions of recoverable pounds)	981	981		1,054	1,054	
Gold sales (thousands of recoverable ounces)			1,540			1,054

a. Includes $0.12 per pound of copper of costs charged directly to production and delivery costs as a result of workforce reductions.

Unit net cash costs (net of gold and silver credits) for our Indonesia mining operations of $0.08 per pound of copper in 2017 were lower than unit net cash costs of $0.81 per pound in 2016, primarily reflecting higher gold and silver credits.

Higher DD&A in 2017, compared with 2016, primarily related to higher amortization of asset retirement costs associated with revised estimates at the end of 2016 for an overburden stockpile. Because certain assets are depreciated on a straight-line basis, PT-FI's unit depreciation rate varies with the level of copper production and sales.

Molybdenum Mines

We have two wholly owned molybdenum mines – the Henderson underground mine and the Climax open-pit mine, both in Colorado. The Henderson and Climax mines produce high-purity, chemical-grade molybdenum concentrate, which is typically further processed into value-added molybdenum chemical products. The majority of the molybdenum concentrate produced at the Henderson and Climax mines, as well as from our North America and South America copper mines, is processed at our own conversion facilities.

Operating and Development Activities. Production from the Molybdenum mines totaled 35 million pounds of molybdenum in 2018, 32 million pounds in 2017 and 26 million pounds in 2016. Refer to "Consolidated Results" for our consolidated molybdenum operating data, which includes sales of molybdenum produced at our Molybdenum

mines, and from our North America and South America copper mines, and refer to “Outlook” for projected consolidated molybdenum sales volumes.

Unit Net Cash Costs Per Pound of Molybdenum. Unit net cash costs per pound of molybdenum is a measure intended to provide investors with information about the cash-generating capacity of our mining operations expressed on a basis relating to the primary metal product for our respective operations. We use this measure for the same purpose and for monitoring operating performance by our mining operations. This information differs from measures of performance determined in accordance with U.S. GAAP and should not be considered in isolation or

Table of Contents

as a substitute for measures of performance determined in accordance with U.S. GAAP. This measure is presented by other metals mining companies, although our measure may not be comparable to similarly titled measures reported by other companies.

Average unit net cash costs for our molybdenum mines totaled $8.77 per pound of molybdenum in 2018, $7.71 per pound in 2017 and $8.28 per pound in 2016. The increase in the average unit net cash costs for molybdenum in 2018, compared to 2017, primarily reflected higher operating rates and lower ore grades. The decrease in the average unit net cash costs for molybdenum in 2017, compared to 2016, primarily reflected higher sales volumes. Based on current sales volume and cost estimates, average unit net cash costs for the Molybdenum mines are expected to approximate $8.90 per pound of molybdenum for the year 2019. Refer to “Product Revenues and Production Costs” for a reconciliation of unit net cash costs per pound to production and delivery costs applicable to sales reported in our consolidated financial statements.

Smelting & Refining

We wholly own and operate a smelter in Arizona (Miami smelter), a refinery in Texas (El Paso refinery) and a smelter and refinery in Spain (Atlantic Copper). Additionally, PT-FI owns 25 percent of a smelter and refinery in Gresik, Indonesia (PT Smelting). Treatment charges for smelting and refining copper concentrate consist of a base rate per pound of copper and per ounce of gold and are generally fixed. Treatment charges represent a cost to our mining operations and income to Atlantic Copper and PT Smelting. Thus, higher treatment charges benefit our smelter operations and adversely affect our mining operations. Our North America copper mines are less significantly affected by changes in treatment charges because these operations are largely integrated with our Miami smelter and El Paso refinery. Through this form of downstream integration, we are assured placement of a significant portion of our concentrate production.

Atlantic Copper smelts and refines copper concentrate and markets refined copper and precious metals in slimes. Following is a summary of Atlantic Copper’s concentrate purchases from unaffiliated third parties and our copper mining operations for the three years ended December 31, 2018:

	2018	2017	2016
Third parties	77 %	67 %	77 %
North America copper mines	14	18	13
South America mining	5	15	7
Indonesia mining	4	—	3
	100%	100%	100%

PT-FI’s contract with PT Smelting provides for PT-FI to supply 100 percent of the copper concentrate requirements (subject to a minimum or maximum treatment charge rate) necessary for PT Smelting to produce 205,000 metric tons of copper annually on a priority basis. PT-FI may also sell copper concentrate to PT Smelting at market rates for quantities in excess of 205,000 metric tons of copper annually. PT-FI supplied 90 percent of PT Smelting’s concentrate requirements in 2018, 93 percent in 2017 and 88 percent in 2016. PT Smelting processed 38 percent in 2018, 46 percent in 2017 and 42 percent in 2016 of PT-FI’s concentrate production.

PT Smelting produced 258,800 metric tons of copper anode from its smelter and 257,600 metric tons of copper cathode from its refinery in 2018; 245,800 metric tons of copper anode from its smelter and 247,800 metric tons of copper cathode from its refinery in 2017; and 255,700 metric tons of copper anode from its smelter and 241,700 metric tons of copper cathode from its refinery in 2016.

In early 2017, the Indonesian government issued new regulations to address exports of unrefined metals, including copper concentrate and anode slimes, and other matters related to the mining sector. These regulations permit the export of anode slimes, which is necessary for PT Smelting to continue operating. As a result of labor disturbances

and a delay in the renewal of its export license for anode slimes, PT Smelting's operations were shut down from mid-January 2017 until early March 2017. PT Smelting has applied for a one-year extension of its anode slimes export license, which currently expires February 26, 2019.

PT Smelting's maintenance turnarounds (which range from two weeks to a month to complete) typically are expected to occur approximately every two years, with short-term maintenance turnarounds in the interim. PT Smelting completed a 25-day maintenance turnaround during 2016, and a 30-day maintenance turnaround during 2018. In addition to its scheduled annual maintenance in November 2018, PT Smelting also experienced downtime in December 2018 caused by unscheduled maintenance at its sole-source oxygen supplier. This resulted in a

Table of Contents

temporary shutdown of PT Smelting's operations in December 2018. The next major maintenance turnaround is scheduled for 2020.

We defer recognizing profits on sales from our mining operations to Atlantic Copper and on 25 percent of PT-FI's sales to PT Smelting until final sales to third parties occur. Changes in these deferrals attributable to variability in intercompany volumes resulted in net additions (reductions) to net income attributable to common stock of $42 million ($0.03 per share) in 2018, $(21) million ($(0.01) per share) in 2017 and $(8) million ($(0.01) per share) in 2016. Our net deferred profits on our inventories at Atlantic Copper and PT Smelting to be recognized in future periods' net income attributable to common stock totaled $31 million at December 31, 2018. Net additions to net income attributable to common stock for fourth-quarter 2018 totaled $46 million; based on our current projections, we don't expect any significant adjustments in first-quarter 2019. Quarterly variations in ore grades, the timing of intercompany shipments and changes in product prices will result in variability in our net deferred profits and quarterly earnings.

CAPITAL RESOURCES AND LIQUIDITY

Our consolidated operating cash flows vary with prices realized from copper, gold and molybdenum; our sales volumes; production costs; income taxes; other working capital changes; and other factors. We believe that we have a high-quality portfolio of long-lived copper assets positioned to generate long-term value. We have commenced a project to develop the Lone Star oxide ores near the Safford operation in eastern Arizona, and PT-FI has several projects in the Grasberg minerals district related to the development of its large-scale, long-lived, high-grade underground ore bodies (refer to "Operations - Indonesia Mining" for further discussion of PT-FI's transition mining from the open pit to underground). We are also pursuing other opportunities to enhance net present values, and we continue to advance studies for future development of our copper resources, the timing of which will be dependent on market conditions.

As presented in "Outlook", our projected capital expenditures for 2019 are approximately $0.6 billion higher than projected operating cash flows. A large portion of the capital expenditures relate to projects that are expected to add significant production and cash flow in future periods, enabling us to generate operating cash flows exceeding capital expenditures in future years. We have cash on hand and the financial flexibility to fund these expenditures and will continue to be disciplined in deploying capital. Subject to future commodity prices for copper, gold and molybdenum, we expect estimated consolidated operating cash flows in 2019, plus available cash and availability under our credit facility, to be sufficient to fund our budgeted capital expenditures, cash dividends, noncontrolling interest distributions and other cash requirements for the year.

Refer to "Outlook" for further discussion of projected operating cash flows for 2019.

Cash

Following is a summary of the U.S. and international components of consolidated cash and cash equivalents available to the parent company, net of noncontrolling interests' share, taxes and other costs at December 31, 2018 (in billions):

Cash at domestic companies	$3.2
Cash at international operations	1.0
Total consolidated cash and cash equivalents	4.2
Noncontrolling interests' share	(0.4)
Cash, net of noncontrolling interests' share	$3.8
Withholding taxes and other	—[a]
Net cash available	$3.8

a. Rounds to less than $0.1 billion.

Cash held at our international operations is generally used to support our foreign operations' capital expenditures, operating expenses, debt repayments, working capital and other tax payments, or other cash needs. Management believes that sufficient liquidity is available in the U.S. from cash balances and availability from our revolving credit facility. We have not elected to permanently reinvest earnings from our foreign subsidiaries, and we have recorded deferred tax liabilities for foreign earnings that are available to be repatriated to the U.S. From time to time, our foreign subsidiaries distribute earnings to the U.S. through dividends that are subject to applicable withholding taxes and noncontrolling interests' share.

Table of Contents

Debt

At December 31, 2018, consolidated debt totaled $11.1 billion, with a related weighted-average interest rate of 4.55 percent. We had no borrowings, $13 million in letters of credit issued and approximately $3.5 billion available under our revolving credit facility at December 31, 2018. Refer to “Financing Activities” below and Note 8 for further discussion of debt.

Operating Activities

We generated consolidated operating cash flows of $3.9 billion in 2018 (net of $0.6 billion in working capital uses and timing of other tax payments), $4.7 billion in 2017 (including $0.6 billion in working capital sources and timing of other tax payments) and $3.7 billion in 2016 (including $87 million in working capital sources and timing of other tax payments).

Lower operating cash flows for 2018, compared with 2017, primarily reflected an increase in working capital uses mostly because of timing of international income tax payments. Higher operating cash flows for 2017, compared with 2016, primarily reflected the impact of higher copper prices and an increase in working capital sources from income tax refunds and other tax receivable collections, partly offset by increases in inventories.

Investing Activities

Capital Expenditures. Capital expenditures, including capitalized interest, totaled $2.0 billion in 2018, including $1.2 billion for major mining projects; $1.4 billion in 2017, including $0.9 billion for major mining projects; and $2.8 billion in 2016, consisting of $1.6 billion for mining operations (including $1.2 billion for major projects) and $1.2 billion for oil and gas operations.

Higher capital expenditures in 2018, compared with 2017, primarily reflected development of Safford’s Lone Star oxide project. Lower capital expenditures in 2017, compared with 2016, primarily reflected a decrease in oil and gas exploration and development activities as a result of the sale of substantially all of our oil and gas properties in late 2016.

Refer to “Outlook” for further discussion of projected capital expenditures for 2019.

Acquisitions and Dispositions. In December 2018, we completed the transaction with the Indonesian government regarding PT-FI’s long-term mining rights and share ownership. In connection with the transaction, PT-FI acquired Rio Tinto’s Joint Venture interests for $3.5 billion. In addition, we received proceeds of $350 million for the sale of 100 percent of our interests in PTI and $107 million from Rio Tinto for its share of the 2018 joint venture cash flows.

In 2016, proceeds, net of closing adjustments, from asset sales totaled $6.4 billion, primarily associated with the sales of our interest in TFHL; oil and gas properties; an additional 13 percent undivided interest in Morenci; and an interest in the Timok exploration project in Serbia.

Refer to Note 2 for further discussion of acquisitions and dispositions.

Financing Activities

Debt Transactions. Net repayments of debt in 2018 totaled $2.1 billion, primarily consisting of $1.4 billion for senior notes due March 2018 and $454 million for senior notes due in 2022 and 2023.

Net repayments of debt in 2017 totaled $2.9 billion, primarily for the redemption and repayment of senior notes.

Net repayments of debt in 2016 totaled $3.9 billion, primarily for the repayment of an unsecured bank term loan and payments on the Cerro Verde credit facility.

Refer to Note 8 for further discussion of debt transactions.

