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

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2019

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 001-32327

The Mosaic Company

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

20-1026454
(I.R.S. Employer
Identification No.)

**101 East Kennedy Blvd
Suite 2500
Tampa , Florida 33602
(800) 918-8270**

(Address and zip code of principal executive offices and registrant's telephone number, including area code)

Not Applicable

(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.01 per share	MOS	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes No

Indicate by check mark whether the registrant has submitted electronically 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). Yes No

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. (Check one): Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company 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.

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock as of the latest practicable date: 378,762,651 shares of Common Stock as of November 1, 2019 .

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

THE MOSAIC COMPANY
CONDENSED CONSOLIDATED STATEMENTS OF EARNINGS
(In millions, except per share amounts)
(Unaudited)

	Three months ended		Nine months ended	
	September 30,		September 30,	
	2019	2018	2019	2018
Net sales	\$ 2,753.4	\$ 2,928.1	\$ 6,830.0	\$ 7,066.8
Cost of goods sold	2,473.5	2,432.6	6,013.4	6,034.6
Gross margin	279.9	495.5	816.6	1,032.2
Selling, general and administrative expenses	78.2	78.5	249.8	251.4
Plant City closure (benefit) costs	(15.6)	—	353.8	—
Other operating expense	77.8	23.7	113.3	110.5
Operating earnings	139.5	393.3	99.7	670.3
Interest expense, net	(43.2)	(40.9)	(136.2)	(135.4)
Foreign currency transaction (loss)	(53.8)	(2.2)	(10.4)	(113.1)
Other income (expense)	9.7	(7.6)	4.9	(15.6)
Earnings (loss) from consolidated companies before income taxes	52.2	342.6	(42.0)	406.2
Provision for income taxes	69.2	90.6	64.1	44.4
(Loss) earnings from consolidated companies	(17.0)	252.0	(106.1)	361.8
Equity in net (loss) of nonconsolidated companies	(23.0)	(2.3)	(34.3)	(3.9)
Net (loss) earnings including noncontrolling interests	(40.0)	249.7	(140.4)	357.9
Less: Net gain attributable to noncontrolling interests	4.1	2.2	6.0	0.2
Net (loss) earnings attributable to Mosaic	\$ (44.1)	\$ 247.5	\$ (146.4)	\$ 357.7
Basic net (loss) earnings per share attributable to Mosaic	\$ (0.11)	\$ 0.64	\$ (0.38)	\$ 0.93
Basic weighted average number of shares outstanding	385.0	385.5	385.5	384.5
Diluted net (loss) earnings per share attributable to Mosaic	\$ (0.11)	\$ 0.64	\$ (0.38)	\$ 0.93
Diluted weighted average number of shares outstanding	385.0	387.5	385.5	386.1

See Notes to Condensed Consolidated Financial Statements

THE MOSAIC COMPANY
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(In millions)
(Unaudited)

	Three months ended		Nine months ended	
	September 30,		September 30,	
	2019	2018	2019	2018
Net (loss) earnings including noncontrolling interest	\$ (40.0)	\$ 249.7	\$ (140.4)	\$ 357.9
Other comprehensive (loss) income, net of tax				
Foreign currency translation (loss) gain, net of tax	(186.6)	0.5	(27.6)	(467.6)
Net actuarial gain and prior service cost, net of tax	2.5	3.4	0.2	7.4
Amortization of gain on interest rate swap, net of tax	0.5	0.6	1.6	1.7
Net (loss) gain on marketable securities held in trust fund, net of tax	(6.4)	1.6	15.3	(3.6)
Other comprehensive (loss) income	(190.0)	6.1	(10.5)	(462.1)
Comprehensive (loss) income	(230.0)	255.8	(150.9)	(104.2)
Less: Comprehensive income (loss) attributable to noncontrolling interest	1.6	2.8	3.8	(5.8)
Comprehensive (loss) income attributable to Mosaic	<u>\$ (231.6)</u>	<u>\$ 253.0</u>	<u>\$ (154.7)</u>	<u>\$ (98.4)</u>

See Notes to Condensed Consolidated Financial Statements

THE MOSAIC COMPANY
CONDENSED CONSOLIDATED BALANCE SHEETS
(In millions, except per share amounts)
(Unaudited)

	September 30, 2019	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents	\$ 641.1	\$ 847.7
Receivables, net	801.4	838.5
Inventories	2,294.3	2,270.2
Other current assets	388.5	280.6
Total current assets	4,125.3	4,237.0
Property, plant and equipment, net of accumulated depreciation of \$7,527.0 million and \$6,934.5 million, respectively	11,943.4	11,746.5
Investments in nonconsolidated companies	787.5	826.6
Goodwill	1,731.8	1,707.5
Deferred income taxes	371.4	343.8
Other assets	1,480.7	1,257.8
Total assets	\$ 20,440.1	\$ 20,119.2
Liabilities and Equity		
Current liabilities:		
Short-term debt	\$ 88.0	\$ 11.5
Current maturities of long-term debt	42.9	26.0
Structured accounts payable arrangements	692.0	572.8
Accounts payable	766.1	780.9
Accrued liabilities	1,135.5	1,092.5
Total current liabilities	2,724.5	2,483.7
Long-term debt, less current maturities	4,533.2	4,491.5
Deferred income taxes	1,150.8	1,080.6
Other noncurrent liabilities	1,720.4	1,458.7
Equity:		
Preferred Stock, \$0.01 par value, 15,000,000 shares authorized, none issued and outstanding as of September 30, 2019 and December 31, 2018	—	—
Common Stock, \$0.01 par value, 1,000,000,000 shares authorized, 389,643,771 shares issued and 380,045,964 shares outstanding as of September 30, 2019, 389,242,360 shares issued and 385,470,085 shares outstanding as of December 31, 2018	3.8	3.8
Capital in excess of par value	881.3	985.9
Retained earnings	10,880.7	11,064.7
Accumulated other comprehensive loss	(1,665.4)	(1,657.1)
Total Mosaic stockholders' equity	10,100.4	10,397.3
Noncontrolling interests	210.8	207.4
Total equity	10,311.2	10,604.7
Total liabilities and equity	\$ 20,440.1	\$ 20,119.2

See Notes to Condensed Consolidated Financial Statements
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THE MOSAIC COMPANY
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)
(Unaudited)

	Nine months ended	
	September 30, 2019	September 30, 2018
Cash Flows from Operating Activities:		
Net (loss) earnings including noncontrolling interests	\$ (140.4)	\$ 357.9
Adjustments to reconcile net (loss) earnings including noncontrolling interests to net cash provided by operating activities:		
Depreciation, depletion and amortization	649.6	648.8
Amortization of acquired inventory	(5.5)	(47.4)
Deferred and other income taxes	(2.9)	(12.3)
Equity in net loss of nonconsolidated companies, net of dividends	39.4	11.0
Accretion expense for asset retirement obligations	44.3	37.2
Share-based compensation expense	25.0	25.7
Unrealized loss (gain) on derivatives	(55.9)	14.3
Plant City closure costs	353.8	—
Loss on sale of fixed assets	15.2	—
Other	(4.8)	21.2
Changes in assets and liabilities, excluding effects of acquisition:		
Receivables, net	33.2	(31.6)
Inventories	(99.1)	(198.1)
Other current and noncurrent assets	(63.2)	(75.9)
Accounts payable and accrued liabilities	59.3	466.5
Other noncurrent liabilities	(30.2)	42.5
Net cash provided by operating activities	817.8	1,259.8
Cash Flows from Investing Activities:		
Capital expenditures	(931.1)	(665.4)
Purchases of available-for-sale securities - restricted	(484.3)	(486.1)
Proceeds from sale of available-for-sale securities - restricted	468.2	470.5
Investments in consolidated affiliate	—	(3.6)
Proceeds from sale of fixed assets	—	9.3
Acquisition, net of cash acquired	—	(985.3)
Purchase of assets	(55.1)	—
Purchases of held-to-maturity securities	(14.5)	—
Proceeds from sale of held-to-maturity securities	2.3	—
Other	0.4	(0.3)
Net cash used in investing activities	(1,014.1)	(1,660.9)
Cash Flows from Financing Activities:		
Payments of short-term debt	(441.7)	(120.1)
Proceeds from issuance of short-term debt	521.3	145.2
Payments of structured accounts payable arrangements	(762.5)	(582.4)
Proceeds from structured accounts payable arrangements	865.2	590.2
Payments of long-term debt	(32.9)	(722.4)
Proceeds from issuance of long-term debt	—	39.3
Repurchases of stock	(117.1)	—
Cash dividends paid	(48.2)	(28.9)
Other	(0.4)	(0.5)
Net cash used in financing activities	(16.3)	(679.6)
Effect of exchange rate changes on cash	0.1	(62.8)
Net change in cash, cash equivalents and restricted cash	(212.5)	(1,143.5)
Cash, cash equivalents and restricted cash - December 31	871.0	2,194.4
Cash, cash equivalents and restricted cash - September 30	\$ 658.5	\$ 1,050.9

See Notes to Condensed Consolidated Financial Statements

THE MOSAIC COMPANY
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)
(In millions)
(Unaudited)

	Nine months ended	
	September 30, 2019	September 30, 2018
Reconciliation of cash, cash equivalents and restricted cash reported within the unaudited condensed consolidated balance sheets to the unaudited condensed consolidated statements of cash flows:		
Cash and cash equivalents	\$ 641.1	\$ 1,029.9
Restricted cash in other current assets	8.6	8.2
Restricted cash in other assets	8.8	12.8
Total cash, cash equivalents and restricted cash shown in the unaudited condensed consolidated statement of cash flows	<u>\$ 658.5</u>	<u>\$ 1,050.9</u>

Supplemental Disclosure of Cash Flow Information:

Cash paid during the period for:		
Interest (net of amount capitalized of \$20.9 and \$17.0 for the nine months ended September 30, 2019 and 2018, respectively)	\$ 116.5	\$ 97.6
Income taxes (net of refunds)	114.3	13.2

See Notes to Condensed Consolidated Financial Statements

THE MOSAIC COMPANY
CONDENSED CONSOLIDATED STATEMENTS OF EQUITY
(In millions, except per share amounts)
(Unaudited)

	Mosaic Shareholders						
	Shares	Dollars					
	Common Stock	Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive (Loss)	Noncontrolling Interests	Total Equity
Balance as of June 30, 2018	385.4	\$ 3.8	\$ 981.7	\$ 10,734.1	\$ (1,523.2)	\$ 219.3	\$ 10,415.7
Total comprehensive income	—	—	—	247.5	5.5	2.8	255.8
Vesting of restricted stock units	0.1	—	(0.3)	—	—	—	(0.3)
Stock based compensation	—	—	2.4	—	—	—	2.4
Dividends (\$0.025 per share)	—	—	—	(9.9)	—	—	(9.9)
Dividends for noncontrolling interests	—	—	—	—	—	(0.1)	(0.1)
Equity from noncontrolling interests	—	—	—	—	—	(10.3)	(10.3)
Balance as of September 30, 2018	<u>385.5</u>	<u>\$ 3.8</u>	<u>\$ 983.8</u>	<u>\$ 10,971.7</u>	<u>\$ (1,517.7)</u>	<u>\$ 211.7</u>	<u>\$ 10,653.3</u>
Balance as of December 31, 2017	<u>351.0</u>	<u>\$ 3.5</u>	<u>\$ 44.5</u>	<u>\$ 10,631.1</u>	<u>\$ (1,061.6)</u>	<u>\$ 21.6</u>	<u>\$ 9,639.1</u>
Adoption of ASC Topic 606	—	—	—	2.7	—	—	2.7
Total comprehensive income (loss)	—	—	—	357.7	(456.1)	(5.8)	(104.2)
Vesting of restricted stock units	0.3	—	(3.4)	—	—	—	(3.4)
Stock based compensation	—	—	23.0	—	—	—	23.0
Acquisition of Vale Fertilizantes	34.2	0.3	919.7	—	—	—	920.0
Dividends (\$0.05 per share)	—	—	—	(19.8)	—	—	(19.8)
Dividends for noncontrolling interests	—	—	—	—	—	(0.5)	(0.5)
Equity from noncontrolling interests	—	—	—	—	—	196.4	196.4
Balance as of September 30, 2018	<u>385.5</u>	<u>\$ 3.8</u>	<u>\$ 983.8</u>	<u>\$ 10,971.7</u>	<u>\$ (1,517.7)</u>	<u>\$ 211.7</u>	<u>\$ 10,653.3</u>
Balance as of June 30, 2019	<u>385.9</u>	<u>\$ 3.8</u>	<u>\$ 1,002.9</u>	<u>\$ 10,944.2</u>	<u>\$ (1,477.9)</u>	<u>\$ 209.3</u>	<u>\$ 10,682.3</u>
Total comprehensive income (loss)	—	—	—	(44.1)	(187.5)	1.6	(230.0)
Stock based compensation	—	—	2.9	—	—	—	2.9
Share repurchases	(5.8)	—	(124.5)	—	—	—	(124.5)
Dividends (\$0.05 per share)	—	—	—	(19.4)	—	—	(19.4)
Dividends for noncontrolling interests	—	—	—	—	—	(0.1)	(0.1)
Balance as of September 30, 2019	<u>380.1</u>	<u>\$ 3.8</u>	<u>\$ 881.3</u>	<u>\$ 10,880.7</u>	<u>\$ (1,665.4)</u>	<u>\$ 210.8</u>	<u>\$ 10,311.2</u>
Balance as of December 31, 2018	<u>385.5</u>	<u>\$ 3.8</u>	<u>\$ 985.9</u>	<u>\$ 11,064.7</u>	<u>\$ (1,657.1)</u>	<u>\$ 207.4</u>	<u>\$ 10,604.7</u>
Adoption of ASC Topic 842	—	—	—	0.6	—	—	0.6
Total comprehensive income (loss)	—	—	—	(146.4)	(8.3)	3.8	(150.9)
Vesting of restricted stock units	0.4	—	(5.1)	—	—	—	(5.1)
Stock based compensation	—	—	25.0	—	—	—	25.0
Share repurchases	(5.8)	—	(124.5)	—	—	—	(124.5)
Dividends (\$0.10 per share)	—	—	—	(38.2)	—	—	(38.2)
Dividends for noncontrolling interests	—	—	—	—	—	(0.4)	(0.4)
Balance as of September 30, 2019	<u>380.1</u>	<u>\$ 3.8</u>	<u>\$ 881.3</u>	<u>\$ 10,880.7</u>	<u>\$ (1,665.4)</u>	<u>\$ 210.8</u>	<u>\$ 10,311.2</u>

See Notes to Condensed Consolidated Financial Statements

THE MOSAIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Tables in millions, except per share amounts and as otherwise designated)
(Unaudited)

1 . Organization and Nature of Business

The Mosaic Company (“*Mosaic*”, and, with its consolidated subsidiaries, “*we*”, “*us*”, “*our*”, or the “*Company*”) produces and markets concentrated phosphate and potash crop nutrients. We conduct our business through wholly and majority owned subsidiaries and businesses in which we own less than a majority or a noncontrolling interest, including consolidated variable interest entities and investments accounted for by the equity method.

On January 8, 2018, we completed our acquisition (the “*Acquisition*”) of Vale Fertilizantes S.A. (now known as Mosaic Fertilizantes P&K S.A. or the “*Acquired Business*”). Upon completion of the Acquisition, we became the leading fertilizer producer and distributor in Brazil.

We are organized into the following business segments:

- Our **Phosphates** business segment owns and operates mines and production facilities in Florida which produce concentrated phosphate crop nutrients and phosphate-based animal feed ingredients, and processing plants in Louisiana which produce concentrated phosphate crop nutrients. As part of the Acquisition, we acquired an additional 40 % economic interest in the Miski Mayo Phosphate Mine in Peru, which increased our aggregate interest to 75 % . These results are consolidated in the Phosphates segment. The Phosphates segment also includes our 25 % interest in the Ma'aden Wa'ad Al Shamal Phosphate Company (the “*MWSPC*”), a joint venture to develop, own and operate integrated phosphate production facilities in the Kingdom of Saudi Arabia. We market approximately 25 % of the MWSPC phosphate production. We recognize our equity in the net earnings or losses relating to MWSPC on a one-quarter lag in our Condensed Consolidated Statements of Earnings.
- Our **Potash** business segment owns and operates potash mines and production facilities in Canada and the U.S. which produce potash-based crop nutrients, animal feed ingredients and industrial products. Potash sales include domestic and international sales. We are a member of Canpotex, Limited (“*Canpotex*”), an export association of Canadian potash producers through which we sell our Canadian potash outside the U.S. and Canada.
- Our **Mosaic Fertilizantes** business segment includes the assets in Brazil that we acquired in the Acquisition, which consist of five phosphate rock mines, four phosphate chemical plants and a potash mine. The segment also includes our legacy distribution business in South America, which consists of sales offices, crop nutrient blending and bagging facilities, port terminals and warehouses in Brazil and Paraguay. We also have a majority interest in Fospar S.A., which owns and operates a single superphosphate granulation plant and a deep-water crop nutrition port and throughput warehouse terminal facility in Brazil.

Intersegment eliminations, unrealized mark-to-market gains/losses on derivatives, debt expenses, Streamsong Resort ® results of operations, and the results of the China and India distribution businesses are included within Corporate, Eliminations and Other. As of January 1, 2019, certain selling, general and administrative costs that are not controllable by the business segments are no longer allocated to segments and are included within Corporate, Eliminations and Other. Our operating results for the three and nine months ended September 30, 2018, have been recast to reflect this change. See Note 18 of the Condensed Consolidated Financial Statements in this report for segment results.

2 . Summary of Significant Accounting Policies

Statement Presentation and Basis of Consolidation

The accompanying unaudited Condensed Consolidated Financial Statements of Mosaic have been prepared on the accrual basis of accounting and in accordance with the requirements of the Securities and Exchange Commission (“*SEC*”) for interim financial reporting. As permitted under these rules, certain footnotes and other financial information that are normally required by accounting principles generally accepted in the United States (“*GAAP*”) can be condensed or omitted. The Condensed Consolidated Financial Statements included in this document reflect, in the opinion of our management, all adjustments (consisting of only normal recurring adjustments) necessary for a fair presentation of the results for the interim periods presented. The following notes should be read in conjunction with the accounting policies and other disclosures in the Notes to the Consolidated Financial Statements included in our Annual Report on Form 10-K filed with

THE MOSAIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

the SEC for the year ended December 31, 2018 (the “*10-K Report*”). Sales, expenses, cash flows, assets and liabilities can and do vary during the year as a result of seasonality and other factors. Therefore, interim results are not necessarily indicative of the results to be expected for the full fiscal year.

The accompanying Condensed Consolidated Financial Statements include the accounts of Mosaic, its majority owned subsidiaries, and certain variable interest entities in which Mosaic is the primary beneficiary. Certain investments in companies where we do not have control but have the ability to exercise significant influence are accounted for by the equity method.

Leases

At inception, we determine whether an arrangement is a lease and the appropriate lease classification. Operating leases with terms greater than twelve months are included as operating lease right-of-use (“*ROU*”) assets within other assets, and lease liabilities within accrued liabilities and other noncurrent liabilities on our consolidated balance sheets. Finance leases with terms greater than twelve months are included as finance ROU assets within property and equipment, and finance lease liabilities within current maturities of long-term debt and long-term debt on our consolidated balance sheets. Leases with terms of less than twelve months, referred to as short-term leases, do not create an ROU asset or lease liability on the balance sheet.

ROU assets represent our right to use an underlying asset for the lease term. Lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the commencement date of the lease, based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. The company's incremental borrowing rate for a lease is the rate of interest it would have to pay on a collateralized basis to borrow an amount equal to the lease payments under similar terms. For both operating and finance leases, the initial ROU asset equals the lease liability, plus initial direct costs, less lease incentives received. Our lease agreements may include options to extend or terminate the lease, which are included in the lease term at the commencement date when it is reasonably certain that we will exercise that option. In general, we do not consider optional periods included in our lease agreements as reasonably certain of exercise at inception.

We have lease agreements with lease and non-lease components, which are generally accounted for separately. For full-service railcar leases, we account for the lease and non-lease components as a single lease component. Additionally, for certain equipment leases, we apply assumptions using a portfolio approach given the generally consistent terms of the agreements. Lease payments based on usage (for example, per-mile or per-hour charges), referred to as variable lease costs, are recorded separately from the determination of the ROU asset and lease liability.

Accounting Estimates

Preparation of the Condensed Consolidated Financial Statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of net sales and expenses during the reporting periods. The most significant estimates made by management relate to the estimates of fair value of acquired assets and liabilities, the recoverability of non-current assets including goodwill, the useful lives and net realizable values of long-lived assets, environmental and reclamation liabilities including asset retirement obligations (“*ARO*”), and income tax-related accounts, including the valuation allowance against deferred income tax assets. Actual results could differ from these estimates.

3 . Recently Issued Accounting Guidance

In June 2016, the Financial Accounting Standards Board (“*FASB*”) issued guidance which revises the accounting for credit losses on financial instruments within its scope. The standard introduces an approach, based on expected losses, to estimate credit losses on certain types of financial instruments, including trade and other receivables, and modifies the impairment model for available-for-sale (“*AFS*”) debt securities. The guidance amends the current other-than-temporary impairment model for AFS debt securities and provides that any impairment related to credit losses be recognized as an allowance (which could be reversed) rather than as a permanent reduction in the amortized cost basis of that security. This standard is effective for us beginning January 1, 2020, with early adoption permitted. We are assessing the requirements of

THE MOSAIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

this standard related to our trade receivables and AFS debt securities, but do not expect it to significantly impact our consolidated results of operations or financial condition.

4 . Leases

In February 2016, the FASB issued a new standard (“*ASC 842*”) intended to improve financial reporting about leasing transactions. The FASB issued additional guidance subsequently to clarify aspects of the standard and provide certain relief for implementation. ASC 842 requires lessees to recognize on the balance sheet the rights and obligations created by leases with terms greater than twelve months. The primary change created by the new standard is the recognition of ROU assets and lease liabilities by lessees for those leases previously classified as operating leases. ASC 842 requires disclosures to enable users of financial statements to assess the amount, timing, and uncertainty of cash flows arising from leases.

We adopted ASC 842 effective January 1, 2019, with an immaterial cumulative-effect adjustment to the opening balance of retained earnings as of that date. As allowed under the standard, we have not changed our accounting and reporting for lease arrangements for periods presented prior to January 1, 2019. The impacts upon adoption on previously reported amounts are shown below. Our accounting for capital leases (now referred to as finance leases) remained substantially unchanged. Adoption of the standard is not expected to significantly impact lease activity reported in our statements of earnings and cash flows.

We have operating and finance leases for heavy mobile equipment, railcars, fleet vehicles, field and plant equipment, river and cross-Gulf vessels, corporate offices, land, and computer equipment. Our leases have remaining lease terms of 1 year to 29 years, some of which may include options to extend the leases for up to 10 years, and some of which may include options to terminate the leases within 1 year. As of September 30, 2019 , assets recorded under finance leases, included within property, plant and equipment, were \$ 409.8 million , and accumulated depreciation associated with finance leases was \$ 47.2 million . As of September 30, 2019 , assets recorded under operating leases were \$ 212.6 million , included in other assets.

Adoption of the standard related to leases impacted our previously reported results as follows:

	<u>Balance as of</u> <u>December 31, 2018</u>	<u>Adoption</u> <u>Adjustments</u>	<u>Balance as of</u> <u>January 1, 2019</u>
<i>(in millions)</i>			
Operating lease right-of-use assets	\$ —	\$ 241.1	\$ 241.1
Finance lease right-of-use assets	340.9	—	340.9
Accrued and other noncurrent liabilities	—	241.1	241.1
Long-term debt, including current maturities	302.2	—	302.2

Adoption of ASC 842 had no impact to cash from or used in operating, financing, or investing on our consolidated cash flows statements.

The components of lease expense, included primarily within cost of goods sold and selling, general and administrative expenses, were as follows:

THE MOSAIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

<i>(in millions)</i>	<u>Three Months Ended September 30, 2019</u>	<u>Nine Months Ended September 30, 2019</u>
Operating lease cost	\$ 25.9	\$ 79.5
Finance lease cost:		
Amortization of right-of-use assets	\$ 6.8	\$ 19.4
Interest on lease liabilities	3.8	11.3
	<u>\$ 10.6</u>	<u>\$ 30.7</u>
Short-term lease cost	\$ 2.9	\$ 8.7
Variable lease cost	5.6	15.6
Total lease cost	<u>\$ 45.0</u>	<u>\$ 134.5</u>

Supplemental cash flow information related to leases was as follows:

<i>(In millions)</i>	<u>Nine Months Ended September 30, 2019</u>
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	\$ 81.3
Operating cash flows from finance leases	\$ 8.0
Financing cash flows from finance leases	\$ 27.7
Right-of-use assets obtained in exchange for lease obligations:	
Operating leases	\$ 50.4
Finance leases	\$ 71.8

Other information related to leases was as follows:

	<u>September 30, 2019</u>
Weighted Average Remaining Lease Term	
Operating leases	4.8 years
Finance leases	5.0 years
Weighted Average Discount Rate	
Operating leases	6.5%
Finance leases	3.9%

Future lease payments under non-cancellable leases recorded as of September 30, 2019, were as follows:

THE MOSAIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

<i>(in millions)</i>	<u>Operating Leases</u>	<u>Finance Leases</u>
2019 (excluding the nine months ended September 30, 2019)	\$ 24.6	\$ 12.1
2020	76.4	48.3
2021	51.1	51.6
2022	35.3	43.5
2023	24.9	75.2
Thereafter	39.1	182.3
Total future lease payments	<u>\$ 251.4</u>	<u>\$ 413.0</u>
Less imputed interest	(36.2)	(68.6)
Total	<u>\$ 215.2</u>	<u>\$ 344.4</u>

Reported as of September 30, 2019

Accrued liabilities	\$ 72.3	\$ —
Current maturities of long-term debt	—	37.5
Other noncurrent liabilities	142.9	—
Long-term debt, less current maturities	—	306.9
Total	<u>\$ 215.2</u>	<u>\$ 344.4</u>

A schedule of our minimum lease payments under non-cancelable capital and operating leases as of December 31, 2018 is as follows:

<i>(in millions)</i>	<u>Operating Leases</u>	<u>Capital Leases</u>
2019	\$ 97.5	\$ 20.4
2020	76.8	26.4
2021	54.7	23.4
2022	36.6	17.2
2023	28.1	48.9
Subsequent years	30.9	165.9
	<u>\$ 324.6</u>	<u>\$ 302.2</u>

THE MOSAIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

5. Other Financial Statement Data

The following provides additional information concerning selected balance sheet accounts:

	September 30, 2019	December 31, 2018
Other current assets		
Income and other taxes receivable	\$ 236.0	\$ 149.2
Prepaid expenses	110.2	86.8
Other	42.3	44.6
	<u>\$ 388.5</u>	<u>\$ 280.6</u>
Other assets		
Restricted cash	\$ 8.8	\$ 15.8
MRO inventory	126.1	134.6
Marketable securities held in trust	685.8	632.3
Operating lease right-of-use assets	212.6	—
Indemnification asset	29.9	30.7
Long-term receivable	75.4	91.7
Other	342.1	352.7
	<u>\$ 1,480.7</u>	<u>\$ 1,257.8</u>
Accrued liabilities		
Accrued dividends	\$ 0.9	\$ 11.8
Payroll and employee benefits	143.7	217.5
Asset retirement obligations	164.6	136.3
Customer prepayments (a)	283.6	199.8
Accrued income tax	67.4	65.5
Operating lease obligation	72.3	—
Other	403.0	461.6
	<u>\$ 1,135.5</u>	<u>\$ 1,092.5</u>
Other noncurrent liabilities		
Asset retirement obligations	\$ 1,136.5	\$ 1,023.8
Operating lease obligation	142.9	—
Accrued pension and postretirement benefits	141.5	146.3
Unrecognized tax benefits	34.2	33.0
Other	265.3	255.6
	<u>\$ 1,720.4</u>	<u>\$ 1,458.7</u>

(a) The timing of recognition of revenue related to our performance obligations may be different than the timing of collection of cash related to those performance obligations. Specifically, we collect prepayments from certain customers in Brazil. In addition, cash collection from Canpotex may occur prior to delivery of product to the end customer. We generally satisfy our contractual liabilities within one quarter of incurring the liability.

