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

FORM 40-F

[Check one]

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☒ **ANNUAL REPORT PURSUANT TO SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2020

Commission File Number 001-38336

NUTRIEN LTD.

(Exact name of Registrant as specified in its charter)

Canada
(Province or other jurisdiction of incorporation or organization)

2870
(Primary Standard Industrial Classification Code Number (if applicable))

98-1400416
(I.R.S. Employer Identification Number (if applicable))

Suite 500, 122 – 1st Avenue South
Saskatoon, Saskatchewan, Canada
S7K 7G3
(306) 933-8500
(Address and telephone number of Registrant's principal executive offices)

CT Corporation System
28 Liberty St.
New York, NY 10005
(212) 894-8940
(Name, address (including zip code) and telephone number (including area code) of agent for service in the United States)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Shares	NTR	New York Stock Exchange

Securities registered or to be registered pursuant to Section 12(g) of the Act:

Not Applicable
(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

Not Applicable
(Title of Class)

For annual reports, indicate by check mark the information filed with this Form:

☒ **Annual information form** ☒ **Audited annual financial statements**

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

569,260,406 Common Shares outstanding as of December 31, 2020

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act 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 an emerging growth company as defined in Rule 12b-2 of the Exchange Act.

☐ Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, 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. ☐

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

This Annual Report on Form 40-F shall be incorporated by reference into the Registration Statements on Form S-8 (File Nos. 333-222384, 333-222385 and 333-226295) of the registrant. In addition, the registrant's Annual Information Form; Management's Discussion and Analysis; Audited Annual Consolidated Financial Statements for the fiscal year ended December 31, 2020, including Management's Annual Report on Internal Control over Financial Reporting; Consent of KPMG LLP, Independent Registered Public Accounting Firm; and Consent of Craig Funk, B.Sc., M.Sc., P.Eng., P.Geo., included as Exhibits 99.1, 99.2, 99.3, 99.4 and 99.8, respectively, to this Annual Report on Form 40-F, are incorporated by reference into and as an exhibit to the registrant's Registration Statement on Form F-10 (File No. 333-237068).

PRINCIPAL DOCUMENTS

The following documents have been filed as part of this Annual Report:

1. Annual Information Form for the fiscal year ended December 31, 2020 (the "2020 AIF") (filed as Exhibit 99.1 hereto);
2. Management's Discussion and Analysis for the fiscal year ended December 31, 2020 (the "2020 MD&A") (filed as Exhibit 99.2 hereto); and
3. Audited Annual Financial Statements, including the Reports of Independent Registered Public Accounting Firm, for the fiscal year ended December 31, 2020 (the "2020 Audited Annual Financial Statements") (filed as Exhibit 99.3 hereto).

CONTROLS AND PROCEDURES

A. Certifications

The required disclosure is included in Exhibits 99.5, 99.6 and 99.7 to this Annual Report, and is incorporated herein by reference.

B. Evaluation of Disclosure Controls and Procedures

The required disclosure is included in "*Controls and Procedures—Disclosure Controls and Procedures*" in the 2020 MD&A, filed as Exhibit 99.2 to this Annual Report, and is incorporated herein by reference.

C. Management's Annual Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining an adequate system of internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended. The required disclosure is included in "*Management's Responsibility—Management's Annual Report on Internal Control over Financial Reporting*" that accompanies the 2020 Audited Annual Financial Statements, filed as Exhibit 99.3 to this Annual Report, and is incorporated herein by reference.

D. Attestation Report of the Independent Registered Public Accounting Firm

The required disclosure is included in the "*Report of Independent Registered Public Accounting Firm*" that accompanies the 2020 Audited Annual Financial Statements, filed as Exhibit 99.3 to this Annual Report, and is incorporated herein by reference.

E. Changes in Internal Control over Financial Reporting

Except as disclosed in the 2020 MD&A, during the period covered by this report, there was no change in Nutrien's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, its internal control over financial reporting. See "*Controls and Procedures—Internal Control Over Financial Reporting*" in the 2020 MD&A, filed as Exhibit 99.2 to this Annual Report and incorporated herein by reference.

IDENTIFICATION OF THE AUDIT COMMITTEE

The Board has a separately-designated standing audit committee established in accordance with section 3(a)(58)(A) of the Exchange Act. The members of the Audit Committee are Maura J. Clark, Christopher M. Burley, Alice D. Laberge, Keith G. Martell and Aaron W. Regent. Russell K. Girling was a member of the Audit Committee until June 25, 2020.

AUDIT COMMITTEE FINANCIAL EXPERT

The Nutrien Board of Directors (the "Board") has determined that it has at least one "audit committee financial expert" (as such term is defined in paragraph 8(b) of General Instruction B to Form 40-F) serving on its Audit Committee. Ms. Maura J. Clark has been determined to be such audit committee financial expert and was "independent" as such term is defined under the Canadian Securities Administrators' National Instrument 52-110 (Audit Committees) and the standards of the U.S. Securities and Exchange Commission (the "SEC") and the New York Stock Exchange (the "NYSE") relating to the independence of audit committee members.

The Board's designation of Ms. Maura J. Clark as an audit committee financial expert does not impose on her any duties, obligations or liability that are greater than the duties, obligations and liability imposed on her as a member of the Audit Committee and Board in the absence of such designation or identification. In addition, the designation of Ms. Maura J. Clark as an audit committee financial expert does not affect the duties, obligations or liability of any other member of the Audit Committee or Board. See also *"Item 17—Audit Committee"* of Nutrien's 2020 AIF, filed as Exhibit 99.1 to this Annual Report, and incorporated herein by reference.

COMPLIANCE WITH NYSE LISTING STANDARDS ON CORPORATE GOVERNANCE

Our common shares are listed on the NYSE, but as a listed foreign private issuer, the NYSE does not require us to comply with all of its listing standards regarding corporate governance. Notwithstanding this exemption, we are in compliance in all material respects with the NYSE listing standards and we intend to continue to comply with such standards so as to ensure that there are no significant differences between our corporate governance practices and those practices required by the NYSE of other publicly listed companies.

CODE OF CONDUCT AND ETHICS

Nutrien has adopted a "code of ethics" (as that term is defined in Form 40-F), entitled the Nutrien Code of Ethics that applies to all directors, officers, employees and representatives of Nutrien and its subsidiaries (the "Nutrien Code"). A copy of the Nutrien Code is posted on Nutrien's website at https://www.nutrien.com/what-we-do/governance. Copies may be obtained, free of charge, by contacting Nutrien in writing at Suite 500, 122 – 1st Avenue South, Saskatoon, Saskatchewan, Canada S7K 7G3, by telephone at (306) 933-8500 or on Nutrien's website at www.nutrien.com. Nutrien intends to post any amendments to and waivers from the Nutrien Code on its website as identified above.

NOTICES PURSUANT TO REGULATION BTR

Not applicable.

PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table sets out the fees billed to Nutrien by KPMG LLP and its affiliates for professional services rendered during the years ended December 31, 2020 and 2019. During these years, KPMG LLP was the Company's only external auditor.

Category	Year Ended December 31,	
	2020 US$	2019 US$ (Restated) [1]
Audit Fees [2]	6,477,700	5,465,600
Audit-Related Fees [3]	133,600	114,700
Tax Fees [4]	132,700	368,800
All Other Fees [5]	239,200	344,300
Total	**6,983,200**	**6,293,400**

1 2019 fee disclosure – the comparative amounts have been restated to reflect fees billed in the 2019 fiscal year.
2 For professional services rendered by KPMG LLP for the integrated audit of the Company's annual financial statements, interim review of the Company's interim financial statements, and audits of statutory financial statements of international subsidiaries.
3 For professional services rendered by KPMG LLP for specified audit procedures regarding financial assurances issued to certain government agencies, and services which are reasonably related to the performance of the audit of the Company's financial statements and are not included in Audit Fees.
4 For professional services rendered by KPMG LLP for tax compliance, tax advice and tax planning; review of tax filings; assistance with the preparation of tax filings; tax advice relating to asset dispositions; and other tax planning, compliance, and transaction services. These amounts include fees paid to KPMG LLP specifically for tax compliance and preparation services rendered in 2020 and 2019 in the amount of $122,300 and $317,100, respectively.
5 For professional services rendered by KPMG LLP for a cybersecurity maturity assessment, real-time assessment of a system implementation, and assurance advisory services over greenhouse gas emission and sustainability reporting.

AUDIT COMMITTEE'S PRE-APPROVAL POLICIES AND PROCEDURES

The required disclosure is included in *"Item 17—Audit Committee—17.4—Pre-approval Policies and Procedures"* of Nutrien's 2020 AIF, filed as Exhibit 99.1 to this Annual Report, and incorporated herein by reference.

OFF-BALANCE SHEET ARRANGEMENTS

The required disclosure is included in *"Off-Balance Sheet Arrangements"* of the 2020 MD&A, filed as Exhibit 99.2 to this Annual Report, and incorporated herein by reference.

TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The required disclosure is included in "*Liquidity & Capital Resources—Cash Requirements*" of the 2020 MD&A, filed as Exhibit 99.2 to this Annual Report, and incorporated herein by reference.

RESERVE AND RESOURCE ESTIMATES

The Multijurisdictional Disclosure System rules permit the Company to provide mining disclosure that satisfies the requirements of National Instrument 43-101—*Standards of Disclosure for Mineral Projects* ("NI 43-101") and other applicable Canadian securities laws. Nutrien's mineral reserves have been estimated in accordance with NI 43-101, as required by Canadian securities regulatory authorities. For United States reporting purposes, Industry Guide 7 under the Securities Act of 1933, as amended, as interpreted by the Staff of the SEC, applies different standards in order to classify mineralization as a reserve. In addition, while the terms "measured", "indicated" and "inferred" mineral resource are required pursuant to NI 43-101, Industry Guide 7 does not recognize such terms. While the SEC has recently adopted amendments to modernize its mineral property disclosure requirements and replace Industry Guide 7, Industry Guide 7 will remain effective until all registrants are required to comply with the new disclosure requirements following the first fiscal year beginning on or after January 1, 2021. Canadian standards differ significantly from the requirements of Industry Guide 7, and mineral resource information contained in the documents incorporated into this Annual Report by reference is not comparable to similar information regarding mineral reserves disclosed in accordance with the requirements of Industry Guide 7. Investors should understand that "inferred" mineral

resources have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. In addition, investors are cautioned not to assume that any part or all of our mineral resources constitute or will be converted into reserves.

MINE SAFETY DISCLOSURE

The 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 16 of General Instruction B to Form 40-F is included in Exhibit 99.9 to this Annual Report.

WEBSITE INFORMATION

Notwithstanding any reference to Nutrien's website or other websites on the World Wide Web in this Annual Report or in the documents attached as exhibits hereto, the information contained in Nutrien's website or any other website on the World Wide Web referred to in this Annual Report or in the documents attached as exhibits hereto, or referred to in Nutrien's website, is not a part of this Annual Report and, therefore, is not filed with the SEC.

UNDERTAKING AND CONSENT TO SERVICE OF PROCESS

The Registrant undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the SEC staff, and to furnish promptly, when requested to do so by the SEC staff, information relating to: the securities registered pursuant to Form 40-F; the securities in relation to which the obligation to file an annual report on Form 40-F arises; or transactions in said securities.

The Registrant has previously filed an Appointment of Agent for Service of Process and Undertaking on Form F-X with respect to the class of securities in relation to which the obligation to file the Form 40-F arises. Any change to the name or address of the Registrant's agent for service of process shall be communicated promptly to the SEC by amendment to the Form F-X referencing the file number of the Registrant.

SIGNATURES

Pursuant to the requirements of the Exchange Act, the Registrant certifies that it meets all of the requirements for filing on Form 40-F and has duly caused this annual report to be signed on its behalf by the undersigned, thereto duly authorized.

NUTRIEN LTD.

By: /s/ Robert A. Kirkpatrick
Name: Robert A. Kirkpatrick
Title: SVP & Corporate Secretary

Date: February 26, 2021

EXHIBIT INDEX

Exhibit Number	Description
99.1	Annual Information Form for the fiscal year ended December 31, 2020
99.2	Management's Discussion and Analysis for the fiscal year ended December 31, 2020
99.3	Audited Annual Consolidated Financial Statements for the fiscal year ended December 31, 2020
99.4	Consent of KPMG LLP, Independent Registered Public Accounting Firm
99.5	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
99.6	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
99.7	Certifications pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.8	Consent of Craig Funk, B.Sc., M.Sc., P.Eng., P.Geo.
99.9	Mine Safety Disclosure
101	Interactive Data File

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Exhibit 99.1

Nutrien Ltd.

Annual Information Form
Year Ended December 31, 2020

February 18, 2021

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Following is a table of contents of this Annual Information Form ("AIF") referencing the applicable requirements of Form 51-102F2 of the Canadian Securities Administrators. Certain portions of this AIF are disclosed in Nutrien Ltd.'s Management's Discussion & Analysis ("2020 MD&A") and Consolidated Financial Statements for the years ended December 31, 2020 and 2019 ("Consolidated Financial Statements") and are incorporated by reference herein to the extent noted below and throughout this AIF and are available on the Canadian Securities Administrators' SEDAR website at www.sedar.com and on the EDGAR section of the United States ("US") Securities and Exchange Commission's ("SEC") website at www.sec.com.

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2 – Advisories

2.1 Forward-Looking Information

Certain statements and other information included in this AIF, including within the documents incorporated by reference, constitute “forward-looking information” or “forward-looking statements” (collectively, “forward-looking statements”) under applicable securities laws (such statements are often accompanied by words such as “anticipate”, “forecast”, “expect”, “believe”, “may”, “will”, “should”, “estimate”, “intend” or other similar words). All statements in this document, other than those relating to historical information or current conditions, are forward-looking statements, including, but not limited to:

- Expectations regarding our liquidity;
- Expectations regarding performance of our operating segments, including the impact of our ammonia plant closure on our Nitrogen segment;
- Our market outlook for 2021, including agriculture and crop nutrient markets and the impact of the novel strain of coronavirus (“COVID-19”) pandemic thereon, and including anticipated supply and demand for our products and services, expected market and industry conditions with respect to crop nutrient application rates, planted acres, crop mix, prices and the impact of currency fluctuations and import and export volumes;
- Expectations regarding changes in the agriculture space, including greater farm consolidation in the US and other developed markets and the continued advancement and adoption of technology and digital innovations;
- Acquisitions and divestitures (including expected timing of closing thereof), and the expected synergies associated with various acquisitions, including timing thereof;
- Expectations regarding environmental compliance requirements and costs, including estimates of asset retirement obligations and site assessment and remediation costs;
- Expectations regarding our sustainability, climate change and greenhouse gas (“GHG”) emissions reduction strategy and related programs and initiatives, including our Carbon Program; and
- Expectations regarding our mineral reserve and resource estimates, and the annual nameplate capacity and operational capability of our mines and associated mine life estimates.

These forward-looking statements are subject to a number of assumptions, risks and uncertainties, many of which are beyond our control, which could cause actual results to differ materially from such forward-looking statements. As such, undue reliance should not be placed on these forward-looking statements.

All of the forward-looking statements are qualified by the assumptions that are stated or inherent in such forward-looking statements, including the assumptions referred to below and elsewhere in this document. Although we believe that these assumptions are reasonable, this list is not exhaustive of the factors that may affect any of the forward-looking statements and the reader should not place an undue reliance on these assumptions and such forward-looking statements. The additional key assumptions that have been made include, among other things:

- Assumptions with respect to our ability to successfully complete, integrate and realize the anticipated benefits of our already completed and future acquisitions, and that we will be able to implement our standards, controls, procedures and policies in respect of any acquired businesses to realize the expected synergies;
- That future business, regulatory and industry conditions will be within the parameters expected by us, including with respect to prices, margins, demand, supply, product availability, supplier agreements, availability and cost of labor and interest, exchange and effective tax rates;
- Assumptions with respect to global economic conditions and the accuracy of our market outlook expectations for 2021 and in the future;
- Our expectations regarding the impacts, direct and indirect, of the COVID-19 pandemic on our business, customers, business partners, employees, supply chain, other stakeholders and the overall economy;
- The adequacy of our cash generated from operations and our ability to access our credit facilities or capital markets for additional sources of financing;
- Our ability to identify suitable candidates for acquisitions and divestitures and negotiate acceptable terms; and
- Our ability to maintain investment-grade ratings and achieve our performance targets.

Events or circumstances that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to:

- General global economic, market and business conditions;
- Failure to complete announced and future acquisitions or divestitures at all or on the expected terms and within the expected timeline;
- Climate change and weather conditions, including impacts from regional flooding and/or drought conditions;
- Crop planted acreage, yield and prices;
- The supply and demand and price levels for our products;
- Governmental and regulatory requirements and actions by governmental authorities, including changes in government policy (including tariffs, trade restrictions and climate change initiatives), government ownership requirements, changes in environmental, tax and other laws or regulations and the interpretation thereof;
- Political risks, including civil unrest, actions by armed groups or conflict and malicious acts including terrorism;
- The occurrence of a major environmental or safety incident;
- Innovation and cybersecurity risks related to our systems, including our costs of addressing or mitigating such risks;
- Counterparty and sovereign risk;
- Delays in completion of turnarounds at our major facilities;
- Interruptions of or constraints in availability of key inputs, including natural gas and sulfur;
- Any significant impairment of the carrying value of certain assets;
- Risks related to reputational loss;
- Certain complications that may arise in our mining processes;
- The ability to attract, engage and retain skilled employees and strikes or other forms of work stoppages;
- The COVID-19 pandemic and its resulting effects on economic conditions, restrictions imposed by public health authorities or governments, fiscal and monetary responses by governments and financial institutions and disruptions to global supply chains; and
- Other risk factors detailed from time to time in Nutrien reports filed with the Canadian securities regulators and the SEC in the US.