Equity Transactions. In December 2018, an aggregate 40 percent share ownership in PT-FI was issued to PT Inalum and PTI, for $3.5 billion. See Note 2 for further discussion.

In 2016, net proceeds from the sale of common stock totaled $1.5 billion, reflecting sales of our common stock under registered at-the-market equity offerings. Refer to Note 10 for further discussion of equity transactions.

Table of Contents

Dividends. In February 2018, the Board reinstated a cash dividend on our common stock. We paid dividends on our common stock totaling $218 million in 2018. On December 19, 2018, we declared a quarterly cash dividend of $0.05 per share on our common stock, which was paid on February 1, 2019, to shareholders of record as of January 15, 2019. The declaration of dividends is at the discretion of our Board and will depend upon our financial results, cash requirements, future prospects and other factors deemed relevant by our Board.

Dividends paid on our common stock totaling $2 million in 2017 and $6 million in 2016 related to accumulated dividends paid for vested stock-based compensation.

Cash dividends and other distributions paid to noncontrolling interests totaled $278 million in 2018, $174 million in 2017 and $693 million in 2016 (including $582 million for the redemption of a redeemable noncontrolling interest). These payments will vary based on the operating results and cash requirements of our consolidated subsidiaries.

CONTRACTUAL OBLIGATIONS

We have contractual and other long-term obligations, including debt maturities based on principal amounts, which we expect to fund with available cash, projected operating cash flows, availability under our revolving credit facility or future financing transactions, if necessary. Following is a summary of these various obligations at December 31, 2018 (in millions):

	Total	2019	2020 to 2021	2022 to 2023	Thereafter
Debt maturities	$11,152	$17	$2,124	$5,074	$ 3,937
Scheduled interest payment obligations[a]	4,867	508	969	661	2,729
ARO and environmental obligations[b]	8,069	449	809	532	6,279
Take-or-pay contracts[c]	2,920	2,144	381	94	301
Operating lease obligations	365	53	80	61	171
Total[d]	$27,373	$3,171	$4,363	$6,422	$ 13,417

a. Scheduled interest payment obligations were calculated using stated coupon rates for fixed-rate debt and interest rates applicable at December 31, 2018, for variable-rate debt.

b. Represents estimated cash payments, on an undiscounted and unescalated basis, associated with ARO and environmental activities (including $476 million for our oil and gas operations). The timing and the amount of these payments could change as a result of changes in regulatory requirements, changes in scope and timing of ARO activities, the settlement of environmental matters and as actual spending occurs. Refer to Note 12 for additional discussion of environmental and ARO matters.

c. Represents contractual obligations for purchases of goods or services agreements enforceable and legally binding and that specify all significant terms, and primarily include the procurement of copper concentrate ($1.5 billion), cobalt ($0.5 billion), electricity ($0.4 billion) and transportation services ($0.3 billion). Some of our take-or-pay contracts are settled based on the prevailing market rate for the service or commodity purchased, and in some cases, the amount of the actual obligation may change over time because of market conditions. Obligations for copper concentrate provide for deliveries of specified volumes to Atlantic Copper at market-based prices. Obligations for cobalt hydroxide intermediate provide for deliveries of specified volumes to Freeport Cobalt at market-based prices. Electricity obligations are primarily for long-term power purchase agreements in North America and contractual minimum demand at the South America mines. Transportation obligations are primarily for South America contracted ocean freight.

d. This table excludes certain other obligations in our consolidated balance sheets, such as estimated funding for pension, postretirement and other employee benefit obligations as the funding may vary from year to year based on changes in the fair value of plan assets and actuarial assumptions, commitments and contingencies totaling $97 million and unrecognized tax benefits totaling $230 million where the timing of settlement is not determinable, and

other less significant amounts. This table also excludes purchase orders for inventory and other goods and services, as purchase orders typically represent authorizations to purchase rather than binding agreements.

In addition to our debt maturities and other contractual obligations discussed above, we have other commitments, which we expect to fund with available cash, projected operating cash flows, available credit facilities or future financing transactions, if necessary. These include (i) PT-FI's commitment to provide one percent of its annual revenue for the development of the local people in its area of operations through the Freeport Partnership Fund for Community Development, (ii) Cerro Verde's scheduled installment payments for disputed mining royalty assessments and (iii) other commercial commitments, including standby letters of credit, surety bonds and guarantees. Refer to Notes 12 and 13 for further discussion of these commitments.

Table of Contents

CONTINGENCIES

Environmental

The cost of complying with environmental laws is a fundamental and substantial cost of our business. At December 31, 2018, we had $1.5 billion recorded in our consolidated balance sheet for environmental obligations attributed to CERCLA or analogous state programs and for estimated future costs associated with environmental obligations that are considered probable based on specific facts and circumstances.

We incurred environmental capital expenditures and other environmental costs (including our joint venture partners' shares) to comply with applicable environmental laws and regulations that affect our operations totaling $0.4 billion in 2018, $0.5 billion in 2017 and $0.4 billion in 2016. For 2019, we expect to incur approximately $0.5 billion of aggregate environmental capital expenditures and other environmental costs. The timing and amount of estimated payments could change as a result of changes in regulatory requirements, changes in scope and timing of reclamation and plug and abandonment activities, the settlement of environmental matters and the rate at which actual spending occurs on continuing matters.

Refer to Note 12 and "Risk Factors" contained in Part I, Item 1A. of our annual report on Form 10-K for the year ended December 31, 2018, for further information about environmental regulation, including significant environmental matters.

Asset Retirement Obligations

We recognize AROs as liabilities when incurred, with the initial measurement at fair value. These obligations, which are initially estimated based on discounted cash flow estimates, are accreted to full value over time through charges to cost of sales. Mine reclamation costs for disturbances are recorded as an ARO and as a related asset retirement cost (ARC) (included in property, plant, equipment and mine development costs) in the period of disturbance. Oil and gas plugging and abandonment costs are recognized as an ARO and as a related ARC (included in oil and gas properties) in the period in which the well is drilled or acquired. For non-operating properties without reserves, changes to the ARO are recorded in earnings. Our cost estimates are reflected on a third-party cost basis and comply with our legal obligation to retire tangible, long-lived assets. At December 31, 2018, we had $2.5 billion recorded in our consolidated balance sheet for AROs, including $0.5 billion related to our oil and gas properties. Spending on AROs totaled $160 million in 2018, $71 million in 2017 and $188 million in 2016 (including $83 million in 2018, $30 million in 2017 and $133 million in 2016 for our oil and gas operations). For 2019, we expect to incur approximately $0.3 billion in aggregate ARO payments (including $114 million for our oil and gas operations). Refer to Note 12 for further discussion.

Litigation and Other Contingencies

Refer to Notes 2 and 12, and "Legal Proceedings" contained in Part I, Item 3. of our annual report on Form 10-K for the year ended December 31, 2018, for further discussion of contingencies associated with legal proceedings and other matters.

DISCLOSURES ABOUT MARKET RISKS

Commodity Price Risk

Our consolidated revenues from our mining operations include the sale of copper concentrate, copper cathode, copper rod, gold, molybdenum and other metals by our North America and South America mines, the sale of copper concentrate (which also contains significant quantities of gold and silver) by our Indonesia mining operations, the sale of molybdenum in various forms by our molybdenum operations, and the sale of copper cathode, copper anode and gold in anode and slimes by Atlantic Copper. Our financial results will vary with fluctuations in the market prices of the commodities we produce, primarily copper and gold, and to a lesser extent molybdenum and silver. For projected

sensitivities of our operating cash flow to changes in commodity prices, refer to “Outlook.” World market prices for these commodities have fluctuated historically and are affected by numerous factors beyond our control. Refer to “Risk Factors” contained in Part I, Item 1A. of our annual report on Form 10-K for the year ended December 31, 2018, for further discussion of financial risks associated with fluctuations in the market prices of the commodities we sell.

During 2018, our mined copper was sold 59 percent in concentrate, 21 percent as cathode and 20 percent as rod from North America operations. Substantially all of our copper concentrate and cathode sales contracts provide final copper pricing in a specified future month (generally one to four months from the shipment date) based primarily on quoted LME monthly average copper settlement prices. We receive market prices based on prices in the specified

Table of Contents

future period, which results in price fluctuations recorded through revenues until the date of settlement. We record revenues and invoice customers at the time of shipment based on then-current LME prices, which results in an embedded derivative on our provisionally priced concentrate and cathode sales that is adjusted to fair value through earnings each period, using the period-end forward prices, until final pricing on the date of settlement. To the extent final prices are higher or lower than what was recorded on a provisional basis, an increase or decrease to revenues is recorded each reporting period until the date of final pricing. Accordingly, in times of rising copper prices, our revenues benefit from adjustments to the final pricing of provisionally priced sales pursuant to contracts entered into in prior periods; in times of falling copper prices, the opposite occurs.

Following are the (unfavorable) favorable impacts of net adjustments to the prior years' provisionally priced copper sales for the years ended December 31 (in millions, except per share amounts):

	2018	2017	2016
Revenues	$(70)	$81	$ 5
Net income attributable to common stock	$(31)	$34	$ 2
Net income per share attributable to common stock	$(0.02)	$0.02	$ —

At December 31, 2018, we had provisionally priced copper sales at our copper mining operations totaling 308 million pounds of copper (net of intercompany sales and noncontrolling interests) recorded at an average price of $2.71 per pound, subject to final pricing over the next several months. We estimate that each $0.05 change in the price realized from the December 31, 2018, provisional price recorded would have an approximate $10 million effect on 2019 net income attributable to common stock. The LME copper settlement price closed at $2.79 per pound on January 31, 2019.

Foreign Currency Exchange Risk

The functional currency for most of our operations is the U.S. dollar. Substantially all of our revenues and a significant portion of our costs are denominated in U.S. dollars; however, some costs and certain asset and liability accounts are denominated in local currencies, including the Indonesian rupiah, Australian dollar, Peruvian sol, Chilean peso and euro. We recognized foreign currency translation gains (losses) on balances denominated in foreign currencies totaling $14 million in 2018, $(5) million in 2017 and $32 million in 2016, primarily at our Indonesia and South America mines. Generally, our operating results are positively affected when the U.S. dollar strengthens in relation to those foreign currencies and are adversely affected when the U.S. dollar weakens in relation to those foreign currencies.

Following is a summary of estimated annual payments and the impact of changes in foreign currency rates on our annual operating costs:

	Exchange Rate per $1 at December 31,			Estimated Annual Payments		10% Change in Exchange Rate (in millions of U.S. dollars)[a]	
	2018	2017	2016	(in local currency)	(in millions of U.S. dollars)[b]	Increase	Decrease
Indonesia							
Rupiah	14,409	13,480	13,369	9.6 trillion	$ 666	$(61)	$ 74
Australian dollar	1.41	1.28	1.39	311 million	$ 221	$(20)	$ 25
South America							
Peruvian sol	3.38	3.25	3.36	2.3 billion	$ 667	$(61)	$ 74
Chilean peso	695	615	670	179 billion	$ 258	$(23)	$ 29

Atlantic Copper							
Euro	0.87	0.83	0.95	137 million	$ 157	$(14)	$ 17

a. Reflects the estimated impact on annual operating costs assuming a 10 percent increase or decrease in the exchange rate reported at December 31, 2018.

b. Based on exchange rates at December 31, 2018.

Interest Rate Risk

At December 31, 2018, we had total debt maturities based on principal amounts of $11.2 billion, of which approximately 10 percent was variable-rate debt with interest rates based on the London Interbank Offered Rate. Refer to “Risk Factors” contained in Part I, Item 1A. of our annual report on Form 10-K for the year ended December 31, 2018. The table below presents average interest rates for our scheduled maturities of principal for

Table of Contents

our outstanding debt (excluding fair value adjustments) and the related fair values at December 31, 2018 (in millions, except percentages):

	2019	2020	2021	2022	2023	Thereafter	Fair Value
Fixed-rate debt	$5	$1,004	$614	$1,897	$2,653	$3,812	$9,076
Average interest rate	0.8 %	3.1 %	3.9 %	3.5 %	4.7 %	5.4 %	4.5 %
Variable-rate debt	$12	—	$505	$525	—	$125	$1,163
Average interest rate	1.7 %	—	4.4 %	4.4 %	—	6.3 %	4.6 %

NEW ACCOUNTING STANDARDS

Refer to Note 1 for discussion of recently issued accounting standards and their projected impact on our future financial statements and disclosures.