THE MOSAIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

6. Earnings Per Share

The numerator for basic and diluted earnings per share (“*EPS*”) is net earnings attributable to Mosaic. The denominator for basic EPS is the weighted average number of shares outstanding during the period. The denominator for diluted EPS also includes the weighted average number of additional common shares that would have been outstanding if the dilutive potential common shares had been issued, unless the shares are anti-dilutive.

The following is a reconciliation of the numerator and denominator for the basic and diluted EPS computations:

	Three months ended		Nine months ended	
	September 30,		September 30,	
	2019	2018	2019	2018
Net (loss) earnings attributable to Mosaic	\$ (44.1)	\$ 247.5	\$ (146.4)	\$ 357.7
Basic weighted average number of shares outstanding	385.0	385.5	385.5	384.5
Dilutive impact of share-based awards	—	2.0	—	1.6
Diluted weighted average number of shares outstanding	385.0	387.5	385.5	386.1
Basic net (loss) earnings per share attributable to Mosaic	\$ (0.11)	\$ 0.64	\$ (0.38)	\$ 0.93
Diluted net (loss) earnings per share attributable to Mosaic	\$ (0.11)	\$ 0.64	\$ (0.38)	\$ 0.93

A total of 2.7 million and 2.5 million shares of common stock subject to issuance upon exercise of stock options for the three and nine months ended September 30, 2019 and 2.0 million and 2.6 million for the three and nine months ended September 30, 2018, respectively, have been excluded from the calculation of diluted EPS because the effect would have been anti-dilutive.

7. Income Taxes

During the nine months ended September 30, 2019, gross unrecognized tax benefits increased by \$ 1.4 million to \$ 39.5 million. The increase is primarily related to Canadian tax positions. If recognized, approximately \$ 24.0 million of the \$ 39.5 million in unrecognized tax benefits would affect our effective tax rate and net earnings in future periods.

We recognize interest and penalties related to unrecognized tax benefits as a component of our income tax provision. We had accrued interest and penalties totaling \$ 6.8 million and \$ 4.9 million as of September 30, 2019 and December 31, 2018, respectively, that were included in other noncurrent liabilities in the Condensed Consolidated Balance Sheets.

Accounting for uncertain tax positions is determined by prescribing the minimum probability threshold that a tax position is more likely than not to be sustained based on the technical merits of the position. Mosaic is continually under audit by various tax authorities in the normal course of business. Such tax authorities may raise issues contrary to positions taken by the Company. If such positions are ultimately not sustained by the Company, this could result in material assessments to the Company. The costs related to defending, if needed, such positions on appeal or in court may be material. The Company believes that any issues raised are properly accounted for.

For the three months ended September 30, 2019, tax expense specific to the period was a cost of approximately \$ 19.8 million. This consisted primarily of tax expense of \$ 5.6 million related to changes in estimates related to prior years, \$ 3.3 million related to the Plant City closure costs, and \$ 10.9 million for valuation allowances in foreign jurisdictions. In addition to items specific to the period, our income tax rate is impacted by the mix of earnings across the jurisdictions in which we operate, by a benefit associated with depletion, and by the impact of certain entities being taxed in both foreign jurisdictions and the U.S., including foreign tax credits for various taxes incurred.

Generally, for interim periods, income tax is equal to the total of (1) year-to-date pretax income multiplied by our forecasted effective tax rate plus (2) tax expense items specific to the period. In situations where we expect to report losses for which we do not expect to receive tax benefits, we are required to apply separate forecasted effective tax rates to those jurisdictions rather than including them in the consolidated effective tax rate. For the three months ended September 30, 2019, income tax expense was impacted by this set of rules, resulting in an additional cost of \$ 14.7 million compared to what would have been recorded under the general rule on a consolidated basis.

THE MOSAIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

For the three months ended September 30, 2018, tax expense specific to the period was approximately \$ 30.7 million. This consisted primarily of \$ 29.8 million related to revised year-to-date accounting in 2018 for the valuation allowances on foreign tax credits, and \$ 8.3 million as a result of revisions to the provisional estimates related to the 2017 Tax Cuts and Jobs Act (the "Act"). This was partially offset by a change in sequestration charge on AMT refunds of \$ 2.7 million, \$ 5.1 million related to the effect on deferred income tax liabilities of a decrease in the statutory tax rate in the U.S as a result of the Act, and other miscellaneous benefits of \$ 0.4 million. In addition to items specific to the period, our income tax rate is impacted by the mix of earnings across the jurisdictions in which we operate, by a benefit associated with depletion, and by the impact of certain entities being taxed in both foreign jurisdictions and the U.S. including foreign tax credits for various taxes incurred.

8 . Inventories

Inventories consist of the following:

	September 30, 2019	December 31, 2018
Raw materials	\$ 86.2	\$ 147.5
Work in process	592.8	625.5
Finished goods	1,454.9	1,343.8
Final price deferred ^(a)	43.1	39.3
Operating materials and supplies	117.3	114.1
	<u>\$ 2,294.3</u>	<u>\$ 2,270.2</u>

^(a) Final price deferred is product that has shipped to customers, but the price has not yet been agreed upon.

9 . Goodwill

Mosaic had goodwill of \$ 1.7 billion at September 30, 2019 and December 31, 2018. We review goodwill for impairment annually in October or at any time events or circumstances indicate that the carrying value may not be fully recoverable, which is based on our accounting policy and GAAP. The changes in the carrying amount of goodwill, by reporting unit, are as follows:

	Phosphates	Potash	Mosaic Fertilizantes	Corporate, Eliminations and Other	Total
Balance as of December 31, 2018	\$ 588.6	\$ 1,000.4	\$ 106.4	\$ 12.1	\$ 1,707.5
Foreign currency translation	—	26.7	(2.4)	—	24.3
Balance as of September 30, 2019	<u>\$ 588.6</u>	<u>\$ 1,027.1</u>	<u>\$ 104.0</u>	<u>\$ 12.1</u>	<u>\$ 1,731.8</u>

We performed a review of goodwill in the quarter ended September 30, 2019, and no impairment was identified. However, based on our qualitative evaluation, we determined that our Phosphates and Potash reporting units had estimated fair values that were not significantly in excess of their respective carrying values, at 12.1 % and 9.4 %, respectively, and could be at risk of future impairment. We continue to believe that our long-term financial goals will be achieved. Our other reporting units have substantial fair value in excess of their carrying values.

We are required to perform our next annual goodwill impairment analysis as of October 31, 2019. It is possible that, during the remainder of 2019 or beyond, business conditions could deteriorate from the current state, raw material or product price projections could decline significantly from current estimates, or our common stock price could decline significantly. If assumed net sales and cash flow projections are not achieved or our common stock price significantly declines from current levels, book values of certain operations could exceed their fair values, which may result in goodwill impairment charges in future periods. It is not possible at this time to determine if any such future impairment charge would result or, if it does, whether such charge would be material.

THE MOSAIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

10 . Marketable Securities Held in Trusts

In August 2016, Mosaic deposited \$ 630 million into two trust funds (together, the “*RCRA Trusts*”) created to provide additional financial assurance in the form of cash for the estimated costs (“*Gypstack Closure Costs*”) of closure and long term care of our Florida and Louisiana phosphogypsum management systems (“*Gypstacks*”), as described further in Note 11 of our Notes to Condensed Consolidated Financial Statements. Our actual Gypstack Closure Costs are generally expected to be paid by us in the normal course of our Phosphate business; however, funds held in each of the RCRA Trusts can be drawn by the applicable governmental authority in the event we cannot perform our closure and long term care obligations. When our estimated Gypstack Closure Costs with respect to the facilities associated with a RCRA Trust are sufficiently lower than the amount on deposit in that RCRA Trust, we have the right to request that the excess funds be released to us. The same is true for the RCRA Trust balance remaining after the completion of our obligations, which will be performed over a period that may not end until three decades or more after a Gypstack has been closed. The investments held by the RCRA Trusts are managed by independent investment managers with discretion to buy, sell, and invest pursuant to the objectives and standards set forth in the related trust agreements. Amounts reserved to be held or held in the RCRA Trusts (including losses or reinvested earnings) are included in other assets on our Condensed Consolidated Balance Sheets.

The RCRA Trusts hold investments, which are restricted from our general use, in marketable debt securities classified as available-for-sale and are carried at fair value. As a result, unrealized gains and losses are included in other comprehensive income until realized, unless it is determined that the carrying value of an investment is impaired on an other-than-temporary basis. There were no other-than-temporary impairment write-downs on available-for-sale securities during the nine months ended September 30, 2019 .

We review the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy. We determine the fair market values of our available-for-sale securities and certain other assets based on the fair value hierarchy described below:

Level 1: Values based on unadjusted quoted prices in active markets that are accessible at the measurement date for identical assets or liabilities.

Level 2: Values based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, or model-based valuation techniques for which all significant assumptions are observable in the market.

Level 3: Values generated from model-based techniques that use significant assumptions not observable in the market. These unobservable assumptions reflect our own estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques.

The estimated fair value of the investments in the RCRA Trusts as of September 30, 2019 and December 31, 2018 are as follows:

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

September 30, 2019				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Level 1				
Cash and cash equivalents	\$ 5.8	\$ —	\$ —	\$ 5.8
Level 2				
Corporate debt securities	183.9	6.4	(0.2)	190.1
Municipal bonds	187.2	4.3	(0.4)	191.1
U.S. government bonds	284.5	3.8	(1.4)	286.9
Total	\$ 661.4	\$ 14.5	\$ (2.0)	\$ 673.9

December 31, 2018				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Level 1				
Cash and cash equivalents	\$ 4.0	\$ —	\$ —	\$ 4.0
Level 2				
Corporate debt securities	180.8	0.3	(4.3)	176.8
Municipal bonds	186.1	0.5	(3.4)	183.2
U.S. government bonds	262.1	3.3	—	265.4
Total	\$ 633.0	\$ 4.1	\$ (7.7)	\$ 629.4

The following tables show gross unrealized losses and fair values of the RCRA Trusts' available-for-sale securities that have been in a continuous unrealized loss position deemed to be temporary as of September 30, 2019 and December 31, 2018 .

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	September 30, 2019		December 31, 2018	
	Less than 12 months		Less than 12 months	
	Fair Value	Gross Unrealized Losses (a)	Fair Value	Gross Unrealized Losses (a)
Corporate debt securities	\$ 11.8	\$ —	\$ 43.9	\$ (0.6)
Municipal bonds	24.1	(0.1)	12.3	—
U.S. government bonds	199.8	(1.4)	—	—
Total	<u>\$ 235.7</u>	<u>\$ (1.5)</u>	<u>\$ 56.2</u>	<u>\$ (0.6)</u>

	September 30, 2019		December 31, 2018	
	Greater than 12 months		Greater than 12 months	
	Fair Value	Gross Unrealized Losses (a)	Fair Value	Gross Unrealized Losses (a)
Corporate debt securities	\$ 30.0	\$ (0.2)	\$ 103.4	\$ (3.7)
Municipal bonds	22.2	(0.3)	117.5	(3.4)
U.S. government bonds	—	—	—	—
Total	<u>\$ 52.2</u>	<u>\$ (0.5)</u>	<u>\$ 220.9</u>	<u>\$ (7.1)</u>

(a) Represents the aggregate of the gross unrealized losses that have been in a continuous unrealized loss position as of September 30, 2019 and December 31, 2018 .

The following table summarizes the balance by contractual maturity of the available-for-sale debt securities invested by the RCRA Trusts as of September 30, 2019 . Actual maturities may differ from contractual maturities because the issuers of the securities may have the right to prepay obligations before the underlying contracts mature.

	September 30, 2019
Due in one year or less	\$ 35.7
Due after one year through five years	228.4
Due after five years through ten years	366.3
Due after ten years	37.7
Total debt securities	<u>\$ 668.1</u>

For the three and nine months ended September 30, 2019 , realized gains were \$ 12.9 million and \$ 16.2 million , respectively, and realized losses were immaterial and \$ 1.6 million , respectively. For the three and nine months ended September 30, 2018 , realized gains were immaterial and realized losses were \$ 6.8 million and \$ 12.9 million , respectively.

11 . Asset Retirement Obligations

We recognize our estimated AROs in the period in which we have an existing legal obligation associated with the retirement of a tangible long-lived asset, and the amount of the liability can be reasonably estimated. The ARO is recognized at fair value when the liability is incurred with a corresponding increase in the carrying amount of the related long-lived asset. We depreciate the tangible asset over its estimated useful life. The liability is adjusted in subsequent periods through accretion expense, which represents the increase in the present value of the liability due to the passage of time. Such depreciation and accretion expenses are included in cost of goods sold for operating facilities and other operating expense for indefinitely closed facilities.

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Our legal obligations related to asset retirement require us to: (i) reclaim lands disturbed by mining as a condition to receive permits to mine phosphate ore reserves; (ii) treat low pH process water in Gypstacks to neutralize acidity; (iii) close and monitor Gypstacks at our Florida and Louisiana facilities at the end of their useful lives; (iv) remediate certain other conditional obligations; (v) remove all surface structures and equipment, plug and abandon mine shafts, contour and revegetate, as necessary, and monitor for five years after closing our Carlsbad, New Mexico facility; (vi) decommission facilities, manage tailings and execute site reclamation at our Saskatchewan potash mines at the end of their useful lives; (vii) de-commission mines in Brazil and Peru acquired as part of the Acquisition and (viii) decommission plant sites and close Gypstacks in Brazil also as part of the Acquisition. The estimated liability for these legal obligations is based on the estimated cost to satisfy the above obligations, which is discounted using a credit-adjusted risk-free rate.

A reconciliation of our AROs is as follows:

<i>(in millions)</i>	September 30, 2019	December 31, 2018
ARO, beginning of period	\$ 1,160.1	\$ 859.3
Liabilities acquired in the Acquisition	—	258.9
Liabilities incurred	11.8	27.8
Liabilities settled	(83.4)	(69.6)
Accretion expense	44.3	48.0
Revisions in estimated cash flows	177.4	78.2
Foreign currency translation	(9.1)	(42.5)
ARO, end of period	1,301.1	1,160.1
Less current portion	164.6	136.3
	<u>\$ 1,136.5</u>	<u>\$ 1,023.8</u>

North America Gypstack Closure Costs

A majority of our ARO relates to Gypstack Closure Costs in Florida and Louisiana. For financial reporting purposes, we recognize our estimated Gypstack Closure Costs at their present value. This present value determined for financial reporting purposes is reflected on our Consolidated Balance Sheets in accrued liabilities and other noncurrent liabilities.

As discussed below, we have arrangements to provide financial assurance for the estimated Gypstack Closure Costs associated with our facilities in Florida and Louisiana.

EPA RCRA Initiative. On September 30, 2015, we and our subsidiary, Mosaic Fertilizer, LLC (“*Mosaic Fertilizer*”), reached agreements with the U.S. Environmental Protection Agency (“*EPA*”), the U.S. Department of Justice (“*DOJ*”), the Florida Department of Environmental Protection (“*FDEP*”) and the Louisiana Department of Environmental Quality on the terms of two consent decrees (collectively, the “*2015 Consent Decrees*”) to resolve claims relating to our management of certain waste materials onsite at our Riverview, New Wales, Mulberry, Green Bay, South Pierce and Bartow fertilizer manufacturing facilities in Florida and our Faustina and Uncle Sam facilities in Louisiana. This followed a 2003 announcement by the EPA Office of Enforcement and Compliance Assurance that it would be targeting facilities in mineral processing industries, including phosphoric acid producers, for a thorough review under the U.S. Resource Conservation and Recovery Act (“*RCRA*”) and related state laws. As discussed below, a separate consent decree was previously entered into with EPA and the FDEP with respect to RCRA compliance at the Plant City, Florida phosphate concentrates facility (the “*Plant City Facility*”) that we acquired as part of our acquisition (the “*CF Phosphate Assets Acquisition*”) of the Florida phosphate assets and assumption of certain related liabilities of CF Industries, Inc. (“*CF*”).

The remaining monetary obligations under the 2015 Consent Decrees include:

- Modification of certain operating practices and undertaking certain capital improvement projects over a period of several years that are expected to result in capital expenditures likely to exceed \$ 200 million in the aggregate.
- Provision of additional financial assurance for the estimated Gypstack Closure Costs for Gypstacks at the covered facilities. The RCRA Trusts are discussed in Note 10 to our Condensed Consolidated Financial Statements. In

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addition, we have agreed to guarantee the difference between the amounts held in each RCRA Trust (including any earnings) and the estimated closure and long-term care costs.

As of December 31, 2018, the undiscounted amount of our Gypstack Closure Costs ARO associated with the facilities covered by the 2015 Consent Decrees, determined using the assumptions used for financial reporting purposes, was approximately \$ 1.5 billion, and the present value of our Gypstack Closure Costs ARO reflected in our Consolidated Balance Sheet for those facilities was approximately \$ 457.1 million.

Plant City and Bonnie Facilities. As part of the CF Phosphate Assets Acquisition, we assumed certain AROs related to Gypstack Closure Costs at both the Plant City Facility and a closed Florida phosphate concentrates facility in Bartow, Florida (the “*Bonnie Facility*”) that we acquired. Associated with these assets are two related financial assurance arrangements for which we became responsible and that provided sources of funds for the estimated Gypstack Closure Costs for these facilities, pursuant to federal or state law: the government entities can draw against such amounts in the event we cannot perform such closure activities. One was initially a trust (the “*Plant City Trust*”) established to meet the requirements under a consent decree with the EPA and the FDEP with respect to RCRA compliance at Plant City that also satisfied Florida financial assurance requirements at that site. Beginning in September 2016, as a substitute for the financial assurance provided through the Plant City Trust, we have provided financial assurance for the Plant City Facility in the form of a surety bond (the “*Plant City Bond*”). The amount of the Plant City Bond is \$ 233.7 million, which reflects our closure cost estimates as of December 31, 2018. The other was also a trust fund (the “*Bonnie Facility Trust*”) established to meet the requirements under Florida financial assurance regulations that apply to the Bonnie Facility. In July 2018, we received \$ 21.0 million from the Bonnie Facility Trust by substituting for the trust fund a financial test mechanism (“*Bonnie Financial Test*”) supported by a corporate guarantee as allowed by state regulations. Both financial assurance funding obligations require estimates of future expenditures that could be impacted by refinements in scope, technological developments, new information, cost inflation, changes in regulations, discount rates and the timing of activities. Under our current approach to satisfying applicable requirements, additional financial assurance would be required in the future if increases in cost estimates exceed the face amount of the Plant City Bond or the amount supported by the Bonnie Financial Test.

At September 30, 2019 and December 31, 2018, the aggregate amounts of AROs associated with the Plant City Facility and Bonnie Facility gypstack closure costs included in our Condensed Consolidated Balance Sheets were \$ 215.9 million and \$ 109.2 million, respectively. The aggregate amount represented by the Plant City Bond exceeds the aggregate amount of ARO associated with that Facility. This is because the amount of financial assurance we are required to provide represents the aggregate undiscounted estimated amount to be paid by us in the normal course of our Phosphates business over a period that may not end until three decades or more after the Gypstack has been closed, whereas the ARO included in our Condensed Consolidated Balance Sheet reflects the discounted present value of those estimated amounts.

12 . Contingencies

We have described below judicial and administrative proceedings to which we are subject.

We have contingent environmental liabilities that arise principally from three sources: (i) facilities currently or formerly owned by our subsidiaries or their predecessors; (ii) facilities adjacent to currently or formerly owned facilities; and (iii) third-party Superfund or state equivalent sites. At facilities currently or formerly owned by our subsidiaries or their predecessors, the historical use and handling of regulated chemical substances, crop and animal nutrients and additives and by-product or process tailings have resulted in soil, surface water and/or groundwater contamination. Spills or other releases of regulated substances, subsidence from mining operations and other incidents arising out of operations, including accidents, have occurred previously at these facilities, and potentially could occur in the future, possibly requiring us to undertake or fund cleanup or result in monetary damage awards, fines, penalties, other liabilities, injunctions or other court or administrative rulings. In some instances, pursuant to consent orders or agreements with governmental agencies, we are undertaking certain remedial actions or investigations to determine whether remedial action may be required to address contamination. At other locations, we have entered into consent orders or agreements with appropriate governmental agencies to perform required remedial activities that will address identified site conditions. Taking into consideration established accruals of approximately \$ 43.7 million and \$ 58.6 million as of September 30, 2019 and December 31, 2018, respectively, expenditures for these known conditions currently are not expected, individually or in the aggregate, to have a material effect on our business or

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financial condition. However, material expenditures could be required in the future to remediate the contamination at known sites or at other current or former sites or as a result of other environmental, health and safety matters. Below is a discussion of the more significant environmental matters.

New Wales Water Loss Incident . In August 2016, a sinkhole developed under one of the two cells of the active Gypstack at our New Wales facility in Polk County, Florida, resulting in process water from the stack draining into the sinkhole. The incident was reported to the FDEP and EPA. In October 2016, our subsidiary, Mosaic Fertilizer, entered into a consent order (the “*Order*”) with the FDEP relating to the incident. Under the Order, Mosaic Fertilizer agreed to, among other things: implement a remediation plan to close the sinkhole; perform additional monitoring of the groundwater quality and act to assess and remediate in the event monitored off-site water does not comply with applicable standards as a result of the incident; evaluate the risk of potential future sinkhole formation at the New Wales facility and at Mosaic Fertilizer’s active Gypstack operations at the Bartow, Riverview and Plant City facilities with recommendations to address any identified issues; and provide financial assurance of no less than \$ 40.0 million , which we have done without the need for any expenditure of corporate funds through satisfaction of a financial strength test and Mosaic parent guarantee. The Order did not require payment of civil penalties relating to the incident.

As of September 30, 2019 , the sinkhole repairs were substantially complete, with \$ 80.2 million spent in remediation and sinkhole-related costs through this date. We estimate remaining costs will be approximately \$ 0.6 million . Additional expenditures could be required in the future for additional remediation or other measures in connection with the sinkhole including if, for example, FDEP or EPA were to request additional measures to address risks presented by the Gypstack. These expenditures could be material. In addition, we are unable to predict at this time what, if any, impact the New Wales water loss incident will have on future Florida permitting efforts.

EPA RCRA Initiative .

We have certain financial assurance and other obligations under consent decrees and a separate financial assurance arrangement relating to our facilities in Florida and Louisiana. These obligations are discussed in Note 11 of our Notes to Condensed Consolidated Financial Statements.

EPA EPCRA Initiative . In July 2008, DOJ sent a letter to major U.S. phosphoric acid manufacturers, including us, stating that EPA’s ongoing investigation indicates apparent violations of Section 313 of the Emergency Planning and Community Right-to-Know Act (“*EPCRA*”) at their phosphoric acid manufacturing facilities. Section 313 of EPCRA requires annual reports to be submitted with respect to the use or presence of certain toxic chemicals. DOJ and EPA also stated that they believe that a number of these facilities have violated Section 304 of EPCRA and Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (“*CERCLA*”) by failing to provide required notifications relating to the release of hydrogen fluoride from the facilities. The letter did not identify any specific violations by us or assert a demand for penalties against us. We cannot predict at this time whether EPA and DOJ will initiate an enforcement action over this matter, what its scope would be, or what the range of outcomes of such a potential enforcement action might be.

Florida Sulfuric Acid Plants . On April 8, 2010, EPA Region 4 submitted an administrative subpoena to us under Section 114 of the Federal Clean Air Act (the “*CAA*”) regarding compliance of our Florida sulfuric acid plants with the “New Source Review” requirements of the CAA. The request received by Mosaic appears to be part of a broader EPA national enforcement initiative focusing on sulfuric acid plants. On June 16, 2010, EPA issued a notice of violation to CF (the “*CF NOV*”) with respect to “New Source Review” compliance at the Plant City Facility’s sulfuric acid plants and the allegations in the CF NOV were not resolved before our 2014 acquisition of the Plant City Facility. CF has agreed to indemnify us with respect to any penalty EPA may assess as a result of the allegations in the CF NOV.

We have been engaged in settlement discussions with U.S. EPA and the Department of Justice, originating with the allegations of violations of Clean Air Act Prevention of Significant Deterioration (“*PSD*”) permitting requirements at the Plant City sulfuric acid plants and encompassing injunctive relief regarding sulfur dioxide emissions across Mosaic’s Florida sulfuric acid plant fleet. With the closure of Plant City fertilizer operations, there is no longer a need to reach resolution with the government on injunctive relief (i.e., reduction of sulfur dioxide emissions) at that facility. Furthermore, the DOJ has determined that there is no basis for proceeding with a settlement, as EPA and the DOJ have not currently alleged any violations of the Clean Air Act PSD permitting requirements at any other of Mosaic’s Florida sulfuric acid plants.

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We cannot predict at this time whether EPA and DOJ will initiate an enforcement action in the future with respect to "New Source Review" compliance at our Florida sulfuric acid plants or what its scope would be, or what the range of outcomes might be with respect to such a potential enforcement action.