In addition to the factors mentioned above, see “Risk Factors” discussed in this AIF for a description of other factors affecting forward-looking statements.

The forward-looking statements in this document are made as of the date hereof and we disclaim any intention or obligation to update or revise any forward-looking statements in this AIF as a result of new information or future events, except as may be required under applicable Canadian securities legislation or applicable US federal securities laws.

2.2 Basis of Presentation

Nutrien consolidated financial information for 2020, 2019 and 2018 presented and discussed in this AIF is prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board. This AIF is dated February 18, 2021, and the information contained herein is current as of such date, unless otherwise specified.

Unless expressly stated, the information contained on, or accessible from, our website or any other website or any other report or document we file with or furnish to applicable Canadian or US securities regulatory authorities is not incorporated by reference into this AIF.

3 – Corporate Structure

In this AIF, unless otherwise specified, the term “Nutrien” refers to Nutrien Ltd. and, unless the context requires otherwise, the terms “we”, “us”, “our”, “Nutrien” and the “Company” refer to Nutrien and its direct and indirect subsidiaries, individually or in any combination, as applicable. References to “dollars”, “$”, and “US$” are to United States dollars and references to “CAD$” are to Canadian dollars.

3.1 Name, Address and Incorporation

Nutrien is a corporation incorporated under the *Canada Business Corporations Act* (“CBCA”).

Nutrien’s registered head office is Suite 500, 122 – 1st Avenue South, Saskatoon, Saskatchewan, Canada S7K 7G3. We also have corporate offices at 13131 Lake Fraser Drive SE, Calgary, Alberta, Canada T2J 7E8 and 5296 Harvest Lake Drive, Loveland, Colorado, US 80538.

3.2 Intercorporate Relationships

Principal Subsidiaries [1]	Jurisdiction of Incorporation or Organization	Ownership
Potash Corporation of Saskatchewan Inc. (“PotashCorp”)	Canada	100%
Agrium Inc. (“Agrium”)	Canada	100%
Agrium Canada Partnership	Alberta, Canada	100%
Agrium Potash Ltd.	Canada	100%
Agrium U.S. Inc.	Colorado, US	100%
Combined Rural Traders Pty Limited	New South Wales, Australia	100%
Cominco Fertilizer Partnership	Texas, US	100%
Loveland Products Inc.	Colorado, US	100%
Nutrien Ag Solutions (Canada) Inc.	Canada	100%
Nutrien Ag Solutions, Inc.	Delaware, US	100%
Nutrien Ag Solutions Limited	Western Australia, Australia	100%
PCS Nitrogen Fertilizer, LP	Delaware, US	100%
PCS Nitrogen Trinidad Limited	Trinidad	100%
PCS Phosphate Company, Inc.	Delaware, US	100%
Potash Holding Company, Inc.	Delaware, US	100%

1 In aggregate, our remaining subsidiaries not listed herein accounted for less than 20 percent of our consolidated assets or 20 percent of our consolidated sales as at and for the year ended December 31, 2020.

4 – General Development of the Business

4.1 Three-Year History

The Merger

Effective January 1, 2018, pursuant to the merger of equals transaction (the “Merger”) contemplated by the arrangement agreement dated September 11, 2016 between PotashCorp and Agrium, PotashCorp and Agrium became wholly owned subsidiaries of Nutrien pursuant to a court-approved plan of arrangement under Section 192 of the CBCA.

Pursuant to the Merger, the holders of common shares of PotashCorp (“PotashCorp Shares”) received common shares of Nutrien (“Common Shares”) at a ratio of 0.40 of a Common Share for each PotashCorp Share and the holders of common shares of Agrium (“Agrium Shares”) received Common Shares at a ratio of 2.23 Common Shares for each Agrium Share.

Acquisitions

The table below provides information on our acquisitions of Nutrien Ag Solutions (“Retail”) businesses, including Ruralco Holdings Limited (“Ruralco”), completed during the last three fiscal years.

	Ruralco	Other Retail Acquisitions		
Acquisition date	September 30, 2019	2020	2019	2018
Purchase price (US$ millions)	330	233	581	433
Number of Retail operating locations	~250	43	68	53
Description	Agriservices business in Australia	Various digital agriculture, proprietary products, retail and agricultural services businesses in North America, South America and Australia		

Dispositions

In 2020, due to a strategic decision, we sold our 26 percent equity investment in Misr Fertilizers Production Company S.A.E. (“MOPCO”), a nitrogen producer based in Egypt.

Company Name	Proceeds [1] (US$ millions)
MOPCO	540

1 Cash proceeds resulting from the sale of shares and settlement of legal claims.

In 2018, in connection with antitrust approvals necessary for the completion of the Merger, we completed the disposition of the following minority equity interests:

Company Name	Proceeds[1] (US$ millions)
Sociedad Química y Minera de Chile S.A. (“SQM”)	5,126
Israel Chemicals Ltd. (“ICL”)	685
Arab Potash Company (“APC”)	501

1 Proceeds are net of commissions.

In addition to the above dispositions of minority equity interests, in 2018, we also completed the sale of our (i) Conda, Idaho phosphate production facility and adjacent phosphate mineral rights; and (ii) North Bend, Ohio nitric acid facility and related assets.

Impairment of Assets

In 2020, we identified an impairment indicator in our Phosphate cash-generating units due to lower long-term forecasted global phosphate prices. We recorded non-cash impairments to our property, plant and equipment at our Aurora, North Carolina and White Springs, Florida sites of $545 million and $215 million, respectively.

In 2018, after a strategic portfolio review was completed, we determined the New Brunswick Potash operations would no longer be part of our medium- or long-term strategic plans. As a result, the New Brunswick Potash operations were permanently shut down. The decision to shut down these operations resulted in a non-cash impairment in 2018 of $1,809 million to the property, plant and equipment of the New Brunswick Potash operations.

Normal Course Issuer Bid (“NCIB”)

The tables below provide information on our share repurchase programs during the last three fiscal years.

	Commencement Date	Expiry	Maximum Shares for Repurchase
2020 NCIB[1]	February 27, 2020	February 26, 2021	28,572,458
2019 NCIB	February 27, 2019	February 26, 2020	42,164,420
2018 NCIB	February 23, 2018	February 22, 2019	50,363,686

1 The 2020 NCIB permits the repurchase of up to 5 percent of our outstanding Common Shares for cancellation and can expire earlier than the date above if we acquire the maximum number of Common Shares allowable or otherwise decide not to make any further repurchases. As at February 18, 2021, we had repurchased 710,100 of the maximum shares for repurchase.

	2020	2019	2018
Number of Common Shares repurchased for cancellation[1]	3,832,580	36,067,323	36,332,197

1 Purchases have been made under the applicable NCIB through open market purchases at market prices.

On February 17, 2021, our board of directors (“Board”) approved a share repurchase program of up to a maximum of 28,468,448, or 5 percent of our outstanding Common Shares for cancellation. Subject to acceptance by the Toronto Stock Exchange (“TSX”), the 2021 share repurchase program will commence on March 1, 2021 and will expire on the earlier of February 28, 2022, the date on which we have acquired the maximum number of Common Shares allowable or the date we determine not to make any further repurchases.

Notes Issuances and Repayments

In March 2020, we filed a universal base shelf prospectus in Canada and the US qualifying the issuance of up to $5.0 billion of Common Shares, debt securities and other securities during a period of 25 months from March 16, 2020. In May 2020, we issued $1.5 billion in notes as described below.

The following tables summarize our long-term debt issuances and repayment activities in 2020 and 2019:

	Rate of Interest (%)	Maturity Date	Amount (US$ Millions)
Notes issued 2020	1.900	May 13, 2023	500
Notes issued 2020	2.950	May 13, 2030	500
Notes issued 2020	3.950	May 13, 2050	500
Notes issued 2019	4.200	April 1, 2029	750
Notes issued 2019	5.000	April 1, 2049	750

The notes issued in 2020 and 2019 are unsecured, rank equally with our existing unsecured debt, and have no sinking fund requirements prior to maturity. Each series is redeemable and provides for redemption prior to maturity, at our option, at specified prices. Except as described in "– Debt Exchange" below, there were no issuances or repayments of notes in 2018.

	Rate of Interest (%)	Maturity Date	Amount (US$ Millions)
Notes repaid 2020	4.875	March 30, 2020	500
Notes repaid 2019	6.500	May 15, 2019	500
Notes repaid 2019	6.750	January 15, 2019	500

Debt Exchange

In 2018, an aggregate of $7,578 million of PotashCorp senior notes and Agrium debentures (other than Agrium's 7.800 percent debentures due 2027) were tendered to exchange offers made by Nutrien and accepted by the holders of such senior notes and debentures in exchange for the same amount of new notes issued by Nutrien, which have interest rates and maturities identical to those of the applicable exchanged series of senior notes or debentures. In addition, we solicited consents from the holders of PotashCorp senior notes and Agrium debentures to amend the terms and remove certain financial reporting covenants and events of default under the indentures governing those senior notes and debentures. A small portion of senior notes and debentures (including Agrium's 7.800 percent debentures due 2027) were not exchanged and remain outstanding with the relevant issuing subsidiary.

Credit Facilities

On March 11, 2020, the World Health Organization declared the spread of COVID-19 a global pandemic. In response to the COVID-19 pandemic, we took steps to enhance our liquidity position in the first half of 2020. We added $1.5 billion of new credit facilities in March and April 2020, which we subsequently closed in May 2020 after the issuance of the new notes described above. We continue to monitor our liquidity position.

In 2018, we replaced PotashCorp's $3.5 billion unsecured revolving credit facility and Agrium's $2.5 billion multijurisdictional unsecured revolving credit facility with a Nutrien $4.5 billion unsecured revolving term credit facility ("Nutrien Credit Facility"). The Nutrien Credit Facility matures on April 10, 2023, subject to extension at the request of Nutrien provided that the resulting maturity date shall not exceed five years from the date of the request.

In 2018, we also replaced PotashCorp's $75 million unsecured line of credit with a $500 million uncommitted revolving demand facility.

Commercial Paper Program

In 2018, we launched a commercial paper program with an aggregate authorized amount of $4.5 billion. The amount drawn under the commercial paper program is backstopped by the Nutrien Credit Facility. Concurrent with the launch, we discontinued new issuances under the commercial paper programs of PotashCorp and Agrium that existed prior to the completion of the Merger.

Accounts Receivable Securitization Program

In 2019, we terminated our existing trade accounts receivable securitization program in North America. Under this program, we sold certain trade account receivables to a special purpose vehicle, a consolidated entity within Nutrien, and we controlled and retained substantially all the risks and rewards of the receivables sold to the special purpose vehicle. There were no loan drawdowns made under this program in 2019.

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5 – Description of the Business

We are a world-class integrated provider of crop inputs and services, playing a critical role in helping growers around the globe increase food production in a sustainable manner. We supply growers through our leading global Retail network – including crop nutrients, crop protection products, seed and merchandise, as well as agronomic and application services. We operate more than 2,000 retail locations across the US, Canada, Australia and South America, servicing more than 500,000 grower accounts.

Nutrien is the world's largest provider of crop inputs and services, producing the three crop nutrients: potash, nitrogen and phosphate. We produce and distribute approximately 27 million tonnes of crop nutrient products from our facilities in Canada, the US and Trinidad, and our Canadian Potash operations represent more than one-fifth of global nameplate capacity.

As of December 31, 2020, we estimate our Potash operations represented 21 percent of global potash capacity, our Nitrogen operations represented 3 percent of global nitrogen capacity and our Phosphate operations represented 3 percent of global phosphate capacity.

We report our results in four operating segments: Retail, Potash, Nitrogen and Phosphate. Our reporting structure reflects how we manage our business. Sales classified by operating segment and applicable category of products and services are provided in Note 3 of the 2020 Consolidated Financial Statements. Sales or transfers to certain entities in which the Company has an investment that is accounted for under the equity method are provided in Note 3 of the 2020 Consolidated Financial Statements.

5.1 Nutrien Ag Solutions ("Retail") Operations

Overview

Our Retail segment markets crop nutrients, crop protection products, seed and merchandise, as well as agronomic application services and solutions through more than 2,000 retail locations across the US, Canada, Australia and South America. Our North American retail locations include more than 800 branches, which are facilities supporting a specific market area and customer base, and more than 500 satellites, which are used to position equipment and product to specific markets and customers in support of a branch. Retail's products and services are as follows:

Product	% of Retail Sales	Description

Crop nutrients	2020 – 35
	2019 – 38
		- dry and liquid macronutrient products which include potash, nitrogen and phosphate, proprietary liquid micronutrient products and nutrient application services:
		  ◦ custom blend to suit specific nutrient requirements for each grower's field typically based on soil fertility tests or plant tissue sampling
		  ◦ custom crop nutrient application services using large fleet of application equipment to apply these nutrients at prescribed rates
		- precision application using global positioning system ("GPS") technology, which allows nutrient application rates to be adjusted when required, based on GPS grid soil sample test results and other data

Crop protection products	2020 – 38 2019 – 38	- third-party supplier and proprietary products designed to maintain crop quality and manage plant diseases, weeds and other pests - private label and proprietary crop protection products through our Loveland Products, Inc. business across North America, South America and Australia
Seed	2020 – 12 2019 – 13	- third-party supplier seed brands and proprietary seed product lines - private label seed product line under the brand names Dyna-Gro® and Proven™ - proprietary seed product line in Brazil under the brand name Sementes Goiás - seed treatment applying chemicals to seeds prior to planting to protect them from pests and disease
Nutrien Financial	2020 – 1 2019 – nil	- flexible financing solutions offered to our customers in the United States and Australia: ◦ extended payment terms, typically up to one year, to facilitate alignment of grower crop cycles with cash flows - revenue primarily earned through interest and services fees charged to our Retail branches or directly to our customers - 2020 was the first full year of operations for this business

Product	% of Retail Sales	Description
Merchandise	2020 – 6 2019 – 4	- livestock-related merchandise including fencing, feed supplements, animal identification merchandise and various animal health products and services - storage and irrigation equipment and other products - primarily in Australia
Services and other	2020 – 8 2019 – 7	- custom application services, crop scouting and precision agriculture services, soil and leaf testing - performance of soil and leaf testing for growers in the US - monitoring of crop disease conditions and irrigation requirements in high-value crops using system of weather tracking stations in Western US - digital tools that provide customer account management, online ordering, agronomic insights and hands-on customer support that drive economic value and can provide environmental benefits for our growers, including our Echelon® precision agriculture offering, which includes services such as yield data mapping, record keeping, soil fertility management, variable-rate fertility and variable-rate seeding recommendations - various other services, including wool sales and marketing, livestock marketing and auction services, water services, insurance products and real estate agency services in Australia

Transportation, Storage and Distribution

We have an extensive infrastructure system to store and transport our Retail products, strategically located across distribution points in regions where we operate to serve our customers across the US, Canada, Australia and South America.

Number	Nature	Description
93	Terminals	- used to receive large quantities of crop nutrients for redistribution to retail centers and to growers directly
32	Distribution centers	- used to effectively distribute crop protection products and seed - used to coordinate product supply to the retail centers and allow us to manage inventory levels across our distribution network
1,902	Branches, satellites, others	
28,891	Vehicles and application equipment	

Due to the bulk nature of our crop nutrient and seed products, delivery to end users through the supply chain can often take a significant amount of time. Supply chain management, utilizing our extensive storage and distribution network and transportation capabilities, allows us to ensure that crop nutrients and seed products are available to customers at the necessary time as growers have a short application and planting window, the precise timing of which is unpredictable due to both the seasonal nature of crop planting and the impact of weather.

Competitive Position

The market for Nutrien's retail products and services is highly competitive in the countries in which we operate. The principal competitors in the distribution of crop production inputs include agricultural co-operatives, other major agriculture retailers and smaller independent retailers and distributors. Retail also produces a range of high-quality proprietary crop protection, seed and crop nutrient products that generate higher margins for our Retail segment. Retail offers a digital tool that provides customer account management, online ordering, agronomic insights and hands-on customer support that we believe drives economic value for our growers.

5.2 Potash Operations

Overview

Our Potash operations include the mining and processing of potash, which is predominantly used as fertilizer. The Saskatchewan Ministry of Energy and Resources has granted Nutrien the exclusive right to mine potash on approximately 381,000 hectares (or approximately 941,000 acres) of Crown land pursuant to subsurface mineral leases. Of the approximately 381,000 hectares, approximately 253,000 hectares comprise our Potash operations at the Allan, Cory, Lanigan, Patience Lake, Rocanville, and Vanscoy mines. In 2020, the Allan, Cory and Vanscoy Crown subsurface mineral leases were amended, resulting in a substantial and favorable net gain of Crown mineral rights at each of the three Potash operations. In 2020, we also executed a Crown lease purchase agreement providing approximately 26,000 hectares (or approximately 65,000 acres) of subsurface mineral rights north-west of our Rocanville potash mine. Leases also exist with freehold mineral rights owners within the Crown subsurface mineral lease areas and elsewhere in Saskatchewan.