OFF-BALANCE SHEET ARRANGEMENTS

Refer to Note 13 for discussion of off-balance sheet arrangements.

PRODUCT REVENUES AND PRODUCTION COSTS

Mining Product Revenues and Unit Net Cash Costs

Unit net cash costs per pound of copper and molybdenum are measures intended to provide investors with information about the cash-generating capacity of our mining operations expressed on a basis relating to the primary metal product for the respective operations. We use this measure for the same purpose and for monitoring operating performance by our mining operations. This information differs from measures of performance determined in accordance with U.S. GAAP and should not be considered in isolation or as a substitute for measures of performance determined in accordance with U.S. GAAP. These measures are presented by other metals mining companies, although our measures may not be comparable to similarly titled measures reported by other companies.

We present gross profit per pound of copper in the following tables using both a “by-product” method and a “co-product” method. We use the by-product method in our presentation of gross profit per pound of copper because (i) the majority of our revenues are copper revenues, (ii) we mine ore, which contains copper, gold, molybdenum and other metals, (iii) it is not possible to specifically assign all of our costs to revenues from the copper, gold, molybdenum and other metals we produce, (iv) it is the method used to compare mining operations in certain industry publications and (v) it is the method used by our management and the Board to monitor operations and to compare mining operations in certain industry publications. In the co-product method presentations, shared costs are allocated to the different products based on their relative revenue values, which will vary to the extent our metals sales volumes and realized prices change.

We show revenue adjustments for prior period open sales as separate line items. Because these adjustments do not result from current period sales, these amounts have been reflected separately from revenues on current period sales. Noncash and other costs, which are removed from site production and delivery costs in the calculation of unit net cash costs, consist of items such as stock-based compensation costs, start-up costs, inventory adjustments, long-lived asset impairments, restructuring and/or unusual charges. As discussed above, gold, molybdenum and other metal revenues at copper mines are reflected as credits against site production and delivery costs in the by-product method. The following schedules are presentations under both the by-product and co-product methods together with reconciliations to amounts reported in our consolidated financial statements.

92

Table of Contents

North America Copper Mines Product Revenues, Production Costs and Unit Net Cash Costs
Year Ended December 31, 2018

(In millions)	By-Product Method	Co-Product Method			
		Copper	Molybdenum[a]	Other[b]	Total
Revenues, excluding adjustments	$ 4,217	$4,217	$ 376	$90	$4,683
Site production and delivery, before net noncash and other costs shown below	2,766	2,522	291	52	2,865
By-product credits	(367)	—	—	—	—
Treatment charges	150	144	—	6	150
Net cash costs	2,549	2,666	291	58	3,015
DD&A	359	327	24	8	359
Noncash and other costs, net	94	87	6	1	94
Total costs	3,002	3,080	321	67	3,468
Other revenue adjustments, primarily for pricing on prior period open sales	(5)	(5)	—	—	(5)
Gross profit	$ 1,210	$1,132	$ 55	$23	$1,210
Copper sales (millions of recoverable pounds)	1,426	1,426			
Molybdenum sales (millions of recoverable pounds)[a]			32		
Gross profit per pound of copper/molybdenum:					
Revenues, excluding adjustments	$ 2.96	$2.96	$ 11.64		
Site production and delivery, before net noncash and other costs shown below	1.94	1.77	9.03		
By-product credits	(0.26)	—	—		
Treatment charges	0.11	0.10	—		
Unit net cash costs	1.79	1.87	9.03		
DD&A	0.25	0.23	0.73		
Noncash and other costs, net	0.07	0.06	0.17		
Total unit costs	2.11	2.16	9.93		
Other revenue adjustments, primarily for pricing on prior period open sales	—	—	—		
Gross profit per pound	$ 0.85	$0.80	$ 1.71		

Reconciliation to Amounts Reported
(In millions)

	Revenues	Production and Delivery	DD&A
Totals presented above	$ 4,683	$2,865	$ 359
Treatment charges	(30)	120	—
Noncash and other costs, net	—	94	—
Other revenue adjustments, primarily for pricing on prior period open sales	(5)	—	—
Eliminations and other	46	49	1
North America copper mines	4,694	3,128	360
Other mining[c]	17,060	11,853	1,269
Corporate, other & eliminations	(3,126)	(3,290)	125

As reported in FCX's consolidated financial statements	$ 18,628	$ 11,691	$ 1,754

a. Reflects sales of molybdenum produced by certain of the North America copper mines to our molybdenum sales company at market-based pricing.

b. Includes gold and silver product revenues and production costs.

c. Represents the combined total for our other mining operations as presented in Note 16.

Table of Contents

North America Copper Mines Product Revenues, Production Costs and Unit Net Cash Costs
Year Ended December 31, 2017

(In millions)	By-Product Method	Co-Product Method			
		Copper	Molybdenum[a]	Other[b]	Total
Revenues, excluding adjustments	$ 4,215	$4,215	$ 254	$ 90	$4,559
Site production and delivery, before net noncash and other costs shown below	2,406	2,256	187	51	2,494
By-product credits	(256)	—	—	—	—
Treatment charges	157	150	—	7	157
Net cash costs	2,307	2,406	187	58	2,651
DD&A	423	397	18	8	423
Noncash and other costs, net	89	86	2	1	89
Total costs	2,819	2,889	207	67	3,163
Other revenue adjustments, primarily for pricing on prior period open sales	4	4	—	—	4
Gross profit	$ 1,400	$1,330	$ 47	$ 23	$1,400
Copper sales (millions of recoverable pounds)	1,481	1,481			
Molybdenum sales (millions of recoverable pounds)[a]			33		
Gross profit per pound of copper/molybdenum:					
Revenues, excluding adjustments	$ 2.85	$2.85	$ 7.80		
Site production and delivery, before net noncash and other costs shown below	1.63	1.52	5.75		
By-product credits	(0.17)	—	—		
Treatment charges	0.10	0.10	—		
Unit net cash costs	1.56	1.62	5.75		
DD&A	0.29	0.27	0.54		
Noncash and other costs, net	0.06	0.06	0.07		
Total unit costs	1.91	1.95	6.36		
Other revenue adjustments, primarily for pricing on prior period open sales	—	—	—		
Gross profit per pound	$ 0.94	$0.90	$ 1.44		

Reconciliation to Amounts Reported
(In millions)

	Revenues	Production and Delivery	DD&A
Totals presented above	$ 4,559	$2,494	$ 423
Treatment charges	(52)	105	—
Noncash and other costs, net	—	89	—
Other revenue adjustments, primarily for pricing on prior period open sales	4	—	—
Eliminations and other	54	57	2
North America copper mines	4,565	2,745	425
Other mining[c]	14,921	10,639	1,195
Corporate, other & eliminations	(3,083)	(3,118)	94

As reported in FCX's consolidated financial statements	$ 16,403	$ 10,266	$ 1,714

a. Reflects sales of molybdenum produced by certain of the North America copper mines to our molybdenum sales company at market-based pricing.

b. Includes gold and silver product revenues and production costs.

c. Represents the combined total for our other mining operations as presented in Note 16.

Table of Contents

North America Copper Mines Product Revenues, Production Costs and Unit Net Cash Costs
Year Ended December 31, 2016

(In millions)	By-Product Method	Co-Product Method			
		Copper	Molybdenum[a]	Other[b]	Total
Revenues, excluding adjustments	$ 4,113	$4,113	$ 213	$ 94	$4,420
Site production and delivery, before net noncash and other costs shown below	2,596	2,458	165	58	2,681
By-product credits	(222)	—	—	—	—
Treatment charges	193	185	—	8	193
Net cash costs	2,567	2,643	165	66	2,874
DD&A	527	496	20	11	527
Noncash and other costs, net	85	83	2	—	85
Total costs	3,179	3,222	187	77	3,486
Other revenue adjustments, primarily for pricing on prior period open sales	(1)	(1)	—	—	(1)
Gross profit	$ 933	$890	$ 26	$ 17	$933
Copper sales (millions of recoverable pounds)	1,836	1,836			
Molybdenum sales (millions of recoverable pounds)[a]			33		
Gross profit per pound of copper/molybdenum:					
Revenues, excluding adjustments	$ 2.24	$2.24	$ 6.34		
Site production and delivery, before net noncash and other costs shown below	1.41	1.34	4.91		
By-product credits	(0.12)	—	—		
Treatment charges	0.11	0.10	—		
Unit net cash costs	1.40	1.44	4.91		
DD&A	0.29	0.27	0.60		
Noncash and other costs, net	0.04	0.04	0.06		
Total unit costs	1.73	1.75	5.57		
Other revenue adjustments, primarily for pricing on prior period open sales	—	—	—		
Gross profit per pound	$ 0.51	$0.49	$ 0.77		

Reconciliation to Amounts Reported
(In millions)

	Revenues	Production and Delivery	DD&A
Totals presented above	$ 4,420	$2,681	$ 527
Treatment charges	(90)	103	—
Noncash and other costs, net	—	85	—
Other revenue adjustments, primarily for pricing on prior period open sales	(1)	—	—
Eliminations and other	45	45	3
North America copper mines	4,374	2,914	530
Other mining[c]	12,111	9,290	1,044
Corporate, other & eliminations	(1,655)	(1,517)	956

As reported in FCX's consolidated financial statements	$ 14,830	$ 10,687	$ 2,530

a. Reflects sales of molybdenum produced by certain of the North America copper mines to our molybdenum sales company at market-based pricing.

b. Includes gold and silver product revenues and production costs.

c. Represents the combined total for our other mining operations as presented in Note 16.

Table of Contents

South America Mining Product Revenues, Production Costs and Unit Net Cash Costs
Year Ended December 31, 2018

(In millions)	By-Product Method	Co-Product Method		
		Copper	Other[a]	Total
Revenues, excluding adjustments	$ 3,593	$3,593	$352	$3,945
Site production and delivery, before net noncash and other costs shown below	2,244 [b]	2,065	226	2,291
By-product credits	(305)	—	—	—
Treatment charges	243	243	—	243
Royalty on metals	8	7	1	8
Net cash costs	2,190	2,315	227	2,542
DD&A	546	499	47	546
Noncash and other costs, net	79 [c]	75	4	79
Total costs	2,815	2,889	278	3,167
Other revenue adjustments, primarily for pricing on prior period open sales	(37)	(37)	—	(37)
Gross profit	$ 741	$667	$74	$741
Copper sales (millions of recoverable pounds)	1,253	1,253		
Gross profit per pound of copper:				
Revenues, excluding adjustments	$ 2.87	$2.87		
Site production and delivery, before net noncash and other costs shown below	1.79 [b]	1.65		
By-product credits	(0.24)	—		
Treatment charges	0.19	0.19		
Royalty on metals	0.01	0.01		
Unit net cash costs	1.75	1.85		
DD&A	0.44	0.40		
Noncash and other costs, net	0.06 [c]	0.06		
Total unit costs	2.25	2.31		
Other revenue adjustments, primarily for pricing on prior period open sales	(0.03)	(0.03)		
Gross profit per pound	$ 0.59	$0.53		

Reconciliation to Amounts Reported
(In millions)

	Revenues	Production and Delivery	DD&A
Totals presented above	$ 3,945	$2,291	$546
Treatment charges	(243)	—	—
Royalty on metals	(8)	—	—
Noncash and other costs, net	—	79	—
Other revenue adjustments, primarily for pricing on prior period open sales	(37)	—	—
Eliminations and other	(2)	(5)	—
South America mining	3,655	2,365	546

Other mining[d]	18,099	12,616	1,083
Corporate, other & eliminations	(3,126)	(3,290)	125
As reported in FCX's consolidated financial statements	$ 18,628	$ 11,691	$ 1,754

a. Includes silver sales of 4.5 million ounces ($15.20 per ounce average realized price). Also reflects sales of molybdenum produced by Cerro Verde to our molybdenum sales company at market-based pricing.

b. Includes charges totaling $69 million ($0.06 per pound of copper) for Cerro Verde's three-year CLA.

c. Includes charges totaling $14 million ($0.01 per pound of copper) at Cerro Verde associated with disputed royalties for prior years.

d. Represents the combined total for our other mining operations as presented in Note 16.