Uncle Sam Gypstack . In January 2019, we observed lateral movement of the north slope of our active phosphogypsum stack at the Uncle Sam facility in Louisiana. The observation was reported to the Louisiana Department of Environmental Quality and the U.S. EPA. We continue to provide updates to the agencies on the movement, which has slowed following actions we have taken, which include reducing process water volume stored atop the stack to reduce the active load causing the movement; constructing a stability berm at the base of the slope to increase resistance; and removing gypsum from the north side to the south stack. These steps have improved slope stability and reduced slope movement. There has been no loss of containment resulting from the movement observed, and none is expected. Although continued lateral movement on the north slope could have a material effect on our future operations at that facility, we cannot predict the prospective impact on our results of operations at this time.

Other Environmental Matters . Superfund and equivalent state statutes impose liability without regard to fault or to the legality of a party's conduct on certain categories of persons who are considered to have contributed to the release of "hazardous substances" into the environment. Under Superfund, or its various state analogues, one party may, under certain circumstances, be required to bear more than its proportionate share of cleanup costs at a site where it has liability if payments cannot be obtained from other responsible parties. Currently, certain of our subsidiaries are involved or concluding involvement at several Superfund or equivalent state sites. Our remedial liability from these sites, alone or in the aggregate, currently is not expected to have a material effect on our business or financial condition. As more information is obtained regarding these sites and the potentially responsible parties involved, this expectation could change.

We believe that, pursuant to several indemnification agreements, our subsidiaries are entitled to at least partial, and in many instances complete, indemnification for the costs that may be expended by us or our subsidiaries to remedy environmental issues at certain facilities. These agreements address issues that resulted from activities occurring prior to our acquisition of facilities or businesses from parties including, but not limited to, ARCO (BP); Beatrice Fund for Environmental Liabilities; Conoco; Conserv; Estech, Inc.; Kaiser Aluminum & Chemical Corporation; Kerr-McGee Inc.; PPG Industries, Inc.; The Williams Companies; CF; and certain other private parties. Our subsidiaries have already received and anticipate receiving amounts pursuant to the indemnification agreements for certain of their expenses incurred to date as well as future anticipated expenditures. We record potential indemnifications as an offset to the established accruals when they are realizable or realized. The failure of an indemnitor to fulfill its obligations could result in future costs that could be material.

Louisiana Parishes Coastal Zone Cases

Several Louisiana parishes and the City of New Orleans have filed lawsuits against hundreds of oil and gas companies seeking regulatory, restoration and compensatory damages in connection with historical oil, gas and sulfur mining and transportation operations in the coastal zone of Louisiana. Mosaic is the corporate successor to certain companies which performed these types of operations in the coastal zone of Louisiana. Mosaic has been named in two of the lawsuits filed to date. In addition, in several other cases, historical oil, gas and sulfur operations which may have been related to Mosaic's corporate predecessors have been identified in the complaints. Based upon information known to date, Mosaic has contractual indemnification rights against third parties for any loss or liability arising out of these claims pursuant to indemnification agreements entered into by Mosaic's corporate predecessor(s) with third parties. There may also be insurance contracts which may respond to some or all of the claims. However, the financial ability of the third party indemnitors, the extent of potential insurance coverage and the extent of potential liability from these claims is currently unknown.

In September 2019, legal counsel for several of the parishes announced that an agreement had been reached to settle the claims against Mosaic and its corporate predecessors, subject to approval by the participating parishes and the State of Louisiana. In connection with that settlement agreement, the proposed settlement payment obligations would be paid by third party indemnitors.

Phosphate Mine Permitting in Florida

Denial of the permits sought at any of our mines, issuance of the permits with cost-prohibitive conditions, substantial delays in issuing the permits, legal actions that prevent us from relying on permits or revocation of permits may create

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challenges for us to mine the phosphate rock required to operate our Florida and Louisiana phosphate plants at desired levels or increase our costs in the future.

The South Pasture Extension . In November 2016, the Army Corps of Engineers (the “*Corps*”) issued a federal wetlands permit under the Clean Water Act for mining an extension of our South Pasture phosphate rock mine in central Florida. On December 20, 2016, the Center for Biological Diversity, ManaSota-88, People for Protecting Peace River and Suncoast Waterkeeper issued a 60-day notice of intent to sue the Corps and the U.S. Fish and Wildlife Service (the “*Service*”) under the federal Endangered Species Act regarding actions taken by the Corps and the Service in connection with the issuance of the permit. On March 15, 2017, the same group filed a complaint against the Corps, the Service and the U.S. Department of the Interior in the U.S. District Court for the Middle District of Florida, Tampa Division. The complaint alleges that various actions taken by the Corps and the Service in connection with the issuance of the permit, including in connection with the Service's biological opinion and the Corps' reliance on that biological opinion, violated substantive and procedural requirements of the federal Clean Water Act (“*CWA*”), the National Environmental Policy Act (“*NEPA*”) and the Endangered Species Act (the “*ESA*”), and were arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with law, in violation of the Administrative Procedure Act (the “*APA*”). As to the Corps, plaintiffs allege in their complaint, among other things, that the Corps failed to conduct an adequate analysis under the CWA of alternatives, failed to fully consider the effects of the South Pasture extension mine, failed to take adequate steps to minimize potential adverse impacts and violated the ESA by relying on the Service's biological opinion to determine that its permitting decision is not likely to adversely affect certain endangered or rare species. As to the Service, plaintiffs allege in their complaint, among other things, that the Service's biological opinion fails to meet statutory requirements, that the Service failed to properly consider impacts and adequately assess the cumulative effects on certain species, and that the Service violated the ESA in finding that the South Pasture extension mine is not likely to adversely affect certain endangered or rare species. The plaintiffs are seeking relief including (i) declarations that the Corps' decision to issue the permit violated the CWA, NEPA, the ESA and the APA and that its NEPA review violated the law; (ii) declarations that the Service's biological opinion violated applicable law and that the Corps' reliance on the biological opinion violated the ESA; (iii) orders that the Corps rescind the permit, that the Service withdraw its biological opinion and related analyses and prepare a biological opinion that complies with the ESA; and (iv) that the Corps be preliminarily and permanently enjoined from authorizing any further action under the permit until it complies fully with the requirements of the CWA, NEPA, the ESA and the APA. On March 31, 2017, Mosaic's motion for intervention was granted with no restrictions. Plaintiffs filed an amended complaint on June 2, 2017, without any new substantive allegations, and on June 28, 2017, Mosaic (as intervenor) and separately, the defendants, filed answers to the amended complaint. On June 30, 2017, the plaintiffs filed a motion for summary judgment, arguing that the permit should not have been issued. On July 15, 2017, Mosaic filed a response in opposition to the plaintiffs' motion, and on July 28, 2017, Mosaic filed its own motion for summary judgment. On December 14, 2017, the Tampa District Court granted Mosaic's motion for summary judgment in favor of Mosaic and the government defendants, and denied the plaintiffs' motion to supplement the administrative record. On February 12, 2018, the plaintiffs filed an appeal with the U.S. Court of Appeals for the Eleventh Circuit of the Tampa District Court decision. A mandatory mediation occurred on March 19, 2018, but no settlement was reached. Oral argument was held before the Eleventh Circuit Court of Appeals on May 22, 2019. The Court has not yet issued its decision.

We believe the plaintiffs' claims in this case are without merit and we intend to vigorously defend the Corps' issuance of the South Pasture extension permit and the Service's biological opinion. However, if the plaintiffs were to prevail in this case, we would be prohibited from continuing to mine the South Pasture extension, and obtaining new or modified permits could significantly delay our resumption of mining and could result in more onerous mining conditions. This could have a material effect on our future results of operations, reduce future cash flows from operations, and in the longer term, conceivably adversely affect our liquidity and capital resources.

Brazil Legal Contingencies

Our Brazilian subsidiaries are engaged in a number of judicial and administrative proceedings regarding labor, environmental, mining and civil claims that allege aggregate damages and/or fines of approximately \$ 1.1 billion . We estimate that our probable aggregate loss with respect to these claims is approximately \$ 58.1 million , which amount is included in our accrued liabilities in our Condensed Consolidated Balance Sheet at September 30, 2019 .

Approximately \$ 738.5 million of the maximum potential loss relates to labor claims, such as in-house and third party

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

employees' judicial proceedings alleging the right to receive overtime pay, additional payment due to work in hazardous conditions, risk premium, profit sharing, additional payment due to night work, salary parity and wage differences. We estimate that our probable aggregate loss regarding these claims is approximately \$ 40.0 million , which is included in accrued liabilities in our Condensed Consolidated Balance Sheet at September 30, 2019 . Based on Brazil legislation and the current status of similar labor cases involving unrelated companies, we believe we have recorded adequate loss contingency reserves sufficient to cover our estimate of probable losses. If the status of similar cases involving unrelated companies were to adversely change in the future, our maximum potential exposure could increase and additional accruals could be required.

Approximately \$ 2.6 million of the above mentioned \$ 40.0 million reserves relates to a purported class action filed by one of the unions claiming additional payment for occupational hazard due to the alleged exposure of workers at the Company's potash mine at Rosário do Catete, Sergipe, to explosive gases that could be found during the mining process. The matter currently is before the Brazilian Labor Supreme Court.

The environmental judicial and administrative proceedings claims allege aggregate damages and/or fines of approximately \$ 140.4 million . We estimate that our probable aggregate loss regarding these claims is approximately \$ 5.4 million , which has been accrued at September 30, 2019 . The majority of the reserves involves a claim filed in 2012 by the State Public Prosecutor Office, alleging that the Company delayed construction of an effluent treatment plant, thereby subjecting it to a fine under the commitment agreement.

The mining judicial and administrative proceedings claims allege aggregate damages and/or fines of approximately \$ 16.1 million . We estimate that our probable aggregate loss regarding these claims is approximately \$ 9.2 million , which has been accrued at September 30, 2019 . The majority of the reserves involves an arbitration proceeding initiated by EMS/GEOFOCUS ("EMS") in which Mosaic was ordered to indemnify EMS for the costs of exploring certain mining rights on behalf of Mosaic.

Our Brazilian subsidiaries also have certain other civil contingent liabilities with respect to judicial, administrative and arbitration proceedings and claims related to contract disputes, pension plan matters, real estate disputes and other civil matters arising in the ordinary course of business. These claims allege aggregate damages in excess of \$ 173.0 million . We estimate that the probable aggregate loss with respect to these matters is approximately \$ 3.4 million .

Uberaba Judicial Settlement

In 2008, the Federal Public Prosecutor filed a public civil action requesting the Company to adopt several measures to mitigate soil and water contamination related to the Gypstack at our Uberaba facility, including compensation for the alleged social and environmental damages. In 2014, our predecessor subsidiary in Brazil entered into a judicial settlement with the Federal Public Prosecutor, the State of Minas Gerais public prosecutor and the federal environmental agency. Under this agreement, we agreed to implement remediation measures such as: constructing a liner under the Gypstack water ponds and lagoons, and monitoring the groundwater and soil quality. We also agreed to create a private reserve of natural heritage and to pay compensation in the amount of approximately \$ 0.3 million , which was paid in July 2018. We are currently acting in compliance with our obligations under the judicial settlement and expect them to be completed by December 31, 2023.

Uberaba EHS Class Action

In 2013, the State of Minas Gerais public prosecutor filed a class action claiming that our predecessor company in Brazil did not comply with labor safety rules and working hour laws. This claim was based on an inspection conducted by the Labor and Employment Ministry in 2010, following which we were fined for not complying with several labor regulations. We filed our defense, claiming that we complied with these labor regulations and that the assessment carried out by the inspectors in 2010 was abusive. Following the initial hearing, the court ordered an examination to determine whether there has been any non-compliance with labor regulations. The examination is currently pending. The amount involved in the proceeding is \$ 33.4 million .

Brazil Tax Contingencies

Our Brazilian subsidiaries are engaged in a number of judicial and administrative proceedings relating to various non-income tax matters. We estimate that our maximum potential liability with respect to these matters is approximately \$ 460.0 million , of which \$ 216.0 million is subject to an indemnification agreement entered into with Vale S.A in connection with the Acquisition.

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Approximately \$ 285.0 million of the maximum potential liability relates to a Brazilian federal value-added tax, PIS and Cofins, and tax credit cases, while the majority of the remaining amount relates to various other non-income tax cases such as value-added taxes. The maximum potential liability can increase with new audits. Based on Brazil legislation and the current status of similar tax cases involving unrelated taxpayers, we believe we have recorded adequate accruals, which are immaterial, for the probable liability with respect to these Brazilian judicial and administrative proceedings. If the status of similar tax cases involving unrelated taxpayers changes in the future, additional accruals could be required.

Other Claims

We also have certain other contingent liabilities with respect to judicial, administrative and arbitration proceedings and claims of third parties, including tax matters, arising in the ordinary course of business. We do not believe that any of these contingent liabilities will have a material adverse impact on our business or financial condition, results of operations, and cash flows.

13 . Accounting for Derivative Instruments and Hedging Activities

We periodically enter into derivatives to mitigate our exposure to foreign currency risks, interest rate movements and the effects of changing commodity prices. We record all derivatives on the Condensed Consolidated Balance Sheets at fair value. The fair value of these instruments is determined by using quoted market prices, third party comparables, or internal estimates. We net our derivative asset and liability positions when we have a master netting arrangement in place. Changes in the fair value of the foreign currency, commodity and freight derivatives are immediately recognized in earnings. As of September 30, 2019 and December 31, 2018 , the gross asset position of our derivative instruments was \$ 38.2 million and \$13.4 million , respectively, and the gross liability position of our liability instruments was \$ 37.0 million and \$ 89.4 million , respectively.

We do not apply hedge accounting treatments to our foreign currency exchange contracts, commodities contracts, or freight contracts. Unrealized gains and (losses) on foreign currency exchange contracts used to hedge cash flows related to the production of our products are included in cost of goods sold in the Condensed Consolidated Statements of Earnings. Unrealized gains and (losses) on commodities contracts and certain forward freight agreements are also recorded in cost of goods sold in the Condensed Consolidated Statements of Earnings. Unrealized gains or (losses) on foreign currency exchange contracts used to hedge cash flows that are not related to the production of our products are included in the foreign currency transaction gain/(loss) caption in the Condensed Consolidated Statements of Earnings.

We apply fair value hedge accounting treatment to our fixed-to-floating interest rate contracts. Under these arrangements, we agree to exchange, at specified intervals, the difference between fixed and floating interest amounts calculated by reference to an agreed-upon notional principal amount. The mark-to-market of these fair value hedges is recorded as gains or losses in interest expense. These fair value hedges are considered to be highly effective and, thus, as of September 30, 2019 , the impact on earnings due to hedge ineffectiveness was immaterial. Consistent with our intent to have floating rate debt as a portion of our outstanding debt, in December 2016 and the first quarter of 2017, we entered into four and five, respectively, fixed-to-floating interest rate swap agreements, with a total notional amount of \$ 310.0 million and \$ 275.0 million , respectively, related to our Senior Notes due 2023.

As of September 30, 2019 and December 31, 2018 , the following is the total absolute notional volume associated with our outstanding derivative instruments:

(in millions of Units)				
Derivative Instrument	Derivative Category	Unit of Measure	September 30, 2019	December 31, 2018
Foreign currency derivatives	Foreign currency	US Dollars	1,979.7	2,091.7
Interest rate derivatives	Interest rate	US Dollars	585.0	585.0
Natural gas derivatives	Commodity	MMbtu	48.7	52.2

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Credit-Risk-Related Contingent Features

Certain of our derivative instruments contain provisions that are governed by International Swap and Derivatives Association agreements with the counterparties. These agreements contain provisions that allow us to settle for the net amount between payments and receipts, and also state that if our debt were to be rated below investment grade, certain counterparties could request full collateralization on derivative instruments in net liability positions. The aggregate fair value of all derivative instruments with credit-risk-related contingent features that were in a liability position as of September 30, 2019 and December 31, 2018, was \$ 19.7 million and \$ 37.9 million, respectively. We have no cash collateral posted in association with these contracts. If the credit-risk-related contingent features underlying these agreements were triggered on September 30, 2019, we would have been required to post an additional \$ 17.0 million of collateral assets, which are either cash or U.S. Treasury instruments, to the counterparties.

Counterparty Credit Risk

We enter into foreign exchange, certain commodity and interest rate derivatives, primarily with a diversified group of highly rated counterparties. We continually monitor our positions and the credit ratings of the counterparties involved and limit the amount of credit exposure to any one party. While we may be exposed to potential losses due to the credit risk of non-performance by these counterparties, material losses are not anticipated. We closely monitor the credit risk associated with our counterparties and customers and to date have not experienced material losses.

14 . Fair Value Measurements

Following is a summary of the valuation techniques for assets and liabilities recorded in our Condensed Consolidated Balance Sheets at fair value on a recurring basis:

Foreign Currency Derivatives - The foreign currency derivative instruments that we currently use are forward contracts and zero-cost collars, which typically expire within eighteen months. Most of the valuations are adjusted by a forward yield curve or interest rates. In such cases, these derivative contracts are classified within Level 2. Some valuations are based on exchange-quoted prices, which are classified as Level 1. Changes in the fair market values of these contracts are recognized in the Condensed Consolidated Financial Statements as a component of cost of goods sold in our Corporate, Eliminations and Other segment, or foreign currency transaction (gain) loss. As of September 30, 2019 and December 31, 2018, the gross asset position of our foreign currency derivative instruments was \$ 19.7 million and \$13.1 million, respectively, and the gross liability position of our foreign currency derivative instruments was \$ 29.8 million and \$ 62.2 million, respectively.

Commodity Derivatives - The commodity contracts primarily relate to natural gas. The commodity derivative instruments that we currently use are forward purchase contracts, swaps, and three-way collars. The natural gas contracts settle using NYMEX futures or AECO price indexes, which represent fair value at any given time. The contracts' maturities and settlements are scheduled for future months and settlements are scheduled to coincide with anticipated gas purchases during those future periods. Quoted market prices from NYMEX and AECO are used to determine the fair value of these instruments. These market prices are adjusted by a forward yield curve and are classified within Level 2. Changes in the fair market values of these contracts are recognized in the Condensed Consolidated Financial Statements as a component of cost of goods sold in our Corporate, Eliminations and Other segment. As of September 30, 2019 and December 31, 2018, the gross asset position of our commodity derivative instruments was \$ 2.1 million and \$ 0.3 million, respectively, and the gross liability position of our commodity instruments was \$ 7.2 million and \$ 17.7 million, respectively.

Interest Rate Derivatives - We manage interest expense through interest rate contracts to convert a portion of our fixed-rate debt into floating-rate debt. We also enter into interest rate swap agreements to hedge our exposure to changes in future interest rates related to anticipated debt issuances. Valuations are based on external pricing sources and are classified as Level 2. Changes in the fair market values of these contracts are recognized in the Condensed Consolidated Financial Statements as a component of interest expense. As of September 30, 2019 and December 31, 2018, the gross asset position of our interest rate swap instruments was \$ 16.4 million and zero, respectively, and the gross liability position of our interest rate swap instruments was zero and \$ 9.5 million, respectively.

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Financial Instruments

The carrying amounts and estimated fair values of our financial instruments are as follows:

	September 30, 2019		December 31, 2018	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Cash and cash equivalents	\$ 641.1	\$ 641.1	\$ 847.7	\$ 847.7
Accounts Receivables	801.4	801.4	838.5	838.5
Accounts payable	766.1	766.1	780.9	780.9
Structured accounts payable arrangements	692.0	692.0	572.8	572.8
Short-term debt	88.0	88.0	11.5	11.5
Long-term debt, including current portion	4,576.1	4,848.5	4,517.5	4,554.6

For cash and cash equivalents, accounts receivables, accounts payable, structured accounts payable arrangements, and short-term debt, the carrying amount approximates fair value because of the short-term maturity of those instruments. The fair value of long-term debt, including the current portion, is estimated using quoted market prices for the publicly registered notes and debentures, classified as Level 1 and Level 2, respectively, within the fair value hierarchy, depending on the market liquidity of the debt.

15 . Related Party Transactions

We enter into transactions and agreements with certain of our non-consolidated companies and other related parties from time to time. As of September 30, 2019 and December 31, 2018 , the net amount due (to) from our non-consolidated companies totaled \$(105.4) million and \$ 95.2 million , respectively. These amounts include a long-term indemnification asset of \$ 29.9 million from Vale S.A. for reimbursement of pension plan obligations.

The Condensed Consolidated Statements of Earnings included the following transactions with our non-consolidated companies:

	Three months ended		Nine months ended	
	September 30,		September 30,	
	2019	2018	2019	2018
Transactions with non-consolidated companies included in net sales	\$ 273.6	\$ 248.3	\$ 825.4	\$ 579.0
Transactions with non-consolidated companies included in cost of goods sold	396.7	426.8	947.5	817.5

As part of the MWSPC joint venture, we market approximately 25 % of the MWSPC production, for which approximately \$ 2.4 million and \$ 7.0 million is included in revenue for the three and nine months ended September 30, 2019 , respectively.

In November 2015, we agreed to provide funds to finance the purchase and construction of two articulated tug and barge units, intended to transport anhydrous ammonia for our operations, through a bridge loan agreement with Gulf Marine Solutions, LLC (“*GMS*”). *GMS* is a wholly owned subsidiary of Gulf Sulphur Services Ltd., LLLP (“*Gulf Sulphur Services*”), an entity in which we and a joint venture partner, Savage Companies (“*Savage*”), each indirectly own a 50% equity interest and for which a subsidiary of Savage provides operating and management services. *GMS* provided these funds through draws on the Mosaic bridge loan, and through additional loans from Gulf Sulphur Services. We determined, beginning in 2015 that we are the primary beneficiary of *GMS*, a variable interest entity and, at that time, we consolidated *GMS*’s operations in our Phosphates segment.

On October 24, 2017, a lease financing transaction was completed with respect to the completed tug and barge unit, and, following the application of proceeds from the transaction, all outstanding loans made by Gulf Sulphur Services to *GMS*, together with accrued interest, were repaid, and the bridge loans related to the first unit’s construction were repaid.

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At September 30, 2019 and December 31, 2018, \$ 80.5 million and \$ 75.3 million in bridge loans, respectively, which are eliminated in consolidation, were outstanding, relating to the cancelled second barge and the remaining tug. Reserves against the bridge loan of approximately \$ 54.2 million were recorded through December 31, 2018, and no additional charges were recorded in 2018 or 2019. The construction of the remaining tug, funded by the bridge loan advances in excess of the reserves, is recorded within construction in-progress within our consolidated balance sheet. Several subsidiaries of Savage operate vessels utilized by Mosaic under time charter arrangements, including the ammonia tug and barge unit.

16 . Accumulated Other Comprehensive Income (Loss)

The following table sets forth the changes in AOCI, net of tax, by component during the nine months ended September 30, 2019 :

	Foreign Currency Translation Gain (Loss)	Net Actuarial Gain and Prior Service Cost	Amortization of Gain on Interest Rate Swap	Net Gain (Loss) on Marketable Securities Held in Trust	Total
Balance at December 31, 2018	\$ (1,547.4)	\$ (105.3)	\$ 1.1	\$ (5.5)	\$ (1,657.1)
Other comprehensive income (loss)	(27.6)	0.2	1.6	15.3	(10.5)
Amount attributable to noncontrolling interest	2.2	—	—	—	2.2
Balance at September 30, 2019	<u>\$ (1,572.8)</u>	<u>\$ (105.1)</u>	<u>\$ 2.7</u>	<u>\$ 9.8</u>	<u>\$ (1,665.4)</u>

17 . Share Repurchases

In May 2015, our Board of Directors authorized a \$ 1.5 billion share repurchase program (the “*2015 Repurchase Program*”), allowing Mosaic to repurchase shares of our Common Stock through open market purchases, accelerated share repurchase arrangements, privately negotiated transactions or otherwise. The 2015 Repurchase Program has no set expiration date.

During the three and nine months ended September 30, 2019 , we repurchased 5.8 million shares of Common Stock under the 2015 Repurchase Program for approximately \$ 125 million , of which approximately \$ 7 million is included in accrued liabilities at September 30, 2019. We previously repurchased 15,765,025 shares under the 2015 Repurchase Program. The remaining amount that can be repurchased under this program is \$ 725.4 million . In October 2019, we repurchased an additional 1.3 million shares of Common Stock for approximately \$ 25 million .

The extent to which we repurchase our shares and the timing of any such repurchases depend on a number of factors, including market and business conditions, the price of our shares, and corporate, regulatory and other considerations.

18 . Business Segments

The reportable segments are determined by management based upon factors such as products and services, production processes, technologies, market dynamics, and for which segment financial information is available for our chief operating decision maker.

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For a description of our business segments, see Note 1 to the Condensed Consolidated Financial Statements. We evaluate performance based on the operating earnings of the respective business segments, which includes certain allocations of corporate selling, general and administrative expenses. The segment results may not represent the actual results that would be expected if they were independent, stand-alone businesses. Intersegment eliminations, including profit on intersegment sales, mark-to-market gains/losses on derivatives, debt expenses, Streamsong Resort ® results of operations and the results of the China and India distribution businesses are included within Corporate, Eliminations and Other. As of January 1, 2019, certain selling, general and administrative costs that are not controllable by the business segments are no longer allocated to segments and are included within Corporate, Eliminations and Other. Our operating results for the three and nine months ended September 30, 2018, have been recast to reflect this change.