Subsurface mineral leases with the Province of Saskatchewan are for 21-year terms, renewable at our option at each of our producing mines. Our subsurface mineral leases with other parties are also for 21-year terms. Such other leases are renewable at our option, provided generally that production is continuing and that there is continuation of the applicable lease with the Province of Saskatchewan.

We sell potash outside Canada and the US exclusively through Canpotex Limited (“Canpotex”). Canpotex is owned in equal shares by us and another potash producer in Canada. Canpotex, which was incorporated in 1970 and commenced operations in 1972, acts as an export company providing integrated sales, marketing and distribution for all Canadian potash produced by its shareholders/producers that is exported to destinations outside the US and Canada. Each shareholder of Canpotex has an equal voting interest as a shareholder and a right to equal representation on the Canpotex board of directors. In 2020, sales of potash to Canpotex represented 49 percent of our total potash sales (2019 – 56 percent).

In general, Canpotex sales volumes are allocated among Canpotex producers based on production capacity. In 2020, Nutrien supplied approximately 64 percent of Canpotex’s product supply requirements (2019 – approximately 64 percent). Canpotex sells potash to buyers in export markets pursuant to term and spot contracts at agreed upon prices. Canpotex has a long history of being a reliable supplier of potash to international markets and of proven logistics and marketing capabilities. Other major potash exporting countries include Russia, Belarus and Germany.

Transportation, Storage and Distribution

Transportation costs can be a significant component of the total cost of potash. Producers may have an advantage in serving markets close to their sources of supply depending on prevailing transportation costs. International shipping cost variances permit offshore producers to effectively compete with our potash production in many geographies.

Most of our potash for North American customers is shipped by rail. We believe we have a strategic advantage in the North American market with approximately 300 owned or leased potash distribution points and a fleet of approximately 6,300 owned and leased railcars. We believe this is the most extensive domestic distribution network in the potash business. Shipments are also made by rail from each of our Saskatchewan mines to Thunder Bay, Ontario for shipment by lake vessel to our warehouses and storage facilities in Canada and the US.

In the case of our sales to Canpotex, Canpotex is responsible for managing and directing all aspects of its logistics infrastructure platform, including the transportation of its potash by way of rail to port facilities where it is handled, stored and loaded onto ocean-going vessels. We have an equity interest in Canpotex Bulk Terminals Limited, which is a part owner of the port facilities utilized by Canpotex in Vancouver, British Columbia. Canpotex also utilizes port facilities in Portland, Oregon, Saint John, New Brunswick and Thunder Bay, Ontario.

Production Methods

We generally produce potash primarily using conventional mining methods, except for our Patience Lake mine, which was originally a conventional underground mine, but began employing a solution mining method in 1989. In conventional operations, shafts are sunk to the ore body, which is approximately one kilometer below the surface. Mining machines cut out the ore, which is hoisted to the surface for processing. The ore is a mixture of potassium chloride, salt and insoluble particles. In solution mining, the potash is dissolved in warm brine and pumped to the surface for processing. Removing the clay and salt through a milling process produces saleable potash. Seven grades of potash are produced to suit different preferences of the various markets we serve.

In 2020, our nameplate capacity represented 55 percent of the North American total capacity (based on our nameplate capacity, see the table below for further information) and our potash production represented 57 percent of North American production. We allocate production among our mines on the basis of various factors, including cost efficiency and the grades of product that can be produced.

The following table sets forth, for each of the past two years, the production of ore, mill feed grade and finished product for each of our potash mines in Saskatchewan:

	Annual Nameplate Capacity [1]	Annual Operational Capability [2]		2020 Production			2019 Production		
		2021	2020						
	Finished Product (millions of tonnes)	Finished Product (millions of tonnes)	Finished Product (millions of tonnes)	Ore (millions of tonnes)	Grade % K_2O	Finished Product (millions of tonnes)	Ore (millions of tonnes)	Grade % K_2O	Finished Product (millions of tonnes)
Rocanville	6.5	5.4	5.4	17.02	22.3	5.29	15.96	23.2	5.14
Allan	4.0	2.8	2.8	7.85	25.1	2.79	6.15	25.1	2.18
Vanscoy	3.0	0.8	1.7	1.53	25.5	0.51	4.06	25.2	1.42
Lanigan	3.8	2.5	2.3	7.28	23.6	2.33	5.83	22.0	1.75
Cory	3.0	1.6	1.0	4.60	23.3	1.40	3.46	24.0	0.97
Patience Lake	0.3	0.3	0.3	–	–	0.27	–	–	0.24
Totals [3]	**20.6**	**13.4**	**13.5**	**38.28**		**12.59**	**35.46**		**11.70**

1 Represents estimates of capacity as of December 31, 2020. Estimates are based on capacity as per design specifications or Canpotex entitlements once determined. In the case of Patience Lake, estimate reflects current operational capability. Estimates for all other facilities do not necessarily represent operational capability.

2 Estimated annual achievable production level at current staffing and operational readiness (estimated at beginning of year and may vary during the year and year-to-year including between our facilities). Estimate does not include inventory-related shutdowns and unplanned downtime.

3 2020 average mineral grade of 23.40 percent potassium oxide ("K_2O") mined and an average grade of 60.95 percent K_2O produced. Averages are weighted proportionately to tonnes produced at our conventional mines.

The mining of potash is a capital-intensive business subject to the normal risks and capital expenditure requirements associated with mining operations. The production and processing of ore may be subject to delays and costs resulting from mechanical failures and hazards, such as unusual or unexpected geological conditions, subsidence, water inflows, and other conditions involved in mining potash ore.

Competitive Position

Potash is a commodity, characterized by minimal product differentiation, and, consequently, producers compete based on price, quality and service. We price competitively, sell high-quality products and provide high-quality service to our customers. Our service includes maintaining warehouses, leasing railcars and chartering vessels to enhance our delivery capabilities. The high cost of transporting potash affects competition in various geographic areas.

In 2020, our principal competitors in North America included PA Belaruskali, EuroChem Group AG, ICL, Intrepid Potash Inc., K+S Group, The Mosaic Company ("Mosaic") and PJSC Uralkali. In 2020, Canpotex competed with producers such as APC, PA Belaruskali, EuroChem Group AG, ICL, K+S Group, SQM and PJSC Uralkali.

Sources of Raw Materials

The production of potash requires a sustained fresh water supply for the milling process, which comes from nearby sources including subsurface aquifers, reservoirs or the Saskatchewan River.

5.3 Nitrogen Operations

Overview

We own and operate nitrogen production facilities at which we produce the following products:

Plant Locations	Nitrogen Products Produced
Augusta, Georgia	Ammonia, urea, urea ammonium nitrate ("UAN"), diesel exhaust fluid ("DEF"), nitric acid and ammonium nitrate
Borger, Texas	Ammonia, urea and DEF
Carseland, Alberta	Ammonia and urea
Fort Saskatchewan, Alberta	Ammonia and urea
Geismar, Louisiana	Ammonia, UAN, DEF and nitric acid
Joffre, Alberta	Ammonia
Lima, Ohio	Ammonia, urea, UAN, DEF, nitric acid and ammonium nitrate
Point Lisas, Trinidad	Ammonia and urea
Redwater, Alberta	Ammonia, urea, ammonium nitrate, UAN and ammonium sulfate

In September 2020, we announced the indefinite closure of the smallest of our four ammonia plants at our Trinidad facility. The closure is expected to enhance the competitiveness at that facility.

We operate a number of facilities that upgrade ammonia and urea to other products such as UAN, ammonium nitrate, nitric acid and Environmentally Smart Nitrogen® ("ESN®").

Plant Locations	Nitrogen Products Produced
Americus, Georgia	Rainbow plant food
Carseland, Alberta	ESN®
Granum, Alberta	UAN
Kennewick, Washington	UAN, ammonium nitrate and nitric acid
New Madrid, Missouri	ESN®
Standard, Alberta	UAN

Our owned and operated facilities have a combined annual gross ammonia nameplate capacity of approximately 7.1 million tonnes.

We also have a 50 percent joint venture ownership in Profertil S.A. ("Profertil"), a joint venture that owns a nitrogen facility in Bahia Blanca, Argentina.

We sold our investment in MOPCO in December 2020, through which we held a 26 percent equity interest in a nitrogen facility located in Egypt.

Transportation, Storage and Distribution

We distribute our nitrogen products by vessel, barge, railcar and truck to our customers and, in high-consumption areas, through our strategically located storage terminals. In North America, we lease or own approximately 200 nitrogen distribution points, as well as a fleet of approximately 5,100 owned or leased railcars. We also lease dry and liquid storage capacity in Europe. These locations provide a network of field and production site storage capacity sufficient to serve local dealers during the peak seasonal demand period and are also used to provide off-season storage.

We distribute products from Trinidad primarily to markets in the US, South America, Europe, Asia and North Africa. We employ four long-term chartered ocean-going vessels and utilize short-term and spot charters as necessary for the transportation of ammonia for our marine distribution operations in Trinidad. All bulk urea production from Trinidad is shipped through third-party carriers. In addition, Profertil's terminal on the Parana River includes a dedicated berth and two 100,000-tonne dry storage buildings in a key agricultural region of Argentina.

Production Methods

Ammonia is produced by taking nitrogen from the air and reacting it with a hydrogen source, usually natural gas reformed with steam.

Ammonia is the feedstock used to produce a full line of upgraded products, including urea, ammonium nitrate, nitric acid and nitrogen solutions, including both UAN solutions and DEF products, ammonium sulfate and ESN®. Urea is produced by combining ammonia with carbon dioxide ("CO_2") and forming liquid urea, which can be further processed into a solid form. UAN solutions are liquid fertilizers that are produced by combining liquid urea, liquid ammonium nitrate and water. Urea solutions are produced by combining liquid urea with water. ESN® is a patented coated-fertilizer product that is made by coating the urea substrate with layers of polymers, allowing for more efficient delivery of nitrogen to the plant.

Ammonia, urea and nitrogen solutions are sold as fertilizers to agricultural customers and to industrial customers for various applications. Nitric acid and ammonium nitrate are sold to industrial customers for various applications. Urea is also sold for feed applications. ESN® is sold to agricultural customers.

Ammonium sulfate is produced by reacting ammonia and sulfuric acid and then granulated to form a solid granular product. At our Redwater, Alberta facility, we produce sulfuric acid from purchased sulfur. In 2019, we repurposed this facility, ceasing monoammonium phosphate ("MAP") production in May 2019, in order to increase our ammonium sulfate capacity. A second ammonium sulfate train was commissioned in September 2019 at Redwater, increasing our production capacity from approximately 360,000 tonnes to approximately 710,000 tonnes.

Competitive Position

Nitrogen-based fertilizer is a global commodity, and customers, including end-users, dealers and other fertilizer producers and distributors, base their purchasing decisions principally on the delivered price and availability of the product. The relative cost of, and availability of transportation for, raw materials and finished products to manufacturing facilities are also important competitive factors.

Within North America, transportation costs play a factor in regional price differences and we compete with other domestic producers, including CF Industries Holdings, Inc., CVR Partners, L.P., Koch Industries, Inc., LSB Industries, Inc., OCI N.V., and Yara International ASA, and with imported product from suppliers in the Middle East, North Africa, Trinidad, Central and Eastern Europe and China. In the offshore market, we compete with a wide range of offshore and domestic producers. Nitrogen is also an input into industrial production of a wide range of products. Many manufacturers want consistent quality and just-in-time delivery to keep their plants running.

Our North American plants are geographically well positioned to service agriculture, industrial and feed customers across Canada and the US. Our robust North American distribution network provides in-market support, during seasonal peak demand, ensuring timely product availability. Trinidad mainly supplies our international fertilizer and industrial customers.

Our US production has continued to benefit from the low cost of natural gas, and to a greater extent our Western Canadian production, which utilizes natural gas indexed to the Alberta benchmark price, has also benefited. In Trinidad, the price at which we purchase natural gas varies primarily with ammonia market prices, and annual escalating floor prices. Ammonia and urea predominate our offshore sales of nitrogen and originate primarily from Trinidad, with other sales coming from purchased product locations. For 2020, our offshore sales of nitrogen products represented 18 percent (2019 – 18 percent) of our total nitrogen sales.

Sources of Raw Materials

Natural gas is the primary raw material used for producing ammonia, which is the base for virtually all nitrogen products.

In North America, we may enter into natural gas hedging transactions with the goal of minimizing risk from volatile gas prices. We purchase most of our natural gas from producers or marketers at the point of delivery of the natural gas into the pipeline system, then pay the pipeline company and, where applicable, the local distribution company to transport the natural gas to our nitrogen facilities. Approximately 90 percent of our North American consumption of natural gas by our Nitrogen operations is delivered pursuant to firm transportation contracts, which do not permit the pipeline or local distribution company to interrupt service to, or divert natural gas from, the plant.

In Trinidad, natural gas is purchased under contract using a pricing formula related to the market price of ammonia. We are currently operating under a five-year gas supply contract, set to expire in 2023, which includes minimum take or pay requirements, to provide the entire Trinidad ammonia complex with approximately 90 percent of its expected requirements for 2019 through 2023.

5.4 Phosphate Operations

Overview

Our Phosphate operations include the manufacture and sale of solid and liquid phosphate fertilizers, phosphate feed and purified phosphoric acid, which is used in feed and industrial products. We have phosphate mines and mineral processing plant complexes in Aurora, North Carolina and White Springs, Florida. We also have three Phosphate feed plants in the US.

Our Phosphate properties include:

Plant Locations	Primary Products Produced [1]
Aurora, North Carolina	DAP, MAP, SPA, liquid fertilizer, purified acid, merchant grade phosphoric acid ("MGA"), hydrofluosilicic acid, defluorinated merchant grade acid and low magnesium SPA ("LOMAG")
Cincinnati, Ohio	Blended purified acid products
Joplin, Missouri	Animal feed
Marseilles, Illinois	Animal feed
Weeping Water, Nebraska	Animal feed
White Springs, Florida	SPA, MGA [2], LOMAG, MAP and MAP MST

1 The following scientific terms have the following meanings:
DAP diammonium phosphate, 46 percent P_2O_5 (solid)
MAP monoammonium phosphate, 52 percent P_2O_5 (solid)
MAP MST sulfur enhanced MAP
SPA superphosphoric acid, 70 percent P_2O_5 (liquid)

2 All of the MGA from White Springs is consumed internally in the production of additional products.

In connection with the 2018 sale of our Conda phosphate production facility and adjacent mineral rights, we entered into long-term supply and offtake agreements with Itafos Conda LLC. Based on these agreements, which extend through 2023, we expect to market an estimated 330,000 tonnes per year of MAP produced at Conda, Idaho.

We execute offshore marketing and sales of our solid phosphate fertilizer through PCS Sales (USA), Inc.

Transportation, Storage and Distribution

With respect to Phosphate, we have approximately 145 owned or leased phosphate distribution points and a fleet of approximately 5,100 owned and leased railcars. We have long-term leases on shipping terminals in Morehead City and Beaufort, North Carolina through which we store Aurora facility's finished product. Most of our offshore phosphate sales are shipped through the terminal at Morehead City. We use barges and tugboats to transport solid products, phosphoric acid and sulfur between the Aurora facility and shipping terminals. Raw materials and products, including sulfur, are also transported to and from the Aurora facility by rail and truck.

Sulfur is delivered to the White Springs facility by rail and truck from Canada and the US. Most of the phosphoric acid and chemical fertilizers produced at the White Springs facility are shipped to North American destinations by rail. Ammonia for the Aurora and White Springs facilities is supplied by rail and truck from our production facilities in Lima, Ohio and Augusta, Georgia.

Production Methods

We extract phosphate ore using surface mining techniques. At each mine site, the ore is mixed with recycled water to form a slurry, which is pumped from the mine site to our processing facilities. The ore is then screened to remove coarse materials, washed to remove clay and floated to remove sand to produce phosphate "rock." The annual production capacity of our mines is currently 7.4 million tonnes of phosphate rock. During 2020, the Aurora facility's total production of phosphate rock was 3.94 million tonnes and the White Springs facility's total production of phosphate rock was 1.81 million tonnes. The sequence for mining portions of the Aurora property was identified in the permit issued by the US Army Corps of Engineers in June 2009. The permit authorizes mining in excess of 20 years. Phosphate rock is the major input in our phosphate processing operations. Substantially all the phosphate rock produced is used internally for the production of phosphoric acid, SPA, chemical fertilizers, purified phosphoric acid and animal feed products.

In addition to phosphate ore, the other principal raw materials we require are sulfur and ammonia. The production of phosphoric acid requires substantial quantities of sulfur, which we purchase from third parties. Any significant disruption in our sulfur supply to the phosphate facilities could adversely impact our financial results. We produce sulfuric acid at the Aurora and White Springs facilities from purchased sulfur.

Our Phosphate operations purchase all their ammonia at market rates from or through our Nitrogen and sales subsidiaries. Phosphoric acid is reacted with ammonia to produce DAP, MAP and MAP MST as well as liquid fertilizers.