Table of Contents

South America Mining Product Revenues, Production Costs and Unit Net Cash Costs
Year Ended December 31, 2017

(In millions)	By-Product Method	Co-Product Method		
		Copper	Other[a]	Total
Revenues, excluding adjustments	$ 3,668	$3,668	$267	$3,935
Site production and delivery, before net noncash and other costs shown below	1,960	1,838	171	2,009
By-product credits	(218)	—	—	—
Treatment charges	272	272	—	272
Royalty on metals	8	7	1	8
Net cash costs	2,022	2,117	172	2,289
DD&A	525	489	36	525
Noncash and other costs, net	241 [b]	224	17	241
Total costs	2,788	2,830	225	3,055
Other revenue adjustments, primarily for pricing on prior period open sales	41	41	—	41
Gross profit	$ 921	$879	$42	$921
Copper sales (millions of recoverable pounds)	1,235	1,235		
Gross profit per pound of copper:				
Revenues, excluding adjustments	$ 2.97	$2.97		
Site production and delivery, before net noncash and other costs shown below	1.59	1.49		
By-product credits	(0.18)	—		
Treatment charges	0.22	0.22		
Royalty on metals	0.01	0.01		
Unit net cash costs	1.64	1.72		
DD&A	0.43	0.39		
Noncash and other costs, net	0.19 [b]	0.18		
Total unit costs	2.26	2.29		
Other revenue adjustments, primarily for pricing on prior period open sales	0.03	0.03		
Gross profit per pound	$ 0.74	$0.71		

Reconciliation to Amounts Reported
(In millions)

	Revenues	Production and Delivery	DD&A
Totals presented above	$ 3,935	$2,009	$525
Treatment charges	(272)	—	—
Royalty on metals	(8)	—	—
Noncash and other costs, net	—	241	—
Other revenue adjustments, primarily for pricing on prior period open sales	41	—	—
Eliminations and other	(2)	(6)	—
South America mining	3,694	2,244	525

Other mining[c]	15,792	11,140	1,095
Corporate, other & eliminations	(3,083)	(3,118)	94
As reported in FCX's consolidated financial statements	$ 16,403	$ 10,266	$ 1,714

a. Includes silver sales of 3.8 million ounces ($16.74 per ounce average realized price). Also reflects sales of molybdenum produced by Cerro Verde to our molybdenum sales company at market-based pricing.

b. Includes charges totaling $203 million ($0.16 per pound of copper) at Cerro Verde associated with disputed royalties for prior years.

c. Represents the combined total for our other mining operations as presented in Note 16.

Table of Contents

South America Mining Product Revenues, Production Costs and Unit Net Cash Costs
Year Ended December 31, 2016

(In millions)	By-Product Method	Co-Product Method		
		Copper	Other[a]	Total
Revenues, excluding adjustments	$ 3,077	$3,077	$176	$3,253
Site production and delivery, before net noncash and other costs shown below	1,681	1,601	120	1,721
By-product credits	(136)	—	—	—
Treatment charges	320	320	—	320
Royalty on metals	7	6	1	7
Net cash costs	1,872	1,927	121	2,048
DD&A	552	523	29	552
Noncash and other costs, net	40	38	2	40
Total costs	2,464	2,488	152	2,640
Revenue adjustments, primarily for pricing on prior period open sales	11	11	—	11
Gross profit	$ 624	$600	$24	$624
Copper sales (millions of recoverable pounds)	1,332	1,332		
Gross profit per pound of copper:				
Revenues, excluding adjustments	$ 2.31	$2.31		
Site production and delivery, before net noncash and other costs shown below	1.26	1.20		
By-product credits	(0.10)	—		
Treatment charges	0.24	0.24		
Royalty on metals	0.01	—		
Unit net cash costs	1.41	1.44		
DD&A	0.41	0.39		
Noncash and other costs, net	0.03	0.03		
Total unit costs	1.85	1.86		
Revenue adjustments, primarily for pricing on prior period open sales	0.01	0.01		
Gross profit per pound	$ 0.47	$0.46		

Reconciliation to Amounts Reported
(In millions)

	Revenues	Production and Delivery	DD&A
Totals presented above	$ 3,253	$1,721	$552
Treatment charges	(320)	—	—
Royalty on metals	(7)	—	—
Noncash and other costs, net	—	40	—
Revenue adjustments, primarily for pricing on prior period open sales	11	—	—
Eliminations and other	1	(3)	1
South America mining	2,938	1,758	553

Other mining[b]	13,547	10,446	1,021
Corporate, other & eliminations	(1,655)	(1,517)	956
As reported in FCX's consolidated financial statements	$ 14,830	$ 10,687	$ 2,530

a. Includes silver sales of 3.7 million ounces ($18.05 per ounce average realized price). Also reflects sales of molybdenum produced by Cerro Verde to our molybdenum sales company at market-based pricing.

b. Represents the combined total for all other mining operations as presented in Note 16.

Table of Contents

Indonesia Mining Product Revenues, Production Costs and Unit Net Cash (Credits) Costs
Year Ended December 31, 2018

(In millions)	By-Product Method	Co-Product Method			
		Copper	Gold	Silver[a]	Total
Revenues, excluding adjustments	$ 3,264	$3,264	$2,967	$ 57	$6,288
Site production and delivery, before net noncash and other costs shown below	1,678	871	792	15	1,678
Gold and silver credits	(3,041)	—	—	—	—
Treatment charges	294	153	139	2	294
Export duties	180	93	85	2	180
Royalty on metals	238	122	114	2	238
Net cash (credits) costs	(651)	1,239	1,130	21	2,390
DD&A	606	314	286	6	606
Noncash and other costs, net	242 [b]	126	114	2	242
Total costs	197	1,679	1,530	29	3,238
Other revenue adjustments, primarily for pricing on prior period open sales	(34)	(34)	17	—	(17)
PT Smelting intercompany profit	56	29	27	—	56
Gross profit	$ 3,089	$1,580	$1,481	$ 28	$3,089
Copper sales (millions of recoverable pounds)	1,130	1,130			
Gold sales (thousands of recoverable ounces)			2,366		
Gross profit per pound of copper/per ounce of gold:					
Revenues, excluding adjustments	$ 2.89	$2.89	$1,254		
Site production and delivery, before net noncash and other costs shown below	1.48	0.77	335		
Gold and silver credits	(2.69)	—	—		
Treatment charges	0.26	0.14	59		
Export duties	0.16	0.08	36		
Royalty on metals	0.21	0.11	48		
Unit net cash (credits) costs	(0.58)	1.10	478		
DD&A	0.54	0.28	121		
Noncash and other costs, net	0.21 [b]	0.11	48		
Total unit costs	0.17	1.49	647		
Other revenue adjustments, primarily for pricing on prior period open sales	(0.03)	(0.03)	7		
PT Smelting intercompany profit	0.04	0.03	12		
Gross profit per pound/ounce	$ 2.73	$1.40	$626		

Reconciliation to Amounts Reported
(In millions)

	Revenues	Production and Delivery	DD&A
Totals presented above	$ 6,288	$1,678	$606
Treatment charges	(294)	—	—
Export duties	(180)	—	—

Royalty on metals	(238)	—	—
Noncash and other costs, net	—	242	—
Other revenue adjustments, primarily for pricing on prior period open sales	(17)	—	—
PT Smelting intercompany profit	—	(56)	—
Indonesia mining	5,559	1,864	606
Other mining[c]	16,195	13,117	1,023
Corporate, other & eliminations	(3,126)	(3,290)	125
As reported in FCX's consolidated financial statements	$ 18,628	$ 11,691	$ 1,754

a. Includes silver sales of 3.8 million ounces ($15.24 per ounce average realized price).

b. Includes net charges of $223 million ($0.20 per pound of copper). Refer to "Consolidated Results-Summary Financial Data" for a summary of these charges.

c. Represents the combined total for our other mining operations as presented in Note 16.

Table of Contents

Indonesia Mining Product Revenues, Production Costs and Unit Net Cash Costs
Year Ended December 31, 2017

(In millions)	By-Product Method	Co-Product Method			
		Copper	Gold	Silver[a]	Total
Revenues, excluding adjustments	$ 2,945	$2,945	$1,952	$ 49	$4,946
Site production and delivery, before net noncash and other costs shown below	1,544	919	609	16	1,544
Gold and silver credits	(2,010)	—	—	—	—
Treatment charges	261	156	103	2	261
Export duties	115	68	46	1	115
Royalty on metals	173	98	73	2	173
Net cash costs	83	1,241	831	21	2,093
DD&A	556	331	220	5	556
Noncash and other costs, net	163	[b] 97	64	2	163
Total costs	802	1,669	1,115	28	2,812
Other revenue adjustments, primarily for pricing on prior period open sales	39	39	9	—	48
PT Smelting intercompany loss	(28)	(17)	(11)	—	(28)
Gross profit	$ 2,154	$1,298	$835	$ 21	$2,154
Copper sales (millions of recoverable pounds)	981	981			
Gold sales (thousands of recoverable ounces)			1,540		
Gross profit per pound of copper/per ounce of gold:					
Revenues, excluding adjustments	$ 3.00	$3.00	$1,268		
Site production and delivery, before net noncash and other costs shown below	1.57	0.94	396		
Gold and silver credits	(2.05)	—	—		
Treatment charges	0.27	0.16	67		
Export duties	0.12	0.07	30		
Royalty on metals	0.17	0.10	47		
Unit net cash costs	0.08	1.27	540		
DD&A	0.57	0.34	142		
Noncash and other costs, net	0.17	[b] 0.10	42		
Total unit costs	0.82	1.71	724		
Other revenue adjustments, primarily for pricing on prior period open sales	0.04	0.04	6		
PT Smelting intercompany loss	(0.02)	(0.01)	(7)		
Gross profit per pound/ounce	$ 2.20	$1.32	$543		

Reconciliation to Amounts Reported
(In millions)

	Revenues	Production and Delivery	DD&A
Totals presented above	$ 4,946	$1,544	$556
Treatment charges	(261)	—	—
Export duties	(115)	—	—

Royalty on metals	(173)	—	—
Noncash and other costs, net	—	163	—
Other revenue adjustments, primarily for pricing on prior period open sales	48	—	—
PT Smelting intercompany loss	—	28	—
Indonesia mining	4,445	1,735	556
Other mining[c]	15,041	11,649	1,064
Corporate, other & eliminations	(3,083)	(3,118)	94
As reported in FCX's consolidated financial statements	$ 16,403	$ 10,266	$ 1,714

a. Includes silver sales of 3.0 million ounces ($16.56 per ounce average realized price).

b. Includes $120 million ($0.12 per pound of copper) of costs charged directly to production and delivery costs as a result of workforce reductions.

c. Represents the combined total for our other mining operations as presented in Note 16.

Table of Contents

Indonesia Mining Product Revenues, Production Costs and Unit Net Cash Costs
Year Ended December 31, 2016

(In millions)	By-Product Method	Co-Product Method			
		Copper	Gold	Silver[a]	Total
Revenues, excluding adjustments	$ 2,448	$2,448	$1,304	$ 50	$3,802
Site production and delivery, before net noncash and other costs shown below	1,698	1,094	582	22	1,698
Gold and silver credits	(1,371)	—	—	—	—
Treatment charges	297	191	102	4	297
Export duties	96	62	33	1	96
Royalty on metals	131	79	50	2	131
Net cash costs	851	1,426	767	29	2,222
DD&A	384	247	132	5	384
Noncash and other costs, net	51	33	17	1	51
Total costs	1,286	1,706	916	35	2,657
Other revenue adjustments, primarily for pricing on prior period open sales	—	—	17	—	17
PT Smelting intercompany loss	(26)	(17)	(9)	—	(26)
Gross profit	$ 1,136	$725	$396	$ 15	$1,136
Copper sales (millions of recoverable pounds)	1,054	1,054			
Gold sales (thousands of recoverable ounces)			1,054		
Gross profit per pound of copper/per ounce of gold:					
Revenues, excluding adjustments	$ 2.32	$2.32	$1,237		
Site production and delivery, before net noncash and other costs shown below	1.61	1.04	553		
Gold and silver credits	(1.30)	—	—		
Treatment charges	0.28	0.18	97		
Export duties	0.09	0.06	31		
Royalty on metals	0.13	0.07	47		
Unit net cash costs	0.81	1.35	728		
DD&A	0.36	0.24	125		
Noncash and other costs, net	0.05	0.03	17		
Total unit costs	1.22	1.62	870		
Other revenue adjustments, primarily for pricing on prior period open sales	—	—	16		
PT Smelting intercompany loss	(0.02)	(0.02)	(8)		
Gross profit per pound/ounce	$ 1.08	$0.68	$375		

Reconciliation to Amounts Reported
(In millions)

	Revenues	Production and Delivery	DD&A
Totals presented above	$ 3,802	$1,698	$384
Treatment charges	(297)	—	—
Export duties	(96)	—	—

Royalty on metals	(131)	—	—
Noncash and other costs, net	—	51	—
Other revenue adjustments, primarily for pricing on prior period open sales	17	—	—
PT Smelting intercompany loss	—	26	—
Indonesia mining	3,295	1,775	384
Other mining[b]	13,190	10,429	1,190
Corporate, other & eliminations	(1,655)	(1,517)	956
As reported in FCX's consolidated financial statements	$ 14,830	$10,687	$2,530

a. Includes silver sales of 2.9 million ounces ($17.09 per ounce average realized price).
b. Represents the combined total for our other mining operations as presented in Note 16.