Segment information for the three and nine months ended September 30, 2019 and 2018 was as follows:

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	Phosphates	Potash	Mosaic Fertilizantes	Corporate, Eliminations and Other (a)	Total
Three months ended September 30, 2019					
Net sales to external customers	\$ 615.6	\$ 609.1	\$ 1,388.3	\$ 140.4	\$ 2,753.4
Intersegment net sales	204.3	7.3	—	(211.6)	—
Net sales	819.9	616.4	1,388.3	(71.2)	2,753.4
Gross margin	(19.3)	158.3	132.1	8.8	279.9
Canadian resource taxes	—	58.1	—	—	58.1
Gross margin (excluding Canadian resource taxes)	(19.3)	216.4	132.1	8.8	338.0
Operating earnings (loss)	(69.9)	148.1	98.1	(36.8)	139.5
Capital expenditures	123.6	153.1	43.2	2.4	322.3
Depreciation, depletion and amortization expense	108.9	63.1	33.6	5.2	210.8
Three months ended September 30, 2018					
Net sales to external customers	\$ 801.1	\$ 603.0	\$ 1,399.8	\$ 124.2	\$ 2,928.1
Intersegment net sales	240.4	6.0	—	(246.4)	—
Net sales	1,041.5	609.0	1,399.8	(122.2)	2,928.1
Gross margin	180.0	160.9	152.0	2.6	495.5
Canadian resource taxes	—	40.5	—	—	40.5
Gross margin (excluding Canadian resource taxes)	180.0	201.4	152.0	2.6	536.0
Operating earnings (loss)	169.2	148.9	124.0	(48.8)	393.3
Capital expenditures	103.4	97.5	39.9	0.2	241.0
Depreciation, depletion and amortization expense	100.9	72.7	35.9	5.0	214.5
Nine months ended September 30, 2019					
Net sales to external customers	\$ 1,814.3	\$ 1,698.3	\$ 2,919.0	\$ 398.4	\$ 6,830.0
Intersegment net sales	729.0	20.7	—	(749.7)	—
Net sales	2,543.3	1,719.0	2,919.0	(351.3)	6,830.0
Gross margin	23.7	524.8	219.7	48.4	816.6
Canadian resource taxes	—	161.4	—	—	161.4
Gross margin (excluding Canadian resource taxes)	23.7	686.2	219.7	48.4	978.0
Operating earnings (loss)	(419.5)	497.9	127.8	(106.5)	99.7
Capital expenditures	366.1	423.6	135.8	5.6	931.1
Depreciation, depletion and amortization expense	317.4	219.7	97.2	15.3	649.6
Nine months ended September 30, 2018					
Net sales to external customers	\$ 2,345.7	\$ 1,564.5	\$ 2,777.8	\$ 378.8	\$ 7,066.8
Intersegment net sales	614.9	17.7	—	(632.6)	—
Net sales	2,960.6	1,582.2	2,777.8	(253.8)	7,066.8
Gross margin	430.3	395.5	264.2	(57.8)	1,032.2
Canadian resource taxes	—	100.5	—	—	100.5
Gross margin (excluding Canadian resource taxes)	430.3	496.0	264.2	(57.8)	1,132.7
Operating earnings (loss)	388.9	362.0	154.2	(234.8)	670.3
Capital expenditures	295.1	281.4	86.6	2.3	665.4
Depreciation, depletion and amortization expense	302.3	221.2	109.9	15.4	648.8

(a) The "Corporate, Eliminations and Other" category includes the results of our ancillary distribution operations in India and China. For the three and nine months ended September 30, 2019, distribution operations in India and China had revenue of \$ 134.3 million and \$ 360.8 million, respectively, and gross margin of \$ 0.4 million and \$ 19.6 million, respectively. For the three and nine months ended September 30, 2018, distribution operations in India and

THE MOSAIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

China had revenue of \$ 117.8 million and \$ 345.1 million , respectively, and gross margin of \$ 9.4 million and \$ 32.1 million , respectively.

Financial information relating to our operations by geographic area is as follows:

<i>(in millions)</i>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
<i>Net sales (a) :</i>				
Brazil	\$ 1,347.3	\$ 1,388.4	\$ 2,831.0	\$ 2,779.5
Canpotex (b)	272.1	245.8	811.4	557.9
Canada	157.0	160.1	435.3	436.4
China	48.8	52.9	172.7	169.2
India	85.2	64.9	185.3	180.0
Mexico	28.6	25.9	108.8	108.0
Argentina	25.3	26.9	97.7	60.3
Australia	12.0	16.8	68.1	101.0
Paraguay	38.7	40.2	86.2	78.9
Peru	27.1	23.9	73.3	57.0
Colombia	28.7	22.8	67.3	80.1
Chile	11.9	—	32.1	22.6
Thailand	5.6	5.6	18.8	22.2
Dominican Republic	4.5	8.1	13.5	10.6
Japan	1.8	21.3	10.8	79.2
Honduras	3.6	9.7	11.7	25.5
Other	18.6	10.5	44.1	48.5
Total international countries	2,116.8	2,123.8	5,068.1	4,816.9
United States	636.6	804.3	1,761.9	2,249.9
Consolidated	<u>\$ 2,753.4</u>	<u>\$ 2,928.1</u>	<u>\$ 6,830.0</u>	<u>\$ 7,066.8</u>

(a) Revenues are attributed to countries based on location of customer.

(b) Canpotex is the export association of the Saskatchewan potash producers.

THE MOSAIC COMPANY
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Net sales by product type are as follows:

<i>(in millions)</i>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
<i>Sales by product type:</i>				
Phosphate Crop Nutrients	\$ 736.7	\$ 906.0	\$ 1,904.6	\$ 2,241.4
Potash Crop Nutrients	891.9	865.8	2,175.9	1,975.5
Crop Nutrient Blends	509.0	497.0	1,089.8	1,031.8
Specialty Products ^(a)	470.7	536.9	1,207.6	1,383.0
Phosphate Rock	14.1	—	33.5	29.8
Other ^(b)	131.0	122.4	418.6	405.3
	<u>\$ 2,753.4</u>	<u>\$ 2,928.1</u>	<u>\$ 6,830.0</u>	<u>\$ 7,066.8</u>

^(a) Includes sales of MicroEssentials[®], K-Mag, Aspire and animal feed ingredients.

^(b) Includes sales of industrial potash, nitrogen and other products.

19 . Plant City Closure Costs

On June 18, 2019, we announced the permanent closure of the Plant City Facility. We temporarily idled the Plant City Facility in the fourth quarter of 2017, as it was one of our higher cost phosphate facilities. For the three and nine months ended September 30, 2019, we recognized pre-tax (benefits) costs of \$(15.6) million and \$ 353.8 million , respectively, related to the permanent closure of this facility. These costs consisted of approximately \$ 210 million related to the write-off of fixed assets, \$ 110 million related to asset retirement obligations, including the benefit of \$ 15.6 million recorded in the three months ended September 30, 2019 related to revisions in estimated costs, and \$ 34 million related to inventory and other reserves.

ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following Management’s Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the material under the heading "Management’s Discussion and Analysis of Financial Condition and Results of Operations" included in the Annual Report on Form 10-K of The Mosaic Company filed with the Securities and Exchange Commission for the year ended December 31, 2018 (the “*10-K Report*”) and the material under Item 1 of Part I of this report.

Throughout the discussion below, we measure units of production, sales and raw materials in metric tonnes, which are the equivalent of 2,205 pounds, unless we specifically state we mean long ton(s), which are the equivalent of 2,240 pounds. In the following tables, there are certain percentages that are not considered to be meaningful and are represented by "NM".

Results of Operations

The following table shows the results of operations for the three and nine months ended September 30, 2019 and 2018 :

(in millions, except per share data)	Three months ended				Nine months ended			
	September 30,		2019-2018		September 30,		2019-2018	
	2019	2018	Change	Percent	2019	2018	Change	Percent
Net sales	\$ 2,753.4	\$ 2,928.1	\$ (174.7)	(6)%	\$ 6,830.0	\$ 7,066.8	\$ (236.8)	(3)%
Cost of goods sold	2,473.5	2,432.6	40.9	2 %	6,013.4	6,034.6	(21.2)	0 %
Gross margin	279.9	495.5	(215.6)	(44)%	816.6	1,032.2	(215.6)	(21)%
Gross margin percentage	10%	17%			12%	15%		
Selling, general and administrative expenses	78.2	78.5	(0.3)	0 %	249.8	251.4	(1.6)	(1)%
Plant City closure (benefit) costs	(15.6)	—	(15.6)	NM	353.8	—	353.8	NM
Other operating expense	77.8	23.7	54.1	NM	113.3	110.5	2.8	3 %
Operating earnings	139.5	393.3	(253.8)	(65)%	99.7	670.3	(570.6)	(85)%
Interest expense, net	(43.2)	(40.9)	(2.3)	6 %	(136.2)	(135.4)	(0.8)	1 %
Foreign currency transaction (loss)	(53.8)	(2.2)	(51.6)	NM	(10.4)	(113.1)	102.7	(91)%
Other income (expense)	9.7	(7.6)	17.3	NM	4.9	(15.6)	20.5	NM
Earnings (loss) from consolidated companies before income taxes	52.2	342.6	(290.4)	(85)%	(42.0)	406.2	(448.2)	NM
Provision for income taxes	69.2	90.6	(21.4)	(24)%	64.1	44.4	19.7	44 %
(Loss) earnings from consolidated companies	(17.0)	252.0	(269.0)	NM	(106.1)	361.8	(467.9)	NM
Equity in net (loss) of nonconsolidated companies	(23.0)	(2.3)	(20.7)	NM	(34.3)	(3.9)	(30.4)	NM
Net (loss) earnings including noncontrolling interests	(40.0)	249.7	(289.7)	NM	(140.4)	357.9	(498.3)	NM
Less: Net gain attributable to noncontrolling interests	4.1	2.2	1.9	86 %	6.0	0.2	5.8	NM
Net (loss) earnings attributable to Mosaic	\$ (44.1)	\$ 247.5	\$ (291.6)	NM	\$ (146.4)	\$ 357.7	\$ (504.1)	NM
Diluted net (loss) earnings per share attributable to Mosaic	\$ (0.11)	\$ 0.64	\$ (0.75)	NM	\$ (0.38)	\$ 0.93	\$ (1.31)	NM
Diluted weighted average number of shares outstanding	385.0	387.5			385.5	386.1		

On January 8, 2018, we completed our acquisition (the “*Acquisition*”) of Vale Fertilizantes S.A. (now known as Mosaic Fertilizantes P&K S.A. or the “*Acquired Business*”). The aggregate consideration paid by us at closing was \$1.08 billion in cash (after giving effect to certain adjustments based on matters such as the working capital and indebtedness balances of the Acquired Business, which were estimated at the time of closing) and 34,176,574 shares of our Common Stock, par

value \$0.01 per share, which was valued at \$26.92 per share at closing. The assets we acquired included five Brazilian phosphate rock mines; four phosphate chemical plants; a potash mine in Brazil; an additional 40% economic interest in the Miski Mayo phosphate rock mine in the Bayovar region of Peru, which increased our aggregate interest to 75%; and a potash project in Kronau, Saskatchewan. Upon completion of the Acquisition, we became the leading fertilizer producer and distributor in Brazil.

Overview of Consolidated Results for the three months ended September 30, 2019 and 2018

For the three months ended September 30, 2019, Mosaic had a net loss of \$44.1 million, or \$(0.11) per diluted share, compared to net earnings of \$247.5 million, or \$0.64 per diluted share, for the prior year period. The current period net loss was impacted by \$81 million, or \$(0.19) per diluted share, related to the following notable items:

- Foreign currency transaction loss of \$54 million, or \$(0.10) per diluted share
- Discrete income tax expense of \$16 million, or \$(0.05) per diluted share
- Other operating expenses of \$29 million, or \$(0.05) per diluted share, primarily related to revisions in the estimated costs of our asset retirement obligations
- A benefit of \$15 million, or \$0.03 per diluted share, related to a revision in the estimated cost of our asset retirement obligation at our permanently closed Plant City, Florida phosphates manufacturing facility. Discrete income tax expense of \$4 million was associated with this.
- Depreciation expense of \$12 million, or \$(0.02) per diluted share, related to the acceleration of the closure of our K1 and K2 mine shafts at our Esterhazy, Saskatchewan mine as we ramp up K3
- Unrealized loss on derivatives of \$7 million, or \$(0.01) per diluted share
- Expenses of \$7 million, or \$(0.01) per diluted share, related to repairing the lateral movement at the Gypstack at our Uncle Sam facility in Louisiana
- Other non-operating income of \$13 million, or \$0.02 per diluted share, related to a realized gain on RCRA trust securities

During the three months ended September 30, 2018, our results included:

- Discrete income tax expense of \$29 million, or \$(0.08) per diluted share primarily related to the reversal of a valuation allowance associated with foreign tax credits
- Other operating expenses of \$15 million, or \$(0.04) per diluted share, primarily related to the Acquisition
- Other non-operating expenses of \$7 million, or \$(0.01) per diluted share, related to a realized loss on RCRA trust securities
- Foreign currency transaction losses and unrealized gain on derivatives of \$9 million, or \$0.02 per diluted share

Significant factors affecting our results of operations and financial condition are listed below. Certain of these factors are discussed in more detail in the following sections of this Management's Discussion and Analysis of Financial Condition and Results of Operations.

In addition to the items noted above, our operating results during the three months ended September 30, 2019, were favorably impacted in our Potash segment by higher average selling prices compared to the prior year period. This was driven by the continued recovery of prices which began in 2018. The recovery was supported by the benefit of increased pricing from the China and India contracts, which settled in September of 2018. The price strengthening has stalled due to a full product pipeline, as a result of adverse weather conditions in North America in the first half of 2019, but pricing has remained above that experienced in the prior year. Operating results were unfavorably impacted by lower potash sales volumes in the current year period compared to the same period in the prior year. In the current year, domestic sales volumes declined as a result of the adverse weather conditions discussed above, which resulted in a late spring season compared to the prior year and full product pipelines. Operating results were also negatively impacted by higher fixed cost absorption due to lower production and higher Canadian resource taxes as a result of tax law changes which became effective in 2019.

Operating results were unfavorably impacted in our Phosphates segment, primarily due to a significant decrease in average selling prices compared to the same period in the prior year. Phosphate prices began to decrease in the fourth quarter of 2018 due to the limited fall application season in North America and increased import activity. They have remained low in 2019 due to reduced demand as a result of the adverse weather conditions in North America throughout the first half

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of 2019, which significantly delayed planting, increased supply, due to new capacity coming online, and stronger China exports due to lower Chinese domestic demand and a weaker currency. These factors have also unfavorably impacted finished product sales volumes in the current year period.

For the three months ended September 30, 2019, operating results were also unfavorably impacted in our Mosaic Fertilizantes segment. This was due to increased expenses related to the temporary idling of operations at our phosphates mines in Brazil, as we work to comply with new legislation regarding tailing dams in Brazil. This resulted in increased raw material costs, as we imported rock to meet our production needs, increased conversion costs and idle plants costs. Operating results were also unfavorably impacted by lower sales volumes due to planting delays from dry weather and product availability. These expenses were partially offset by an increase in average selling prices in the current year compared to the prior year period. This increase was driven by better pricing in Brazil due to a favorable mix of products sold, product positioning, and the timing of sales.

Other Highlights

- Our remaining phosphate mines in Brazil, which had been previously idled to address new legislation which introduced rules regarding tailing dam safety, construction, environmental licenses and operations, returned to full operations. The Tapira and Araxá mines returned to full production in September 2019. The Catalão mine had returned to full production in June 2019. Until full operations resumed, we processed available rock inventory to maintain finished product sales. We supplemented requirements with imported rock from our mine in Peru and shipped finished phosphates from our Florida operations to meet our Brazilian customers' needs.
- In August 2019, we announced the temporary idling of our Colonsay, Saskatchewan potash mine. We expect this action to lower our cost of production, accelerate inventory depletion, and increase our leverage to strengthening markets into 2020.
- In September 2019, we announced several strategic decisions:
 - We plan to repurchase up to \$250 million of our Common Stock under our existing share repurchase authorization. During the quarter ended September 30, 2019, we repurchased 5.8 million shares for approximately \$125 million. In October 2019, we repurchased an additional 1.3 million shares of Common Stock for approximately \$25 million.
 - We plan to temporarily idle our Louisiana phosphates operations effective October 1. We plan to reduce production by approximately 500,000 tonnes during the remainder of 2019, which we expect to accelerate the reduction of high phosphate fertilizer inventories.
 - We have implemented actions necessary to meet or exceed our previously announced synergy target for Mosaic Fertilizantes of \$275 million in 2019. In addition, we announced that we intend to drive an additional \$200 million in annual value with Mosaic Fertilizantes through ongoing business transformation efforts by the end of 2022.

Subsequent to the quarter-end, on October 10, 2019, we announced that we will temporary curtail production at our Esterhazy, Saskatchewan potash mine, bringing our total 2019 potash curtailment to approximately 600,000 tonnes. The increased curtailment is based on increasing inventories as a result of a short-term slowdown in global potash markets and increased risks of a delay in the Chinese contract settlement. We also plan to accelerate development of the Esterhazy K3 mine by an additional year, with expected completion by mid-2022.

Overview of Consolidated Results for the nine months ended September 30, 2019 and 2018

Net loss attributable to Mosaic for the nine months ended September 30, 2019 was \$(146.4) million, or \$(0.38) per diluted share, compared to net earnings of \$357.7 million, or \$0.93 per diluted share, for the same period a year ago. The net loss for the nine months ended September 30, 2019 was impacted by \$386 million, or \$(0.82) per diluted share, due to the following notable items:

- Plant City closing costs of \$354 million, or \$(0.70) per diluted share. There was a discrete income tax benefit of \$81 million associated with this.
- Discrete income tax expense of \$26 million, or \$(0.07) per diluted share

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- Asset retirement obligation costs of \$30 million, or \$(0.06) per diluted share, related to revisions in the estimated costs of our asset retirement obligations
- Expenses of \$21 million, or \$(0.04) per diluted share, related to repairing the lateral movement at the Gypstack at our Uncle Sam facility in Louisiana
- Depreciation expense of \$12 million, or \$(0.02) per diluted share, related to the acceleration of the closure of our K1 and K2 mine shafts at our Esterhazy, Saskatchewan mine as we ramp up K3
- Other operating expenses of \$17 million, or \$(0.04) per diluted share, related to the Acquisition, partially offset by income of \$12 million, or \$0.03 per diluted share, related to the reversal of our previously estimated and accrued earn-out obligation to Vale
- Foreign currency transaction losses of \$10 million, or \$(0.01) per diluted share
- Unrealized gains on derivatives of \$25 million, or \$0.05 per diluted share
- Other operating income of \$8 million, or \$0.02 per diluted share, related to insurance proceeds for the 2017 flooding at the Miski Mayo mine
- Other non-operating income of \$13 million, or \$0.02 per diluted share, related to a realized gain on RCRA trust securities

During the nine months ended September 30, 2018 , our results included:

- Foreign currency transaction losses of \$113 million, or \$(0.22) per diluted share
- Other operating expense of \$72 million, or \$(0.15) per diluted share, primarily related to the Acquisition
- Unrealized losses on derivatives of \$35 million, or \$(0.07) per diluted share
- Discrete income tax benefit of \$32 million, or \$0.09 per diluted share, primarily related to the reversal of a valuation allowance associated with foreign tax credits
- Expenses of \$30 million related to a refinement of our weighted average inventory costing, or \$(0.06) per diluted share
- Other non-operating expenses of \$12 million, or \$(0.02) per diluted share, related to a realized loss on RCRA trust securities
- Sales tax refund of \$6 million, or \$0.01 per diluted share

Results for the nine months ended September 30, 2019 and 2018 reflected the factors discussed above in the discussion for the three months ended September 30, 2019 and 2018 , in addition to those noted below. Certain of these factors are discussed in more detail in the following sections of this Management's Discussion and Analysis of Financial Condition and Results of Operations.

Operating results in our Potash segment for the nine months ended September 30, 2019 were favorably impacted by an increase in the average selling price of potash compared to the prior year period. These results were partially offset by lower sales volumes, driven by the factors mentioned above in the three-month discussion.

Operating results in our Phosphates segment for the nine months ended September 30, 2019 were unfavorably impacted by lower phosphate average selling prices compared to the prior year period. These results were driven by the factors mentioned above in the three-month discussion and lower sales volumes due to adverse weather conditions in North America throughout the first half of 2019. Operating results were also negatively impacted by higher costs related to the idling of South Pasture, Florida mine in August 2018, operational challenges as we transitioned to new mining areas, and costs related to the permanent closure of Plant City, Florida phosphate facility, which we announced in the second quarter of 2019.

For the nine months ended September 30, 2019 , operating results in our Mosaic Fertilizantes segment were favorably impacted by an increase in average selling prices in the current year compared to the prior year period, driven by the factors mentioned above in the three-month discussion. These results were offset by the unfavorable impact of the expenses related to the temporary idling of three of our Brazilian phosphate mines for a large portion of the period, as discussed above in the three-month discussion.

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Other Highlights

- In April 2019, we purchased the Pine Bend distribution facility in Rosemount, Minnesota, near the northern end of the Mississippi River, for \$55 million. This large facility significantly improves our ability to serve customers in the U.S., allows us to capture time-place premiums, and reduces our logistics risk.

Phosphates Net Sales and Gross Margin

The following table summarizes the Phosphates segment's net sales, gross margin, sales volume, selling prices and raw material prices:

(in millions, except price per tonne or unit)	Three months ended				Nine months ended			
	September 30,		2019-2018		September 30,		2019-2018	
	2019	2018	Change	Percent	2019	2018	Change	Percent
Net sales:								
North America	\$ 484.1	\$ 626.5	\$ (142.4)	(23)%	\$ 1,326.6	\$ 1,691.4	\$ (364.8)	(22)%
International	335.8	415.0	(79.2)	(19)%	1,216.7	1,269.2	(52.5)	(4)%
Total	819.9	1,041.5	(221.6)	(21)%	2,543.3	2,960.6	(417.3)	(14)%
Cost of goods sold	839.2	861.5	(22.3)	(3)%	2,519.6	2,530.3	(10.7)	0 %
Gross margin	\$ (19.3)	\$ 180.0	\$ (199.3)	NM	\$ 23.7	\$ 430.3	\$ (406.6)	(94)%
Gross margin as a percentage of net sales	(2)%	17%			1%	15%		
Sales volumes ^(a) (in thousands of metric tonnes)								
DAP/MAP	1,311	1,261	50	4 %	3,727	3,888	(161)	(4)%
Specialty ^(b)	883	974	(91)	(9)%	2,441	2,594	(153)	(6)%
Total finished product tonnes	2,194	2,235	(41)	(2)%	6,168	6,482	(314)	(5)%
Rock	536	399	137	34 %	1,401	1,000	401	40 %
Total Phosphates Segment Tonnes ^(a)	2,730	2,634	96	4 %	7,569	7,482	87	1 %
Realized prices (\$/tonne)								
Average finished product selling price (destination)	\$ 355	\$ 454	\$ (99)	(22)%	\$ 396	\$ 446	\$ (50)	(11)%
Average rock selling price (destination) ^(a)	\$ 75	\$ 68	\$ 7	10 %	\$ 73	\$ 72	\$ 1	1 %
Average cost per unit consumed in cost of goods sold:								
Ammonia (metric tonne)	\$ 306	\$ 329	\$ (23)	(7)%	\$ 331	\$ 332	\$ (1)	0 %
Sulfur (long ton)	\$ 119	\$ 137	\$ (18)	(13)%	\$ 136	\$ 135	\$ 1	1 %
Blended rock (metric tonne)	\$ 65	\$ 57	\$ 8	14 %	\$ 63	\$ 57	\$ 6	11 %
Production volume (in thousands of metric tonnes) -								
North America	2,111	2,115	(4)	0 %	6,153	6,241	(88)	(1)%

^(a) Includes intersegment sales volumes.

^(b) Includes sales volumes of MicroEssentials® and animal feed ingredients.

Three months ended September 30, 2019 and 2018

The Phosphates segment's net sales were \$819.9 million for the three months ended September 30, 2019 , compared to \$1.0 billion for the three months ended September 30, 2018 . The decrease in net sales was primarily due to significantly lower selling prices, which impacted net sales by approximately \$210 million, and slightly lower sales volumes in the current year period, which unfavorably impacted net sales by approximately \$10 million.

Our average finished product selling price was \$355 per tonne for the three months ended September 30, 2019 , a decrease of 22% from the same period a year ago, due to the factors discussed in the Overview.

The Phosphates segment's sales volumes of finished products decreased by 2% for the three months ended September 30, 2019 , compared to the same period in the prior year, due to the factors discussed in the Overview. The 34% increase in sales volumes of rock shown in the table above were due to Mosaic Fertilizantes purchasing rock from the Miski Mayo mine in Peru (included in our Phosphates segment) to supplement their production requirements, as Mosaic Fertilizantes' mines were temporarily idled for a portion of the current year quarter as discussed in the Overview.

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Gross margin for the Phosphates segment decreased to \$(19.3) million for the three months ended September 30, 2019, from \$180.0 million for the three months ended September 30, 2018. The decrease in gross margin in the current year period was primarily due to the impact of lower finished product prices of approximately \$210 million compared to the prior year. Higher rock costs, of approximately \$30 million, were partially offset by lower sulfur and ammonia costs of \$25 million as described below. In addition, gross margin was favorably impacted by approximately \$10 million related to lower idle plant costs in the current year period.

The average consumed price for ammonia for our North American operations decreased to \$306 per tonne for the three months ended September 30, 2019, from \$329 in the same period a year ago. We typically purchase approximately one-third of our ammonia from various suppliers in the spot market, with the remaining two-thirds either purchased through an ammonia supply agreement or produced internally at our Faustina, Louisiana location. In the current year quarter, we used a higher percentage of ammonia purchased from third parties in production as our internal ammonia production has been lower in the current year. The average consumed sulfur price for our North American operations decreased to \$119 per long ton for the three months ended September 30, 2019, from \$137 in the same period a year ago. The purchase prices of these raw materials are driven by global supply and demand. The consumed ammonia and sulfur prices also include transportation, transformation, and storage costs.

The average consumed cost of purchased and produced phosphate rock increased to \$65 per tonne for the three months ended September 30, 2019, compared to \$57 per tonne for the three months ended September 30, 2018. Our rock costs increased due to lower production in the current year. For the three months ended September 30, 2019, our North American phosphate rock production decreased to 3.1 million tonnes from 3.4 million tonnes for the same period of the prior year, primarily due to the idling of our South Pasture, Florida mine in August of 2018.

The Phosphates segment's production of crop nutrient dry concentrates and animal feed ingredients decreased slightly to 2.11 million tonnes for the three months ended September 30, 2019, from 2.12 million tonnes in the prior year period. For the three months ended each of September 30, 2019 and 2018, our operating rate for processed phosphate production was 87%.

Nine months ended September 30, 2019 and 2018

The Phosphates segment's net sales were \$2.5 billion for the nine months ended September 30, 2019, compared to \$3.0 billion for the nine months ended September 30, 2018. The decrease in net sales was due to lower selling prices and sales volumes in the current year period, which unfavorably impacted net sales by approximately \$285 million and \$135 million, respectively.

Our average finished product selling price was \$396 per tonne for the nine months ended September 30, 2019, a decrease of 11% per tonne from the same period a year ago, due to the factors discussed in the Overview.

The Phosphates segment's sales volumes of finished products decreased by 5% for the nine months ended September 30, 2019, compared to the same period in the prior year ago, due to the factor discussed in the Overview.

Gross margin for the Phosphates segment decreased to \$23.7 million for the nine months ended September 30, 2019, from \$430.3 million for the nine months ended September 30, 2018. The decrease in gross margin in the current year period was due to the impact of lower finished product prices of approximately \$285 million, lower sales volumes of approximately \$35 million and higher blended rock costs, of approximately \$60 million. In addition, gross margin in the current year period was negatively impacted by higher costs of approximately \$50 million, primarily related to the timing of maintenance turnarounds, higher idle costs for the South Pasture mine and costs related to repairing the lateral movement at the Gypstack at our Uncle Sam facility in Louisiana. The prior year period also included an unfavorable impact of approximately \$20 million related to a refinement of our weighted average inventory costing.