We produce MGA at our Aurora and White Springs facilities. Some MGA from the Aurora facility is sold to foreign and domestic fertilizer producers and industrial customers. We further process the balance of the MGA to make solid fertilizers (DAP and MAP), liquid fertilizers, animal feed supplements for the poultry and livestock markets, and purified phosphoric acid for use in a wide variety of food, technical and industrial applications.

Competitive Position

Markets for phosphate fertilizer products are highly competitive and based largely on price, reliability and deliverability. Significant low-cost capacity has been commissioned over the past few years, most notably in Morocco and Saudi Arabia. The ability of these countries to add low-cost capacity and operate under less restrictive environmental regulation is resulting in a long-term oversupply in the global market. Our principal advantages at the Aurora and White Springs facilities are that we produce higher-value, diversified products and that we operate integrated phosphate mine and phosphate processing complexes. Our in-market distribution network ensures product supply during peak demand periods.

Our key competitors for North American phosphate fertilizer sales are Mosaic, J.R. Simplot Company and offshore imports primarily from Morocco, Russia and Saudi Arabia. A petition filed on June 25, 2020 by Mosaic with the US Department of Commerce led to Morocco and Russia stopping shipments to the US and a resultant increase in phosphate fertilizer prices. A preliminary determination by the US Department of Commerce on November 24, 2020 found that phosphate fertilizer imports from Morocco and Russia benefit from countervailable subsidies. Final determinations by the US Department of Commerce are expected in the first quarter of 2021.

In offshore markets, we compete primarily with OCP S.A. (“OCP”) from Morocco and other producers from Africa, Middle East and Russia. For 2020, our offshore sales of phosphate products represented 11 percent (2019 – 15 percent) of our total phosphate sales.

Within the animal feed supplement business in the Phosphate segment opportunities exist to differentiate products based on nutritional content. We have a significant presence in the domestic feed supplement market segments. We compete with Mosaic, J.R. Simplot Company, OCP and Chinese and Russian producers for feed sales.

Industrial products are the least commodity-like of the phosphate products as product quality is a more significant consideration for customer buying decisions. We market industrial phosphate products principally in the US and we compete with ICL, Innophos Holdings, Inc., Prayon Group, OCP and Chinese producers for North American industrial sales.

Sources of Raw Materials

Phosphate rock is the major input in our phosphate processing operations, and is mined at our Aurora and White Springs facilities.

In addition to phosphate ore, the other principal raw materials we require are sulfur and ammonia. The production of phosphoric acid requires substantial quantities of sulfur, which we purchase from third parties. Any significant disruption in our sulfur supply to the phosphate facilities could adversely impact our financial results. We produce sulfuric acid at the Aurora and White Springs facilities from purchased sulfur. Ammonia for our Aurora facility is supplied by rail and truck from our production facilities in Lima, Ohio and Augusta, Georgia. Ammonia for our White Springs facility is primarily supplied by truck from our Augusta nitrogen plant.

5.5 Specialized Skill and Knowledge

We believe our success is dependent on the performance of our management and key operational employees, many of whom have specialized skills and knowledge relating to the retail, potash, nitrogen and phosphate industries, and to the conduct of the Retail, Potash, Nitrogen and Phosphate operations. We believe that we have adequate personnel with the specialized skills and knowledge to successfully carry out our business and operations.

5.6 Intangible Properties

We have registered and pending trademarks and patents in Canada, the US and other countries where our products are sold. In addition, it has been our practice to seek patent protection for inventions and improvements that are likely to be incorporated into our products, where appropriate, and to protect the freedom to use our inventions in its manufacturing processes. We consider several factors in assessing the materiality of our patents including, but not limited to, scope and breadth of claims, sales volumes of products incorporating the technology, strategic importance, and patent duration.

While these trademarks and patents constitute valuable assets, we do not regard any single trademark or patent as being material to our operations as a whole. See Note 14 of the 2020 Consolidated Financial Statements for disclosure on estimated useful lives of intangible assets.

5.7 Seasonality

The agricultural products business is seasonal. Crop input sales are generally higher in the spring and fall application seasons. Crop nutrient inventories are normally accumulated leading up to each application season. Our cash collections generally occur after the application season is complete, while customer prepayments made to us are concentrated in December and January and inventory prepayments paid to our vendors are typically concentrated in the period from November to January. Feed and industrial sales are more evenly distributed throughout the year. See “Risk Factors” below for a description of the risks related to seasonality.

5.8 Environmental Matters

Our operations are subject to numerous environmental requirements under federal, provincial, state and local laws, regulations and permits of the countries in which we operate. These laws, regulations and permits govern matters such as air emissions, wastewater discharges, land use and reclamation, groundwater quality, and solid and hazardous waste management. Many of these laws, regulations and permit requirements continue to become increasingly stringent, and the cost of compliance with these requirements can be expected to increase over time.

Future environmental capital expenditures are subject to a number of uncertainties, including changes to environmental laws and regulations and interpretations by regulatory authorities or changes in circumstances affecting the Company’s operations. At this time, we are unable to estimate the capital expenditures we may make in future years to meet pollution prevention and emissions control objectives, as well as other environmental requirements.

Environmental Requirements, Permits and Regulatory Approvals

Many of our operations and facilities are subject to a variety of regulatory requirements, permits and approvals, all of which vary depending on the specific operation. Licenses, permits and approvals at operating sites are obtained in accordance with applicable laws and regulations, which may limit or regulate: operating conditions, rates and efficiency; land, water and raw material use and management; product storage, quality and transportation; waste storage and disposal; and emissions and other discharges. Additional legal requirements may apply where site impacts predate the current applicable regulatory framework, where remediation is ongoing or where there is otherwise evidence that historic remediation activities have not been successful in minimizing impacts to the environment. These additional requirements may result in an environmental remediation liability that must be mitigated.

We believe that we are currently in material compliance with existing regulatory requirements, permits and approvals. Permits and approvals are typically required to be renewed or reissued periodically. We may also become subject to new laws or regulations that impose new requirements or require us to obtain new or additional permits or approvals; however, there can be no assurance that such permits or approvals will be issued in the ordinary course of operations. Further, the terms and conditions of future regulations, permits and approvals may be more stringent and may require increased expenditures by the Company.

Air Quality

With respect to air emissions, we anticipate that additional actions and expenditures may be required to meet increasingly stringent federal, provincial and state regulatory and permit requirements in the areas in which we operate, including existing and anticipated regulations under the US federal *Clean Air Act*. We continue to monitor developments in these various programs and assess their potential impact on our operations. The calciners at our Aurora, North Carolina phosphoric acid plant are subject to mercury emission limits adopted by the US Environmental Protection Agency (“EPA”) in 2015, which do not reflect actual emissions during normal operations. The EPA published a final rule on November 3, 2020 that addresses this issue and removes the need for the state consent order under which the calciners have been operating. In 2015, we entered a consent decree that requires reductions in sulfur dioxide emissions at specified sulfuric acid plants with the final compliance dates occurring at the beginning of 2020. All such emission limits have been met by the dates specified in the consent decree schedule.

In Canada, the *Multi-Sector Air Pollutant Regulations* were issued in 2016. These regulations established oxides of nitrogen emission standards for gas-fired boilers, heaters and stationary spark-ignition engines. Facilities must ensure regulated equipment meets mandated emission standards by either 2026 or 2036, depending on the equipment’s baseline emission levels. Our Canadian nitrogen and potash facilities operate equipment subject to the regulations. Equipment testing is ongoing to assess the baseline emission levels in order to determine if any equipment will require replacement or modification.

Water Quality

There are international, federal, provincial and state regulatory initiatives underway that may result in new regulatory restrictions on discharges of nutrients, including discharges of nitrogen and phosphorus to waters in the US ("Nutrient Criteria"). There are also ongoing litigation efforts in several jurisdictions of the US that seek to require US environmental agencies to develop new Nutrient Criteria. These litigation and regulatory proceedings may result in new Nutrient Criteria that apply to water discharges from several of the Company's facilities in the US. Some of the proposed restrictions imposed through Nutrient Criteria also have the potential to require our customers to reduce or eliminate their uses of the Company's products. These Nutrient Criteria could have a material effect on either the Company or its customers, but the impact is not currently predictable or quantifiable with reasonable certainty because many of these initiatives are in relatively early stages and compliance alternatives may be available that do not create material impacts. We are closely monitoring and evaluating the impact of these initiatives on our operations.

Waste Management

In 2003, the EPA began investigating the phosphate industry as part of its National Enforcement Initiative regarding the mineral processing industry. The purpose of the EPA's National Enforcement Initiative is to ensure that waste resulting from mineral processing is managed in accordance with regulations under *The Resource Conservation and Recovery Act, which is the US federal statute that governs the generation, transportation, treatment, storage and disposal of hazardous wastes. The EPA is also evaluating the mineral processing industry's compliance with the Emergency Planning and Community Right to Know Act and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA").*

Several of the Company's phosphoric acid production facilities have received notices of violation or entered orders with the EPA as a result of the EPA's National Enforcement Initiative. These facilities include the Conda, Idaho phosphate production facility divested in January 2018, for which we retain environmental liabilities attributable to our historic activities. We are negotiating with the EPA and the relevant state environmental agencies to resolve the matters relating to these facilities, and these negotiations are ongoing. In these negotiations, we are seeking to minimize the costs and impacts to our future operations consistent with applicable legal requirements, including financial assurance for the future closure, maintenance and monitoring of phosphogypsum stack systems. The full scope of the costs that we may ultimately incur to bring these matters to a conclusion could be material to our operations but are not currently predictable or quantifiable with reasonable certainty. See Note 29 of the 2020 Consolidated Financial Statements for additional information.

Asset Retirement Obligations

Provisions are recognized when: (i) the Company has a present legal or constructive obligation as a result of past events; (ii) it is probable that an outflow of resources will be required to settle the obligation; and (iii) the amount can be reliably estimated.

The major categories of our asset retirement obligations include reclamation and restoration costs at our Potash and Phosphate mining operations (phosphate mining, in particular), including the management of materials generated by mining and mineral processing, such as: various mine tailings and phosphogypsum; land reclamation and revegetation programs; decommissioning of underground and surface operating facilities; general clean-up activities aimed at returning the areas to an environmentally acceptable condition; and post-closure care and maintenance.

The estimation of the costs of asset retirement obligations depends on the development of environmentally acceptable closure and post-closure plans. In some cases, this may require significant research and development to identify preferred methods for such plans that are economically sound and that, in most cases, may not be implemented for several decades. We have continued to use appropriate technical resources, including outside consultants, to develop specific site closure and post-closure plans in accordance with the requirements of the various jurisdictions in which we operate.

The asset retirement obligations are generally incurred over an extended period. As at December 31, 2020, we had accrued a total of $1,209 million for asset retirement obligations, the current portion of which totaled $121 million. For additional information, see Note 22 of the 2020 Consolidated Financial Statements.

Site Assessment and Remediation

We are also subject to environmental statutes that may require investigation and, where appropriate, remediation of impacted properties. Canadian federal and provincial laws as well as CERCLA and other US federal and state laws impose liability on, among others, past and present owners and operators of properties or facilities at which hazardous substances have been released into the environment. Liability under these laws may be imposed jointly and severally and without regard to fault or the legality of the original actions, although such liability may be divided or allocated according to various equitable and other factors. We have incurred and expect to continue to incur costs and liabilities in respect of our current and former operations, including those of divested and acquired businesses. We have generated and, with respect to our current operations, continue to generate substances that could result in liability for us under these laws.

As at December 31, 2020, we had accrued environmental costs of $550 million for costs associated with site assessment and remediation, including consulting fees, related to the clean-up of impacted sites currently or formerly associated with the Company or its predecessors' businesses. As at December 31, 2020, the current portion of these costs totaled $41 million. The accrued amounts include the Company's and its subsidiaries' expected final share of the costs for the site assessment and remediation matters to the extent future outflow of resources is probable and can be reliably estimated. For additional information, see Note 22 of the 2020 Consolidated Financial Statements.

It is often difficult to estimate and predict the potential costs and liabilities, including natural resource damages, associated with our current and former operations, and there is no guarantee that we will not in the future be identified as potentially responsible for additional costs associated with our operations, either as a result of changes in existing laws and regulations or as a result of the identification of additional matters or properties subject to environmental costs. For certain matters, we are unable to make a reliable estimate of the amount and timing of any financial effect in excess of the amounts accrued for various reasons including: complexity of the matters; early phases of most proceedings; lack of information on the nature and timing of future actions in the matters; dependency on the completion and findings of investigations and assessments; and the lack of specific information as to the nature, extent, timing and cost of future remediation with respect to those matters. Until we have greater clarity as to our liability and the extent of our financial exposure, it is not practicable to make a reliable estimate of the financial effect. For additional information, see Note 29 of the 2020 Consolidated Financial Statements.

Climate Change and Greenhouse Gas ("GHG") Emissions

Nutrien generates GHG emissions directly and indirectly through the production, distribution and use of its products. These emissions may be subject to climate change policies and regulations, all of which are developing in unique ways within various federal, provincial and state jurisdictions. Increasing regulation of GHGs may impact our operations by requiring changes to our production processes or increasing raw material, energy, production or transportation costs in order to ensure compliance. There are also significant differences in the climate change policies of countries where Nutrien operates as only some are parties to the Paris Agreement, negotiated in December 2015, under the United Nations Framework Convention on Climate Change.

Sources of GHGs from our production operations include emissions from the reforming of natural gas to produce hydrogen, which is used to synthesize ammonia, as well as process emissions from some of our nitric acid plants. We estimate that the production stage of our operations accounts for approximately 95 percent of our overall emissions. Approximately two-thirds of the natural gas required to produce ammonia – the basic building block of all nitrogen fertilizer – is used to provide the necessary hydrogen for the process. Given current economically viable technologies, the CO_2 emissions related to this process are fixed by the laws of chemistry and cannot be reduced. We have developed strategies to attempt to improve energy efficiency in our production operations, to capture and store carbon, and to reduce the amount of nitrous oxide ("N_2O") emissions from our nitric acid facilities. We are also investing in developing new precision agriculture technologies and agronomic services that are expected to improve the efficiency of fertilizer applications within our Retail operations, so more grain can be produced with the same amount of fertilizer and with reduced impact to the environment.

Our Canadian manufacturing facilities are primarily located in the provinces of Alberta and Saskatchewan and are subject to a variety of federal and provincial requirements to reduce GHG emissions ranging from carbon taxes to emissions-intensity reduction requirements. We attempt to minimize our Canadian compliance costs through the implementation of various efficiency and emissions reduction projects, including: overall efforts to increase operational efficiency; operating a cogeneration facility in partnership with TransCanada Energy Ltd., a subsidiary of TC Energy Corporation, at Carseland, Alberta that captures waste heat and produces emission offset credits; operating a cogeneration facility in partnership with SaskPower at our Cory, Saskatchewan potash mine that captures waste heat and provides all of the mine's steam requirements; and the implementation of the Quantification Protocol for Agricultural Nitrous Oxide Emissions Reduction designed to generate emission offset credits for Alberta farmers who reduce their N_2O emissions. We have also partnered with Enhance Energy Inc. to supply CO_2 from the Redwater nitrogen facility to the Alberta Carbon Trunk Line to be captured and used for enhanced oil recovery in Central Alberta. The project began its first CO_2 injection in December 2019 and operated throughout 2020. The Redwater facility sent approximately 165,000 tonnes of CO_2 to the Alberta Carbon Trunk Line in 2020.

In June 2018, Canada enacted the *Greenhouse Gas Pollution Pricing Act* ("GGPPA") which establishes minimum standards for carbon pricing that makes up part of Canada's strategy for meeting its commitments under the Paris Agreement. The GGPPA is designed to act as a backstop to apply in provinces that do not establish their own carbon pricing systems that meet the minimum federal stringency criteria. The GGPPA comprises two parts: a federal fuel charge beginning at CAD$20 per tonne of carbon dioxide equivalents ("CO_2e") in 2019 and rising by CAD$10 per CO_2e tonne per year through 2022 ("Federal Fuel Charge"), and an output-based pricing system ("OBPS") for large industrial emitters. The Federal Fuel Charge applies to all carbon-based fuels in provincial jurisdictions that have not implemented their own provincial carbon tax. Similarly, the federal OBPS applies in those provinces that have not enacted systems deemed equivalent to the federal OBPS. Large emitting facilities regulated under an acceptable OBPS are exempt from the fuel charge. In December 2020, the Canadian federal government announced a

strengthened climate plan entitled: A Healthy Environment and a Healthy Economy. Under the strengthened plan the Federal Fuel Charge is proposed to increase by an additional CAD$15 per CO_2e tonne per year for the years 2023 to 2030 resulting in a final carbon levy of CAD$170 per CO_2e tonne in 2030.

Application of Federal Fuel Charge in Alberta and Saskatchewan

As part of Alberta's *Climate Leadership Act*, Alberta had a provincial carbon levy in place from January 2017 until it was repealed in May 2019. The GGPPA Federal Fuel Charge backstop was then implemented in Alberta in January 2020. Currently, Ontario, New Brunswick, Manitoba, Saskatchewan, Alberta, Yukon and Nunavut have the Federal Fuel Charge in place, while the other provinces and territory have provincial/territorial fuel levies.