Table of Contents

Molybdenum Mines Product Revenues, Production Costs and Unit Net Cash Costs

	Years Ended December 31,		
(In millions)	2018	2017	2016
Revenues, excluding adjustments[a]	$440	$295	$208
Site production and delivery, before net noncash and other costs shown below	282	220	193
Treatment charges and other	30	27	22
Net cash costs	312	247	215
DD&A	79	76	68
Noncash and other costs, net	7	7	19
Total costs	398	330	302
Gross profit (loss)	$42	$(35)	$(94)
Molybdenum sales (millions of recoverable pounds)[a]	35	32	26
Gross profit (loss) per pound of molybdenum:			
Revenues, excluding adjustments[a]	$12.36	$9.22	$8.02
Site production and delivery, before net noncash and other costs shown below	7.92	6.86	7.42
Treatment charges and other	0.85	0.85	0.86
Unit net cash costs	8.77	7.71	8.28
DD&A	2.21	2.39	2.62
Noncash and other costs, net	0.19	0.23	0.73
Total unit costs	11.17	10.33	11.63
Gross profit (loss) per pound	$1.19	$(1.11)	$(3.61)

Reconciliation to Amounts Reported
(In millions)

Year Ended December 31, 2018	Revenues	Production and Delivery	DD&A
Totals presented above	$440	$282	$79
Treatment charges and other	(30)	—	—
Noncash and other costs, net	—	7	—
Molybdenum mines	410	289	79
Other mining[b]	21,344	14,692	1,550
Corporate, other & eliminations	(3,126)	(3,290)	125
As reported in FCX's consolidated financial statements	$18,628	$11,691	$1,754
Year Ended December 31, 2017			
Totals presented above	$295	$220	$76
Treatment charges and other	(27)	—	—
Noncash and other costs, net	—	7	—
Molybdenum mines	268	227	76
Other mining[b]	19,218	13,157	1,544
Corporate, other & eliminations	(3,083)	(3,118)	94
As reported in FCX's consolidated financial statements	$16,403	$10,266	$1,714

Year Ended December 31, 2016			
Totals presented above	$208	$193	$68
Treatment charges and other	(22)	—	—
Noncash and other costs, net	—	19	—
Molybdenum mines	186	212	68
Other mining[b]	16,299	11,992	1,506
Corporate, other & eliminations	(1,655)	(1,517)	956
As reported in FCX's consolidated financial statements	$14,830	$10,687	$2,530

a. Reflects sales of the Molybdenum mines' production to the molybdenum sales company at market-based pricing. On a consolidated basis, realizations are based on the actual contract terms for sales to third parties; as a result, our consolidated average realized price per pound of molybdenum will differ from the amounts reported in this table.

b. Represents the combined total for our other mining operations as presented in Note 16. Also includes amounts associated with the molybdenum sales company, which includes sales of molybdenum produced by the Molybdenum mines and by certain of the North America and South America copper mines.

Table of Contents

CAUTIONARY STATEMENT

Our discussion and analysis contains forward-looking statements in which we discuss our potential future performance. Forward-looking statements are all statements other than statements of historical facts, such as projections or expectations relating to ore grades and milling rates, production and sales volumes, unit net cash costs, operating cash flows, capital expenditures, our expectations regarding our share of PT-FI's future cash flows through 2022, PT-FI's development, financing, construction and completion of a new smelter in Indonesia, PT-FI's compliance with environmental standards under the new framework established by the MOEF, exploration efforts and results, development and production activities, rates and costs, liquidity, tax rates, export duties, the impact of copper, gold and molybdenum price changes, the impact of deferred intercompany profits on earnings, reserve estimates, and future dividend payments, share purchases and sales. The words "anticipates," "may," "can," "plans," "believes," "estimates," "expec "projects," "targets," "intends," "likely," "will," "should," "to be," "potential" and any similar expressions are intended to iden assertions as forward-looking statements. The declaration of dividends is at the discretion of the Board and will depend on our financial results, cash requirements, future prospects, and other factors deemed relevant by the Board.

We caution readers that forward-looking statements are not guarantees of future performance and actual results may differ materially from those anticipated, expected, projected or assumed in the forward-looking statements. Important factors that can cause our actual results to differ materially from those anticipated in the forward-looking statements include, but are not limited to, supply of and demand for, and prices of, copper, gold and molybdenum; mine sequencing; production rates; timing of shipments; results of feasibility studies; potential inventory adjustments; potential impairment of long-lived mining assets; the potential effects of violence in Indonesia generally and in the province of Papua; the Indonesian government's extension of PT-FI's export license after February 16, 2019; risks associated with underground mining; satisfaction of requirements in accordance with PT-FI's IUPK to extend mining rights from 2031 through 2041; industry risks; regulatory changes; political risks; labor relations; weather- and climate-related risks; environmental risks; litigation results; cybersecurity incidents; and other factors described in more detail in Part I, Item 1A. "Risk Factors" of our annual report on Form 10-K for the year ended December 31, 2018.

Investors are cautioned that many of the assumptions upon which our forward-looking statements are based are likely to change after the forward-looking statements are made, including for example commodity prices, which we cannot control, and production volumes and costs, some aspects of which we may not be able to control. Further, we may make changes to our business plans that could affect our results. We caution investors that we do not intend to update forward-looking statements more frequently than quarterly notwithstanding any changes in our assumptions, changes in business plans, actual experience or other changes, and we undertake no obligation to update any forward-looking statements.

Table of Contents

Item 8. Financial Statements and Supplementary Data.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Freeport-McMoRan Inc.'s (the Company's) management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) or 15d-15(f) under the Securities Exchange Act of 1934 as a process designed by, or under the supervision of, the Company's principal executive and principal financial officers and effected by the Company's Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the Company's assets;

- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and

- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management, including our principal executive officer and principal financial officer, assessed the effectiveness of our internal control over financial reporting as of the end of the fiscal year covered by this annual report on Form 10-K. In making this assessment, our management used the criteria set forth in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Based on its assessment, management concluded that, as of December 31, 2018, our Company's internal control over financial reporting is effective based on the COSO criteria.

Ernst & Young LLP, an independent registered public accounting firm, who audited the Company's consolidated financial statements included in this Form 10-K, has issued an attestation report on the Company's internal control over financial reporting, which is included herein.

/s/ Richard C. Adkerson	/s/ Kathleen L. Quirk
Richard C. Adkerson	Kathleen L. Quirk
Vice Chairman of the Board,	Executive Vice President and
President and Chief Executive Officer	Chief Financial Officer

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

TO THE BOARD OF DIRECTORS AND STOCKHOLDERS OF
FREEPORT-McMoRan INC.

Opinion on Internal Control over Financial Reporting

We have audited Freeport-McMoRan Inc.'s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Freeport-McMoRan Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Freeport-McMoRan Inc. as of December 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive income (loss), equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes of the Company and our report dated February 15, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP
Phoenix, Arizona
February 15, 2019

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

TO THE BOARD OF DIRECTORS AND STOCKHOLDERS OF
FREEPORT-McMoRan INC.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Freeport-McMoRan Inc. (the Company) as of December 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive income (loss), equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2018 and 2017, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 15, 2019 expressed an unqualified opinion thereon.

Basis for Opinion
These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company’s auditor since 2002.

Phoenix, Arizona
February 15, 2019

Table of Contents

FREEPORT-McMoRan INC.
CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,		
	2018	2017	2016
	(In millions, except per share amounts)		
Revenues	$18,628	$16,403	$14,830
Cost of sales:			
Production and delivery	11,691	10,266	10,687
Depreciation, depletion and amortization	1,754	1,714	2,530
Impairment of oil and gas properties	—	—	4,317
Total cost of sales	13,445	11,980	17,534
Selling, general and administrative expenses	443	477	597
Mining exploration and research expenses	105	93	63
Environmental obligations and shutdown costs	89	244	14
Net gain on sales of assets	(208)	(81)	(649)
Total costs and expenses	13,874	12,713	17,559
Operating income (loss)	4,754	3,690	(2,729)
Interest expense, net	(945)	(801)	(755)
Net gain on early extinguishment and exchanges of debt	7	21	26
Other income (expense), net	76	(8)	(14)
Income (loss) from continuing operations before income taxes and equity in affiliated companies' net earnings	3,892	2,902	(3,472)
Provision for income taxes	(991)	(883)	(371)
Equity in affiliated companies' net earnings	8	10	11
Net income (loss) from continuing operations	2,909	2,029	(3,832)
Net (loss) income from discontinued operations	(15)	66	(193)
Net income (loss)	2,894	2,095	(4,025)
Net income attributable to noncontrolling interests:			
Continuing operations	(292)	(274)	(227)
Discontinued operations	—	(4)	(63)
Gain on redemption and preferred dividends attributable to redeemable noncontrolling interest	—	—	161
Net income (loss) attributable to common stockholders	$2,602	$1,817	$(4,154)
Basic net income (loss) per share attributable to common stockholders:			
Continuing operations	$1.80	$1.21	$(2.96)
Discontinued operations	(0.01)	0.04	(0.20)
	$1.79	$1.25	$(3.16)
Diluted net income (loss) per share attributable to common stockholders:			
Continuing operations	$1.79	$1.21	$(2.96)
Discontinued operations	(0.01)	0.04	(0.20)
	$1.78	$1.25	$(3.16)
Weighted-average common shares outstanding:			
Basic	1,449	1,447	1,318
Diluted	1,458	1,454	1,318

Dividends declared per share of common stock	$0.20	$—	$—

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

Table of Contents

FREEPORT-McMoRan INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Years Ended December 31,		
	2018	2017	2016
	(In millions)		
Net income (loss)	$2,894	$2,095	$(4,025)
Other comprehensive income (loss), net of taxes:			
Unrealized gains on securities	—	1	2
Defined benefit plans:			
Actuarial (losses) gains arising during the period, net of taxes	(77)	14	(88)
Prior service costs arising during the period	(4)	—	—
Amortization or curtailment of unrecognized amounts included in net periodic benefit costs	48	54	44
Foreign exchange losses	(1)	—	(1)
Other comprehensive (loss) income	(34)	69	(43)
Total comprehensive income (loss)	2,860	2,164	(4,068)
Total comprehensive income attributable to noncontrolling interests	(291)	(286)	(292)
Gain on redemption and preferred dividends attributable to redeemable noncontrolling interest	—	—	161
Total comprehensive income (loss) attributable to common stockholders	$2,569	$1,878	$(4,199)