The average consumed price for ammonia for our North American operations was \$331 per tonne for the nine months ended September 30, 2019, compared to \$332 in the same period a year ago. The average consumed price for sulfur for our North American operations increased slightly to \$136 per long ton for the nine months ended September 30, 2019, from \$135 in the same period a year ago. The purchase prices of these raw materials are driven by global supply and demand. The average consumed cost of purchased and produced phosphate rock was \$63 per tonne for the nine months ended September 30, 2019, compared to \$57 per tonne for the prior year period. The increase in rock costs is due to the factors discussed below.

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The Phosphate segment's production of crop nutrient dry concentrates and animal feed ingredients was 6.15 million tonnes for the nine months ended September 30, 2019 , compared to 6.24 million tonnes in the prior year period. For the nine months ended September 30, 2019 , our operating rate for processed phosphate production decreased slightly to 85%, compared to 86% in the same period of the prior year.

Our North American phosphate rock production decreased to 9.0 million tonnes for the nine months ended September 30, 2019 , compared to 11.4 million for the nine months ended September 30, 2018 . The decrease from the prior year was primarily due to the idling of our South Pasture, Florida mine in August of 2018, and operational challenges as we transitioned into new mining areas in the current year.

Potash Net Sales and Gross Margin

The following table summarizes the Potash segment's net sales, gross margin, sales volume and selling price:

(in millions, except price per tonne or unit)	Three months ended				Nine months ended			
	September 30,		2019-2018		September 30,		2019-2018	
	2019	2018	Change	Percent	2019	2018	Change	Percent
Net sales:								
North America	\$ 327.7	\$ 345.4	\$ (17.7)	(5)%	\$ 859.3	\$ 976.4	\$ (117.1)	(12)%
International	288.7	263.6	25.1	10 %	859.7	605.8	253.9	42 %
Total	616.4	609.0	7.4	1 %	1,719.0	1,582.2	136.8	9 %
Cost of goods sold	458.1	448.1	10.0	2 %	1,194.2	1,186.7	7.5	1 %
Gross margin	\$ 158.3	\$ 160.9	\$ (2.6)	(2)%	\$ 524.8	\$ 395.5	\$ 129.3	33 %
Gross margin as a percentage of net sales	26%	26%			31%	25%		
Sales volume (a) (in thousands of metric tonnes)								
MOP	2,099	2,187	(88)	(4)%	5,747	5,837	(90)	(2)%
Specialty (b)	222	241	(19)	(8)%	598	645	(47)	(7)%
Total Potash Segment Tonnes	2,321	2,428	(107)	(4)%	6,345	6,482	(137)	(2)%
Realized prices (\$/tonne)								
Average finished product selling price (destination)	\$ 266	\$ 251	\$ 15	6 %	\$ 271	\$ 244	\$ 27	11 %
Production volume (in thousands of metric tonnes)	1,771	2,220	(449)	(20)%	6,205	6,646	(441)	(7)%

(a) Includes intersegment sales volumes.

(b) Includes sales volumes of K-mag, Aspire and animal feed ingredients.

Three months ended September 30, 2019 and 2018

The Potash segment's net sales increased to \$616.4 million for the three months ended September 30, 2019, compared to \$609.0 million in the same period a year ago. The increase was due to higher selling prices, which had a favorable impact on net sales of approximately \$40 million, partially offset by lower sales volumes, which had an unfavorable impact on net sales of approximately \$30 million.

Our average finished product selling price was \$266 per tonne for the three months ended September 30, 2019, compared to \$251 per tonne for the same period a year ago, as a result of the factors described in the Overview.

The Potash segment's sales volumes of finished products decreased to 2.3 million tonnes for the three months ended September 30, 2019, compared to 2.4 million tonnes in the same period a year ago, due to the factors discussed in the Overview.

Gross margin for the Potash segment decreased to \$158.3 million for the three months ended September 30, 2019, from \$160.9 million in the same period of the prior year. The decrease in gross margin in the current year period is due to approximately \$18 million of higher Canadian resource taxes, as described below, approximately \$10 million in lower sales volumes and approximately \$15 million of higher fixed cost absorption due to lower production, as discussed below. These were mostly offset by higher selling prices of \$40 million in the current year period.

We had expense of \$58.1 million from Canadian resource taxes for the three months ended September 30, 2019, compared to \$40.5 million in the same period a year ago. Canadian royalty expense decreased to \$8.5 million for the three months ended September 30, 2019, compared to \$9.9 million for the three months ended September 30, 2018. The fluctuations in Canadian resource taxes are a result of increased average selling prices and margins, due to the factors discussed in the Overview, and the passing of Canadian resource tax law changes, which became effective on April 1, 2019. The decrease in royalties is due to reduced production, as a described below.

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We incurred \$32.0 million in brine inflow management expenses, including depreciation on brine assets, at our Esterhazy mine during the three months ended September 30, 2019, compared to \$37.3 million for the three months ended September 30, 2018. We have been effectively managing the brine inflows at Esterhazy since 1985, and from time to time we experience changes to the amounts and patterns of brine inflows. Inflows continue to be within the range of our historical experience. Brine inflow expenditures continue to reflect the cost of addressing changing inflow patterns, including inflows from below our mine workings, which can be more complex and costly to manage. The mine has significant brine storage capacity. Depending on inflow rates, pumping and disposal rates, and other variables, the volume of brine stored in the mine may change significantly from period to period. In general, the higher the level of brine stored in the mine, the less time available to mitigate new or increased inflows that exceed our capacity for pumping or disposal of brine outside the mine, and therefore the less time to avoid flooding and/or loss of the mine. Our past investments in remote injection and increased pumping capacities facilitate our management of the brine inflows and the amount of brine stored in the mine. We are continuing the expansion of capacity in our Potash segment with the K3 shafts at our Esterhazy mine. Once completed, we expect this to provide us the opportunity to reduce or eliminate future brine inflow management costs and risks.

Our operating rate for potash production was 67% for the current year period, compared to 85% in the prior year period. This decrease in the current year period is due to lower production volumes related to the timing and length of maintenance turnarounds at our Esterhazy and Colonsay, Saskatchewan mines, and the temporary idling of the Colonsay mine during the current year quarter, as discussed in the Overview. We expect our operating rate to remain low in the fourth quarter of 2019 as we have announced curtailments at our Colonsay and Esterhazy mines.

Nine months ended September 30, 2019 and 2018

The Potash segment's net sales increased to \$ 1.7 billion for the nine months ended September 30, 2019, compared to \$1.6 billion in the same period a year ago. The increase was due to higher selling prices, which had a favorable impact on net sales of approximately \$220 million, partially offset by lower sales volumes, which had an unfavorable impact on net sales of approximately \$85 million.

Our average selling price was \$271 per tonne for the nine months ended September 30, 2019, compared to \$244 per tonne for the same period a year ago, due to the factors discussed above in the Overview.

The Potash segment's sales volumes decreased to 6.3 million tonnes for the nine months ended September 30, 2019, compared to 6.5 million tonnes in the same period a year ago, due to the factors discussed in the Overview. In the prior year period, our sales volumes were unfavorably impacted by a change in the Canpotex revenue recognition policy.

Gross margin for the Potash segment increased to \$ 524.8 million for the nine months ended September 30, 2019, from \$ 395.5 million for the same period in the prior year. Gross margin was favorably impacted by approximately \$220 million, due to the increase in average selling prices, partially offset by approximately \$10 million, due to the impact of lower sales volumes. Gross margin was also unfavorably impacted by approximately \$65 million due to higher Canadian resource taxes and royalties, as discussed below. We also saw favorable foreign exchange impacts due to the strengthening of the U.S. Dollar against the Canadian Dollar. These impacts were offset by higher fixed cost absorption and plant spending due to lower production and increased length of maintenance turnarounds.

We incurred \$161.4 million in Canadian resource taxes for the nine months ended September 30, 2019, compared to \$100.5 million in the same period a year ago. Canadian royalty expense increased to \$30.7 million for the nine months ended September 30, 2019, compared to \$26.9 million for the nine months ended September 30, 2018. The fluctuations in Canadian resource taxes are due to the items discussed in the three-month discussion above. The increase in royalties is due to higher average selling prices, partially offset by lower production in the current year.

We incurred expense of \$103.9 million, including depreciation on brine assets, related to managing the brine inflows at our Esterhazy mine during the nine months ended September 30, 2019, compared to \$115.4 million in the prior year period.

Our operating rate was 79% for the current year period, compared to 84% in the prior year period. The decrease is due to the factors discussed in the three-month discussion above.

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Mosaic Fertilizantes Net Sales and Gross Margin

The following table summarizes the Mosaic Fertilizantes segment's net sales, gross margin, sales volume and selling price.

(in millions, except price per tonne or unit)	Three months ended				Nine months ended			
	September 30,		2019-2018		September 30,		2019-2018	
	2019	2018	Change	Percent	2019	2018	Change	Percent
Net Sales	\$ 1,388.3	\$ 1,399.8	\$ (11.5)	(1)%	\$ 2,919.0	\$ 2,777.8	\$ 141.2	5 %
Cost of goods sold	1,256.2	1,247.8	8.4	1 %	2,699.3	2,513.6	185.7	7 %
Gross margin	\$ 132.1	\$ 152.0	\$ (19.9)	(13)%	\$ 219.7	\$ 264.2	\$ (44.5)	(17)%
Gross margin as a percent of net sales	10%	11%			8%	10%		
Sales volume (in thousands of metric tonnes)								
Phosphate produced in Brazil	846	1,214	(368)	(30)%	2,021	2,277	(256)	(11)%
Potash produced in Brazil	88	82	6	7 %	241	247	(6)	(2)%
Purchased nutrients for distribution	2,500	2,299	201	9 %	4,791	4,501	290	6 %
Total Mosaic Fertilizantes Segment Tonnes	3,434	3,595	(161)	(4)%	7,053	7,025	28	— %
Realized prices (\$/tonne)								
Average finished product selling price (destination)	\$ 404	\$ 389	\$ 15	4 %	\$ 414	\$ 395	\$ 19	5 %
Purchases ('000 tonnes)								
DAP/MAP from Mosaic	201	97	104	107 %	664	383	281	73 %
MicroEssentials® from Mosaic	294	394	(100)	(25)%	852	968	(116)	(12)%
Potash from Mosaic/Canpotex	868	841	27	3 %	1,878	2,000	(122)	(6)%
Average cost per unit consumed in cost of goods sold:								
Ammonia (metric tonne)	\$ 375	\$ 333	\$ 42	13 %	\$ 385	\$ 359	\$ 26	7 %
Sulfur (long ton)	\$ 178	\$ 184	\$ (6)	(3)%	\$ 190	\$ 190	\$ —	0 %
Blended rock (metric tonne)	\$ 103	\$ 93	\$ 10	11 %	\$ 104	\$ 102	\$ 2	2 %
Production volume (in thousands of metric tonnes)	765	920	(155)	(17)%	2,341	2,729	(388)	(14)%

Three months ended September 30, 2019 and 2018

The Mosaic Fertilizantes segment's net sales decreased to \$1.39 billion for the three months ended September 30, 2019, from \$1.40 billion in the same period a year ago. The decrease in net sales was due to lower sales volumes, which unfavorably impacted net sales by approximately \$45 million, partially offset by higher selling prices in the current year period, which favorably impacted net sales by approximately \$35 million.

Our average finished product selling price was \$404 per tonne for the three months ended September 30, 2019, compared to \$389 per tonne for the same period a year ago, as a result of the factors described in the Overview.

The Mosaic Fertilizantes segment's sales volumes of finished products decreased to 3.4 million tonnes for the three months ended September 30, 2019, compared to 3.6 million tonnes in the same period a year ago, as a result of the factors described in the Overview.

Gross margin for the Mosaic Fertilizantes segment decreased to \$132.1 million for the three months ended September 30, 2019, from \$152.0 million in the same period of the prior year. Gross margin decreased approximately \$35 million in the current year period primarily due to higher costs related to using more imported rock, as two of our mines were temporarily idled during most of the quarter, and higher fixed cost absorption due to lower production tonnes. This was partially offset by approximately \$15 million related to the increase in finished product selling prices, as discussed in the Overview.

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The Mosaic Fertilizantes segment's production of crop nutrient dry concentrates and animal feed ingredients decreased 17% to 0.8 million tonnes for the three months ended September 30, 2019, from 0.9 million tonnes in the prior year period. This decrease was primarily due to temporarily idling of two of our mines in Brazil for most of the quarter, as discussed in the Overview. For the three months ended September 30, 2019, our operating rate decreased to 62%, compared to 82% in the same period of the prior year.

For the three months ended September 30, 2019, our Brazilian phosphate rock production decreased to 0.7 million tonnes from 1.0 million tonnes for the same period of the prior year, due to the temporary idling of two of our mines, as discussed in the Overview.

Nine months ended September 30, 2019 and 2018

The Mosaic Fertilizantes segment's net sales were \$2.9 billion for the nine months ended September 30, 2019, compared to \$2.8 billion in the prior year period. The increase in net sales was due to higher selling prices in the current year period, which favorably impacted net sales by approximately \$125 million, and slightly higher sales volumes, which favorably impacted net sales by approximately \$15 million.

The average finished product selling price increased \$19 per tonne to \$414 per tonne for the nine months ended September 30, 2019, compared to \$395 per tonne in the prior year period, primarily due to factors mentioned above in the Overview.

The Mosaic Fertilizantes segment's sales volume increased slightly to 7.1 million tonnes for the nine months ended September 30, 2019, from 7.0 million tonnes in the same period a year ago.

Total gross margin for the nine months ended September 30, 2019, decreased to \$219.7 million from \$264.2 million in the same period in the prior year. The favorable impact of higher finished product prices of approximately \$60 million was more than offset by approximately \$80 million of higher idle costs and fixed cost absorption due to lower production tonnes related to the temporary idling of our mines in Brazil, as discussed in the Overview. We also had higher raw material costs of approximately \$20 million compared to the prior year period, including the negative impact of imported rock costs. These costs were partially offset by the favorable impact of foreign exchange rates in the current year period. In addition, the prior year period included a positive impact of approximately \$48 million related to the purchase price adjustment for the fair market value of inventory acquired in the Acquisition, primarily on rock.

The Mosaic Fertilizantes segment's production of crop nutrient dry concentrates and animal feed ingredients decreased 14% to 2.3 million tonnes for the nine months ended September 30, 2019, from 2.7 million tonnes in the prior year period. The decline in production is due to the temporarily idling of three of our mines for a large portion of the period as discussed in the Overview. For the nine months ended September 30, 2019, our operating rate decreased to 63%, compared to 79% in the same period of the prior year.

For the nine months ended September 30, 2019, our Brazilian phosphate rock production decreased to 1.7 million tonnes from 2.9 million tonnes for the same period of the prior year, due to the temporary idling of our mines as discussed above.

Corporate, Eliminations and Other

In addition to our three operating segments, we assign certain costs to Corporate, Eliminations and Other, which is presented separately in Note 18 to our Notes to Condensed Consolidated Financial Statements. Corporate, Eliminations and Other includes the results of the China and India distribution businesses, intersegment eliminations, including profit on intersegment sales, unrealized mark-to-market gains and losses on derivatives, debt expenses and Streamsong Resort® results of operations. As of January 1, 2019, certain selling, general and administrative costs that are not controllable by the business segments are no longer allocated to segments and are included within Corporate, Eliminations and Other. Our operating results for the three and nine months ended September 30, 2018, have been recast to reflect this change.

For the three months ended September 30, 2019, gross margin for Corporate, Eliminations and Other was a gain of \$8.8 million, compared to a gain of \$2.6 million for the same period in the prior year. The change was driven by a lower elimination of profit on intersegment sales in the current year period, which contributed to the change from the prior year by approximately \$35.4 million. Results were also impacted by a net unrealized loss of \$6.4 million in the current year period, primarily on foreign currency derivatives, compared to a net unrealized gain of \$10.6 million in the prior year period.

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Distribution operations in India and China had revenue of \$134.3 million and gross margin of \$0.4 million in the current year period, compared to revenue of \$117.8 million and gross margin of \$9.4 million in the prior year period.

For the nine months ended September 30, 2019, gross margin for Corporate, Eliminations and Other was a gain of \$48.4 million, compared to a loss of \$57.8 million for the same period in the prior year. The change was driven by a net unrealized gain of \$25.6 million in the current year period, primarily on foreign currency and commodity derivatives, compared to a net unrealized loss of \$34.8 million in the prior year period. Lower elimination of profit on intersegment sales in the current year period contributed to the change by approximately \$65.3 million. Distribution operations in India and China had revenue of \$360.8 million and gross margin of \$19.6 million in the current year period, compared to revenue of \$345.1 million and gross margin of \$32.1 million in the prior year period.

Other Income Statement Items

(in millions)	Three months ended				Nine months ended			
	September 30,		2019-2018		September 30,		2019-2018	
	2019	2018	Change	Percent	2019	2018	Change	Percent
Selling, general and administrative expenses	\$ 78.2	\$ 78.5	\$ (0.3)	0 %	\$ 249.8	\$ 251.4	\$ (1.6)	(1)%
Plant City closure (benefit) costs	(15.6)	—	(15.6)	NM	353.8	—	353.8	NM
Other operating expense	77.8	23.7	54.1	NM	113.3	110.5	2.8	3 %
Interest expense	(53.1)	(57.7)	4.6	(8)%	(161.1)	(171.9)	10.8	(6)%
Interest income	9.9	16.8	(6.9)	(41)%	24.9	36.5	(11.6)	(32)%
Interest expense, net	(43.2)	(40.9)	(2.3)	6 %	(136.2)	(135.4)	(0.8)	1 %
Foreign currency transaction (loss)	(53.8)	(2.2)	(51.6)	NM	(10.4)	(113.1)	102.7	(91)%
Other income (expense)	9.7	(7.6)	17.3	NM	4.9	(15.6)	20.5	NM
Provision for income taxes	69.2	90.6	(21.4)	(24)%	64.1	44.4	19.7	44 %
Equity in net (loss) of nonconsolidated companies	(23.0)	(2.3)	(20.7)	NM	(34.3)	(3.9)	(30.4)	NM

Selling, General and Administrative Expenses

Selling, general and administrative expenses of \$78.2 million and \$249.8 million for the three and nine months ended September 30, 2019, respectively, were comparable to the same periods of the prior year.

Plant City Closure Costs

On June 18, 2019, we announced the closure of our previously idled Plant City phosphates manufacturing facility in Hillsborough County, Florida. For the three and nine months ended September 30, 2019, we recognized pre-tax (benefits) costs of \$(15.6) million and \$353.8 million, respectively related to the permanent closure of this facility. These costs consisted of approximately \$210 million related to the write-off of fixed assets, \$110 million related to asset retirement obligations, including the benefit recorded in the three months ended September 30, 2019 related to revisions in estimated costs, and \$34 million related to inventory and other reserves.

Other Operating Expense

For the three months ended September 30, 2019, we had other operating expenses of \$77.8 million, compared to \$23.7 million for the same period in the prior year. The three months ended September 30, 2019 include approximately \$27 million related to revisions in estimated closure costs for our asset retirement obligations, \$17 million of costs related to closed facilities, \$13 million related to reserves for legal matters settled during the quarter and \$2 million of integration costs related to the Acquisition. The prior year quarter included \$8 million of estimated future earn-out obligations due to Vale, \$4 million of costs to capture expected future synergies and \$3 million of integration costs related to the Acquisition.

For the nine months ended September 30, 2019, we had other operating expenses of \$113.3 million, compared to \$110.5 million for the same period in the prior year. The nine months ended September 30, 2019 include approximately \$30 million of asset retirement obligation expenses, \$10 million of integration costs related to the Acquisition and \$7 million of costs to capture expected future synergies associated with the Acquired Business, compared to \$34 million of fees and integration

costs, \$26 million to capture expected future synergies and \$8 million of estimated future earn-out obligation due to Vale in the prior year period. The current year period also includes income of approximately \$12 million generated by the fair value adjustment for the reduction in estimated future earn-out obligations related to the Acquisition and \$8 million of insurance proceeds related to flooding that occurred at the Miski Mayo mine in 2017.

Foreign Currency Transaction Gain (Loss)

We recorded foreign currency transaction losses of \$53.8 million and \$10.4 million for the three and nine months ended September 30, 2019, compared to foreign currency transaction losses of \$2.2 million and \$113.1 million for the three and nine months ended September 30, 2018. For the three months ended September 30, 2019, the loss was primarily the result of the strengthening of the U.S. dollar relative to the Brazilian real on significant U.S. dollar-denominated payables held by our Brazilian subsidiaries and the effect of strengthening of the U.S. dollar relative to the Canadian dollar on significant U.S. dollar-denominated intercompany loans. For the nine months ended September 30, 2019, the loss was primarily the result of the strengthening of the U.S. dollar relative to the Brazilian real on significant U.S. dollar-denominated payables held by our Brazilian subsidiaries, partially offset by the result of the effect of weakening of the U.S. dollar relative to the Canadian dollar on significant U.S. dollar-denominated intercompany loans.

For the three months ended September 30, 2018, the loss was primarily the result of the effect of strengthening of the U.S. dollar relative to the Brazilian real on significant U.S. dollar-denominated payables held by our Brazilian subsidiaries, offset by the weakening of the U.S. dollar relative to the Canadian dollar on significant U.S. dollar-denominated intercompany loans. For the nine months ended September 30, 2018, the loss was the result of the effect of strengthening of the U.S. dollar relative to the Brazilian real on significant U.S. dollar-denominated payables held by our Brazilian subsidiaries and the strengthening of the U.S. dollar relative to the Canadian dollar on significant U.S. dollar-denominated intercompany loans.

Other Income (Expenses)

For the three and nine months ended September 30, 2019, we had other income of \$9.7 million and \$4.9 million, respectively, compared to other expenses of \$7.6 million and \$15.6 million for the same periods in the prior year. The increase is primarily due to a realized gain on RCRA trust securities of \$13 million in the current year period.

Equity in Net (Loss) Earnings of Nonconsolidated Companies

For the three and nine months ended September 30, 2019, we had equity in net loss of nonconsolidated companies of \$23.0 million and \$34.3 million, respectively, compared to equity in net loss of nonconsolidated companies of \$2.3 million and \$3.9 million for the same periods in the prior year. This decrease is primarily related to the operations at MWSPC as they are not yet operating at full capacity.

Provision for (Benefit from) Income Taxes

Three months ended	Effective Tax Rate	Provision for (Benefit from) Income Taxes
September 30, 2019	132.6 %	\$ 69.2
September 30, 2018	26.4 %	90.6
Nine months ended	Effective Tax Rate	Provision for (Benefit from) Income Taxes
September 30, 2019	(152.6)%	\$ 64.1
September 30, 2018	10.9 %	44.4

Income tax expense was \$69.2 million and \$64.1million, and the effective tax rate was 132.6% and (152.6)% for the three and nine months ended September 30, 2019.

For the three months ended September 30, 2019, tax expense specific to the period was a cost of approximately \$19.8 million. This consisted primarily of tax expense of \$5.6 million related to changes in estimates related to prior years, \$3.3 million related to the Plant City closure costs, and \$10.9 million for valuation allowances in foreign jurisdictions. In addition to items specific to the period, our income tax rate is impacted by the mix of earnings across the jurisdictions in which we

operate, by a benefit associated with depletion, and by the impact of certain entities being taxed in both foreign jurisdictions and the U.S., including foreign tax credits for various taxes incurred.

Generally, for interim periods, income tax is equal to the total of (1) year-to-date pretax income multiplied by our forecasted effective tax rate plus (2) tax expense items specific to the period. In situations where we expect to report losses for which we do not expect to receive tax benefits, we are required to apply separate forecasted effective tax rates to those jurisdictions rather than including them in the consolidated effective tax rate. For the three months ended September 30, 2019, income tax expense was impacted by this set of rules, resulting in an additional cost of \$14.7 million compared to what would have been recorded under the general rule on a consolidated basis.

For the three months ended September 30, 2018, tax expense specific to the period was approximately \$30.7 million. This consisted primarily of \$29.8 million related to the revised year-to-date accounting for the valuation allowances on foreign tax credits, and \$8.3 million as a result of revisions to the provisional estimates related to the U.S. Tax Cuts and Jobs Act (" *The Act* "). This was partially offset by a change in sequestration charge on AMT refunds of \$2.7 million, \$5.1 million related to the effect on deferred income tax liabilities of a decrease in the statutory tax rate in the U.S as a result of the Act, and other miscellaneous benefits of \$0.4 million. In addition to items specific to the period, our income tax rate is impacted by the mix of earnings across the jurisdictions in which we operate, by a benefit associated with depletion, and by the impact of certain entities being taxed in both foreign jurisdictions and the US including foreign tax credits for various taxes incurred.

Critical Accounting Estimates

The Condensed Consolidated Financial Statements are prepared in conformity with GAAP. In preparing the Condensed Consolidated Financial Statements, we are required to make various judgments, estimates and assumptions that could have a significant impact on the results reported in the Condensed Consolidated Financial Statements. We base these estimates on historical experience and other assumptions believed to be reasonable by management under the circumstances. Changes in these estimates could have a material effect on our Condensed Consolidated Financial Statements.

The basis for our financial statement presentation, including our significant accounting estimates, is summarized in Note 2 to the Condensed Consolidated Financial Statements in this report. A summary description of our significant accounting policies is included in Note 2 to the Consolidated Financial Statements in our 10-K Report. Further detailed information regarding our critical accounting estimates is included in Management's Discussion and Analysis of Results of Operations and Financial Condition in our 10-K Report.

Liquidity and Capital Resources

As of September 30, 2019 , we had cash and cash equivalents of \$0.6 billion , long-term debt, including current maturities, of approximately \$4.6 billion , and stockholders' equity of approximately \$10.3 billion . We have a target liquidity buffer of up to \$3.0 billion, including cash and available committed credit lines. We expect our liquidity to fluctuate from time to time, especially in the first quarter of each year, to manage through the seasonality of our business. We also target debt leverage ratios that are consistent with investment grade credit ratings. Our capital allocation priorities include maintaining our investment grade ratings and financial strength, sustaining our assets, including ensuring the safety and reliability of our assets, investing to grow our business, either through organic growth or taking advantage of strategic opportunities, and returning excess cash to shareholders, including paying our dividend. During the nine months ended September 30, 2019 , we invested \$931.1 million in capital expenditures.