Application of Federal OBPS in Alberta and Saskatchewan

The federal OBPS currently applies in Ontario, New Brunswick, Manitoba, Prince Edward Island, Saskatchewan (for electricity generation and natural gas transmission only), Yukon and Nunavut, while the other provinces and territory have provincial/territorial systems that have been deemed equivalent to the federal OBPS. In 2018, the Province of Saskatchewan proclaimed the *Management and Reduction of Greenhouse Gases Act*, which provided the authority to establish a provincial output-based emissions management framework. This legislation, along with its supporting regulations, was considered to meet the stringency criteria of the federal GGPPA for large industrial facilities. As such, all six of our potash facilities received exemptions from the federal GGPPA fuel charge. Under the Saskatchewan framework, potash facilities must achieve a 5 percent emission intensity reduction from a site-specific three-year baseline by 2030. Beginning in 2019, the facility intensity baseline benchmark will decline 0.42 percent per year until the full 5 percent intensity reduction target is established in 2030. All six of our potash facilities submitted third-party verified benchmark applications in 2019, which were subsequently approved by the Saskatchewan Ministry of Environment in the fall of 2020. The 2019 emission year was the first compliance year under the Saskatchewan output-based framework, and our 2019 potash facility emission returns were submitted in the fourth quarter of 2020. The 2020 emission returns will be submitted in 2021, along with any compliance payments for the 2019 and 2020 emission years. After that, emission returns and compliance payments will be submitted every second year per the provincially established Emissions and Compliance Return Schedule. The provincial framework that will create a credit trading system and provincial technology fund for meeting emission compliance obligations is still under development; however, our aggregated potash compliance obligation for the 2019 emission year is estimated to be minimal based on a Federal Fuel Charge of CAD$20 per CO_2e tonne in 2019. For 2020, our aggregated potash compliance obligation is estimated to be minimal based on a Federal Fuel Charge of CAD$30 per CO_2e tonne in 2020. In accordance with the GGPPA backstop, the Federal Fuel Charge will increase to CAD$40 per CO_2e tonne in 2021.

In Alberta, large final emitters (industrial facilities emitting over 100,000 tonnes of CO_2e per year) have been subject to emission reduction requirements and a GHG pricing system since implementation of the *Specified Gas Emitters Regulation* ("SGER") in 2007. Under the SGER program, large final emitters were required to either meet progressively stricter emission intensity reduction targets, or to achieve compliance for excess emissions using Alberta registered Emission Performance Credits ("EPCs"), Alberta registered emission offset credits or payment into a provincial technology fund. Our Carseland, Fort Saskatchewan and Redwater facilities were subject to compliance reporting and carbon pricing under this program. In 2018, the Alberta government replaced SGER with industry specific, output-based emission allocations under the *Carbon Competitiveness Incentive Regulation* ("CCIR"). Similar to the SGER, emissions in excess of the output-based allocations were required to achieve compliance using EPCs, offset credits or technology fund payments. Under the CCIR, our aggregated 2019 emission compliance costs for our Alberta regulated facilities were approximately $3 million.

Nutrien's Joffre facility opted-in to the CCIR program in 2019. While Joffre is not deemed a "large final emitter" as its annual emissions are less than 100,000 tonnes CO_2e, the CCIR contained a provision to allow lower emitting facilities to opt-in to the program if they compete against a facility regulated under the CCIR or if the facility has greater than 50,000 tonnes of annual emissions and high emissions intensity and trade exposure. Opting into the CCIR granted the Joffre facility an exemption from the provincial carbon levy as carbon costs associated with its emissions would be covered under the CCIR program. Since the Joffre facility manufactures ammonia using a hydrogen by-product feedstock supplied by an industrial neighbor, rather than producing it on site from a natural gas feedstock using an emission intensive steam methane reforming process, Joffre is able to generate Emission Performance Credits under CCIR as its emission intensity is below the Alberta ammonia intensity benchmark. These credits can be banked and used to offset a portion of future compliance obligations for Nutrien's other Alberta-based nitrogen facilities.

On January 1, 2020, the Alberta government replaced the CCIR with the *Technology Innovation and Emissions Reduction Regulation* ("TIER"). Under this program, facilities that emit 100,000 tonnes or more of CO_2e per year are subject to the less stringent of a product-specific high-performance benchmark ("HPB") based on the emission intensity of the most efficient facilities, or a facility-specific benchmark based on a 10 percent emission intensity reduction relative to the facility's own historical baseline. The stringency of facility-specific benchmarks will increase by 1 percent annually beginning in 2021 until the facility benchmark reaches the HPB. The tightening rate will not apply to industrial process emissions, which are fixed by chemistry and cannot be

reduced through efficiency improvements. TIER was designed to meet federal GGPPA carbon standards with a carbon price of CAD$30 per CO_2e tonne in 2020. By aligning with the federal carbon standard for emission compliance, large emitting facilities are not subject to the Federal Fuel Charge. In November 2020, the Alberta government issued a Ministerial Order that increased the TIER carbon price to CAD$40 per CO_2e tonne in 2021, ensuring continued alignment with the federal GGPPA carbon price through 2021. The Alberta government has not yet committed to an increased carbon price of CAD$50 per CO_2e tonne for 2022 to maintain alignment with the GGPPA.

TIER also includes an 'opt-in' allowance for lower emitting facilities that compete with large emitting TIER regulated facilities, and Joffre also opted into the TIER program. As a result, Joffre remains exempt from the Federal Fuel Charge and will be able to continue to generate EPCs under TIER.

2020 TIER compliance submissions and payments are due by June 30, 2021. Emission quantification and compliance costs are subject to third-party verification prior to submission, and as such are not yet finalized. Our aggregated TIER compliance costs for 2020 are estimated to be approximately $1 million.

Saskatchewan, Ontario and Alberta have launched legal challenges to the constitutionality of the GGPPA. Provincial appeal courts in Saskatchewan and Ontario upheld the GGPPA; however, the Alberta Court of Appeal ruled in favor of the Province of Alberta. These provincial court of appeal decisions have all been appealed to the Supreme Court of Canada, which heard arguments in September 2020. A final ruling has not yet been issued.

The Canadian federal government is also currently conducting consultations with stakeholders to implement a federal Clean Fuel Standard that will apply to liquid fuels beginning in 2022 and gaseous fuels beginning in 2023. This standard will be designed to incent the development and use of lower carbon fuels. Nutrien is tracking development of the standard and will remain engaged through the consultation process.

In the US, the EPA has issued GHG emissions regulations that establish a reporting program for emissions of CO2, methane and other GHGs, as well as a permitting program for certain large GHG emissions sources. Beyond that, there is uncertainty regarding full implications of new or amended federal GHG regulations in the US under the current presidential administration. There is the potential for some movement on US Federal Climate policy during the current presidential administration, but the scope of any legislation will depend heavily on the ability to pass such legislation through the US House and Senate. As such, the potential impact on the Company cannot be determined at this time. Apart from federal regulation of GHGs, some US states have also enacted laws concerning GHG emissions that we are monitoring for impacts on our operations.

The impacts of climate change and future restrictions on emissions of GHGs on the Company's operations could be material but cannot be determined with any certainty at this time.

Facility and Product Security

Through our Safety, Health and Environment department, we regularly evaluate and address actual and potential security issues and requirements associated with our operations in the US and elsewhere using approved security vulnerability methodologies. Additional actions and expenditures may be required in the future. In the US, chemical facilities are regulated under the *Maritime Transportation Security Act*, the Chemical Facility Anti-Terrorism Standards, and the *Food Safety Modernization Act (Mitigation Strategies to Protect Food Against Adulteration)*. It is anticipated that the US Congress will continue to consider federal legislation designed to reduce the risk of any future terrorist acts at industrial facilities. We believe that we are in material compliance with applicable security requirements, and we have also developed and adopted security measures and enhancements beyond those presently required at both our regulated and non-regulated facilities. To date, neither the security regulations nor our expenditures on security matters have had a material adverse effect on our financial position or results of operations. We are unable to predict the potential future costs to us of any new governmental programs or voluntary initiatives.

5.9 Employees

At December 31, 2020, we employed approximately 23,100 people. The approximate breakdown of employees is as follows:

Business Unit	Number of Employees
Retail	15,200
Potash	2,700
Nitrogen	1,700
Phosphate	1,500
Corporate	1,700
Shared services group [1]	300
Total	**23,100**

1 Our shared services group provides sales and logistics services to our Potash, Nitrogen and Phosphate operations.

We have entered into 14 collective bargaining agreements with labor organizations representing employees. The following table sets forth the plant locations where we have entered into collective bargaining agreements and their respective expiry dates.

Plant Location	Collective Bargaining Agreement Expiry Date
Allan, Saskatchewan	April 30, 2022
Cory, Saskatchewan	April 30, 2022
Lanigan, Saskatchewan	January 31, 2021 [1]
Patience Lake, Saskatchewan	April 30, 2022
Regina, Saskatchewan	December 31, 2024
Regina, Saskatchewan	December 31, 2024
Rocanville, Saskatchewan	May 31, 2023
Vanscoy, Saskatchewan	April 30, 2018 [1]
Mulberry, Florida	May 31, 2021
White Springs, Florida	December 10, 2021
Americus, Georgia	June 30, 2023
Greenville, Mississippi	August 27, 2021
Cincinnati, Ohio	November 1, 2024
Lima, Ohio	October 31, 2022

1 The terms of this collective bargaining agreement, including new expiry date, remain under renegotiation as of the date hereof.

We believe we have an effective working relationship with our employees, and the unions representing them.

5.10 Social and Environmental Policies

Code of Ethics

Nutrien's most important assets are our employees, customers, shareholders, suppliers and the communities in which we operate. It is critical that we maintain the trust of each of these stakeholders. Our Code of Ethics ("Code") helps us fulfill our responsibilities by: committing to the public and our stakeholders our uncompromising integrity in every aspect of our business; describing our values and principles of business conduct, including our own high standards and fundamental respect for the rule of law; guiding employees on how to engage in ethical decision making in all of our operations around the world; and outlining our approach to interacting ethically with stakeholders and acting in the best interest of shareholders. The Code also outlines our commitment to the safety of people and protection of the environment.

We actively promote integrity through the Code and numerous supporting policies, which are reinforced by risk assessments, due diligence procedures, training and our compliance hotline. In 2020, all Nutrien employees received formal training on the Code and other compliance-related topics. Our confidential 24-hour, 365 days a year, externally administered compliance hotline allows employees to report any violations or suspected violations of the Code or other associated Nutrien policies, or any other illegal or unethical behavior. The Code also clearly sets out our non-retaliation policy which is designed to enable employees to raise good faith issues in a safe environment without fear of retaliation.

Anti-Corruption Policy

We operate in a wide range of jurisdictions and are vigilant and proactive in detecting and preventing corruption. Our Anti-Corruption Policy requires those who work on behalf of Nutrien to ensure that their own conduct fulfils Nutrien's commitment to compliance with all applicable anti-bribery and anti-corruption laws. It applies to Nutrien's directors, officers, employees, representatives, consultants, and other agents of Nutrien and each of its subsidiaries and in every country where we do business.

Nutrien maintains an anti-corruption program that includes:

- Identifying high-risk third parties, including acquisition targets and potential joint venture partners, and conducting appropriate diligence;
- Incorporating anti-corruption clauses in contracts and/or obtaining certifications that include anti-corruption language for high-risk third parties;
- Requiring anti-corruption training and other risk mitigation steps where appropriate, such as annual certification or continued monitoring to identify and address any potential issues; and
- Maintaining appropriate books and records and an appropriate system of internal accounting controls.

Workplace Policies

We have adopted a robust diversity and inclusion strategy that focuses on increasing gender diversity and match-to-market representation of visible minorities, including Indigenous peoples in Canada. Within the strategy, we are committed to increasing diversity of our workforce while increasing inclusive practices and a sense of belonging for our employees. We implemented a Respect in the Workplace Policy, an Inclusive Workplace Commitment Statement, and an Equal Employment and Affirmative Action Policy. Implementation of our workplace diversity and inclusion initiatives is supported by training and workshops, employee resource groups, and ongoing monitoring of internal employment trends (new hires, promotion and turnover) for diverse employee groups. We benchmark our inclusion maturity using a comparison of our practices to the Global Diversity and Inclusion Benchmark model as a basis for continuous improvement.

Supplier Code of Ethics and Procurement Procedure

Our Supplier Code of Ethics ("Supplier Code") is aligned with our commitment to the 10 principles of the United Nations Global Compact and international standards. The Supplier Code identifies the values that we expect our suppliers to embrace and applies to those suppliers that provide products or services to us around the world.

Commitment by our suppliers to the principles of the Supplier Code is significant in our decision-making process. Our legal and compliance teams support the due diligence process for high-risk suppliers, which includes ensuring that appropriate language is included in contracts with various suppliers and a requirement that the supplier adhere to our Supplier Code. Where suppliers refuse to follow the principles of the Supplier Code or show signs that they are not committed to improving their practices to comply with its principles, Nutrien will review its relationship with the supplier. Where contractual commitments and applicable laws permit, this review may include termination of our relationship with the non-compliant supplier.

We are also committed to supporting diversity and inclusion throughout the procurement process. Our procurement policies and procedures – including our Procurement Diversity and Inclusion Procedure – are designed to ensure that fair consideration is given to all potential suppliers. We have developed an Aboriginal Content Playbook to assist suppliers in developing local Aboriginal content in their own organizations and supply chains. In addition, we work with Aboriginal opportunity partner companies to provide contracting opportunities at our worksites. We believe in building and maintaining relationships of mutual respect with Aboriginal communities through our procurement practices and extend this further by providing employment and training opportunities and community investments.

Safety, Health and Environment ("SH&E") Policy

We are committed to the care and protection of our people, environment, community and customers. We honor that commitment by making safety a core value of our organization, as we grow our world from the ground up.

Under our SH&E Policy, our goals are to:

- Protect our people, assets, facilities, communities and environment;
- Proactively prevent incidents and minimize risk by continuously improving our safety, health and environmental performance;
- Promote employee physical and mental health and well-being; and
- Drive excellence in safety, health and environment across our operations and supply chain.

We strive to accomplish these goals through our SH&E strategy of "home safe, every day," which brings our safety vision, principles and priorities to life and guides our daily actions and behaviors. Nutrien will ensure leaders and their teams are well-supported with SH&E expertise and resources to help everyone go home safe, every day.

Our SH&E culture continues to evolve, purposefully focused on "Growing a Culture of Care" rallying around four pillars: Lead, Collaborate, Challenge and Trust as our consistent base. Nutrien's SH&E management further focuses on people, systems, processes and tools to accomplish continual improvement.

SH&E performance, measurement, analysis and continuous improvement occur with engagement at multiple organization levels. The Safety and Sustainability Committee assists the Board to fulfill its oversight responsibilities with respect to activities related to safety, health, the environment and security, sustainability and the integrity of Nutrien personnel, assets and products. Policies and strategy are reviewed annually for relevance and modified as appropriate. Committees meet on a recurring basis to monitor performance against annual and longer-term performance goals, discuss plans, strategies and processes, in addition to evaluating opportunities for improving our SH&E systems.

Leadership, commitment, resource allocation, responsibility, communication, learning and technology are examples of our continually evolving SH&E systems. Nutrien provides further details in its defined SH&E policies, programs and processes addressing specific hazards, risks, operations and tasks.

We lead through the integration of an SH&E management system, including methods of governance, expectations, reference documentation and communication of consistent SH&E management and performance expectations applicable to our organization. Our business units and, where appropriate, individual facilities strengthen our management system expectations with further evaluation, elimination, mitigation and controls necessary to manage risks unique to their operations. Development of SH&E systems, guidance, standards and continuous improvement occurs at the business unit level through operational committees integrated with the central SH&E teams. Performance and risk management matters are identified, evaluated, addressed and communicated throughout our organization.

Technical support and assurance for our operations are managed at multiple levels within the organization, including central or corporate, business unit, and site levels. We share responsibility for maintaining integrated systems, performance monitoring, providing technical expertise and conducting business unit SH&E audits. The use of an integrated and structured assurance program enables us to achieve continuous improvement and consistent management practices at our facilities and in our operations. In addition to a central SH&E team providing a consistent resource across our organization, we have established SH&E organizations in each business unit with clear lines of responsibility, accountability and visibility. This central and distributed structure enables us to focus on both oversight and governance as well as direct engagement in our operations and activities.

We maintain global ongoing working relationships with industry associations and regulatory agencies. These relationships ensure new or changing regulations are identified, understood, evaluated and communicated in advance of change. Industry association relationships enhance our risk management compliance with regulatory expectations and provide opportunities to share best practice, innovation and leading SH&E enhancement technologies.

Sustainability

In 2020, we continued to develop our sustainability strategy to advance resilient agricultural practices and strengthen sustainable food production through innovative solutions that balance environmental, social and economic factors in our business and across our value chain. Nutrien's sustainability strategy complements our corporate strategy by providing key enablers for organizational success and bringing our purpose to life.

We published our first Environmental, Social and Governance ("ESG") report in April 2020, which was designed to provide the investment community and other stakeholders with information about how we are managing ESG topics relevant to Nutrien. The report can be viewed on the Company's website at www.nutrien.com.