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

Table of Contents

FREEPORT-McMoRan INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
	2018	2017	2016
	(In millions)		
Cash flow from operating activities:			
Net income (loss)	$2,894	$2,095	$(4,025)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation, depletion and amortization	1,754	1,714	2,610
U.S. tax reform benefit	(123)	(393)	—
Net charges for Cerro Verde royalty dispute	371	355	—
Payments for Cerro Verde royalty dispute	(56)	(53)	(30)
Impairment of oil and gas properties	—	—	4,317
Oil and gas noncash drillship settlement costs and other adjustments	—	(33)	803
Net gain on sales of assets	(208)	(81)	(649)
Stock-based compensation	76	71	86
Net charges for environmental and asset retirement obligations, including accretion	262	383	191
Payments for environmental and asset retirement obligations	(239)	(131)	(242)
Net charges for defined pension and postretirement plans	81	120	113
Pension plan contributions	(75)	(174)	(57)
Net gain on early extinguishment and exchanges of debt	(7)	(21)	(26)
Deferred income taxes	(404)	76	239
Loss (gain) on disposal of discontinued operations	15	(57)	198
Decrease in long-term mill and leach stockpiles	94	224	10
Other, net	16	(2)	112
Changes in working capital and other tax payments, excluding disposition amounts:			
Accounts receivable	649	427	(175)
Inventories	(631)	(393)	117
Other current assets	(28)	(28)	37
Accounts payable and accrued liabilities	(106)	110	(28)
Accrued income taxes and timing of other tax payments	(472)	457	136
Net cash provided by operating activities	3,863	4,666	3,737
Cash flow from investing activities:			
Capital expenditures:			
North America copper mines	(601)	(167)	(102)
South America	(237)	(115)	(382)
Indonesia	(1,001)	(875)	(1,025)
Molybdenum mines	(9)	(5)	(2)
Other, including oil and gas operations	(123)	(248)	(1,302)
Acquisition of PT Rio Tinto Indonesia	(3,500)	—	—
Proceeds from sales of:			
Tenke Fungurume mine	—	—	2,664
Deepwater Gulf of Mexico and onshore California oil and gas properties	—	—	2,272
Additional interest in Morenci joint venture	—	—	996
PT Indonesia Papua Metal dan Mineral	457	—	—
Other assets	93	72	423
Other, net	(97)	17	11
Net cash (used in) provided by investing activities	(5,018)	(1,321)	3,553

Cash flow from financing activities:			
Proceeds from debt	632	955	3,681
Repayments of debt	(2,717)	(3,812)	(7,625)
Proceeds from sale of PT Freeport Indonesia shares	3,500	—	—
Net proceeds from sale of common stock	—	—	1,515
Cash dividends and distributions paid:			
Common stock	(218)	(2)	(6)
Noncontrolling interests, including redemption	(278)	(174)	(693)
Other, net	(19)	(22)	(38)
Net cash provided by (used in) financing activities	900	(3,055)	(3,166)
Net (decrease) increase in cash, cash equivalents, restricted cash and restricted cash equivalents	(255)	290	4,124
Increase in cash and cash equivalents in assets held for sale	—	—	(45)
Cash, cash equivalents, restricted cash and restricted cash equivalents at beginning of year	4,710	4,420	341
Cash, cash equivalents, restricted cash and restricted cash equivalents at end of year	$4,455	$4,710	$4,420

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

Table of Contents

FREEPORT-McMoRan INC.
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2018	2017
	(In millions, except par value)	
ASSETS		
Current assets:		
Cash and cash equivalents	$4,217	$4,526
Trade accounts receivable	829	1,322
Income and other tax receivables	493	343
Inventories:		
Materials and supplies, net	1,528	1,323
Mill and leach stockpiles	1,453	1,422
Product	1,778	1,404
Other current assets	422	286
Total current assets	10,720	10,626
Property, plant, equipment and mine development costs, net	28,010	22,994
Long-term mill and leach stockpiles	1,314	1,409
Other assets	2,172	2,273
Total assets	$42,216	$37,302
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	$2,625	$2,497
Accrued income taxes	165	583
Current portion of environmental and asset retirement obligations	449	420
Dividends payable	73	—
Current portion of debt	17	1,414
Total current liabilities	3,329	4,914
Long-term debt, less current portion	11,124	11,815
Deferred income taxes	4,032	3,663
Environmental and asset retirement obligations, less current portion	3,609	3,602
Other liabilities	2,230	2,012
Total liabilities	24,324	26,006
Equity:		
Stockholders’ equity:		
Common stock, par value $0.10, 1,579 shares and 1,578 shares issued, respectively	158	158
Capital in excess of par value	26,013	26,751
Accumulated deficit	(12,041)	(14,722)
Accumulated other comprehensive loss	(605)	(487)
Common stock held in treasury – 130 shares, at cost	(3,727)	(3,723)
Total stockholders’ equity	9,798	7,977
Noncontrolling interests (refer to Note 2)	8,094	3,319
Total equity	17,892	11,296
Total liabilities and equity	$42,216	$37,302

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

110

Table of Contents

FREEPORT-McMoRan INC.
CONSOLIDATED STATEMENTS OF EQUITY

	Stockholders' Equity									
	Common Stock					Common Stock Held in Treasury				
	Number of Shares	At Par Value	Capital in Excess of Par Value	Accumulated Deficit	Accumu-lated Other Compre-hensive Loss	Number of Shares	At Cost	Total Stock-holders' Equity	Non-controlling Interests	Total Equity
	(In millions)									
Balance at January 1, 2016	1,374	$137	$24,283	$(12,387)	$ (503)	128	$(3,702)	$7,828	$4,216	$12,044
Issuance of common stock	197	20	2,346	—	—	—	—	2,366	—	2,366
Exercised and issued stock-based awards	3	—	—	—	—	—	—	—	—	—
Stock-based compensation, including tax reserve and the tender of shares	—	—	61	—	—	1	(6)	55	—	55
Dividends, including forfeited dividends	—	—	—	1	—	—	—	1	(90)	(89)
Changes in noncontrolling interests	—	—	—	—	—	—	—	—	(6)	(6)
Sale of interest in TF Holdings Limited	—	—	—	—	—	—	—	—	(1,206)	(1,206)
Net loss attributable to common stockholders	—	—	—	(4,154)	—	—	—	(4,154)	—	(4,154)
Net income attributable to noncontrolling interests, including discontinued operations	—	—	—	—	—	—	—	—	290	290
Other comprehensive (loss) income	—	—	—	—	(45)	—	—	(45)	2	(43)
Balance at December 31, 2016	1,574	157	26,690	(16,540)	(548)	129	(3,708)	6,051	3,206	9,257
Exercised and issued stock-based awards	4	1	5	—	—	—	—	6	—	6
Stock-based compensation, including the tender of shares	—	—	56	—	—	1	(15)	41	1	42
Dividends, including forfeited dividends	—	—	—	1	—	—	—	1	(174)	(173)
	—	—	—	1,817	—	—	—	1,817	—	1,817

Net income attributable to common stockholders											
Net income attributable to noncontrolling interests, including discontinued operations	—	—	—	—	—	—	—	—	278	278
Other comprehensive income	—	—	—	—	61	—	—	61	8	69
Balance at December 31, 2017	1,578	158	26,751	(14,722)	(487)	130	(3,723)	7,977	3,319	11,296
Exercised and issued stock-based awards	1	—	8	—	—	—	—	8	—	8
Stock-based compensation, including the tender of shares	—	—	70	—	—	—	(4)	66	—	66
Dividends	—	—	(291)	—	—	—	—	(291)	(278)	(569)
Adoption of new accounting standard for reclassification of income taxes	—	—	—	79	(79)	—	—	—	—	—
Sale of interest in PT Freeport Indonesia (refer to Note 2)	—	—	(525)	—	(6)	—	—	(531)	4,762	4,231
Net income attributable to common stockholders	—	—	—	2,602	—	—	—	2,602	—	2,602
Net income attributable to noncontrolling interests	—	—	—	—	—	—	—	—	292	292
Other comprehensive loss	—	—	—	—	(33)	—	—	(33)	(1)	(34)
Balance at December 31, 2018	1,579	$158	$26,013	$(12,041)	$(605)	130	$(3,727)	$9,798	$8,094	$17,892

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

Table of Contents

FREEPORT-McMoRan INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation. The consolidated financial statements of Freeport-McMoRan Inc. (FCX) include the accounts of those subsidiaries where it directly or indirectly has more than 50 percent of the voting rights and/or has control over the subsidiary. As of December 31, 2018, the most significant entities that FCX consolidates include its 48.76 percent-owned subsidiary PT Freeport Indonesia (PT-FI), and the following wholly owned subsidiaries: Freeport Minerals Corporation (FMC) and Atlantic Copper, S.L.U. (Atlantic Copper). Refer to Notes 2 and 3 for further discussion, including FCX's conclusion to consolidate PT-FI.

During 2016, FCX completed sales of its Africa mining operation held by FMC and substantially all of its oil and gas operations. Refer to Note 2 for further discussion.

FCX's unincorporated joint ventures are reflected using the proportionate consolidation method (refer to Note 3 for further discussion). Investments in unconsolidated companies owned 20 percent or more are recorded using the equity method. Investments in companies owned less than 20 percent, and for which FCX does not exercise significant influence, are recorded using the cost method. All significant intercompany transactions have been eliminated. Dollar amounts in tables are stated in millions, except per share amounts.

Business Segments. FCX has organized its mining operations into four primary divisions – North America copper mines, South America mining, Indonesia mining and Molybdenum mines, and operating segments that meet certain thresholds are reportable segments. FCX's reportable segments include the Morenci, Cerro Verde and Grasberg (Indonesia mining) copper mines, the Rod & Refining operations and Atlantic Copper Smelting & Refining. Refer to Note 16 for further discussion.

Use of Estimates. The preparation of FCX's financial statements in conformity with accounting principles generally accepted in the United States (U.S.) requires management to make estimates and assumptions that affect the amounts reported in these financial statements and accompanying notes. The more significant areas requiring the use of management estimates include minerals reserve estimation; asset lives for depreciation, depletion and amortization; environmental obligations; asset retirement obligations; estimates of recoverable copper in mill and leach stockpiles; deferred taxes and valuation allowances; reserves for contingencies and litigation; asset acquisitions and impairment, including estimates used to derive future cash flows associated with those assets; pension benefits; and valuation of derivative instruments. Actual results could differ from those estimates.

Functional Currency. The functional currency for the majority of FCX's foreign operations is the U.S. dollar. For foreign subsidiaries whose functional currency is the U.S. dollar, monetary assets and liabilities denominated in the local currency are translated at current exchange rates, and non-monetary assets and liabilities, such as inventories, property, plant, equipment and mine development costs, are translated at historical rates. Gains and losses resulting from translation of such account balances are included in other income, net, as are gains and losses from foreign currency transactions. Foreign currency gains (losses) totaled $14 million in 2018, $(5) million in 2017 and $32 million in 2016.

Cash Equivalents. Highly liquid investments purchased with maturities of three months or less are considered cash equivalents.

Restricted Cash and Restricted Cash Equivalents. FCX's restricted cash and restricted cash equivalents are primarily related to PT-FI's commitment for the development of a new smelter in Indonesia; guarantees and commitments for certain mine closure and reclamation obligations, and customs duty taxes; and funds held as cash collateral for surety

bonds related to plugging and abandonment obligations of certain oil and gas properties. Restricted cash and restricted cash equivalents are classified as a current or long-term asset based on the timing and nature of when or how the cash is expected to be used or when the restrictions are expected to lapse. Restricted cash and restricted cash equivalents are comprised of time deposits and money market funds.

Inventories. Inventories include materials and supplies, mill and leach stockpiles, and product inventories. Inventories are stated at the lower of weighted-average cost or net realizable value (NRV).

Table of Contents

Mill and Leach Stockpiles. Mill and leach stockpiles are work-in-process inventories for FCX's mining operations. Mill and leach stockpiles contain ore that has been extracted from an ore body and is available for metal recovery. Mill stockpiles contain sulfide ores, and recovery of metal is through milling, concentrating and smelting and refining or, alternatively, by concentrate leaching. Leach stockpiles contain oxide ores and certain secondary sulfide ores and recovery of metal is through exposure to acidic solutions that dissolve contained copper and deliver it in solution to extraction processing facilities (i.e., solution extraction and electrowinning (SX/EW)). The recorded cost of mill and leach stockpiles includes mining and haulage costs incurred to deliver ore to stockpiles, depreciation, depletion, amortization and site overhead costs. Material is removed from the stockpiles at a weighted-average cost per pound.

Because it is impracticable to determine copper contained in mill and leach stockpiles by physical count, reasonable estimation methods are employed. The quantity of material delivered to mill and leach stockpiles is based on surveyed volumes of mined material and daily production records. Sampling and assaying of blasthole cuttings determine the estimated copper grade of the material delivered to mill and leach stockpiles.

Expected copper recovery rates for mill stockpiles are determined by metallurgical testing. The recoverable copper in mill stockpiles, once entered into the production process, can be produced into copper concentrate almost immediately.

Expected copper recovery rates for leach stockpiles are determined using small-scale laboratory tests, small- to large-scale column testing (which simulates the production process), historical trends and other factors, including mineralogy of the ore and rock type. Total copper recovery in leach stockpiles can vary significantly from a low percentage to more than 90 percent depending on several variables, including processing methodology, processing variables, mineralogy and particle size of the rock. For newly placed material on active stockpiles, as much as 80 percent of the total copper recovery may occur during the first year, and the remaining copper may be recovered over many years.