Funds generated by operating activities, available cash and cash equivalents, and our credit facilities continue to be our most significant sources of liquidity. We believe funds generated from the expected results of operations and available cash, cash equivalents and borrowings under our credit facilities, as needed, will be sufficient to finance our operations, including our capital expenditures, existing strategic initiatives and expected dividend payments, for the next 12 months. There can be no assurance, however, that we will continue to generate cash flows at or above current levels. At September 30, 2019 , we had \$1.99 billion available under our \$2.0 billion revolving credit facility. Our credit facilities, including the revolving credit facility and our term loans, require us to maintain certain financial ratios, as discussed in Note 10 of our Notes to Consolidated Financial Statements in our 10-K Report. We were in compliance with these ratios as of September 30, 2019 .

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All of our cash and cash equivalents are diversified in highly rated investment vehicles. Our cash and cash equivalents are held either in the U.S. or held by non-U.S. subsidiaries and are not subject to significant foreign currency exposures, as the majority are held in investments denominated in U.S. dollars as of September 30, 2019. These funds may create foreign currency transaction gains or losses, however, depending on the functional currency of the entity holding the cash. In addition, there are no significant restrictions that would preclude us from bringing these funds back to the U.S., aside from withholding taxes.

The following table represents a comparison of the net cash provided by operating activities, net cash provided by or used in investing activities, and net cash used in or provided by financing activities for the nine months ended September 30, 2019 and 2018 :

(in millions)	Nine months ended		2019-2018	
	September 30,		Change	Percent
Cash Flow	2019	2018		
Net cash provided by operating activities	\$ 817.8	\$ 1,259.8	\$ (442.0)	(35)%
Net cash used in investing activities	(1,014.1)	(1,660.9)	646.8	(39)%
Net cash used in financing activities	(16.3)	(679.6)	663.3	(98)%

Operating Activities

During the nine months ended September 30, 2019, net cash provided by operating activities was \$817.8 million, compared to \$1.3 billion for the nine months ended September 30, 2018. Our results of operations, after non-cash adjustments to net earnings, contributed \$917.8 million to cash flows from operating activities during the nine months ended September 30, 2019, compared to a contribution of \$1.1 billion as computed on the same basis for the prior year period. During the nine months ended September 30, 2019, we had an unfavorable working capital change of \$100.0 million, compared to a favorable change of \$203.4 million during the nine months ended September 30, 2018.

The change in working capital for the nine months ended September 30, 2019, was primarily driven by an increase in inventories of \$99.1 million and an increase in other assets of \$63.2 million, partially offset by an increase in accounts payable and accrued expenses of \$59.3 million. The increase in inventories was primarily due to building inventory volumes. We had lower sales volumes in the current period, primarily due to the adverse weather conditions causing a delayed spring season in North America and higher pipeline inventories, as discussed in the Overview. The increase in other assets is primarily due to income tax receivables, as we have made payments in excess of our expected tax liabilities. The increase in accounts payable and accrued expenses is due to the timing of payments for capital expenditures.

The change in working capital for the nine months ended September 30, 2018, was primarily driven by an increase in accounts payable and accrued liabilities of \$466.5 million, partially offset by increases in inventories and other assets of \$198.1 million and \$75.9 million, respectively. Accounts payable increased due to the timing of payments for inventory purchases and an increase in the cost of raw materials. Accrued expenses increased due to liabilities associated with customer prepayments in Brazil. The increase in inventories was primarily due to higher raw material costs and building inventory volumes, especially in the Mosaic Fertilizantes segment. The increase in other assets was primarily related to tax receivables.

Investing Activities

Net cash used in investing activities was \$1.0 billion for the nine months ended September 30, 2019, compared to \$1.7 billion for the same period a year ago. We had capital expenditures of \$931.1 million for the nine months ended September 30, 2019, compared to \$665.4 million in the prior year period. The increase was due to the acceleration of the K3 mineshafts at our Esterhazy Potash mine and increased expenditures, as we have a larger asset base in Brazil related to the Acquired Business. We also purchased the Pine Bend distribution facility for \$55.1 million during the nine months ended September 30, 2019. In the prior year, we completed the Acquisition for approximately \$1.0 billion.

Financing Activities

Net cash used in financing activities for the nine months ended September 30, 2019, was \$16.3 million, compared to \$679.6 million for the same period in the prior year. For the nine months ended September 30, 2019, we had net proceeds from borrowings on short-term debt of \$79.6 million, compared to \$25.1 million in the prior year. These borrowings were used to fund incremental seasonal working capital needs in our international locations. We also had net proceeds from

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structured accounts payable of \$102.7 million , compared to \$7.8 million in the prior year period. During the current year period, we used cash of \$117.1 million to repurchase Common Stock under our existing share repurchase authorization and made payments on our long-term debt of \$32.9 million. We also paid dividends of \$48.2 million in the current year period compared to \$28.9 million in the prior year period.

In the prior year period, we also made net payments on long-term debt of \$683.1 million , including a prepayment of \$200 million on our term loan.

Debt Instruments, Guarantees and Related Covenants

See Notes 11 and 17 to the Consolidated Financial Statements in our 10-K Report.

Financial Assurance Requirements

In addition to various operational and environmental regulations related to our Phosphates segment, we are subject to financial assurance requirements. In various jurisdictions in which we operate, particularly Florida and Louisiana, we are required to pass a financial strength test or provide credit support, typically in the form of surety bonds, letters of credit, certificates of deposit or trust funds. Further information regarding financial assurance requirements is included in Management's Discussion and Analysis of Results of Operations and Financial Condition in our 10-K Report, under "EPA RCRA Initiative", and in Note 11 to our Condensed Consolidated Financial Statements in this report.

Off-Balance Sheet Arrangements and Obligations

Information regarding off-balance sheet arrangements and obligations is included in Management's Discussion and Analysis of Results of Operations and Financial Condition in our 10-K Report and Note 15 to our Condensed Consolidated Financial Statements in this report.

Contingencies

Information regarding contingencies is hereby incorporated by reference to Note 12 to our Condensed Consolidated Financial Statements in this report.

Forward-Looking Statements

Cautionary Statement Regarding Forward Looking Information

All statements, other than statements of historical fact, appearing in this report constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include, among other things, statements about our expectations, beliefs, intentions or strategies for the future, including statements about our recently completed Acquisition and the anticipated benefits and synergies of the Acquisition, statements about MWSPC and its nature, impact and benefits, statements about other proposed or pending future transactions or strategic plans, statements concerning our future operations, financial condition and prospects, statements regarding our expectations for capital expenditures, statements concerning our level of indebtedness and other information, and any statements of assumptions regarding any of the foregoing. In particular, forward-looking statements may include words such as "anticipate", "believe", "could", "estimate", "expect", "intend", "may", "potential", "predict", "project" or "should". These statements involve certain risks and uncertainties that may cause actual results to differ materially from expectations as of the date of this filing.

Factors that could cause reported results to differ materially from those expressed or implied by the forward-looking statements include, but are not limited to, the following:

- difficulties with realization of the benefits of the Acquisition, including the risks that the Acquired Business may not be integrated successfully,
- because of political and economic instability in Brazil or changes in government policy in Brazil, our operations could be disrupted, as higher costs of doing business could result, including those associated with implementation of new freight tables and new mining legislation;
- business and economic conditions and governmental policies affecting the agricultural industry where we or our customers operate, including price and demand volatility resulting from periodic imbalances of supply and demand;
- changes in farmers’ application rates for crop nutrients;
- changes in the operation of world phosphate or potash markets, including continuing consolidation in the crop nutrient industry, particularly if we do not participate in the consolidation;
- the expansion or contraction of production capacity or selling efforts by competitors or new entrants in the industries in which we operate, including the effects of actions by members of Canpotex to prove the production capacity of potash expansion projects, through proving runs or otherwise;
- the expected cost of MWSPC and our expected remaining investment to be made in it, the amount, terms, availability and sufficiency of funding for MWSPC from us, Saudi Arabian Mining Company and Saudi Basic Industries Corporation and existing or future external sources, the timely development and commencement of operations of production facilities in the Kingdom of Saudi Arabia, political and economic instability in the region, and in general the future success of current plans for the joint venture and any future changes in those plans;
- build-up of inventories in the distribution channels for our products that can adversely affect our sales volumes and selling prices;
- the effect of future product innovations or development of new technologies on demand for our products;
- seasonality in our business that results in the need to carry significant amounts of inventory and seasonal peaks in working capital requirements, and may result in excess inventory or product shortages;
- changes in the costs, or constraints on supplies, of raw materials or energy used in manufacturing our products, or in the costs or availability of transportation for our products;
- declines in our selling prices or significant increases in costs that can require us to write down our inventories to the lower of cost or market, or require us to impair goodwill or other long-lived assets, or establish a valuation allowance against deferred tax assets;

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- the effects on our customers of holding high cost inventories of crop nutrients in periods of rapidly declining market prices for crop nutrients;
- the lag in realizing the benefit of falling market prices for the raw materials we use to produce our products that can occur while we consume raw materials that we purchased or committed to purchase in the past at higher prices;
- customer expectations about future trends in the selling prices and availability of our products and in farmer economics;
- disruptions to existing transportation or terminaling facilities, including those of Canpotex or any joint venture in which we participate;
- shortages or other unavailability of railcars, tugs, barges and ships for carrying our products and raw materials;
- the effects of and change in trade, including tariffs, particularly around U.S. - Chinese trade policies, monetary, environmental, tax and fiscal policies, laws and regulations;
- foreign exchange rates and fluctuations in those rates;
- tax regulations, currency exchange controls and other restrictions that may affect our ability to optimize the use of our liquidity;
- other risks associated with our international operations, including any potential adverse effects related to the Miski Mayo mine in the event that protests against natural resource companies in Peru were to extend to or impact the Miski Mayo mine;
- adverse weather conditions affecting our customer's fertilizer applications and our operations, including the impact of potential hurricanes, excessive heat, cold, snow or rainfall, or drought;
- difficulties or delays in receiving, challenges to, increased costs of obtaining or satisfying conditions of, or revocation or withdrawal of required governmental and regulatory approvals, including permitting activities;
- changes in the environmental, mining and other governmental regulation that applies to our operations, including Brazil's mining regulations, federal legislation or regulatory action expanding the types and extent of water resources regulated under federal law and the possibility of further federal or state legislation or regulatory action affecting or related to greenhouse gas emissions, including carbon taxes or other measures that may be implemented in Canada or other jurisdictions in which we operate, or of restrictions or liabilities related to elevated levels of naturally-occurring radiation that arise from disturbing the ground in the course of mining activities or possible efforts to reduce the flow of nutrients into the Gulf of Mexico, the Mississippi River basin or elsewhere;
- the potential costs and effects of implementation of federal or state water quality standards for the discharge of nitrogen and/or phosphorus into Florida waterways;
- the financial resources of our competitors, including state-owned and government-subsidized entities in other countries;
- the possibility of defaults by our customers on trade credit that we extend to them or on indebtedness that they incur to purchase our products and that we guarantee, particularly when we are exiting our business operations or locations that produced or sold the products to that customer;
- any significant reduction in customers' liquidity or access to credit that they need to purchase our products;
- the effectiveness of the processes we put in place to manage our significant strategic priorities, including the expansion of our Potash business and our investment in MWSPC, and to successfully integrate and grow acquired businesses;
- actual costs of various items differing from management's current estimates, including, among others, asset retirement, environmental remediation, reclamation or other environmental obligations and Canadian resource taxes and royalties, or the costs of MWSPC, its existing or future funding and our commitments in support of such funding;

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- the costs and effects of legal and administrative proceedings and regulatory matters affecting us, including environmental, tax or administrative proceedings, complaints that our operations are adversely impacting nearby farms, businesses, other property uses or properties, settlements thereof and actions taken by courts with respect to approvals of settlements, costs related to defending and resolving global audit, appellate or other court-related activity other developments in legal proceedings and regulatory matters;
- the success of our efforts to attract and retain highly qualified and motivated employees;
- strikes, labor stoppages or slowdowns by our work force or increased costs resulting from unsuccessful labor contract negotiations, and the potential costs and effects of compliance with new regulations affecting our workforce, which increasingly focus on wages and hours, healthcare, retirement and other employee benefits;
- brine inflows at our Esterhazy, Saskatchewan potash mines, as well as potential inflows at our other shaft mines;
- accidents or other incidents involving our properties or operations, including potential fires, explosions, seismic events, sinkholes, unsuccessful tailings management, ineffective mine safety procedures, or releases of hazardous or volatile chemicals;
- terrorism or other malicious intentional acts and costs associated with such acts;
- cybersecurity risks, including attempts to gain unauthorized access to, or disable, our information technology systems, the potential misappropriation of assets or sensitive information, or our costs of addressing cybersecurity risks and attacks;
- other disruptions of operations at any of our key production and distribution facilities, particularly when they are operating at high operating rates;
- changes in antitrust and competition laws or their enforcement;
- actions by the holders of controlling equity interests in businesses in which we hold a noncontrolling interest;
- changes in our relationships with other members of Canpotex or any joint venture in which we participate or their or our exit from participation in Canpotex or any such export association or joint venture, and other changes in our commercial arrangements with unrelated third parties;
- the adequacy of our property, business interruption and casualty insurance policies to cover potential hazards and risks incident to our business, and our willingness and ability to maintain current levels of insurance coverage as a result of market conditions, our loss experience and other factors;
- difficulties in realizing benefits under our long-term natural gas based pricing ammonia supply agreement with CF Industries, Inc., including the risks that the cost savings initially anticipated from the agreement may not be fully realized over the term of the agreement or that the price of natural gas or the market price for ammonia during the agreement's term are at levels at which the agreement's natural gas based pricing is disadvantageous to us, compared with purchases in the spot market; and
- other risk factors reported from time to time in our Securities and Exchange Commission reports.

Material uncertainties and other factors known to us are discussed in Item 1A, "Risk Factors," of our annual report on Form 10-K for the year ended December 31, 2018 and incorporated by reference herein as if fully stated herein.

We base our forward-looking statements on information currently available to us, and we undertake no obligation to update or revise any of these statements, whether as a result of changes in underlying factors, new information, future events or other developments.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to the impact of fluctuations in the relative value of currencies, the impact of interest rates, fluctuations in the purchase price of natural gas, ammonia and sulfur consumed in operations, and changes in freight costs, as well as changes in the market value of our financial instruments. We periodically enter into derivatives in order to mitigate our foreign currency risks, interest rate risks and the effects of changing commodity prices, but not for speculative purposes. See Note 15 to the Consolidated Financial Statements in our 10-K Report and Note 13 to the Condensed Consolidated Financial Statements in this report.

Foreign Currency Exchange Contracts

Due to the global nature of our operations, we are exposed to currency exchange rate changes which may cause fluctuations in our earnings and cash flows. Our primary foreign currency exposures are the Canadian dollar and Brazilian real. To reduce economic risk and volatility on expected cash flows that are denominated in the Canadian dollar and Brazilian real, we use financial instruments that may include forward contracts, zero-cost collars and/or futures. Mosaic hedges cash flows on a declining basis, up to 18 months for the Canadian dollar and up to 12 months for the Brazilian real. We may enter into hedges up to 36 months for expected Canadian dollar capital expenditures related to our Esterhazy K3 expansion program. Due to the Acquisition, Mosaic's exposure to the Brazilian real has increased and, as a result, the amount of foreign derivatives that we have entered into related to the Brazilian real has increased.

As of September 30, 2019, and December 31, 2018, the fair value of our major foreign currency exchange contracts was (\$10.3) million and \$(49.1) million, respectively. The table below provides information about Mosaic's significant foreign exchange derivatives.

(in millions US\$)	As of September 30, 2019					As of December 31, 2018			
	Expected Maturity Date					Expected Maturity Date			
	Years ending December 31,					Year ending December 31,			
	2019	2020	2021	2022	Fair Value	2019	2020	2021	Fair Value
Foreign Currency Exchange Forwards									
Canadian Dollar					\$ (9.2)				
Notional (million US\$) - long Canadian dollars	\$ 219.9	\$ 350.7	\$ 138.2	\$ 49.3		\$ 651.3	\$ 170.1	\$ 138.2	
Weighted Average Rate - Canadian dollar to U.S. dollar	1.3098	1.3047	1.3025	1.3183		1.2989	1.2877	1.3025	
Foreign Currency Exchange Collars									
Canadian Dollar					\$ (0.2)				
Notional (million US\$)	\$ —	\$ —	\$ —	\$ 22.8		\$ —	\$ —	\$ —	
Weighted Average Participation Rate - Canadian dollar to U.S. dollar	—	—	—	1.3443		—	—	—	
Weighted Average Protection Rate - Canadian dollar to U.S. dollar	—	—	—	1.2900		—	—	—	
Indian Rupee					\$ (0.1)				
Notional (million US\$)	\$ 20.0	\$ —	\$ —	\$ —		\$ —	\$ —	\$ —	
Weighted Average Participation Rate - Indian rupee to U.S. dollar	69.7500	—	—	—		—	—	—	

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Weighted Average Protection Rate - Indian rupee to U.S. dollar	74.2950	—	—	—	—	—	—	—
Foreign Currency Exchange Non-Deliverable Forwards								
Brazilian Real						\$ 0.5		\$ (2.5)
Notional (million US\$) - short Brazilian real	\$ 495.0	\$ 3.7	\$ —	\$ —	\$ —	\$ 535.1	\$ —	\$ —
Weighted Average Rate - Brazilian real to U.S. dollar	4.0238	4.0804	—	—	—	3.8385	—	—
Notional (million US\$) - long Brazilian real	\$ 204.8	\$ 216.9	\$ —	\$ —	\$ —	\$ 459.1	\$ —	\$ —
Weighted Average Rate - Brazilian real to U.S. dollar	4.0412	4.0120	—	—	—	3.8333	—	—
Indian Rupee						\$ (1.3)		\$ (5.9)
Notional (million US\$) - short Indian rupee	\$ 224.5	\$ —	\$ —	\$ —	\$ —	\$ 137.9	\$ —	\$ —
Weighted Average Rate - Indian rupee to U.S. dollar	71.4323	—	—	—	—	73.0517	—	—
Total Fair Value						<u>\$ (10.3)</u>		<u>\$ (49.1)</u>

Further information regarding foreign currency exchange rates and derivatives is included in Management's Discussion and Analysis of Financial Condition and Results of Operations in our 10-K Report and Note 13 to the Condensed Consolidated Financial Statements in this report.

Commodities

As of September 30, 2019, and December 31, 2018, the fair value of our natural gas commodities contracts was \$(5.2) million and \$(17.0) million, respectively.

The table below provides information about our natural gas derivatives which are used to manage the risk related to significant price changes in natural gas.

(in millions)	As of September 30, 2019					As of December 31, 2018				
	Expected Maturity Date				Fair Value	Expected Maturity Date				Fair Value
	Years ending December 31,					Years ending December 31,				
	2019	2020	2021	2022		2019	2020	2021	2022	
Natural Gas Swaps					\$ (5.2)					\$ (17.0)
Notional (million MMBtu) - long	3.9	21.4	18.5	4.9		20.4	15.8	13.2	2.9	
Weighted Average Rate (US\$/MMBtu)	\$ 2.07	\$ 1.95	\$ 1.97	\$ 1.81		\$ 2.22	\$ 1.92	\$ 1.73	\$ 1.47	
Total Fair Value					<u>\$ (5.2)</u>					<u>\$ (17.0)</u>

Further information regarding commodities and derivatives is included in Management's Discussion and Analysis of Financial Condition and Results of Operations in our 10-K Report and Note 13 to the Condensed Consolidated Financial Statements in this report.

Interest Rates

We manage interest expense through interest rate contracts to convert a portion of our fixed-rate debt into floating-rate debt. We also enter into interest rate swap agreements to hedge our exposure to changes in future interest rates related to anticipated debt issuances. As of September 30, 2019, and December 31, 2018, the fair value of our interest rate contracts was \$16.4 million and \$(9.5) million, respectively. Further information regarding our interest rate contracts is included in Note 13 to the Condensed Consolidated Financial Statements in this report.

ITEM 4. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to ensure that information required to be disclosed in our filings under the Securities Exchange Act of 1934 is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (ii) accumulated and communicated to management, including our principal executive officer and our principal financial officer, to allow timely decisions regarding required disclosures. Our management, with the participation of our principal executive officer and our principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this quarterly report on Form 10-Q. Our principal executive officer and our principal financial officer have concluded, based on such evaluations, that our disclosure controls and procedures were effective for the purpose for which they were designed as of the end of such period.

(b) Changes in Internal Control Over Financial Reporting

Our management, with the participation of our principal executive officer and our principal financial officer, have evaluated any changes in our internal control over financial reporting that occurred during the three months ended September 30, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. Our management, with the participation of our principal executive officer and principal financial officer, did not identify any such changes during the three months ended September 30, 2019 .

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

We have included information about legal and environmental proceedings in Note 12 to our Condensed Consolidated Financial Statements in this report. This information is incorporated herein by reference.

We are also subject to the following legal and environmental proceedings in addition to those described in Note 12 of our Condensed Consolidated Financial Statements in this report:

Waters of the United States. In June 2015, EPA and the U.S. Army Corps of Engineers (the “Corps”) jointly issued a final rule that proposed to clarify, but may actually expand, the scope of waters regulated under the federal Clean Water Act. The final rule (the “2015 Clean Water Rule”) became effective in August 2015, but has been challenged through numerous lawsuits. In October 2015, the U.S. Court of Appeals for the Sixth Circuit issued an order staying the effectiveness of the final rule nationwide pending adjudication of substantive challenges to the rule. In early 2017, the U.S. President issued an Executive Order directing EPA and the Corps to publish a proposed rule rescinding or revising the new rule. In June 2017, EPA and the Corps issued a proposed rule that would rescind the 2015 Clean Water Rule and re-codify regulatory text that existed prior to enactment of the 2015 Clean Water Rule. In November 2017, EPA issued a rule notice proposing to extend the applicability date of the 2015 Clean Water Rule for two years from the date of final action on the proposed rule, to provide continuity and regulatory certainty while agencies proceed to consider potential changes to the 2015 Clean Water Rule.

In January 2018, the U.S. Supreme Court unanimously held all challenges to the 2015 Clean Water Rule must be heard in federal district courts rather than in the federal courts of appeal, overruling a decision by the Sixth Circuit's Court of Appeals. With the Sixth Circuit Court of Appeals no longer having jurisdiction, that court lifted its 2015 nationwide stay in February 2018. After the nationwide stay was lifted, a number of U.S. District Courts revived dormant litigation that challenged the 2015 Clean Water Rule. In June 2018, the U.S. District Court for the Southern District of Georgia entered an injunction against implementation of the 2015 Clean Water Rule covering 11 states, including Florida. As of September 2018, federal district courts have put the 2015 Clean Water Rule on hold in 28 states, the District of Columbia and the U.S. territories.

On December 11, 2018, EPA and the Corps issued a proposed rule to replace the 2015 Clean Water Rule. The agencies' stated interpretation for the proposed rule is to provide clarity, predictability and consistency so that the regulated community can better understand where the Clean Water Act applies and where it does not. EPA and the Corps received over 600,000 public comments on the proposed rule. A final, new rule has not yet been promulgated by EPA and the Corps.

On September 12, 2019, EPA and the Corps jointly issued a final regulation that repeals the 2015 Clean Water Rule and restores the previous regulatory regime. This regulation reestablishes national consistency by returning all jurisdictions to the longstanding regulatory framework that existed prior to the 2015 Clean Water Rule. The final rule takes effect sixty (60) days after publication in the Federal Register. A challenge to this legislation is possible.

Repeal of the 2015 Clean Water Rule was the first step in a two-step rulemaking process to define the scope of “waters of the United States” that are regulated under the Clean Water Act. The second step is finalizing the regulation proposed in December 2018 that would define where federal jurisdiction begins and ends in accordance with the Clean Water Act and Supreme Court precedent. In the proposed rulemaking, the agencies provided a definition of the difference between federally regulated waterways and those waters that remain solely under state authority.

We believe the 2015 Clean Water Rule, if not rescinded, may expand the types and extent of water resources regulated under federal law, thereby potentially expanding our permitting and reporting requirements, increasing our costs of compliance, including costs associated with wetlands and stream mitigation, lengthening the time necessary to obtain permits, and potentially restricting our ability to mine certain of our phosphate rock reserves.

ITEM 1A. RISK FACTORS

Important risk factors that apply to us are outlined in Item 1A in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 (the “*10-K Report*”). In addition to these risk factors, we include the following update related to the tailing dams in Brazil:

We use tailings, sediment and water dams to manage residual materials generated by our Brazilian mining operations. If our operational, environmental or safety procedures are not effective, an accident involving these impoundments could result in damage to property or the environment, the inability to operate our facilities, or serious injuries or death, any of which could materially adversely affect our results of operations in Brazil.

Mining and processing of potash and phosphate generate residual materials that must be managed both during the operation of the facility and upon facility closure. Potash tailings, consisting primarily of salt and clay, are stored in surface disposal sites. Phosphate clay residuals from mining in Brazil are deposited in large tailing dams. They are regularly monitored to evaluate structural stability and for leaks. The failure of tailings dams and other impoundments at any of our Brazilian mining operations could cause severe property and environmental damage and loss of life. As a result, we apply significant operational and financial resources and both internal and external technical resources towards operating those facilities safely.

We own and maintain 11 tailings dams in Brazil. In response to an unaffiliated dam collapse in Brazil, we arranged for an independent third-party assessment of all our Brazilian dams, which we completed during the second quarter of 2019. Recently, Brazil’s National Mining Agency implemented new regulatory standards. As a result of these inspections and the new regulatory standards, we have temporarily idled operations at four tailings dams and the three related mines at Araxá, Tapira and Catalão. We resumed full mining operations at Catalão in June 2019, and at Tapira and Araxá in September 2019. In addition, we continue to augment our existing practices in an effort to reduce the risk of catastrophic failure and expect to bring all our tailings dams to be in compliance with Brazilian safety requirements. As part of our remediation efforts, and in the ordinary course of business, we plan to build and license new dams in Brazil.

Legislation at both Brazilian federal and state levels has introduced new rules regarding tailings dam safety, construction, licensing and operations. We cannot predict the full impact of these legislative or potentially related judicial actions, or future actions, or whether or how it would affect our Brazilian operations or customers.

Any accident involving our Brazilian tailings or other dams, or any shut down or idling of our related mines, could have a material adverse effect on our results of operations.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Pursuant to our employee stock plans relating to the grant of employee stock options, stock appreciation rights, restricted stock unit awards, and other equity-based awards, we have granted and may in the future grant employee stock options to purchase shares of our Common Stock for which the purchase price may be paid by means of delivery to us by the optionee of shares of our Common Stock that are already owned by the optionee (at a value equal to market value on the date of the option exercise). During the periods covered by this report, no options to purchase shares of our Common Stock were exercised for which the purchase price was so paid.