In 2020, we announced Nutrien's unique end-to-end Carbon Program that partners directly with growers from crop planning to harvest with the goal of supporting sustainable agriculture and enhancing grower profitability. We continue to develop our climate and ESG strategies and disclosures with specific near- and long-term ESG targets. We anticipate providing this information when we issue our 2021 ESG report in the first half of 2021.

5.11 Risk Factors

Our performance and our future operations are and may be affected by a wide range of risks. The following section describes our key risks and uncertainties. Any or all of these risks, or other risks not presently known to us or that we do not deem material, could have a material adverse effect on our business, financial condition, results of operations, cash flows, value of our debt securities and, in certain cases, our reputation.

Significant changes and trends in agriculture could adversely impact our business

The agricultural landscape continues to evolve at an increasingly fast pace as a result of factors including, but not limited to, farm and industry consolidation, agricultural productivity, technology developments, soil health and climate change.

Farm consolidation in the US and other developed markets has been ongoing for decades and is expected to continue as grower demographics shift and advancements in innovative technology and equipment enable farmers to manage larger operations to create economies of scale in a lower-margin, more capital-intensive environment. Increased consolidation in the crop nutrient industry has resulted in greater resources dedicated to expansion, research and development opportunities, leading to increased competition in advanced product offerings and innovative technologies. Some of these competitors have greater total resources than us or are state-supported, which make them less vulnerable to industry downturns and better positioned to pursue new expansion and development opportunities.

The advancement and adoption of technology and digital innovations in agriculture and across the value chain have increased and are expected to further accelerate as grower demographics shift and pressures from consumer preferences, governments and climate change initiatives evolve. The development of seeds that require less crop nutrients, development of full or partial substitutes for our products, or developments in the application of crop nutrients such as improved nutrient use or efficiency through use of precision agriculture could also emerge, all of which have the potential to adversely affect the demand for our products and results of operations.

The prospective impact of climate change on our operations and those of our customers and farmers remains uncertain. The impacts of climate change include changing rainfall patterns, water shortages, wildfires, rising sea levels, changing storm patterns and intensities, and increasing temperature levels. These impacts vary by geographic location and the risk relating to the impact of climate change could include acute risks resulting from increased severity of extreme weather events and chronic risks resulting from longer-term changes in climate patterns. Risks also arise from a wide variety of policy, regulatory, legal, technological and market responses to the challenges posed by climate change.

These factors as well as other factors affecting long-term demand for our products and services (such as population growth and changes in dietary habits) could adversely impact our strategy, demand for our products and financial performance.

Shifting market fundamentals may result in a prolonged agriculture downturn

Global macro-economic conditions and shifting market fundamentals, including trade tariffs and restrictions and increased price competition, or a significant change in agriculture production or consumption trends, could lead to a sustained environment of reduced demand for our products, and/or low commodity prices.

We are subject to intense price competition from both domestic and foreign sources, including state-owned and government-subsidized entities. Crop nutrients, including potash, nitrogen and phosphate, are global commodities with little or no product differentiation, and customers make their purchasing decisions principally on the basis of delivered price and, to a lesser extent, on customer service and product quality. Historically, selling prices for our products have fluctuated in response to periodic changes in supply and demand conditions. Supply is affected by available capacity and operating rates, raw material costs and availability, government policies and global trade that could adversely affect our operating results.

Periods of high demand, high-capacity utilization and increasing operating margins tend to result in investment in production capacity, which may cause supply to exceed demand and capacity utilization and realized selling prices for our products to decline, resulting in possible reduced profit margins. Such conditions could also include write-downs in the value of our inventory and production assets, and temporary or permanent curtailments of production. Competitors and potential new entrants in the markets for potash, nitrogen and phosphate have in recent years expanded capacity, begun construction of new capacity, or announced plans to expand capacity or build new facilities. The extent to which current global or local economic and financial conditions, changes in such conditions or other factors may cause delays or cancellation of some of these ongoing or planned projects, or result in the acceleration of existing or new projects, is uncertain. Future growth in demand for our products may not be sufficient to absorb excess industry capacity.

Our business is cyclical, which can result in periods of industry oversupply during which our results of operations may be negatively impacted, as the price at which we sell our products typically declines during such period, resulting in possible reduced profit margins, and could include writedowns in the value of our inventory and temporary or permanent curtailments of production.

We are impacted by global market and economic conditions that could adversely affect agriculture commodity trade flows and demand for crop nutrients or increase prices for, or decrease availability of, raw materials and energy necessary to produce our products. These conditions include international trade disputes, international crises or risks thereof (such as pandemics or epidemics, including the continued uncertainty in the global market resulting from the ongoing COVID-19 pandemic), rising incomes in developing countries, the relative value of the US dollar and its impact on the importation of fertilizers, foreign agricultural policies, and the existence of, or changes in, import or foreign currency exchange barriers in certain foreign markets and other regulatory policies of foreign governments, as well as the laws and policies affecting foreign trade and investment.

Trade disputes, tariffs and other restrictions may lead to volatility in commodity prices, disruptions in historical trade flows and shifts in planting patterns that could have an adverse effect on our business, financial condition and results of operations. Additionally, some of our customers require access to credit to purchase our products and a lack of available credit to customers in one or more countries, due to this deterioration, could adversely affect demand for crop nutrients as there may be a reluctance to replenish inventories in such conditions.

Our business may be adversely affected by changing regulations

We are subject to numerous federal, state, provincial and local environmental, health and safety laws and regulations, including laws and regulations relating to land, water and raw material use and management; the emission of contaminants to the air or water; land reclamation; the generation, treatment, storage, transportation, disposal and handling of hazardous substances and wastes; the clean-up of hazardous substance releases; royalties and taxes (including income taxes); and the demolition of existing plant sites upon permanent closure. Specifically, our mining and manufacturing processes release CO_2 and other GHGs and consume energy generated by processes that result in GHG emissions.

We incur significant costs and associated liabilities in connection with these laws and regulations. There are substantial uncertainties as to the nature and timing of any future regulations with many of the laws and regulations continuing to become increasingly stringent, and the cost of compliance can be expected to increase over time. New or revised laws or regulations may result from pressure on law makers and regulators to address climate change, transition to a low-carbon economy or to address concerns related to fertilizer and food prices, accidents, terrorism or transportation of potentially hazardous substances. Increased or more stringent laws or regulations, if enacted, could impact our ability to produce or transport certain products, increase our raw material, energy, transportation, and compliance costs, reduce our efficiency, require us to make capital improvements to our facilities and have a negative effect on our customer satisfaction, reputation and financial performance. To the extent that such regulations, including GHG restrictions, are not imposed in the countries where our competitors operate or are less stringent than regulations that may be imposed in the US, Canada or the other jurisdictions in which we operate, our competitors may have cost or other competitive advantages over us.

We hold numerous environmental, mining and other governmental permits and approvals authorizing operations at each of our facilities. Continuation and/or expansion of our operations is dependent upon renewing or securing the necessary environmental or other permits or approvals. A decision by a government agency to deny or delay issuing a new or renewed material permit or approval, or to revoke or substantially modify an existing permit or approval, could materially adversely affect our ability to continue operations at the affected facility.

Various stakeholders, including legislators and regulators, shareholders and non-governmental organizations, as well as companies in many business sectors, including Nutrien, are continuing to examine ways to reduce GHG emissions. The regulation of GHG emissions could result in additional costs to Nutrien in the form of taxes or emission allowances, facilities improvements, energy costs or otherwise, which, in turn, could increase Nutrien's operational costs. In addition, the regulation of GHG emissions may cause increased input costs and compliance-related costs for agricultural customers, which could result in lower demand for our products and reduced revenues. Because the impact of any future GHG-related legislative or regulatory requirements on Nutrien's business and products is dependent on the timing and design of such requirements, Nutrien is unable to predict with any certainty the potential impact on it at this time.

We are also subject to antitrust laws in various countries throughout the world. A significant portion of our business activities are conducted in countries under existing trade agreements and regulations. Changes in antitrust laws, trade agreements or regulations may limit our operations or the operations of Canpotex, and could negatively impact opportunities for future acquisitions or organic growth.

Our information technology systems, infrastructure and data may become the target of cybersecurity attacks

Information technology systems are embedded in our business and operational control systems and, as we expand our digital platform, financial lending programs and process automation systems, we may become more exposed to cyberattacks, which continue to become increasingly sophisticated. Further, remote working arrangements during the COVID-19 pandemic have required adjusted tactics to respond to a changing threat landscape and may result in increased cybersecurity risk exposure. Cybersecurity risks include attacks on information technology and infrastructure by hackers, damage or loss of information due to viruses, the unintended disclosure of confidential information and/or personally identifiable information, the misuse or loss of control over computer control systems, and breaches (intentional or otherwise). Targeted attacks on our systems (or on systems of third parties that we rely on), failure or non-availability of a key information or operations technology systems, or a breach in security measures designed to protect our technology systems could result in property damage, theft, misuse, modification and destruction of information, including trade secrets and confidential business information and/or personally identifiable information, and cause business disruptions, reputational damage, extensive personal injury and third-party claims, which could negatively impact our operations and our financial performance.

Nutrien collects certain personally identifiable information and other data integral to parts of its business processes and activities. This information and other data is subject to a variety of US, Canadian and foreign laws and regulations, including oversight by various regulatory or other governmental bodies, and laws and regulations concerning the collection and use of such information and other data obtained from their residents or by businesses operating within their jurisdictions. Any inability, or perceived inability, to adequately address privacy and data protection concerns, even if unfounded, or to comply with applicable laws, regulations,

policies, industry standards, contractual obligations or other legal obligations (including at newly acquired companies) could result in additional cost and liability to Nutrien or its officials, damage our reputation, inhibit sales and otherwise adversely affect our business.

Our operations may be affected by political, economic and social instability in the areas in which we operate

We are a global business with significant operations in Canada and the US as well as operations outside of North America, including Australia, South America, European countries and Trinidad, with a focus on expanding our international presence in Brazil. We also hold equity investments primarily in China and Argentina.

We are subject to numerous risks and uncertainties relating to international sales and operations, including: difficulties and costs associated with complying with a wide variety of complex laws, treaties and regulations; abrupt or unexpected changes in regulatory environments; increased government regulation of the economy and/or state ownership of enterprises; changes in tax or royalty laws and regulations; forced divestures or changes to or nullification of existing agreements, mining permits or leases; political and economic instability, including the possibility for civil unrest, inflation and adverse economic conditions resulting from governmental attempts to reduce inflation, such as imposition of higher interest rates and wage and price controls; nationalization of properties or assets by foreign governments; the imposition of tariffs, exchange controls, trade barriers or other restrictions; restrictions on monetary distributions; public health crises, including the ongoing COVID-19 pandemic, and actions taken and measures imposed by government or regulatory bodies in connection therewith; and currency exchange rate fluctuations between the US dollar and foreign currencies.

The occurrence of any of the above risks and uncertainties in the countries in which we operate or elsewhere could jeopardize or limit our ability to transact business and could adversely affect our revenue and operating results and the value of our assets located in such countries.

Our governance and compliance processes, which include the review of internal control over financial reporting and specific internal controls in relation to offers of things of value to government officials and representatives of state-owned enterprises, may not prevent potential violations of law, accounting or governance practice. Our Code, together with our mandatory policies, such as our anti-corruption and anti-fraud policies, may not prevent instances of fraudulent behavior and dishonesty nor guarantee compliance with legal or regulatory requirements. This may lead to regulatory fines, disgorgement of profits, litigation, loss of operating licenses or reputational damage.

We may fail to maintain the support of our stakeholders for our business plans

Our stakeholders, which consist of shareholders, customers, employees, suppliers, global and Indigenous communities, and governments, among others, may place an increasing importance on the structure of our business, our ability to execute on our strategy, and our core sustainability and social responsibilities. Underperformance due to weak market fundamentals or business issues, inadequate communication, engagement and/or collaboration with our stakeholders, inadequate management of climate change or other environmental issues, or dissatisfaction with our practices or strategic direction including those directed to address ESG matters, may lead to a lack of support for our business plans. Loss of stakeholder confidence impairs our ability to execute on our business plans, negatively impacts our ability to produce or sell our products and may also lead to reputational and financial losses, or shareholder action.

We may fail to develop the right organizational culture, talent and resources

Our ability to attract and retain qualified top talent and provide the necessary organizational structure, programs and culture to engage and develop our employees is crucial to our growth and achieving our business results.

Although we strive to be an employer of choice, competition for skilled employees in certain geographical areas can be significant and we may not be successful in attracting, developing or retaining such skilled employees. In addition, we invest significant time and expense in training our employees, which increases their value to competitors who may seek to recruit them. Failure to develop the right organizational structure or culture could result in decreased productivity, reliability, efficiency and safety performance, higher costs, or reputational harm. It could also negatively impact our ability to take on new projects or acquisitions and sustain operations, or meet diversity and inclusion goals, which might negatively affect our operations or our ability to grow.

New digital technologies or innovations could adversely impact our Retail business model

Digital innovations, increased research and development activities and use of new technology in the agriculture market by new or existing competitors could alter the competitive environment, resulting in existing business models being disrupted, which may adversely impact our Retail operations and financial performance.

We may fail to effectively redeploy capital to achieve sustained growth

Challenges may arise in the capital allocation process due to changing market conditions, including the unavailability, due to geopolitical, market or other reasons, of appropriate capital deployment opportunities, and our ability to anticipate and incorporate such changes in our decision-making process. Inefficiencies in the capital allocation process or decisions that are not consistent with strategic priorities or that do not properly assess risk may also lead to inefficient deployment of capital. Failure to allocate capital in an effective manner may lead to reduced returns on capital invested, operational inefficiencies, damage to our reputation or limitations on our access to capital.

When we undertake any strategic initiatives, our ability to achieve the expected returns and other benefits will be affected by our degree of preparedness and ability to execute.

- We have undertaken and continue to undertake various projects including capital and business process improvement/ transformation projects. These projects involve risks, including (but not limited to) difficult environmental conditions, poor project prioritization and capital allocation, factors negatively impacting costs (such as escalating costs of labor and materials, unavailability and underperformance of skilled personnel, suppliers of materials or technology and other third parties we retain, design flaws or operational issues, or poor project management oversight) or poor transition through project stages. Any of the foregoing risks could impair our ability to realize the benefits we had anticipated from the projects and negatively impact our financial performance.

- With respect to any completed and future acquisitions, we are dependent upon our ability to successfully consolidate functions and integrate operations, technology, systems, procedures, and personnel in a timely and efficient manner. The integration of assets and operations requires the dedication of management effort, time and resources, which may divert management's focus and resources from other strategic opportunities or operational matters during the process. The integration process with respect to any completed or future acquisitions may result in the disruption of our existing business and customer relationships, which may adversely affect our ability to achieve the anticipated synergies and other benefits and may, in turn, negatively affect our financial performance.

- We also continue to evaluate the potential disposition of assets and operations that may no longer help us meet our objectives. When we decide to sell assets or operations, we may encounter difficulty in finding buyers or executing alternative exit strategies on acceptable terms or in a timely manner, which could delay the accomplishment of our strategic objectives.

We may fail to maintain high levels of safety and health or to protect the environment

Our operations are subject to hazardous safety and environmental risks inherent in mining, manufacturing, transportation, storage and distribution of chemical fertilizers, including ammonia, which is highly toxic and corrosive. These risks can include: underground water inflows at our potash mines; explosions; fires; severe weather and natural disasters; train derailments, collisions, vessel groundings and other transportation and maritime incidents; leaks and ruptures involving storage tanks, pipelines and railcars; spills, discharges and releases of toxic or hazardous substances or gases; uncontrolled tailings, gypsum stack or other containment breaches; significant subsidence from mining activities; and deliberate sabotage and terrorist incidents. We also have personnel who work or travel in higher risk countries and are subject to increased safety and security risks as a result.

The potash mining process is complex and subject to certain geological conditions and hazards, including the presence of certain gases, such as those containing hydrogen sulfide, and the presence of water-bearing strata above and below many underground mines, which pose the risk of water inflows. It is not uncommon for water inflows of varying degrees to occur in potash mines; however, it is difficult to predict if, when or to what degree such inflows could occur. At our Saskatchewan potash mines we have minor water inflows that we actively monitor and manage, as appropriate. Significant inflows at our potash mines could result in increased operational costs, increased risk of personal injury, production delays or stoppages, the abandonment and closure of a mine, and/or damage to our reputation. The risk of underground water inflows, as with most other underground risks, is currently not insured.

Failure to prevent or appropriately respond to a safety, health or security incident could result in injuries or fatalities among our employees, contractors or residents in communities near our operations. Such incidents may lead to liabilities arising out of personal injuries or death, operational interruptions and shutdown or abandonment of affected facilities. Preventing or responding to accidents could require us to expend significant managerial time and effort, and financial resources to remediate safety issues, compensate injured parties or repair damaged facilities. Any of the foregoing could have an adverse impact on our ability to produce or distribute product, our financial results, and our reputation. Failure to prevent a significant environmental incident could be harmful to our employees, contractors and communities in which we operate, and impact the biodiversity, water resources and related ecosystems near our operations. Such incidents could also adversely impact our operations, financial performance or reputation.

Greenhouse Gas Emissions and Climate Targets

Our ability to lower GHG emissions and achieve our climate targets is subject to numerous risks and uncertainties and our actions taken in implementing our objectives may also expose us to certain additional and/or heightened financial and operational risks.