Processes and recovery rates for mill and leach stockpiles are monitored regularly, and recovery rate estimates are adjusted periodically as additional information becomes available and as related technology changes. Adjustments to recovery rates will typically result in a future impact to the value of the material removed from the stockpiles at a revised weighted-average cost per pound of recoverable copper.

Product. Product inventories include raw materials, work-in-process and finished goods. Raw materials are primarily unprocessed concentrate at Atlantic Copper's smelting and refining operations. Work-in-process inventories are primarily copper concentrate at various stages of conversion into anode and cathode at Atlantic Copper's operations. Atlantic Copper's in-process inventories are valued at the weighted-average cost of the material fed to the smelting and refining process plus in-process conversion costs. Finished goods for mining operations represent salable products (e.g., copper and molybdenum concentrate, copper anode, copper cathode, copper rod, copper wire, molybdenum oxide, and high-purity molybdenum chemicals and other metallurgical products). Finished goods are valued based on the weighted-average cost of source material plus applicable conversion costs relating to associated process facilities. Costs of finished goods and work-in-process (i.e., not raw materials) inventories include labor and benefits, supplies, energy, depreciation, depletion, amortization, site overhead costs and other necessary costs associated with the extraction and processing of ore, including, depending on the process, mining, haulage, milling, concentrating, smelting, leaching, solution extraction, refining, roasting and chemical processing. Corporate general and administrative costs are not included in inventory costs.

Property, Plant, Equipment and Mine Development Costs. Property, plant, equipment and mine development costs are carried at cost. Mineral exploration costs, as well as drilling and other costs incurred for the purpose of converting mineral resources to proven and probable reserves or identifying new mineral resources at development or production stage properties, are charged to expense as incurred. Development costs are capitalized beginning after proven and

probable mineral reserves have been established. Development costs include costs incurred resulting from mine pre-production activities undertaken to gain access to proven and probable reserves, including shafts, adits, drifts, ramps, permanent excavations, infrastructure and removal of overburden. Additionally, interest expense allocable to the cost of developing mining properties and to constructing new facilities is capitalized until assets are ready for their intended use.

Table of Contents

Expenditures for replacements and improvements are capitalized. Costs related to periodic scheduled maintenance (i.e., turnarounds) are charged to expense as incurred. Depreciation for mining and milling life-of-mine assets, infrastructure and other common costs is determined using the unit-of-production (UOP) method based on total estimated recoverable proven and probable copper reserves (for primary copper mines) and proven and probable molybdenum reserves (for primary molybdenum mines). Development costs and acquisition costs for proven and probable mineral reserves that relate to a specific ore body are depreciated using the UOP method based on estimated recoverable proven and probable mineral reserves for the ore body benefited. Depreciation, depletion and amortization using the UOP method is recorded upon extraction of the recoverable copper or molybdenum from the ore body, at which time it is allocated to inventory cost and then included as a component of cost of goods sold. Other assets are depreciated on a straight-line basis over estimated useful lives of up to 40 years for buildings and three to 30 years for machinery and equipment, and mobile equipment.

Included in property, plant, equipment and mine development costs is value beyond proven and probable mineral reserves (VBPP), primarily resulting from FCX's acquisition of FMC in 2007. The concept of VBPP may be interpreted differently by different mining companies. FCX's VBPP is attributable to (i) mineralized material, which includes measured and indicated amounts, that FCX believes could be brought into production with the establishment or modification of required permits and should market conditions and technical assessments warrant, (ii) inferred mineral resources and (iii) exploration potential.

Carrying amounts assigned to VBPP are not charged to expense until the VBPP becomes associated with additional proven and probable mineral reserves and the reserves are produced or the VBPP is determined to be impaired. Additions to proven and probable mineral reserves for properties with VBPP will carry with them the value assigned to VBPP at the date acquired, less any impairment amounts. Refer to Note 5 for further discussion.

Impairment of Long-Lived Mining Assets. FCX assesses the carrying values of its long-lived mining assets for impairment when events or changes in circumstances indicate that the related carrying amounts of such assets may not be recoverable. In evaluating long-lived mining assets for recoverability, estimates of pre-tax undiscounted future cash flows of FCX's individual mines are used. An impairment is considered to exist if total estimated undiscounted future cash flows are less than the carrying amount of the asset. Once it is determined that an impairment exists, an impairment loss is measured as the amount by which the asset carrying value exceeds its fair value. The estimated undiscounted cash flows used to assess recoverability of long-lived assets and to measure the fair value of FCX's mining operations are derived from current business plans, which are developed using near-term price forecasts reflective of the current price environment and management's projections for long-term average metal prices. In addition to near- and long-term metal price assumptions, other key assumptions include estimates of commodity-based and other input costs; proven and probable mineral reserves estimates, including the timing and cost to develop and produce the reserves; VBPP estimates; and the use of appropriate discount rates in the measurement of fair value. FCX believes its estimates and models used to determine fair value are similar to what a market participant would use. As quoted market prices are unavailable for FCX's individual mining operations, fair value is determined through the use of after-tax discounted estimated future cash flows (i.e., Level 3 measurement).

Oil and Gas Properties. FCX follows the full cost method of accounting specified by the U.S. Securities and Exchange Commission's (SEC) rules whereby all costs associated with oil and gas property acquisition, exploration and development activities are capitalized into a cost center on a country-by-country basis. Such costs include internal general and administrative costs, such as payroll and related benefits and costs directly attributable to employees engaged in acquisition, exploration and development activities. General and administrative costs associated with production, operations, marketing and general corporate activities are charged to expense as incurred. Capitalized costs, along with estimated future costs to develop proved reserves and asset retirement costs that are not already included in oil and gas properties, net of related salvage value, are amortized to expense under the UOP method using engineers' estimates of the related, by-country proved oil and natural gas reserves.

114

Table of Contents

The costs of unproved oil and gas properties were excluded from amortization until the properties were evaluated. Costs were transferred into the amortization base on an ongoing basis as the properties were evaluated and proved oil and natural gas reserves were established or if impairment was determined. Unproved oil and gas properties were assessed periodically, at least annually, to determine whether impairment had occurred. FCX assessed unproved oil and gas properties for impairment on an individual basis or as a group if properties were individually insignificant. The assessment considered the following factors, among others: intent to drill, remaining lease term, geological and geophysical evaluations, drilling results and activity, the assignment of proved reserves, the economic viability of development if proved reserves were assigned and other current market conditions. During any period in which these factors indicated an impairment, the cumulative drilling costs incurred to date for such property and all or a portion of the associated leasehold costs were transferred to the full cost pool and were then subject to amortization. Including amounts determined to be impaired, FCX transferred $4.9 billion of costs associated with unevaluated properties to the full cost pool in 2016. The transfer of costs into the amortization base involved a significant amount of judgment. Costs not subject to amortization consisted primarily of capitalized costs incurred for undeveloped acreage and wells in progress pending determination, together with capitalized interest for these projects. Following the completion of the sales of oil and gas properties discussed in Note 2, FCX had no unproved oil and gas properties in the consolidated balance sheets at December 31, 2018 or 2017. Interest costs totaling $7 million in 2016 were capitalized on oil and gas properties not subject to amortization and in the process of development.

Proceeds from the sale of oil and gas properties are accounted for as reductions to capitalized costs unless the reduction causes a significant change in proved reserves, which, absent other factors, is generally described as a 25 percent or greater change, and significantly alters the relationship between capitalized costs and proved reserves attributable to a cost center, in which case a gain or loss is recognized.

Impairment of Oil and Gas Properties. Under the SEC full cost accounting rules, FCX reviewed the carrying value of its oil and gas properties in the full cost pool for impairment each quarter on a country-by-country basis. Under these rules, capitalized costs of oil and gas properties (net of accumulated depreciation, depletion, amortization and impairment, and related deferred income taxes) for each cost center may not exceed a “ceiling” equal to:

- the present value, discounted at 10 percent, of estimated future net cash flows from the related proved oil and natural gas reserves, net of estimated future income taxes; plus
- the cost of the related unproved properties not being amortized; plus
- the lower of cost or estimated fair value of the related unproved properties included in the costs being amortized (net of related tax effects).

These rules require that FCX price its future oil and gas production at the twelve-month average of the first-day-of-the-month historical reference prices as adjusted for location and quality differentials. FCX’s reference prices are West Texas Intermediate (WTI) for oil and the Henry Hub price for natural gas. Such prices are utilized except where different prices are fixed and determinable from applicable contracts for the remaining term of those contracts. The reserve estimates exclude the effect of any crude oil and natural gas derivatives FCX has in place. The estimated future net cash flows also exclude future cash outflows associated with settling asset retirement obligations included in the net book value of the oil and gas properties. The rules require an impairment if the capitalized costs exceed this “ceiling.”

In 2016, net capitalized costs with respect to FCX’s proved oil and gas properties exceeded the related ceiling test limitation; therefore, impairment charges of $4.3 billion were recorded primarily because of the lower twelve-month average of the first-day-of-the-month historical reference oil price and reserve revisions.

Deferred Mining Costs. Stripping costs (i.e., the costs of removing overburden and waste material to access mineral deposits) incurred during the production phase of a mine are considered variable production costs and are included as

a component of inventory produced during the period in which stripping costs are incurred. Major development expenditures, including stripping costs to prepare unique and identifiable areas outside the current mining area for future production that are considered to be pre-production mine development, are capitalized and amortized using the UOP method based on estimated recoverable proven and probable reserves for the ore body benefited. However, where a second or subsequent pit or major expansion is considered to be a continuation of existing mining activities, stripping costs are accounted for as a current production cost and a component of the associated inventory.

Table of Contents

Environmental Obligations. Environmental expenditures are charged to expense or capitalized, depending upon their future economic benefits. Accruals for such expenditures are recorded when it is probable that obligations have been incurred and the costs can be reasonably estimated. Environmental obligations attributed to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or analogous state programs are considered probable when a claim is asserted, or is probable of assertion, and FCX, or any of its subsidiaries, have been associated with the site. Other environmental remediation obligations are considered probable based on specific facts and circumstances. FCX's estimates of these costs are based on an evaluation of various factors, including currently available facts, existing technology, presently enacted laws and regulations, remediation experience, whether or not FCX is a potentially responsible party (PRP) and the ability of other PRPs to pay their allocated portions. With the exception of those obligations assumed in the acquisition of FMC that were initially recorded at estimated fair values (refer to Note 12 for further discussion), environmental obligations are recorded on an undiscounted basis. Where the available information is sufficient to estimate the amount of the obligation, that estimate has been used. Where the information is only sufficient to establish a range of probable liability and no point within the range is more likely than any other, the lower end of the range has been used. Possible recoveries of some of these costs from other parties are not recognized in the consolidated financial statements until they become probable. Legal costs associated with environmental remediation (such as fees to outside law firms for work relating to determining the extent and type of remedial actions and the allocation of costs among PRPs) are included as part of the estimated obligation.

Environmental obligations assumed in the acquisition of FMC, which were initially recorded at fair value and estimated on a discounted basis, are accreted to full value over time through charges to interest expense. Adjustments arising from changes in amounts and timing of estimated costs and settlements may result in increases and decreases in these obligations and are calculated in the same manner as they were initially estimated. Unless these adjustments qualify for capitalization, changes in environmental obligations are charged to operating income when they occur.

FCX performs a comprehensive review of its environmental obligations annually and also reviews changes in facts and circumstances associated with these obligations at least quarterly.

Asset Retirement Obligations. FCX records the fair value of estimated asset retirement obligations (AROs) associated with tangible long-lived assets in the period incurred. Retirement obligations associated with long-lived assets are those for which there is a legal obligation to settle under existing or enacted law, statute, written or oral contract or by legal construction. These obligations, which are initially estimated based on discounted cash flow estimates, are accreted to full value over time through charges to cost of sales. In addition, asset retirement costs (ARCs) are capitalized as part of the related asset's carrying value and are depreciated over the asset's respective useful life.

For mining operations, reclamation costs for disturbances are recognized as an ARO and as a related ARC in the period of the disturbance and depreciated primarily on a UOP basis. FCX's AROs for mining operations consist primarily of costs associated with mine reclamation and closure activities. These activities, which are site specific, generally include costs for earthwork, revegetation, water treatment and demolition.