The following table sets forth information with respect to shares of our Common Stock that we purchased under the 2015 Repurchase Program during the quarter ended September 30, 2019 :

Issuer Repurchases of Equity Securities ^(a)

Period	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of a publicly announced program	Maximum approximate dollar value of shares that may yet be purchased under the program ^(a)
Common Stock				
July 1, 2019 - July 31, 2019.....	—	—	—	\$850,067,864
August 1, 2019 - August 31, 2019.....	—	—	—	\$850,067,864
September 1, 2019 - September 30, 2019.....	5,825,532	\$21.40	5,825,532	\$725,390,351
Total.....	5,825,532	\$21.40	5,825,532	\$725,390,351

^(a) On May 14, 2015, we announced the 2015 Repurchase Program to repurchase up to \$1.5 billion of our Common Stock through open market purchases, accelerated share repurchase arrangements, privately negotiated transactions or otherwise.

ITEM 4. MINE SAFETY DISCLOSURES

Information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K is included in Exhibit 95 to this report.

ITEM 6. EXHIBITS

The following Exhibits are being filed herewith.

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Exhibit Index			
Exhibit No	Description	Incorporated Herein by Reference to	Filed with Electronic Submission
10.1	<u>The Mosaic Company 2014 Stock and Incentive Plan (the "2014 Incentive Plan") as amended August 14, 2019</u>		X
31.1	<u>Certification Required by Rule 13a-14(a).</u>		X
31.2	<u>Certification Required by Rule 13a-14(a).</u>		X
32.1	<u>Certification Required by Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code.</u>		X
32.2	<u>Certification Required by Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code.</u>		X
95	<u>Mine Safety Disclosures</u>		X
101.INS	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document)		X
101.SCH	Inline XBRL Taxonomy Extension Schema Document		X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document		X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document		X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document		X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document		X
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)		X

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

THE MOSAIC COMPANY

by:

/S/ CLINT C. FREELAND

Clint C. Freeland

Senior Vice President and Chief Financial Officer

(on behalf of the registrant and as principal accounting officer)

November 5, 2019

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**THE MOSAIC COMPANY
2014 STOCK AND INCENTIVE PLAN
(As Amended, August 14, 2019)**

Section 1. Purpose

The purpose of the Plan is to promote the interests of the Company and its stockholders by aiding the Company in attracting and retaining employees, officers, consultants, advisors and directors capable of assuring the future success of the Company, to offer such persons incentives to put forth maximum efforts for the success of the Company's business and to compensate such persons through various stock-based arrangements and provide them with opportunities for stock ownership in the Company, thereby aligning the interests of such persons with the Company's stockholders.

Section 2. Definitions

As used in the Plan, the following terms shall have the meanings set forth below:

- (a) "*Affiliate*" shall mean any entity that, directly or indirectly through one or more intermediaries, is controlled by the Company.
- (b) "*Award*" shall mean any Option, Stock Appreciation Right, Restricted Stock, Restricted Stock Unit, Performance Award, Dividend Equivalent, Other Stock Grant or Other Stock-Based Award granted under the Plan.
- (c) "*Award Agreement*" shall mean any written agreement, contract or other instrument or document evidencing any Award granted under the Plan. An Award Agreement may be in an electronic medium and need not be signed by a representative of the Company or the Participant. Each Award Agreement shall be subject to the applicable terms and conditions of the Plan and any other terms and conditions (not inconsistent with the Plan) determined by the Committee.
- (d) "*Board*" shall mean the Board of Directors of the Company.
- (e) "*Code*" shall mean the Internal Revenue Code of 1986, as amended from time to time, and any regulations promulgated thereunder.
- (f) "*Committee*" shall mean any committee of Directors designated by the Board to administer the Plan, in whole or in part, which shall initially be the Compensation Committee of the Board or a subcommittee thereof with respect to Eligible Persons and Participants who are employees or officers. The Committee shall be comprised of not less than such number of Directors as shall be required to permit Awards granted under the Plan to qualify under Rule 16b-3, and each member of the Committee shall be a Non-Employee Director within the meaning of Rule 16b-3 and an "outside director" within the meaning of Section 162(m).
- (g) "*Company*" shall mean The Mosaic Company, a Delaware corporation, and any successor corporation.
- (h) "*Director*" shall mean a member of the Board, including any Non-Employee Director.
- (i) "*Dividend Equivalent*" shall mean any right granted under Section 6(f) of the Plan.
- (j) "*Eligible Person*" shall mean any employee, officer, Director, consultant, independent contractor or advisor providing services to the Company or any Affiliate who the Committee determines to be an Eligible Person.
- (k) "*Exchange Act*" shall mean the Securities Exchange Act of 1934, as amended.
- (l) "*Fair Market Value*" shall mean, with respect to any property (including any Shares or other securities), the fair market value of such property determined by such methods or procedures as shall be established from time to time by the Committee. Notwithstanding the foregoing, unless otherwise determined by the Committee, the Fair Market Value of a Share as of a given date shall be the closing price of one Share as reported on the New York Stock

Exchange, and any successor securities exchange thereof, or, if the New York Stock Exchange is not the principal trading market for the Shares, such other securities exchange that is the principal trading market for the Shares on such date or, if the applicable securities exchange is not open for trading on such date, on the most recent preceding date when such exchange is open for trading.

(m) “*Incentive Stock Option*” shall mean an option granted under Section 6(a) of the Plan that is intended to meet the requirements of Section 422 of the Code or any successor provision.

(n) “*including*” shall mean including but not limited to and including without limitation.

(o) “*Non-Employee Director*” shall mean any Director who is not also an employee of the Company or an Affiliate within the meaning of Rule 16b-3 and an “outside director” within the meaning of Section 162(m) of the Code.

(p) “*Non-Qualified Stock Option*” shall mean an option granted under Section 6(a) of the Plan that is not an Incentive Stock Option.

(q) “*or*” shall include any of the listed items, individually or in any combination.

(r) “*Option*” shall mean an Incentive Stock Option or a Non-Qualified Stock Option.

(s) “*Other Stock Grant*” shall mean any right granted under Section 6(g) of the Plan.

(t) “*Other Stock-Based Award*” shall mean any right granted under Section 6(h) of the Plan.

(u) “*Participant*” shall mean an Eligible Person designated to be granted an Award under the Plan.

(v) “*Performance Award*” shall mean any right granted under Section 6(d) of the Plan.

(w) “*Performance Goal*” shall mean one or more of the following performance goals, or any one or more components thereof, either individually, alternatively or in any combination, applied on a corporate, subsidiary, division, business unit, line of business, product line, product or other basis: revenue (gross or net); cash flow (including free cash flow or cash flow from operating, investing or financing activities) or cash generation; gross profit; earnings (including operating earnings; earnings from consolidated companies; earnings from continuing operations; equity in net earnings of nonconsolidated companies; net earnings including noncontrolling interests; net earnings attributable to the Company; net profit; net operating profit; earnings before interest and taxes (EBIT); earnings before interest, taxes, depreciation, depletion and amortization (EBITDA); any of such measures of earnings as a percentage of other items including net sales, earnings or earnings from continuing operations per share (EPS) (basic or diluted)); margins (including one or more of gross, operating and net income margins); returns (including one or more of return on actual or pro forma assets; net assets; equity; investment; revenue; sales; capital; invested capital; net capital employed; revenue; total stockholder return (TSR); or total business return (TBR)); sales; costs (including cost of goods sold); expenses (including selling, general and administrative expenses); ratios (including price-to-earnings; debt-to-assets; debt-to-net assets; costs per tonne; and ratios regarding liquidity, solvency, fiscal capacity, productivity or risk); budget comparisons; unit volume; stock price; net working capital; value creation; environmental, health, safety or sustainability (“EHSS,” and including employee or contractor safety (including the OSHA Reportable Injury Frequency Rate or Lost-Time Injury Frequency Rate, components thereof or fatalities, for employees or contractors, or the application of such measures to employees or contractors not covered by OSHA rules) or other lagging or leading measures related to EHSS performance); other production or operating metrics; development, implementation or completion of key projects; strategic plan development and implementation; stock price; economic value added (EVA); working capital; market share; market capitalization; cost reductions; workforce satisfaction; diversity; employee retention; employee engagement; and customer satisfaction. Such goals may reflect absolute entity or business unit performance or a relative comparison to the performance of one or more peer groups of entities, indices or other external measures of the selected performance criteria, and may be before or after the effect of taxes (including or excluding discrete items).

Each such Performance Goal may be based (i) solely by reference to absolute results of individual performance or organizational performance at various levels (including the Company’s performance or the

performance of all or one or more parts of a subsidiary, division, business segment, business unit, line of business, product line or product of the Company or within one or more countries or other geographic areas), or (ii) upon organizational performance relative to the comparable performance of other companies selected by the Committee. The Committee may, when it establishes performance criteria, also provide for the inclusion or exclusion of items, including items related to an event or occurrence, which the Committee determines should appropriately be included or excluded, including the impact of (V) asset-write downs or write-offs (on a cash or non-cash basis), litigation or claim judgments or settlements, extraordinary items, and other unusual or non-recurring items or charges, (W) reorganizations, mergers, acquisitions and divestitures, capital expenditures including construction in progress, investments, restructurings, discontinued operations, capital decisions (including issuances or repurchases of equity or issuances or repayment of indebtedness or other obligations) or other changes in the business, (X) changes in tax laws or regulations, (Y) foreign exchange gains and losses or an event either not directly related to the operations of the Company or not within the reasonable control of the Company's management, or (Z) the effects of tax or accounting changes. To the extent that Section 162(m) or applicable tax and/or securities laws or regulations, or the interpretation thereof, change to, or otherwise, permit Committee discretion to alter the governing performance measures without disclosing to stockholders and obtaining stockholder approval of such changes and without thereby exposing the Company to potentially adverse tax or other legal consequences, the Committee shall have the sole discretion to make such changes without obtaining stockholder approval.

(x) "*Person*" shall include any individual or entity, including a corporation, partnership, limited liability company, association, joint venture or trust.

(y) "*Plan*" shall mean The Mosaic Company 2014 Stock and Incentive Plan, as amended from time to time.

(z) "*Restricted Stock*" shall mean any Share granted under Section 6(c) of the Plan.

(aa) "*Restricted Stock Unit*" shall mean any unit granted under Section 6(c) of the Plan evidencing the right to receive a Share (or a cash payment equal to the Fair Market Value of a Share) at some future date.

(bb) "*Rule 16b-3*" shall mean Rule 16b-3 promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended, or any successor rule or regulation.

(cc) "*Section 162(m)*" shall mean Section 162(m) of the Code, or any successor provision, and the applicable Treasury Regulations promulgated thereunder.

(dd) "*Section 409A*" shall mean Section 409A of the Code, or any successor provision, and applicable Treasury Regulations and other applicable guidance thereunder.

(ee) "*Securities Act*" shall mean the Securities Act of 1933, as amended.

(ff) "*Share*" or "*Shares*" shall mean a share or shares of Common Stock, \$0.01 par value per share, of the Company (or such other securities or property as may become subject to Awards pursuant to an adjustment made under Section 4(c) of the Plan), provided that such class is listed on a securities exchange.

(gg) "*Specified Employee*" shall mean a specified employee as defined in Section 409A(a)(2)(B) of the Code or applicable proposed or final regulations under Section 409A, determined in accordance with procedures established by the Company and applied uniformly with respect to all plans maintained by the Company that are subject to Section 409A.

(hh) "*Stock Appreciation Right*" shall mean any right granted under Section 6(b) of the Plan.

Section 3. Administration

(a) Power and Authority of the Committee. The Plan shall be administered by the Committee. Subject to the express provisions of the Plan and to applicable law, the Committee shall have full power and authority to: (i) designate Participants; (ii) determine the type or types of Awards to be granted to each Participant under the Plan; (iii) determine the number of Shares to be covered by (or the method by which payments or other rights are to be determined in connection with) each Award; (iv) determine the terms and conditions of any Award or Award

Agreement; (v) amend the terms and conditions of any Award or Award Agreement; (vi) accelerate the exercisability of any Award or the lapse of any restrictions relating to any Award, (vii) determine whether, to what extent and under what circumstances Awards may be exercised in cash, Shares, promissory notes (*provided, however*, that the par value of any Shares to be issued pursuant to such exercise shall be paid in the form of cash, services rendered, personal property, real property or a combination thereof, and *provided, further*, that the acceptance of such promissory notes does not conflict with Section 402 of the Sarbanes-Oxley Act of 2002), other securities, other Awards or other property, or canceled, forfeited or suspended; (viii) determine whether, to what extent and under what circumstances cash, Shares, promissory notes, other securities, other Awards, other property and other amounts payable with respect to an Award under the Plan shall be deferred either automatically or at the election of the holder thereof or the Committee (*provided, however*, that the par value of any Shares and Restricted Stock shall be paid in the form of cash, services rendered, personal property, real property or a combination thereof prior to their issuance); (ix) interpret and administer the Plan and any instrument or agreement, including an Award Agreement, relating to the Plan; (x) establish, amend, suspend or waive such rules and regulations and appoint such agents as it shall deem appropriate for the proper administration of the Plan; (xi) delegate authority under the Plan; (xii) make any other determination and take any other action that the Committee deems necessary or desirable for the administration of the Plan; and (xiii) adopt such modifications, rules, procedures and subplans as may be necessary or desirable to comply with provisions of the laws of non-U.S. jurisdictions in which the Company or an Affiliate may operate, including establishing any special rules for Affiliates, Eligible Persons or Participants located in any particular country, in order to meet the objectives of the Plan and to ensure the viability of the intended benefits of Awards granted to Participants located in such non-U.S. jurisdictions. Unless otherwise expressly provided in the Plan, all actions taken and all designations, determinations, interpretations and other decisions under or with respect to the Plan or any Award or Award Agreement shall be within the sole discretion of the Committee, may be made at any time and shall be final, conclusive and binding upon any Eligible Person or Participant, any holder or beneficiary of any Award or Award Agreement, and any employee of the Company or any Affiliate.

(b) Power and Authority of the Board . Notwithstanding anything to the contrary contained herein, the Board may, at any time and from time to time, without any further action of the Committee, exercise the powers and duties of the Committee under the Plan.

Section 4. Shares Available for Awards

(a) Shares Available . Subject to adjustment as provided in Section 4(c) of the Plan, the aggregate number of Shares that may be issued under all Awards under the Plan shall be 25,000,000. Shares to be issued under the Plan may be either authorized but unissued Shares or Shares re-acquired and held in treasury. Notwithstanding the foregoing, the number of Shares available for granting Incentive Stock Options under the Plan shall not exceed 25,000,000, subject to adjustment as provided in Section 4(c) of the Plan and subject to the provisions of Sections 422 or 424 of the Code or any successor provision.

(b) Accounting for Awards . For purposes of this Section 4, (i) with respect to a Stock Appreciation Right that is to be settled in Shares, on the date of grant, the aggregate number of Shares for which the Stock Appreciation Right may be exercised shall be counted against the number of Shares available for Awards under the Plan, without regard to the number of actual Shares issued or delivered upon settlement; (ii) with respect to a Performance Award (other than an Option or Stock Appreciation Right) that is to be settled in Shares, or Restricted Stock or a Restricted Stock Unit, on the date Shares are issued or delivered to the Participant upon settlement of the Award, the number of Shares so issued or delivered shall be counted as two Shares against the number of Shares available for Awards under the Plan; and (iii) with respect to any other form of Award (including an Option) that entitles the holder thereof to receive or purchase Shares, on the date of grant, the number of Shares covered by such Award or to which such Award relates shall be counted against the number of Shares available for Awards under the Plan. Awards that do not entitle the holder thereof to receive or purchase Shares shall not be counted against the aggregate number of Shares available for Awards under the Plan.

If any Shares covered by an Award or to which an Award relates and which have been counted against the number of Shares available for Awards under the Plan are not purchased or acquired, or if any are forfeited or are reacquired by the Company (including Shares of Restricted Stock, whether or not dividends have been paid on such Shares), or to the extent an Award otherwise terminates or is cancelled without delivery of the full number of Shares

covered by such Award or to which such Award relates (collectively, “Unacquired Shares”), then such Unacquired Shares shall again be available for granting Awards under the Plan. Notwithstanding anything to the contrary in this Section 4, the following Shares will not again become available for issuance under the Plan: (i) any Shares which would have been issued upon any exercise of an Option but for the fact that the exercise price was paid by a “net exercise” pursuant to Section 6(a)(iv) or any Shares tendered in payment of the exercise price of an Option; (ii) any Shares withheld by the Company or Shares tendered to satisfy any tax withholding obligation with respect to an Option or a Stock Appreciation Right; or (iii) Shares covered by a Stock Appreciation Right issued under the Plan that are not issued in connection with settlement in Shares upon exercise. For the avoidance of doubt, Shares that are repurchased by the Company using Option exercise proceeds shall not be added to or increase the number of Shares available to be issued under the Plan.

(c) Adjustments . In the event that any dividend (other than a regular cash dividend) or other distribution (whether in the form of cash, Shares, other securities or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, exchange of Shares or other securities of the Company, issuance of warrants or other rights to purchase Shares or other securities of the Company or other similar corporate transaction or event affects the Shares such that an adjustment is necessary in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan, then the Committee shall, in such manner as it may deem equitable, make such adjustment, which may include any one or more of adjustments to (i) the number and type of Shares (or other securities or other property) that thereafter may be made the subject of Awards, (ii) the number and type of Shares (or other securities or other property) subject to outstanding Awards, (iii) the purchase price or exercise price with respect to any Award and (iv) the limitations contained in Section 4(d)(i) below; *provided, however*, that the number of Shares covered by any Award or to which such Award relates shall always be a whole number. Such adjustment shall be made by the Committee or the Board, whose determination in that respect shall be final, binding and conclusive.

(d) Award Limitations Under the Plan .

- (i) Individual Limitation for Awards Denominated in Shares . No Eligible Person may be granted any Award or Awards denominated in Shares, for more than 1,000,000 Shares (subject to adjustment as provided for in Section 4(c) of the Plan), in the aggregate in any calendar year. This limitation contained in this Section 4(d)(i) does not apply to any Award or Awards subject to the limitations contained in Section 4(d)(ii) or Section 4(d)(iii).
- (ii) Individual Limitation for Performance Awards for Performance Periods Longer than Twelve Months Denominated in Cash . The maximum amount payable pursuant to all Performance Awards for performance periods longer than twelve months denominated in cash to any Participant in the aggregate in any taxable year shall be \$7,000,000 in value, whether payable in cash, Shares or other property. This limitation contained in this Section 4(d)(ii) does not apply to any Award or Awards subject to the limitations contained in Section 4(d)(i) or Section 4(d)(iii).
- (iii) Individual Limitation for Performance Awards for Performance Periods of Twelve Months or Less Denominated in Cash . The maximum amount payable pursuant to all Performance Awards for performance periods of twelve months or less denominated in cash to any Participant in the aggregate in any taxable year shall be \$7,000,000 in value, whether payable in cash, Shares or other property. This limitation contained in this Section 4(d)(iii) does not apply to any Award or Awards subject to the limitations contained in Section 4(d)(i) or Section 4(d)(ii).

The limitation contained in this Section 4(d) shall apply only with respect to any Award or Awards granted under this Plan, and any limitations on awards granted under any other incentive plan will be governed solely by the terms of such other plan.

Section 5. Eligibility

Any Eligible Person shall be eligible to be designated as a Participant. In determining which Eligible Persons shall receive an Award and the terms of any Award, the Committee may take into account the nature of the services rendered by the respective Eligible Persons, their present and potential contributions to the success of the Company or such other factors as the Committee, in its discretion, shall deem relevant. Notwithstanding the foregoing, an

Incentive Stock Option may only be granted to full-time or part-time employees (which term as used herein includes, without limitation, officers and Directors who are also employees), and an Incentive Stock Option shall not be granted to an employee of an Affiliate unless such Affiliate is also a "subsidiary corporation" of the Company within the meaning of Section 424(f) of the Code or any successor provision.

Section 6. Awards

(a) Options. The Committee is hereby authorized to grant Options to Eligible Persons with the following terms and conditions and with such additional terms and conditions not inconsistent with the provisions of the Plan as the Committee shall determine:

- (i) Exercise Price. The purchase price per Share purchasable under an Option shall be determined by the Committee; *provided, however*, that such purchase price shall not be less than 100% of the Fair Market Value of a Share on the date of grant of such Option; *provided, further*, that the Committee may designate a per share purchase price below Fair Market Value on the date of grant if the Option is granted in substitution for a stock option previously granted by an entity that is acquired by or merged with the Company or an Affiliate.
- (ii) Option Term. The term of each Option shall be fixed by the Committee at the date of grant, but shall not be longer than 10 years from the date of grant.
- (iii) Time and Method of Exercise. The Committee shall determine the time or times at which an Option may be exercised in whole or in part and the method or methods by which, and the form or forms including cash, Shares (actually or by attestation), promissory notes (*provided, however*, that the par value of any Shares to be issued pursuant to such exercise shall be paid in the form of cash, services rendered, personal property, real property or a combination thereof, and *provided, further*, that the acceptance of such promissory notes does not conflict with Section 402 of the Sarbanes-Oxley Act of 2002), other securities, other Awards or other property, or any combination thereof, having a Fair Market Value on the exercise date equal to the applicable exercise price, in which, payment of the exercise price with respect thereto may be made or deemed to have been made.
- (iv) Net Exercises. The Committee may, in its discretion, permit an Option to be exercised by delivering to the Participant a number of Shares having an aggregate Fair Market Value (determined as of the date of exercise) equal to the excess, if positive, of the Fair Market Value of the Shares underlying the Option being exercised on the date of exercise, over the exercise price of the Option for such Shares.
- (v) Incentive Stock Options. Notwithstanding anything in the Plan to the contrary, the following additional provisions shall apply to the grant of stock options which are intended to qualify as Incentive Stock Options:
 - (A) The Committee will not grant Incentive Stock Options in which the aggregate Fair Market Value (determined as of the time the Option is granted) of the Shares with respect to which Incentive Stock Options are exercisable for the first time by any Participant during any calendar year (under this Plan and all other plans of the Company and its Affiliates) shall exceed \$100,000.
 - (B) All Incentive Stock Options must be granted within ten years from the earlier of the date on which this Plan was adopted by the Board or the date this Plan was approved by the stockholders of the Company.
 - (C) Unless sooner exercised, all Incentive Stock Options shall expire and no longer be exercisable no later than 10 years after the date of grant; *provided, however*, that in the case of a grant of an Incentive Stock Option to a Participant who, at the time such Option is granted, owns (within the meaning of Section 422 of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or of its Affiliates, such Incentive Stock Option shall expire and no longer be exercisable no later than five years from the date of grant.
 - (D) The purchase price per Share for an Incentive Stock Option shall be not less than 100% of the Fair Market Value of a Share on the date of grant of the Incentive Stock Option; *provided, however*, that, in the case of the grant of an Incentive Stock Option to a Participant who, at the time such Option is granted, owns (within the meaning of Section 422 of the Code) stock

possessing more than 10% of the total combined voting power of all classes of stock of the Company or of its Affiliates, the purchase price per Share purchasable under an Incentive Stock Option shall be not less than 110% of the Fair Market Value of a Share on the date of grant of the Incentive Stock Option.

(E) Any Incentive Stock Option authorized under the Plan shall contain such other provisions as the Committee shall deem advisable, but shall in all events be consistent with and contain all provisions required in order to qualify the Option as an Incentive Stock Option.

(b) Stock Appreciation Rights . The Committee is hereby authorized to grant Stock Appreciation Rights to Eligible Persons with the following terms and conditions and with such additional terms and conditions not inconsistent with the provisions of the Plan as the Committee shall determine. A Stock Appreciation Right granted under the Plan shall confer on the holder thereof a right to receive, upon exercise thereof, as determined by the Committee, cash or a number of Shares equal to the excess of (i) the Fair Market Value of one Share on the date of exercise (or, if the Committee shall so determine, at any time during a specified period before or after the date of exercise) over (ii) the grant price of the Stock Appreciation Right as specified by the Committee, which price shall not be less than 100% of the Fair Market Value of one Share on the date of grant of the Stock Appreciation Right; *provided, however*, that the Committee may designate a per share grant price below Fair Market Value on the date of grant if the Stock Appreciation Right is granted in substitution for a stock appreciation right previously granted by an entity that is acquired by or merged with the Company or an Affiliate. Subject to the terms of the Plan, the grant price, term, methods of exercise, dates of exercise, methods of settlement and any other terms and conditions of any Stock Appreciation Right shall be as determined by the Committee (except that the term of each Stock Appreciation Right shall be subject to the term limitation in Section 6(a)(ii) above applicable to Options). The Committee may impose such other conditions or restrictions on the exercise of any Stock Appreciation Right as it may deem appropriate.

(c) Restricted Stock and Restricted Stock Units . The Committee is hereby authorized to grant Restricted Stock and Restricted Stock Units to Eligible Persons with the following terms and conditions and with such additional terms and conditions not inconsistent with the provisions of the Plan as the Committee shall determine:

- (i) Restrictions . Shares of Restricted Stock and Restricted Stock Units shall be subject to such restrictions as the Committee may impose (including any limitation on the right to vote a Share of Restricted Stock or the right to receive any dividend or other right or property with respect thereto), which restrictions may lapse separately or in combination at such time or times, in such installments or otherwise as the Committee may deem appropriate.
- (ii) Issuance and Delivery of Shares . Any Restricted Stock granted under the Plan shall be issued at the time such Awards are granted and may be evidenced in such manner as the Committee may deem appropriate, including book-entry registration or issuance of a stock certificate or certificates, which certificate or certificates shall be held by the Company or held in nominee name by the stock transfer agent, brokerage service or other Person selected by the Company to provide such services for the Plan. Such certificate or certificates shall be registered in the name of the Participant and shall bear an appropriate legend referring to the restrictions applicable to such Restricted Stock. Shares representing Restricted Stock that are no longer subject to restrictions shall be delivered (including by updating the book-entry registration) to the Participant promptly after the applicable restrictions lapse or are waived. In the case of Restricted Stock Units, no Shares shall be issued at the time such Awards are granted. Upon the lapse or waiver of restrictions and the restricted period relating to Restricted Stock Units evidencing the right to receive Shares, such Shares shall be issued and delivered to the holder of the Restricted Stock Units.
- (iii) Forfeiture . Except as otherwise determined by the Committee, upon a Participant's termination of employment or resignation or removal as a Director (in either case, as determined under criteria established by the Committee) during the applicable restriction period, all Shares of Restricted Stock and all Restricted Stock Units held by such Participant at such time shall be forfeited and reacquired by the Company; *provided, however*, that the Committee may waive in whole or in part any or all remaining restrictions with respect to Shares of Restricted Stock or Restricted Stock Units (including in the event of the Participant's death, disability or retirement).