Reducing our GHG emissions and achieving our climate targets rely on, among other things, our ability to implement and improve energy efficiency at all of our facilities, successful implementation of our pilot programs, partnerships with growers and third parties, future development and growth opportunities, and our ability to develop and deploy new technologies. In the event that we are unable to implement these strategies and technologies as planned, or in the event that such strategies or technologies do not perform as expected, we may be unable to lower our GHG emissions or meet our targets on the current timelines, or at all.

In addition, achieving our GHG emissions reductions and climate targets could require significant capital expenditures and resources, with the potential that the costs required to achieve our targets could differ from our original estimates and expectations, which differences may be material. The overall cost of investing in and implementing an emissions reduction strategy and technologies in furtherance of such strategies, and the resultant change in the deployment of our resources and focus, could have a material adverse effect on our business, financial condition, reserves and results of operations.

An inability to successfully manage the implementation of our new enterprise resource planning system

As part of our digital transformation, we have implemented a new enterprise resource planning ("ERP") system. This system will replace many of our existing operating and financial systems. Such an implementation is a major undertaking, both financially and from a management and personnel perspective. Any disruptions, delays or deficiencies in the design and implementation of our new ERP system could adversely affect our ability to process orders, ship products, provide services and support, send invoices and track payments, fulfill contractual obligations or otherwise operate our business and affect our internal controls over financial reporting.

Our business and operations are subject to other general and ongoing risks, most of which are outside our control

Epidemics, pandemics or other such crises or public health concerns in regions of the world where we have operations or source material or sell products could impact or disrupt our business.

The ongoing COVID-19 pandemic has resulted in travel bans and restrictions, quarantines, and extended shutdowns of certain businesses around the world, as well as a deterioration of general economic conditions. These factors or any governmental or other regulatory responses or developments or health concerns in countries in which we operate could result in operational restrictions, supply chain disruptions, social and economic instability, or labor shortages. More specifically, there remains uncertainty relating to the potential impact that the COVID-19 pandemic could ultimately have on our business. It is still possible that the COVID-19 pandemic could significantly impact our operations, create supply chain challenges and disruptions, and/or limit our ability to timely sell or distribute our products in the future, which would negatively impact our business, financial condition and operating results. It is also possible that the COVID-19 pandemic could negatively impact our customers, even though the agriculture sector is classified as an essential service. Any significant long-term downturn in the global economy or agricultural markets could impact the Company's access to capital or credit ratings, or our customers' access to liquidity, which could increase our counterparty credit exposure.

The ultimate magnitude of the effects of the COVID-19 pandemic, including the extent of its impact on the Company's financial performance, will be determined by the length of time that the pandemic continues, its effect on the demand for the Company's products and services and the supply chain, as well as the effect of governmental regulations imposed in response thereto. We cannot at this time predict the full extent or impact of the COVID-19 pandemic, but it could have an adverse effect on our business, financial condition, financial results and/or cash flows.

Canpotex may be dissolved or its ability to operate impaired

Canpotex is the offshore marketing, transportation and distribution company we rely on to deliver our potash to customers outside Canada and the US. Unexpected changes in laws or regulations, market or economic conditions, our (or our venture partner's) business, or otherwise could threaten the existence or effectiveness of Canpotex. A trusted potash brand could be lost and our access to key offshore markets negatively impacted resulting in a less efficient logistics system, decreased sales, higher costs or lower net earnings from offshore sales.

We are exposed to various market risks that may impact our operating results

We are exposed to various market factors that may impact our operating results including: changes in the price of, or ability to source, raw materials and energy, which could, among other things, impact our gross margins and profitability; commodity price volatility, including the possibility of asset impairment as a result thereof; currency volatility and risk, including as a result of the translation of foreign subsidiaries' financial statements to US dollars for consolidation at the Nutrien level; and fluctuations in

interest rates, which could negatively impact our financial results given our use of floating rate debt, floating rate credit facilities and commercial paper, as well as the refinancing of long-term debt and anticipated future financing needs. We seek to manage a portion of the risks relating to changes in commodity prices and foreign currency exchange rates by using derivative instruments; however, such instruments may be ineffective in fully mitigating such risks.

Changes in the price of raw materials and energy required to produce our products, including natural gas, which is the principal raw material used to manufacture our nitrogen products and a significant energy source in the potash milling and mining process, could have a material impact on our business. The price of raw materials and energy can fluctuate widely for a variety of reasons, including changes in availability because of additional capacity or limited availability due to curtailments, regulatory changes, including changes related to production of certain raw materials or energy sources, or other operating problems. Other external factors beyond our control can also cause volatility in raw materials prices, including, without limitation, general economic conditions, the level of business activity in the industries that use our products, weather conditions and forecasts, competitors' actions, international events, the ongoing COVID-19 pandemic and circumstances, and governmental regulation in the US and abroad. Because most of our products are commodities or derived from commodities, there can be no assurance that we will be able to recover increases in the price of such raw materials through an increase in the selling price of our related crop nutrient products. Conversely, when the market prices for these raw materials rapidly decrease, the selling prices for related crop nutrients can fall more rapidly than we are able to consume our raw material inventory that we purchased or committed to purchase at higher prices. As a result, our costs may not fall as rapidly as the selling prices of our products. Until we are able to consume the higher-priced raw materials, our gross margins and profitability may be adversely affected.

We have benefited from relatively low North American natural gas prices in recent years; however, the price for natural gas in North America can vary significantly compared to the price for natural gas in Europe and Asia. Significantly lower natural gas prices in Europe and/or Asia may give our competitors in Europe and Asia a competitive advantage, which could, in turn, decrease international and domestic product prices and reduce our margins. In addition, higher natural gas prices, particularly in North America, during a period of low crop input selling prices could adversely affect our results of operations.

There is also a risk to production at our various facilities due to concerns over the availability of natural gas supplies. Nitrogen facilities in Argentina and Trinidad have all experienced supply strains or curtailments. Continued or increased natural gas shortages may result in reduced production available for sale and higher production costs per tonne.

We may be unable to access sufficient, cost-effective and timely transportation, distribution and storage of our products

We rely on railroad, trucking, pipeline and other transportation service providers to transport raw materials to our manufacturing facilities, to coordinate and deliver finished products to our storage and distribution system and our Retail centers, and to ship finished products to our customers.

Our (or the third parties upon which we rely) ability to provide sufficient, cost-effective and timely transportation and storage of product may be challenged due to a number of factors, including labor disputes, system failures, accidents (such as spills or derailments), delays, adverse weather or other environmental events, adverse operating conditions (including aging transportation infrastructure, railroad capacity constraints, or changes to rail or ocean freight systems), swings in demand for our products, increased shipping demand for other products, adverse economic conditions, a change in our export, sales or marketing company relationships, or otherwise. This could result in delays and increased costs, lost revenue and reputational damage with our customers.

Adverse weather conditions may decrease demand for our products or delay grower purchases

Our business and our customers are impacted by weather patterns and conditions. Adverse conditions, including as a result of climate change, that can delay or intermittently disrupt fieldwork during the planting and growing seasons may cause agricultural customers to use different forms of crop nutrients and crop protection products, which may adversely affect demand for the forms of products that we sell or may impede farmers from applying our crop nutrients and crop protection products until the following growing season, or in some cases not at all, resulting in lower demand for our products and reduced revenues. In addition, we face the significant risk and cost of continuing to carry inventory should our customers' activities be curtailed during their normal application seasons. We must manufacture and distribute product throughout the year in order to meet peak season demand, as well as react quickly to unexpected changes in weather patterns that affect demand. Weather can also have an adverse effect on crop yields, which could lower the income of growers and impair their ability to purchase our crop nutrients, crop protection, and seed products and services. As a result, our quarterly financial results may vary significantly from one year to the next due to weather-related shifts in planting schedules and purchasing patterns, and losses due to adverse weather conditions in one quarter may not be recovered in the following season.

We may be unable to access capital on a cost-effective or timely basis

We rely on access to debt capital markets to finance our day-to-day and long-term operations. Access to and cost of capital may be affected by factors not specific to Nutrien, such as adverse conditions in the credit markets, general and industry-specific market and economic conditions, interest rate fluctuations, and continued uncertainty due to the ongoing COVID-19 pandemic. Our access to capital will also be dependent on our credit ratings, which are determined by, among other things, the level and quality of our earnings, our ability to generate cash flows, and restrictions on our ability to repatriate cash offshore. A credit rating downgrade could potentially limit our access to private and public credit markets and increase the costs of borrowing under our existing credit facilities. A downgrade could also limit our access to short-term debt markets and increase the cost of borrowing in the short-term and long-term debt markets. Inability to access capital on a cost-effective or timely basis may result in a loss of liquidity, an increase in the cost of capital or inability to execute on value-added transactions requiring significant capital. Our reputation and financial performance may be impacted by concerns regarding the contribution of our operations to climate change and could include a reduction in investor confidence and constraints on our ability to access capital markets.

Our operations are exposed to counterparty risk

We are exposed to the risks associated with counterparty performance, including credit risk and performance risk. We may experience material financial losses in the event of customer payment default for our products and/or financial derivative transactions.

We are subject to legal proceedings, the outcome of which may affect our business

We are, and may in the future be, involved in legal and regulatory proceedings, including matters arising from our activities or activities of predecessor companies. The outcome of these matters may be difficult to assess or quantify, and such matters may not be resolved in our favor. Such matters could result in unfavorable outcomes, including fines, sanctions, assessments of additional taxes (including interest and penalties) and other monetary damages against us or our directors, officers or employees. The defense of such matters may also be costly and time consuming, and could divert the attention of management and key personnel from our operations. We may also be subject to adverse publicity associated with such matters, regardless of whether such allegations are valid or whether we are ultimately found liable.

Our insurance coverage may not adequately cover our losses

We maintain property, business interruption, casualty and liability insurance policies, but we are not fully insured against all potential hazards and risks pertaining to our business. As a result, we may incur significant liability for which we are not fully insured. We are subject to various self-retentions, deductibles and limits under these insurance policies. The policies also contain exclusions and conditions that could have a material adverse impact on our ability to receive indemnification thereunder. Our policies are generally renewed annually. As a result of market conditions, our premiums, self-retentions and deductibles for certain insurance policies can increase substantially and, in some instances, certain insurance may become unavailable or available only for reduced amounts of coverage. In addition, significantly increased costs could lead us to decide to reduce, or possibly eliminate, coverage for certain hazards and risks.

We may be subject to labor disruptions or disputes

A significant portion of our workforce is unionized or otherwise governed by collective bargaining or similar agreements. In addition, two of our 14 collective bargaining agreements remain under renegotiation as of the date hereof. We are therefore subject to the possibility of organized labor disruptions. Adverse labor relations or contract negotiations that do not result in an agreement could result in strikes or slowdowns or impose additional costs to resolve these disputes. These disruptions may negatively impact our ability to produce or sell our products and/or cost of production. These disruptions may also impact our ability to recruit and retain personnel and could negatively affect our financial performance.

Our reported mineral reserves and mineral resources are only estimates

Our reported mineral reserves and mineral resources are only estimates. Our mineral reserves have been estimated in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects*, as required by Canadian securities regulatory authorities, and the Canadian Institute of Mining, Metallurgy and Petroleum Classification System and our mineral reserve disclosure is not required to adhere to US requirements. The estimated mineral reserves and mineral resources may not be recovered or may not be recovered at the rates estimated. Mineral reserves and mineral resources estimates are based on limited physical sampling and geophysical imaging, and, consequently, are uncertain because the samples and/or data may not be representative of the actual resources. Mineral reserves and mineral resources estimates may require revision (either up or down) based on actual production experience. Further, market fluctuations in the price of potash, as well as increased production costs or reduced recovery rates (including due to policy, legal, technological, market and societal responses to climate change), may render certain mineral reserves and mineral resources uneconomic and may ultimately result in a restatement of estimated resources and/or reserves.

5.12 Mineral Projects

See “Schedule B – Mineral Projects” for information regarding our Allan, Cory, Lanigan, Rocanville and Vanscoy Potash operations.

6 – Dividends

The declaration, amount and payment date of any dividend by Nutrien is at the discretion of the Board and will depend on numerous factors, including compliance with applicable laws and the financial performance, debt obligations, working capital requirements and future capital requirements of Nutrien and its subsidiaries. See “5 – Description of the Business – 5.11 Risk Factors.”

Dividends declared by Nutrien for the years ended December 31 were as follows:

2020		2019		2018	
Date Declared	**Per Common Share**	**Date Declared**	**Per Common Share**	**Date Declared**	**Per Common Share**
February 19, 2020	0.45	May 10, 2019	0.43	February 20, 2018	0.40
May 6, 2020	0.45	July 30, 2019	0.45	May 23, 2018	0.40
August 10, 2020	0.45	December 13, 2019	0.45	July 19, 2018	0.40
December 10, 2020	0.45			November 5, 2018	0.43
				December 14, 2018	0.43
Total	**1.80**	**Total**	**1.33**	**Total**	**2.06**

7 – Description of Capital Structure

7.1 General Description of Capital Structure

Authorized Capital

The authorized share capital of Nutrien consists of an unlimited number of Common Shares and an unlimited number of preferred shares issuable in series.

As of the date hereof, 569,790,353 Common Shares were issued and outstanding and no preferred shares were issued or outstanding. The following is a general description of the material rights, privileges, restrictions and conditions attached to the Common Shares and the preferred shares.

Common Shares

Each Common Share entitles the holder to: (i) vote at all meetings of holders of Common Shares (except meetings at which only holders of a specified class or series of shares of Nutrien are entitled to vote as provided in the CBCA) and to one vote for each Common Share held on all polls taken at such meetings; (ii) receive, subject to the rights of the holders of another class of shares of Nutrien, any dividend declared by the Board from time to time, in their absolute discretion, in accordance with applicable law; and (iii) receive, subject to the rights of holders of another class or series of shares of Nutrien, the remaining property of Nutrien on the liquidation, dissolution or winding up of Nutrien or any other distribution of the assets of Nutrien for the purposes of winding up its affairs, whether voluntary or involuntary. There are no pre-emptive or conversion rights attaching to the Common Shares and the Common Shares are not subject to redemption. All Common Shares currently outstanding and to be outstanding upon exercise of outstanding options and other securities, as applicable, are, or will be, fully paid and non-assessable.

Our by-laws provide for certain rights of holders of our Common Shares in accordance with the provisions of the CBCA. Such by-laws may be amended either by a majority vote of the holders of Common Shares or by a majority vote of the Board. Any amendment of the by-laws by action of the Board must be submitted to the next meeting of our shareholders whereupon the by-law amendment must be confirmed, confirmed as amended or rejected by a majority vote of the shareholders voting on such matter.

Preferred Shares

The preferred shares may at any time and from time to time be issued in one or more series with the designation, rights, privileges, restrictions and conditions attaching to each series of the preferred shares to be determined by the Board.

The preferred shares of each series rank on a parity with the preferred shares of every other series, and are entitled to preference over the Common Shares and any other shares of the Company ranking junior to the preferred shares, with respect to (i) the payment of dividends; (ii) the distribution of property in the event of the liquidation, dissolution or winding up of Nutrien; and (iii) such other preferences as may be determined by the Board.

Except as specifically provided in the rights, privileges, restrictions and conditions attaching to any series of preferred shares and except as provided by the CBCA, the holders of preferred shares are not entitled to receive notice of or attend any meeting of the shareholders of the Company or to vote at any such meeting for any purpose.

The provisions attaching to the preferred shares as a class may be added to, changed or removed, and the Board may create shares ranking prior to the preferred shares, only with the approval of the holders of the preferred shares as a class, any such approval to be given by the holders of not less than 66 $^{2}/_{3}$ percent of the preferred shares in writing by the registered holders of the preferred shares or by resolution at a meeting of such holders.

7.2 Constraints

There are no constraints imposed on the ownership of Nutrien's securities to ensure that the Company has a required level of Canadian ownership.

7.3 Debt Ratings

The following information relating to Nutrien's credit ratings is provided as it relates to Nutrien's financing costs, liquidity and operations and to satisfy disclosure requirements under applicable Canadian securities rules. Our ability to access reasonably priced debt in the capital markets is dependent, in part, on the quality of our credit ratings. We continue to maintain investment-grade credit ratings for our long-term debt. A downgrade of the credit rating of our long-term debt could increase the interest rates applicable to future borrowings.

Commercial paper markets are normally a source of same-day cash for the Company. Our access to the US commercial paper market primarily depends on maintaining our current short-term credit ratings as well as general conditions in the money markets.

A credit rating is not a recommendation to buy, sell or hold securities. Such ratings may be subject to revision or withdrawal at any time by the respective credit rating agency and each rating should be evaluated independently of any other rating.

The following table sets out ratings the Company has received in respect of its outstanding debt securities from the ratings agencies as at the date of this AIF. The Company has paid each of Standard & Poor's Rating Services ("S&P") and Moody's Investors Service ("Moody's") their customary fees in connection with the provision of the following ratings. The Company has not made any payments to S&P or Moody's in the past two years for services unrelated to the provision of such ratings.