For oil and gas properties, the fair value of the legal obligation is recognized as an ARO and as a related ARC in the period in which the well is drilled or acquired and is amortized on a UOP basis together with other capitalized costs. Substantially all of FCX's oil and gas leases require that, upon termination of economic production, the working interest owners plug and abandon non-producing wellbores; remove platforms, tanks, production equipment and flow lines; and restore the wellsite.

For non-operating properties without reserves, changes to the ARO are recorded in earnings.

At least annually, FCX reviews its ARO estimates for changes in the projected timing of certain reclamation and closure/restoration costs, changes in cost estimates and additional AROs incurred during the period. Refer to Note 12

for further discussion.

Table of Contents

Revenue Recognition. Effective January 1, 2018, FCX adopted the new revenue recognition accounting standard, which did not result in any financial statement impacts or changes to FCX's revenue recognition policies or processes as revenue is primarily derived from arrangements in which the transfer of control coincides with the fulfillment of performance obligations.

FCX recognizes revenue for all of its products upon transfer of control in an amount that reflects the consideration it expects to receive in exchange for those products. Transfer of control is in accordance with the terms of customer contracts, which is generally upon shipment or delivery of the product. While payment terms vary by contract, terms generally include payment to be made within 30 days, but not longer than 60 days. Certain of FCX's concentrate and cathode sales contracts also provide for provisional pricing, which is accounted for as an embedded derivative (refer to Note 14 for further discussion). For provisionally priced sales, 90 percent to 100 percent of the provisional payment is made upon shipment or within 20 days, and final balances are settled in a contractually specified future month (generally one to four months from the shipment date) based on quoted monthly average copper settlement prices on the London Metal Exchange (LME) or the Commodity Exchange Inc. (COMEX), a division of the New York Mercantile Exchange, and quoted monthly average London Bullion Market Association (LBMA) gold settlement prices.

FCX's product revenues are also recorded net of treatment charges, royalties and export duties. Moreover, because a portion of the metals contained in copper concentrate is unrecoverable as a result of the smelting process, FCX's revenues from concentrate sales are also recorded net of allowances based on the quantity and value of these unrecoverable metals. These allowances are a negotiated term of FCX's contracts and vary by customer. Treatment and refining charges represent payments or price adjustments to smelters and refiners that are generally fixed. Refer to Note 16 for a summary of revenue by product type.

Gold sales are priced according to individual contract terms, generally the average LBMA gold settlement price for a specified month near the month of shipment.

The majority of FCX's molybdenum sales are priced based on the average published Metals Week price, plus conversion premiums for products that undergo additional processing, such as ferromolybdenum and molybdenum chemical products, for the month prior to the month of shipment.

Stock-Based Compensation. Compensation costs for share-based payments to employees are measured at fair value and charged to expense over the requisite service period for awards that are expected to vest. The fair value of stock options is determined using the Black-Scholes-Merton option valuation model. The fair value for stock-settled restricted stock units (RSUs) is based on FCX's stock price on the date of grant. Shares of common stock are issued at the vesting date for stock-settled RSUs. The fair value of performance share units (PSUs) are determined using FCX's stock price and a Monte-Carlo simulation model. The fair value for liability-classified awards (i.e., cash-settled stock appreciation rights (SARs), cash-settled RSUs and cash-settled PSUs) is remeasured each reporting period using the Black-Scholes-Merton option valuation model for SARs and FCX's stock price for cash-settled RSUs and cash-settled PSUs. FCX has elected to recognize compensation costs for stock option awards and SARs that vest over several years on a straight-line basis over the vesting period, and for RSUs and cash-settled PSUs on the graded-vesting method over the vesting period. Refer to Note 10 for further discussion.

Earnings Per Share. FCX calculates its basic net income (loss) per share of common stock under the two-class method and calculates its diluted net income (loss) per share of common stock using the more dilutive of the two-class method or the treasury-stock method. Basic net income (loss) per share of common stock was computed by dividing net income (loss) attributable to common stockholders (after deducting accumulated dividends and undistributed earnings to participating securities) by the weighted-average shares of common stock outstanding during the year. Diluted net income (loss) per share of common stock was calculated by including the basic weighted-average shares

of common stock outstanding adjusted for the effects of all potential dilutive shares of common stock, unless their effect would be anti-dilutive.

Table of Contents

Reconciliations of net income (loss) and weighted-average shares of common stock outstanding for purposes of calculating basic and diluted net income (loss) per share for the years ended December 31 follow:

	2018	2017	2016
Net income (loss) from continuing operations	$2,909	$2,029	$(3,832)
Net income from continuing operations attributable to noncontrolling interests	(292)	(274)	(227)
Gain on redemption and preferred dividends attributable to redeemable noncontrolling interest	—	—	161
Accumulated dividends and undistributed earnings allocated to participating securities	(4)	(4)	(3)
Net income (loss) from continuing operations attributable to common stockholders	2,613	1,751	(3,901)
Net (loss) income from discontinued operations	(15)	66	(193)
Net income from discontinued operations attributable to noncontrolling interests	—	(4)	(63)
Net (loss) income from discontinued operations attributable to common stockholders	(15)	62	(256)
Net income (loss) attributable to common stockholders	$2,598	$1,813	$(4,157)
Basic weighted-average shares of common stock outstanding (millions)	1,449	1,447	1,318
Add shares issuable upon exercise or vesting of dilutive stock options and RSUs (millions)	9 [a]	7	— [a]
Diluted weighted-average shares of common stock outstanding (millions)	1,458	1,454	1,318
Basic net income (loss) per share attributable to common stockholders:			
Continuing operations	$1.80	$1.21	$(2.96)
Discontinued operations	(0.01)	0.04	(0.20)
	$1.79	$1.25	$(3.16)
Diluted net income (loss) per share attributable to common stockholders:			
Continuing operations	$1.79	$1.21	$(2.96)
Discontinued operations	(0.01)	0.04	(0.20)
	$1.78	$1.25	$(3.16)

a. Excludes approximately 1 million in 2018 and 12 million in 2016 associated with outstanding stock options with exercise prices less than the average market price of FCX's common stock and RSUs that were anti-dilutive.

Outstanding stock options with exercise prices greater than the average market price of FCX's common stock during the year are excluded from the computation of diluted net income (loss) per share of common stock. Stock options for 37 million shares of common stock were excluded in 2018, 41 million in 2017 and 46 million in 2016.

New Accounting Standards. Following is a discussion of new accounting standards.

Revenue Recognition. In May 2014, the Financial Accounting Standards Board (FASB) issued an Accounting Standards Update (ASU) related to revenue recognition. FCX adopted this standard effective January 1, 2018, under the modified retrospective approach applied to contracts that remain in force at the adoption date. The adoption of this standard did not result in any financial statement impacts or changes to FCX's revenue recognition policies or processes as revenue is primarily derived from arrangements in which the transfer of control coincides with the fulfillment of performance obligations (refer to Revenue Recognition policy in this note). In connection with the adoption of the standard and consistent with FCX's policy prior to adoption of the standard, FCX has elected to account for shipping and handling activities performed after control of goods has been transferred to a customer as a fulfillment cost recorded in production and delivery costs on the consolidated statements of operations.

118

Table of Contents

Financial Instruments. In January 2016, FASB issued an ASU that amends the guidance on the classification and measurement of financial instruments. This ASU makes limited changes to prior guidance and amends certain disclosure requirements. FCX adopted this ASU effective January 1, 2018, and adoption did not have a material impact on its financial statements.

In June 2016, FASB issued an ASU that requires entities to estimate all expected credit losses for most financial assets held at the reporting date based on an expected loss model, which requires consideration of historical experience, current conditions, and reasonable and supportable forecasts. This ASU also requires enhanced disclosure requirements to enable users of financial statements to understand the entity's assumptions, models and methods for estimating expected credit losses. For public companies, this ASU is effective for interim and annual reporting periods beginning after December 15, 2019, with early adoption permitted. FCX is currently evaluating the impact this ASU will have on its financial statements.

Leases. In February 2016, FASB issued an ASU that will require lessees to recognize most leases on the balance sheet. FCX adopted this ASU effective January 1, 2019, and elected the practical expedient allowing it to apply the provisions of the updated lease guidance at the January 1, 2019, effective date, without adjusting the comparative periods presented. FCX also elected an accounting policy to not recognize a lease asset and liability for leases with a term of 12 months or less and a purchase option that is not expected to be exercised. FCX completed an assessment of its lease portfolio, implemented a new information technology system, and designed processes and controls to account for its leases in accordance with the new standard. FCX has concluded that the adoption of this ASU did not have a material impact on its financial statements. FCX will begin making the required lease disclosures under the ASU beginning with its March 31, 2019, quarterly report on Form 10-Q.

Statement of Cash Flows. In November 2016, FASB issued an ASU that changes the classification and presentation of restricted cash and restricted cash equivalents on the statement of cash flows. The ASU requires that a statement of cash flows include the change during the period in the total of cash, cash equivalents and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. FCX adopted this ASU effective January 1, 2018, and adjusted its consolidated statement of cash flows for the years ended December 31, 2017 and 2016, to include restricted cash and restricted cash equivalents with cash and cash equivalents.

The impact of adopting this ASU for the years ended December 31 follows:

	2017		
	Previously Reported	Impact of Adoption	After Adoption[a]
Accrued income taxes and changes in other tax payments included in cash flow from operating activities	$473	$ (16)	$ 457
Net cash provided by operating activities	4,682	(16)	4,666
Other, net included in cash flow from investing activities	(25)	42	17
Net cash used in investing activities	(1,363)	42	(1,321)
Net increase in cash, cash equivalents, restricted cash and restricted cash equivalents	264	26	290
Cash, cash equivalents, restricted cash and restricted cash equivalents at beginning of year	4,245	158	4,403
Cash, cash equivalents, restricted cash and restricted cash equivalents at end of period	4,447	184	4,631

Table of Contents

	2016		
	Previously Reported	Impact of Adoption	After Adoption[a]
Other, net included in cash flow from operating activities	$48	$ 8	$ 56
Net cash provided by operating activities	3,729	8	3,737
Other, net included in cash flow from investing activities	8	3	11
Net cash provided by investing activities	3,550	3	3,553
Net increase in cash, cash equivalents, restricted cash and restricted cash equivalents	4,113	11	4,124
Cash, cash equivalents, restricted cash and restricted cash equivalents at beginning of year	177	147	324
Cash, cash equivalents, restricted cash and restricted cash equivalents at end of period	4,245	158	4,403

a. Excludes the reclassification of assets held for sale and other adjustments to conform with the current year presentation.

Net Periodic Pension and Postretirement Benefit Cost. In March 2017, FASB issued an ASU that changes how entities with defined benefit pension or other postretirement benefit plans present net periodic benefit cost in the income statement. This ASU requires the service cost component of net periodic benefit cost to be presented in the same income statement line item or items as other compensation costs for those employees who are receiving the benefit. In addition, only the service cost component is eligible for capitalization when applicable (i.e., as a cost of inventory or an internally constructed asset). The other components of net periodic benefit cost are required to be presented separately from the service cost component and outside of operating income. These other components of net periodic benefit cost are not eligible for capitalization, and FCX elected to include these other components in other income (expense), net. FCX adopted this ASU effective January 1, 2018, and adjusted its presentation in the consolidated statements of operations for the years ended December 31, 2017 and 2016, to conform with the new guidance. The impact of adopting this ASU for the years ended December 31 follows:

	2017		
	Previously Reported	Impact of Adoption	Current Presentation
Production and delivery	$10,308[a]	$ (42)	$ 10,266
Total cost of sales	12,022	(42)	11,980
Selling, general and administrative expenses	484	(7)	477
Mining exploration and research expenses	94	(1)	93
Environmental obligations and shutdown costs	251	(7)	244
Total costs and expenses	12,770	(57)	12,713
Operating income	3,633	57	3,690
Other income (expense), net	49	(57)	(8)

	2016		
	Previously Reported	Impact of Adoption	Current Presentation
Production and delivery	$10,733[a]	$ (46)	$ 10,687
Total cost of sales	17,580	(46)	17,534
Selling, general and administrative expenses	607	(10)	597
Mining exploration and research expenses	64	(1)	63
Environmental obligations and shutdown costs	20	(6)	14
Total costs and expenses			