(d) Performance Awards . The Committee is hereby authorized to grant to Eligible Persons Performance Awards, including Performance Awards that are intended to satisfy the requirements for “qualified performance-based compensation” within the meaning of Section 162(m). A Performance Award granted under the Plan (i) may be denominated or payable in cash, Shares (including Restricted Stock or Restricted Stock Units), other securities, other Awards or other property and (ii) shall confer on the holder thereof the right to receive payments, in whole or in part, upon the achievement of one or more objective Performance Goals during such performance periods as the Committee shall establish. Subject to the terms of the Plan, the Performance Goals to be achieved during any performance period, the length of any performance period, the amount of any Performance Award granted, the amount of any payment or transfer to be made pursuant to any Performance Award and any other terms and conditions of any Performance Award shall be determined by the Committee. The Committee shall also certify in writing that such Performance Goals have been met prior to payment of the Performance Awards to the extent required by Section 162(m).

(e) Timing of Designations; Duration of Performance Periods . For each Performance Award, the Committee shall, not later than 90 days after the beginning of each performance period, (i) designate all Participants for such performance period and (ii) establish the objective performance factors for each Participant for that performance period on the basis of one or more of the Performance Goals, the outcome of which is substantially uncertain at the time the Committee actually establishes the Performance Goal. The Committee shall have sole discretion to determine the applicable performance period, provided that in the case of a performance period less than 12 months, in no event shall a performance goal be considered to be pre-established if it is established after 25% of the performance period (as scheduled in good faith at the time the Performance Goal is established) has elapsed.

(f) Dividend Equivalents . The Committee is hereby authorized to grant Dividend Equivalents to Eligible Persons under which the Participant shall be entitled to receive payments (in cash, Shares, other securities, other Awards or other property as determined in the discretion of the Committee) equivalent to the amount of cash dividends paid by the Company to holders of Shares with respect to a number of Shares determined by the Committee. Subject to the terms of the Plan and any applicable Award Agreement, such Dividend Equivalents may have such terms and conditions as the Committee shall determine. Notwithstanding the foregoing, (i) subject to Section 4(c), the Committee may not grant Dividend Equivalents to Eligible Persons in connection with grants of Options or Stock Appreciation Rights to such Eligible Persons, and (ii) no Dividend Equivalent payments shall be made to a Participant with respect to any Award prior to the date on which all conditions or restrictions relating to such Award (or portion thereof to which the Dividend Equivalent relates) have been satisfied, waived or lapsed.

(g) Other Stock Grants . The Committee is hereby authorized, subject to the terms of the Plan, to grant to Eligible Persons Shares without restrictions thereon as are deemed by the Committee to be consistent with the purpose of the Plan. Subject to the terms of the Plan and any applicable Award Agreement, such Other Stock Grant may have such terms and conditions as the Committee shall determine.

(h) Other Stock-Based Awards . The Committee is hereby authorized to grant to Eligible Persons, subject to the terms of the Plan, such other Awards that are denominated or payable in, valued in whole or in part by reference to, or otherwise based on or related to, Shares (including securities convertible into Shares), as are deemed by the Committee to be consistent with the purpose of the Plan. The Committee shall determine the other terms and conditions of such Awards, subject to the terms of the Plan. Shares or other securities delivered pursuant to a purchase right granted under this Section 6(h) shall be purchased for consideration having a value equal to at least 100% of the Fair Market Value of such Shares or other securities on the date the purchase right is granted. The consideration paid by the Participant may be paid by such method or methods and in such form or forms, including cash, Shares, promissory notes (*provided, however*, that the par value of any Shares to be issued pursuant to such exercise shall be paid in the form of cash, services rendered, personal property, real property or a combination thereof, and *provided, further*, that the acceptance of such promissory notes does not conflict with Section 402 of the Sarbanes-Oxley Act of 2002), other securities, other Awards or other property or any combination thereof, as the Committee shall determine, the value of which consideration, as established by the Committee, shall not be less than 100% of the Fair Market Value of such Shares or other securities as of the date such purchase right is granted.

(i) General .

- (i) Consideration for Awards . Awards may be granted for no cash consideration or for any cash or other consideration as may be determined by the Committee or required by applicable law.
- (ii) Awards May Be Granted Separately or Together . Awards may, in the discretion of the Committee, be granted either alone or in addition to, in tandem with or in substitution for any other Award or any award granted under any other plan or arrangement of the Company or any Affiliate. Awards granted in addition to or in tandem with other Awards or in addition to or in tandem with awards granted under any other plan or arrangement of the Company or any Affiliate may be granted either at the same time as or at a different time from the grant of such other Awards or awards.
- (iii) Forms of Payment under Awards . Subject to the terms of the Plan and of any applicable Award Agreement, payments or transfers to be made by the Company or an Affiliate upon the grant, exercise or payment of an Award may be made in such form or forms as the Committee shall determine (including cash, Shares, promissory notes (*provided, however* , that the acceptance of such promissory notes does not conflict with Section 402 of the Sarbanes-Oxley Act of 2002), other securities, other Awards or other property or any combination thereof), and may be made in a single payment or transfer, in installments or on a deferred basis, in each case in accordance with rules and procedures established by the Committee. Such rules and procedures may include provisions for the payment or crediting of reasonable interest on installment or deferred payments or the grant or crediting of Dividend Equivalents with respect to installment or deferred payments.
- (iv) Limits on Transfer of Awards . No Award and no right under any such Award shall be transferable by a Participant other than by will or by the laws of descent and distribution and the Company shall not be required to recognize any attempted assignment of such rights by any Participant. Notwithstanding the foregoing, the Committee may allow a Participant to (i) designate a beneficiary or beneficiaries to exercise the rights of the Participant and receive any property distributable with respect to any Award upon the death of the Participant, (ii) transfer a Non-Qualified Stock Option to any Family Member (as such term is defined in the General Instructions to Form S-8, or any successor to such Instructions or such Form, under the Securities Act) at any time that such Participant holds such Option; provided, however, that such transfer may not be for value (as such term is defined in the General Instructions to Form S-8, or any successor to such Instructions or such Form, under the Securities Act), the family member may not make any subsequent transfers other than by will or by the laws of descent and distribution, and the Company receives written notice of such transfer, or (iii) transfer an Award under other circumstances determined by the Committee. Except as otherwise determined by the Committee, each Award or right under any such Award shall be exercisable during the Participant's lifetime only by the Participant or, if permissible under applicable law, by the Participant's guardian or legal representative. Except as otherwise determined by the Committee, no Award or right under any such Award may be pledged, alienated, attached or otherwise encumbered, and any purported pledge, alienation, attachment or other encumbrance thereof shall be void and unenforceable against the Company or any Affiliate. No Incentive Stock Option shall be transferable by a Participant other than by will or by the laws of descent and distribution.
- (v) Restrictions . All Shares or other securities delivered under the Plan pursuant to any Award or the exercise thereof shall be subject to such restrictions as the Committee may deem advisable under the Plan, applicable federal or state securities laws and regulatory requirements, and the Committee may cause appropriate entries to be made with respect to, or legends to be placed on the certificates for, such Shares or other securities to reflect such restrictions. The Company shall not be required to deliver any Shares or other securities covered by an Award unless and until the requirements of any federal or state securities or other laws, rules or regulations (including the rules of any securities exchange) as may be determined by the Company to be applicable are satisfied.
- (vi) Prohibition on Option and Stock Appreciation Right Repricing . Except as provided in Section 4(c) hereof, the Committee may not, without prior approval of the Company's stockholders, seek to effect any re-pricing of any previously granted "underwater" Option or Stock Appreciation Right by: (i) amending or modifying the terms of the Option or Stock Appreciation Right to lower the exercise price; (ii) canceling the underwater Option and granting either (A) replacement Options or Stock Appreciation Rights having a lower exercise price; or (B) Restricted Stock, Restricted Stock Units or

Performance Award in exchange; or (iii) repurchasing the underwater Options or Stock Appreciation Rights. An Option or Stock Appreciation Right will be deemed to be “underwater” at any time when the Fair Market Value of the Shares covered by such Award is less than the exercise price.

- (vii) Section 409A Provisions . Notwithstanding anything in the Plan or any Award Agreement to the contrary, to the extent that any amount or benefit that constitutes “deferred compensation” to a Participant under Section 409A and applicable guidance thereunder is otherwise payable or distributable to a Participant under the Plan or any Award Agreement solely by reason of the occurrence of a change in control or due to the Participant’s disability or “separation from service” (as such term is defined under Section 409A), such amount or benefit will not be payable or distributable to the Participant by reason of such circumstance unless the Committee determines in good faith that (i) the circumstances giving rise to such change in control, disability or separation from service meet the definition of a change in ownership or effective control, disability, or separation from service, as the case may be, in Section 409A(a)(2)(A) of the Code and applicable proposed or final regulations, or (ii) the payment or distribution of such amount or benefit would be exempt from the application of Section 409A by reason of the short-term deferral exemption or otherwise. Any payment or distribution that otherwise would be made to a Participant who is a Specified Employee (as determined by the Committee in good faith) on account of separation from service may not be made before the date which is six months after the date of the Specified Employee’s separation from service (or if earlier, upon the Specified Employee’s death) unless the payment or distribution is exempt from the application of Section 409A by reason of the short-term deferral exemption or otherwise.
- (viii) Minimum Vesting Requirement . Notwithstanding any other provision of the Plan to the contrary, no Award (other than cash-only Awards that do not entitle the holder thereof to receive or purchase Shares) shall be granted with terms providing for any right of exercise or lapse of any vesting obligations earlier than a date that is at least one year following the date of grant (or, in the case of vesting based upon performance-based objectives, exercise and vesting restrictions cannot lapse earlier than the one-year anniversary measured from the commencement of the period over which performance is evaluated); *provided, that* the following shall not be subject to the foregoing minimum vesting requirement: any (A) substitute Awards granted in connection with awards that are assumed, converted or substituted pursuant to a merger, acquisition or similar transaction entered into by the Company or any of its Affiliates, (B) Shares delivered in lieu of fully vested cash bonuses, (C) Awards to Non-Employee Directors that vest on earlier of the one-year anniversary of the date of grant and the next annual meeting of stockholders which is at least 50 weeks after the immediately preceding year’s annual meeting, and (D) any additional Awards the Committee may grant, up to a maximum of five percent (5%) of the available share reserve authorized for issuance under the Plan pursuant to Section 4(a) (subject to adjustment under Section 4(c)); and, *provided, further* , that the foregoing restriction does not apply to the Committee’s discretion to provide for accelerated exercisability or vesting of any Award, including in cases of retirement, death, disability or a change in control, in the terms of the Award Agreement or otherwise. For purposes of counting Shares against the five percent (5%) limitation, the Share counting rules under Section 4 of the Plan apply.

Section 7. Amendment and Termination; Corrections

(a) Amendments to the Plan and Awards . The Board may from time to time amend, suspend or terminate this Plan, and the Committee may amend the terms of any previously granted Award, provided that no amendment to the terms of any previously granted Award may, except as expressly provided in the Plan or the applicable Award Agreement, or with the written consent of the Participant or holder thereof, adversely alter or impair the terms or conditions of the Award previously granted to a Participant under this Plan. Any amendment to this Plan, or to the terms of any Award previously granted, is subject to compliance with all applicable laws, rules, regulations and policies of any applicable governmental entity or securities exchange, including receipt of any required approval from the governmental entity or stock exchange. For greater certainty and without limiting the foregoing, the Board may amend, suspend, terminate or discontinue the Plan, and the Committee may amend or alter any previously granted Award, as applicable, without obtaining the approval of stockholders of the Company in order to:

- (i) amend the eligibility for, and limitations or conditions imposed upon, participation in the Plan;

- (ii) amend any terms relating to the granting or exercise of Awards, including terms relating to the amount and payment of the exercise price, or the vesting, expiry, assignment or adjustment of Awards, or otherwise waive any conditions of or rights of the Company under any outstanding Award, prospectively or retroactively;
- (iii) make changes that are necessary or desirable to comply with applicable laws, rules, regulations and policies of any applicable governmental entity or stock exchange (including amendments to Awards necessary or desirable to avoid any adverse tax results under Section 409A, and no action taken to comply with Section 409A shall be deemed to impair or otherwise adversely alter or impair the rights of any holder of an Award or beneficiary thereof); or
- (iv) amend any terms relating to the administration of the Plan, including the terms of any administrative guidelines or other rules related to the Plan.

For greater certainty and without limiting the foregoing, prior approval of the stockholders of the Company shall be required for any amendment to the Plan or an Award that would:

- (v) require stockholder approval under applicable rules or regulations of the Securities and Exchange Commission, the New York Stock Exchange or any other securities exchange;
- (vi) increase the number of Shares authorized under the Plan as specified in Section 4(a) of the Plan;
- (vii) modify the limitations contained in Section 4(d) of the Plan;
- (viii) permit any repricing of Options or Stock Appreciation Rights that is currently prohibited by Section 6(i)(vi) of the Plan;
- (ix) permit the award of Options or Stock Appreciation Rights at a price less than 100% of the Fair Market Value of a Share on the date of grant of such Option or Stock Appreciation Right, contrary to the provisions of Section 6(a) and Section 6(b) of the Plan; or
- (x) cause the Company to be unable to grant Incentive Stock Options under the Plan, or would cause Section 162(m) to become unavailable with respect to the Plan.

(b) Corporate Transactions . In the event of any reorganization, merger, consolidation, split-up, spin-off, combination, plan of arrangement, take-over bid or tender offer, repurchase or exchange of Shares or other securities of the Company, change in control or any other similar corporate transaction or event involving the Company (or in the event the Company shall enter into a written agreement to undergo such a transaction or event), the Committee may, in its sole discretion, provide for any of the following, to be effective upon the consummation of the event (or effective immediately prior to the consummation of the event, provided that the consummation of the event subsequently occurs):

- (i) termination of any or all outstanding Awards, whether or not vested, in exchange for, or replacement of such Award with an amount of cash and/or other rights or property, if any, with a value equal to that of the terminated or replaced award;
- (ii) that any or all outstanding Awards be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by similar options, rights or awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and prices; or
- (iii) that any or all outstanding Awards shall be exercisable or payable or fully vested with respect to all Shares covered thereby, notwithstanding anything to the contrary in the applicable Award Agreement.

(c) Correction of Defects, Omissions and Inconsistencies . The Committee may, without prior approval of the stockholders of the Company, correct any defect, supply any omission or reconcile any inconsistency in the Plan or in any Award or Award Agreement in the manner and to the extent it shall deem desirable to implement or maintain the effectiveness of the Plan.

Section 8. Income Tax Withholding

In order to comply with all applicable federal, state, local or foreign income tax laws or regulations, the Company may take such action as it deems appropriate to ensure that all applicable federal, state, local or foreign payroll, withholding, income or other taxes, which are the sole and absolute responsibility of a Participant, are withheld or collected from such Participant. In order to assist a Participant in paying all or a portion of the applicable taxes to be withheld or collected upon exercise or receipt of (or the lapse of restrictions relating to) an Award, the Committee, in its discretion and subject to such additional terms and conditions as it may adopt, may permit the Participant to satisfy such tax obligation by (i) electing to have the Company withhold a portion of the Shares otherwise to be delivered upon exercise or receipt of (or the lapse of restrictions relating to) such Award with a Fair Market Value equal to the amount of such taxes or (ii) delivering to the Company Shares other than Shares issuable upon exercise or receipt of (or the lapse of restrictions relating to) such Award with a Fair Market Value equal to the amount of such taxes. The election, if any, must be made on or before the date that the amount of tax to be withheld is determined.

Section 9. General Provisions

(a) No Rights to Awards . No Eligible Person, Participant or other Person shall have any claim to be granted any Award under the Plan, and there is no obligation for uniformity of treatment of Eligible Persons, Participants or holders or beneficiaries of Awards under the Plan. The terms and conditions of Awards need not be the same with respect to any Participant or with respect to different Participants.

(b) Award Agreements . The terms and conditions of Awards under the Plan may be set forth in whole or in part in written Award Agreements from the Company to the Participant, to the extent specified by the Committee. Each Award Agreement shall be subject to the applicable terms and conditions of the Plan and any other terms and conditions (not inconsistent with the Plan) determined by the Committee. An Award Agreement need not be signed by a representative of the Company or by a Participant unless required by the Committee.

(c) Plan Provisions Control . In the event that any provision of an Award Agreement conflicts with or is inconsistent in any respect with the terms of the Plan as set forth herein or subsequently amended, the terms of the Plan shall control.

(d) No Rights of Stockholders . Neither a Participant nor the Participant's legal representative shall be, or have any of the rights and privileges of, a stockholder of the Company with respect to any Shares issuable upon the exercise or payment of any Award, in whole or in part, unless and until such Shares have been issued (subject to such conditions and restrictions as the Committee may impose).

(e) No Limit on Other Compensation Arrangements . Nothing contained in the Plan shall prevent the Company or any Affiliate from adopting or continuing in effect other or additional compensation plans or arrangements, and such plans or arrangements may be either generally applicable or applicable only in specific cases.

(f) No Right to Employment . The grant of an Award shall not be construed as giving a Participant the right to be retained in the employ, or as giving a Director of the Company or an Affiliate the right to continue as a Director or an Affiliate of the Company or any Affiliate, nor will it affect in any way the right of the Company or an Affiliate to terminate such employment at any time, with or without cause. In addition, the Company or an Affiliate may at any time dismiss a Participant from employment, or terminate the term of a Director of the Company or an Affiliate, free from any liability or any claim under the Plan or any Award, unless otherwise expressly provided in the Plan or in any Award Agreement. Nothing in this Plan shall confer on any person any legal or equitable right against the Company or any Affiliate, directly or indirectly, or give rise to any cause of action at law or in equity against the Company or an Affiliate. Under no circumstances shall any person ceasing to be an employee of the Company or any Affiliate be entitled to any compensation for any loss of any right or benefit under the Plan which such employee might otherwise have enjoyed but for termination of employment, whether such compensation is claimed by way of damages for wrongful or unfair dismissal, breach of contract or otherwise. By participating in the Plan, each Participant shall be deemed to have accepted all the conditions of the Plan and the terms and conditions of any rules and regulations adopted by the Committee and shall be fully bound thereby.

(g) Governing Law . The internal law, and not the law of conflicts, of the State of Delaware shall govern all questions concerning the validity, construction and effect of the Plan or any Award, and any rules and regulations

relating to the Plan or any Award. Unless otherwise provided in the Award Agreement, recipients of an Award under the Plan are deemed to submit to the nonexclusive jurisdiction and venue of the federal or state courts of Delaware, to resolve any and all issues that may arise out of or relate to the Plan or any related Award Agreement.

(h) Severability . If any provision of the Plan or any Award is or becomes or is deemed to be invalid, illegal or unenforceable in any jurisdiction or would disqualify the Plan or any Award under any law deemed applicable by the Committee, such provision shall be construed or deemed amended to conform to applicable laws, or if it cannot be so construed or deemed amended without, in the determination of the Committee, materially altering the purpose or intent of the Plan or the Award, such provision shall be stricken as to such jurisdiction or Award, and the remainder of the Plan or any such Award shall remain in full force and effect.

(i) No Trust or Fund Created . Neither the Plan nor any Award shall create or be construed to create a trust or separate fund of any kind or a fiduciary relationship between the Company or any Affiliate and a Participant or any other Person. To the extent that any Person acquires a right to receive payments from the Company or any Affiliate pursuant to an Award, such right shall be no greater than the right of any unsecured general creditor of the Company or any Affiliate.

(j) Other Benefits . No compensation or benefit awarded to or realized by any Participant under the Plan shall be included for the purpose of computing such Participant's compensation or benefits under any pension, retirement, savings, profit sharing, group insurance, disability, severance, termination pay, welfare or other benefit plan of the Company, unless required by law or otherwise provided by such other plan.

(k) No Fractional Shares . No fractional Shares shall be issued or delivered pursuant to the Plan or any Award, and the Committee shall determine whether cash shall be paid in lieu of any fractional Share or whether such fractional Share or any rights thereto shall be canceled, terminated or otherwise eliminated.

(l) Headings . Headings are given to the sections and subsections of the Plan solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of the Plan or any provision thereof.

(m) Forfeiture for Misconduct . With respect to each Award, if fraudulent or intentional misconduct contributes to the need for a material restatement of all or a portion of the Company's financial statements filed with the SEC or otherwise contributes to the use of inaccurate metrics to determine the amount of any Award or the amount of any incentive compensation that was paid to or earned by any Participant under the Plan (including any profit from the sale of stock that was the subject of an Award) or accrued by the Company in respect of any Award, in addition to any other disciplinary or other action available to the Company under any agreement, Company policy including its Code of Business Conduct and Ethics for Directors, Officers and Employees, applicable law or otherwise, the Board, upon the recommendation of the Committee, may require any Participant to forfeit any Award made to, and/or reimburse the Company the amount of any incentive compensation paid to, or received or earned by, such Participant or accrued by the Company in connection with any Award, provided that such Participant either knowingly or grossly negligently engaged in such misconduct, or grossly negligently failed to prevent such misconduct, if in any such case the amount of such Award or incentive compensation was greater than it would have been absent the misconduct.

(n) Employees Based Outside of the United States . Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in other countries in which the Company or its Affiliates operate or have Eligible Persons, the Committee, in its sole discretion, shall have the power and authority to:

- (i) determine which Affiliates shall be covered by the Plan;
- (ii) determine which Eligible Persons outside the United States are eligible to participate in the Plan;
- (iii) establish subplans and modify exercise procedures and other terms and procedures, to the extent such actions may be necessary or advisable. Any subplans and modifications to Plan terms and procedures established under this Section 9(n) by the Committee shall be attached to this Plan document as appendices; and

- (iv) take any action, before or after an Award is made, that it deems advisable to obtain approval or comply with any necessary local government regulatory exemptions or approvals.

Section 10. Effective Date of the Plan

The Plan was adopted by the Board on March 11, 2014. The Plan shall be subject to approval by the stockholders of the Company at the annual meeting of stockholders of the Company to be held on May 15, 2014, and the Plan shall be effective as of the date of such stockholder approval.

Section 11. Term of the Plan

No Award shall be granted under the Plan, and the Plan shall terminate, on May 15, 2024 or any earlier date of discontinuation or termination established pursuant to Section 7(a) of the Plan. In all events, no Performance Award shall be granted under the Plan after the fifth year following the year in which stockholders approved the Performance Goals unless and until the Performance Goals are re-approved by the stockholders. Unless otherwise expressly provided in the Plan or in an applicable Award Agreement, any Award theretofore granted may extend beyond such dates, and the authority of the Committee provided for hereunder with respect to the Plan and any Awards, and the authority of the Board to amend the Plan, shall extend beyond the termination of the Plan.

Exhibit 31.1

Certification Required by Rule 13a-14(a)

I, James "Joc" C. O'Rourke, certify that:

1. I have reviewed this quarterly report on Form 10-Q of The Mosaic Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent function):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

November 5, 2019

/s/ James "Joc" C. O'Rourke

James "Joc" C. O'Rourke
Chief Executive Officer and President
The Mosaic Company

Exhibit 31.2

Certification Required by Rule 13a-14(a)

I, Clint C. Freeland, certify that:

1. I have reviewed this quarterly report on Form 10-Q of The Mosaic Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

- c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent function):
- a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

November 5, 2019

/s/ Clint C. Freeland

Clint C. Freeland

Senior Vice President and Chief Financial Officer

The Mosaic Company

Exhibit 32.1

Certification of Chief Executive Officer Required by Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code

I, James "Joc" C. O'Rourke, the Chief Executive Officer and President of The Mosaic Company, certify that (i) the Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2019 of The Mosaic Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) the information contained in such report fairly presents, in all material respects, the financial condition and results of operations of The Mosaic Company.

November 5, 2019

/s/ James "Joc" C. O'Rourke

James "Joc" C. O'Rourke

Chief Executive Officer and President

The Mosaic Company

Exhibit 32.2

Certification of Chief Financial Officer Required by Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code

I, Clint C. Freeland, the Senior Vice President and Chief Financial Officer of The Mosaic Company, certify that (i) the Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2019 of The Mosaic Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) the information contained in such report fairly presents, in all material respects, the financial condition and results of operations of The Mosaic Company.

November 5, 2019

/s/ Clint C. Freeland

Clint C. Freeland

Senior Vice President and Chief Financial Officer

The Mosaic Company

Exhibit 95

MINE SAFETY DISCLOSURES

The following table shows, for each of our U.S. mines that is subject to the Federal Mine Safety and Health Act of 1977 ("MSHA"), the information required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K. Section references are to sections of MSHA.

	Potash Mine	Florida Phosphate Rock Mines			
	Carlsbad, New Mexico	Four Corners	South Fort Meade	Wingate	South Pasture
Three Months Ended September 30, 2019					
Section 104 citations for violations of mandatory health or safety standards that could significantly and substantially contribute to the cause and effect of a mine safety or health hazard (#)	7	—	7	1	—
Section 104(b) orders (#)	—	—	—	—	—
Section 104(d) citations and orders (#)	—	—	—	—	—
Section 110(b)(2) violations (#)	—	—	—	—	—
Section 107(a) orders (#)	—	—	—	—	—

Proposed assessments under MSHA (whole dollars)	\$	23,983	\$	4,323	\$	5,764	\$	391	\$	—
Mining-related fatalities (#)		—		—		—		—		—
Section 104(e) notice		No		No		No		No		No
Notice of the potential for a pattern of violations under Section 104(e)		No		No		No		No		No
Legal actions before the Federal Mine Safety and Health Review Commission (“FMSHRC”) initiated (#)		—		—		—		—		—
Legal actions before the FMSHRC resolved (#)		—		—		—		—		—
Legal actions pending before the FMSHRC, end of period:										
Contests of citations and orders referenced in Subpart B of 29 CFR Part 2700 (#)		—		—		—		—		—
Contests of proposed penalties referenced in Subpart C of 29 CFR Part 2700 (#)		—		—		—		—		—
Complaints for compensation referenced in Subpart D of 29 CFR Part 2700 (#)		—		—		—		—		—
Complaints of discharge, discrimination or interference referenced in Subpart E of 29 CFR Part 2700 (#)		—		—		—		—		—
Applications for temporary relief referenced in Subpart F of 29 CFR Part 2700 (#)		—		—		—		—		—
Appeals of judges’ decisions or orders referenced in Subpart H of 29 CFR Part 2700 (#)		—		—		—		—		—
Total pending legal actions (#)		—		—		—		—		—