	S&P Rating	**Moody's Rating**
Nutrien Notes	BBB	Baa2
US$ Commercial Paper	A-2	P-2
Ratings Outlook	Stable	Stable

S&P

The BBB rating assigned by S&P is the fourth highest rating of S&P's 10 rating categories for long-term debt, which range from AAA to D. Issues of debt securities rated BBB are judged by S&P to exhibit adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation. The ratings from AA to CCC may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

The A-2 rating assigned by S&P is the second highest rating of S&P's six rating categories for short-term debt, which range from A-1 to D. A short-term obligation rated A-2 is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rating categories. However, the obligor's capacity to meet its financial commitments on the obligation is satisfactory.

S&P's stable outlook on Nutrien's credit ratings means that the ratings are not likely to change.

Moody's

The Baa2 rating assigned by Moody's is the fourth highest rating of Moody's nine rating categories for long-term debt, which range from Aaa to C. Moody's appends numerical modifiers from one to three on its long-term debt ratings from Aa to Caa to indicate where the obligation ranks within a particular ranking category, with the two modifier indicating a mid-range ranking. Obligations rated Baa are defined by Moody's as being subject to moderate credit risk. They are considered medium-grade and as such may possess certain speculative characteristics. Nutrien's issuer rating assigned by Moody's is Baa2.

The P-2 rating assigned by Moody's is the second highest rating of Moody's four rating categories for short-term debt, which range from P-1 to NP. Issuers rated P-2 are defined by Moody's as having a strong ability to repay short-term debt obligations.

Moody's stable outlook on Nutrien's credit ratings indicates a low likelihood of a rating change over the medium term.

8 – Market for Securities

8.1 Trading Price and Volume

During 2020, Nutrien's Common Shares traded on the TSX and the New York Stock Exchange ("NYSE") under the symbol "NTR."

The following table sets out the trading price range and volume of our Common Shares traded on the TSX and the NYSE for 2020 on a monthly basis:

	TSX			NYSE		
Month (2020)	**High Price (CAD$)**	**Low Price (CAD$)**	**Volume**	**High Price (US$)**	**Low Price (US$)**	**Volume**
January	63.36	56.06	27,867,437	48.59	42.37	33,780,337
February	59.36	51.90	26,509,917	44.68	38.65	40,877,203
March	56.00	34.80	63,893,236	42.00	23.85	65,084,918
April	51.86	44.79	35,732,156	37.22	31.51	34,156,792
May	51.91	41.98	20,741,196	36.98	29.70	29,640,330
June	52.47	43.42	51,452,081	39.20	31.88	34,350,898
July	46.24	41.50	37,151,790	34.07	30.56	33,889,460
August	52.64	44.38	19,890,556	39.98	32.49	38,150,445
September	55.40	47.72	38,917,345	42.06	36.56	30,766,899
October	55.42	50.00	34,410,673	42.19	37.51	25,475,815
November	64.60	49.88	27,780,378	49.77	37.79	35,414,634
December	64.98	59.45	28,979,142	50.81	46.25	28,108,769

8.2 Prior Sales

During the year ended December 31, 2020, Nutrien issued 150,177 Common Shares pursuant to the exercise and settlement of outstanding share-based compensation award plans. During 2020, Nutrien also granted 2,293,802 stock options under its stock option plan. See Note 5 and Note 23 of the 2020 Consolidated Financial Statements for additional information.

See the "Three-Year History" section in this AIF for information regarding notes that we issued in May 2020.

9 – Escrowed Securities and Securities Subject to Contractual Restriction on Transfer

To the knowledge of the Company, none of the securities of the Company are subject to escrow or contractual restriction on transfer.

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10 – Directors and Officers

10.1 Name, Occupation and Security Holding

Information is given below with respect to each of the current directors and executive officers, including names, municipality and country of residence, all current positions held with the Company, present principal occupation and principal occupations held during the last five years. The current directors will hold office until the earlier of their resignation and our next annual meeting of shareholders at which directors are elected or until such directors cease to hold office pursuant to the provisions of the CBCA.

Directors [7] **(Name and Municipality of Residence)**	**Director Since**	**Present Principal Occupation or Employment**	**Prior Principal Occupation or Employment Within the Preceding Five Years**
Mayo M. Schmidt Las Vegas, Nevada, US	2018 (Agrium from 2013 – 2017)	Corporate Director Board Chair of Nutrien	President & Chief Executive Officer and Director of Hydro One Inc., an electricity transmission and distribution company
Charles (Chuck) V. Magro Heritage Pointe, Alberta, Canada	2018 (Agrium from 2013 – 2017)	President & Chief Executive Officer of Nutrien	President & Chief Executive Officer of Agrium
Christopher M. Burley [1, 3] Calgary, Alberta, Canada	2018 (PotashCorp from 2009 – 2017)	Corporate Director	Corporate Director
Maura J. Clark [1, 2] New York, New York, US	2018 (Agrium from 2016 – 2017)	Corporate Director	Corporate Director
Russell K. Girling [2, 4, 6] Calgary, Alberta, Canada	2018 (Agrium from 2006 – 2017)	Corporate Director	President & Chief Executive Officer and Director of TC Energy Corporation, a diversified energy and pipeline company
Miranda C. Hubbs [3, 4] Toronto, Ontario, Canada	2018 (Agrium from 2016 – 2017)	Corporate Director	Corporate Director
Alice D. Laberge [1, 3] Vancouver, British Columbia, Canada	2018 (PotashCorp from 2003 – 2017)	Corporate Director	Corporate Director
Consuelo E. Madere [3, 4] Destin, Florida, US	2018 (PotashCorp from 2014 – 2017)	President and Founder of Proven Leader Advisory, LLC, a management consulting and executive coaching firm	Same as present
Keith G. Martell [1, 2] Eagle Ridge, Saskatchewan, Canada	2018 (PotashCorp from 2007 – 2017)	President & Chief Executive Officer and Director of First Nations Bank of Canada, a Canadian chartered bank providing financial services with a focus on the Indigenous marketplace	Same as present
Aaron W. Regent [1, 2] Toronto, Ontario, Canada	2018 (PotashCorp from 2015 – 2017)	Founding Partner and Managing Partner of Magris Resources Inc., a private equity investment firm specializing in the mining sector. Chairman and Chief Executive Officer of Niobec Inc., a company that owns and operates the Niobec mine, which comprises niobium deposit	Same as present

Directors [7] (Name and Municipality of Residence)	Director Since	Present Principal Occupation or Employment	Prior Principal Occupation or Employment Within the Preceding Five Years
Nelson L.C. Silva [2, 4, 5] Rio de Janeiro, Brazil	2020	Corporate Director; Advisor to Appian Capital Advisory LLP, investment advisor in the mining sector and HSB Solomon Associates LLC, strategic advisor in the energy sector	Executive Director of Petróleo Brasileiro S.A; an oil and gas exploration and production company; Chief Executive Officer of BG Group, a multinational oil and gas company in South America

1 Member of the Audit Committee of the Board.
2 Member of the Human Resources & Compensation Committee of the Board.
3 Member of the Corporate Governance & Nominating Committee of the Board.
4 Member of the Safety & Sustainability Committee of the Board.
5 Mr. Silva was appointed to the Board on August 10, 2020.
6 Mr. Girling retired as President and Chief Executive Officer of TC Energy Corporation and from its Board of Directors effective December 31, 2020.
7 In 2020, John W. Estey (May 6, 2020) and David C. Everitt (August 10, 2020) retired from the Board.

Executive Officers (Name and Municipality of Residence)	Present Position With the Company and Principal Occupation	Prior Principal Occupation or Employment Within the Preceding Five Years
Charles (Chuck) V. Magro Heritage Pointe, Alberta, Canada	President and Chief Executive Officer of Nutrien	President & Chief Executive Officer, Agrium
Noralee Bradley [1] Calgary, Alberta, Canada	Executive Vice President and Chief Legal Officer of Nutrien	Partner at Blake, Cassels & Graydon LLP; Partner at Osler, Hoskin & Harcourt LLP
Pedro Farah Calgary, Alberta, Canada	Executive Vice President and Chief Financial Officer of Nutrien	Executive Vice President and Treasurer, Walmart; Executive Vice President and Chief Financial Officer, Walmex (Walmart Mexico)
Michael J. Frank [2] Timnath, Colorado, US	Executive Vice President and Chief Executive Officer of Retail of Nutrien	Executive Vice President and President, Retail, Agrium; Senior Vice President & Chief Commercial Officer, Monsanto Company, an agrochemical and agricultural biotechnology company
Brent Poohkay Canmore, Alberta, Canada	Executive Vice President and Chief Information Officer of Nutrien	Senior Vice President, Information Technology, PotashCorp; Vice President, Chief Information Officer and Chief Privacy Officer, Enbridge Inc., a multinational energy transportation company
Ken Seitz Saskatoon, Saskatchewan, Canada	Executive Vice President and Chief Executive Officer of Potash of Nutrien	President and Chief Executive Officer, Canpotex Limited, a potash exporter; Senior Vice President and Chief Commercial Officer, Cameco Corporation, a uranium producer
Raef Sully Loveland, Colorado, US	Executive Vice President and Chief Executive Officer of Nitrogen and Phosphate of Nutrien	President, Nitrogen and Phosphate, PotashCorp; President, Nitrogen, PotashCorp
Mark Thompson Saskatoon, Saskatchewan, Canada	Executive Vice President, Chief Corporate Development and Strategy Officer of Nutrien	Vice President of Business Development, Vice President of Strategy, Special Assistant to CEO, Nutrien and Agrium
Michael R. Webb Calgary, Alberta, Canada	Executive Vice President and Chief Human Resources and Administrative Officer of Nutrien	Senior Vice President, Human Resources, Agrium

1 Ms. Bradley is in the process of relocating her residence to Saskatoon, Saskatchewan.
2 Mr. Frank's employment with Nutrien as the Executive Vice President and Chief Executive Officer of Retail of Nutrien will end effective February 26, 2021.

As at December 31, 2020, the directors and executive officers of the Company as a group beneficially own, or control or direct, directly or indirectly, 303,634 Common Shares, representing less than 1 percent of the outstanding Common Shares.

10.2 Cease Trade Orders, Bankruptcies, Penalties or Sanctions

Except as set out below, no director or executive officer of the Company was, as at the date hereof, or has been within the 10 years prior to the date hereof, a director, chief executive officer or chief financial officer of any company (including the Company), that:

- was subject to an order that was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer; or
- was subject to an order that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer.

For the purposes of the above, "order" means any of the following that was in effect for a period of more than 30 consecutive days:

- a cease trade order;
- an order similar to a cease trade order; or
- an order that denied the relevant company access to an exemption under securities legislation.

Except as set out below, no director or executive officer of the Company, or, to the knowledge of the Company, a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company:

- was, as at the date hereof, or has been within the 10 years prior to the date hereof, a director or executive officer of any company (including the Company) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver manager or trustee appointed to hold its assets; or

- has, within the 10 years before the date hereof, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder.

Mr. Burley was a director of Parallel Energy Inc., administrator of Parallel Energy Trust ("Parallel Energy"). On or about November 9, 2015, Parallel Energy and its affiliates filed applications for protection under the *Companies' Creditors Arrangement Act* (Canada) and voluntary petitions for relief under Chapter 11 of the *United States Bankruptcy Code*. Mr. Burley resigned from the board of directors of Parallel Energy Inc. on March 1, 2016. The Canadian entities of Parallel Energy each filed an assignment in bankruptcy under the *Bankruptcy and Insolvency Act* (Canada) on March 3, 2016. In 2015, securities regulators for the Provinces of Alberta, British Columbia, Manitoba, Ontario, Quebec, Saskatchewan and New Brunswick issued cease trade orders in relation to the securities of Parallel Energy for the failure by Parallel Energy to timely file financial statements as well as related continuous disclosure documents. Such cease trade orders continue to be in effect. The TSX delisted the trust units and debentures of Parallel Energy at the close of business on December 11, 2015.

Ms. Clark has served as a director of Garrett Motion Inc. ("Garrett Motion") since October 2018. In September 2020, Garrett Motion and certain affiliated companies filed voluntary petitions under Chapter 11 of Title 11 of the *United States Bankruptcy Code*. As of the date of this AIF, proceedings related to Garrett Motion's petition are still ongoing and the sale of certain assets of Garrett Motion pursuant to a definitive transaction agreement remains subject to court approval as well as other customary conditions.

10.3 Conflicts of Interest

To the knowledge of the Company, no director or officer of the Company has an existing or potential material conflict of interest with the Company or any of its subsidiaries, joint ventures or partnerships.

11 – Promoters

During the two most recently completed financial years, no person or company has been a promoter of the Company.

12 – Legal Proceedings and Regulatory Actions

The information under “Environmental Remediation, Legal and Other Matters” of Note 29 of the 2020 Consolidated Financial Statements is incorporated by reference herein. For further discussion of certain environmental proceedings in which we are involved, see “Environmental Matters” above.

In the normal course of business, we are also, and expect to continue to be, subject to various other legal proceedings being brought against us. While it is not possible to determine the ultimate outcome of such actions at this time, and inherent uncertainties exist in predicting such outcomes, it is the Company’s belief that the ultimate resolution of any such known actions is not reasonably likely to have a material adverse effect on its consolidated financial statements.

13 – Interest of Management and Others in Material Transactions

To the knowledge of the Company, as of the date hereof, there were no directors or executive officers of the Company or any associate or affiliate of a director or executive officer of the Company with any material interest, direct or indirect, in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or is reasonably expected to materially affect the Company.

14 – Transfer Agent, Registrar and Trustees

During the year ended December 31, 2020, the registrar and transfer agent for the Common Shares was AST Trust Company (Canada), at its principal offices in Calgary, Alberta and Toronto, Ontario. Effective February 5, 2021, Computershare became the registrar and transfer agent for the Common Shares. Its principal offices are located in Calgary, Alberta and Toronto, Ontario.

The trustee for the Nutrien notes is the Bank of New York Mellon at its principal offices in New York, New York.

15 – Material Contracts

To the knowledge of the Company, no material contracts require disclosure under this section.

16 – Interests of Experts

KPMG LLP are the auditors of the Company and have confirmed with respect to the Company that they are independent within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and any applicable legislation or regulations and also that they are independent accountants with respect to the Company under all relevant US professional and regulatory standards.

Craig Funk, B.Sc., M.Sc., P.Eng., P.Geo., an employee of the Company, supervised the preparation of and approved the Allan Technical Report, the Cory Technical Report, the Lanigan Technical Report, the Rocanville Technical Report and the Vanscoy Technical Report (each, as defined in Schedule B hereto). Mr. Funk is a qualified person under National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (“NI 43-101”) and has reviewed and approved the scientific and technical information in this AIF relating to the Company’s Allan, Cory, Lanigan, Rocanville and Vanscoy Potash operations. Mr. Funk holds beneficially, directly or indirectly, less than 1 percent of any class of the securities of the Company or of any of the Company’s associates or affiliates.

The technical report titled “National Instrument 43-101 Technical Report on Vanscoy Potash Operations” dated effective October 31, 2014 (the “2014 Vanscoy Technical Report”), and which was replaced by the Vanscoy Technical Report, was prepared under the supervision of and approved by A. Dave Mackintosh, P.Geo., of ADM Consulting Limited, and Michael Ryan Bartsch, P.Eng. and Dennis William Aldo Grimm, P.Eng., both employees of the Company as of the date of the 2014 Vanscoy Technical Report, who prepared certain sections of the 2014 Vanscoy Technical Report in accordance with NI 43-101 on behalf of the Company. Mr. Mackintosh, ADM Consulting Limited and the partners, employees and consultants of ADM Consulting Limited did not hold any registered or beneficial interests, directly or indirectly, in the securities of the Company or its associates or affiliates. Mr. Bartsch holds beneficially, directly or indirectly, less than 1 percent of any class of the Company’s securities. Mr. Grimm is a retired employee of the Company and holds beneficially, directly or indirectly, less than 1 percent of any class of the Company’s securities.

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17 – Audit Committee

17.1 Audit Committee Charter

Attached, as Schedule A, is the charter for the Company's Audit Committee.

17.2 Composition of the Audit Committee

Members of the Audit Committee are Maura J. Clark, Christopher M. Burley, Alice D. Laberge, Keith G. Martell and Aaron W. Regent. Russell K. Girling was a member of the Audit Committee until June 25, 2020. Each member of the Audit Committee is (and, in the case of Mr. Girling, was, during his time of service on the Audit Committee) independent and financially literate (as such terms are defined in National Instrument 52-110 – *Audit Committees*).

17.3 Relevant Education and Experience of Members of the Audit Committee

Name **(Director Since)**	**Principal Occupation and Full Biography**
Ms. Maura J. Clark (2018) (Audit Committee Chair) B.A. (Economics), CPA, CA New York, New York, US Other Public Directorships Newmont Corporation, a gold mining company (TSX, NYSE) Fortis Inc., a North American electric and gas utility holding company (TSX) Garrett Motion Inc., a turbocharger and electric-boosting technology manufacturer (NYSE)	Ms. Clark is a Corporate Director and the former President of Direct Energy Business, a subsidiary of Centrica plc, a North American energy and energy-related services provider from 2007 to 2014. Previously, Ms. Clark was Executive Vice President of North American Strategy and Mergers and Acquisitions for Direct Energy. She also served as a managing director at Goldman Sachs & Co., an investment banking firm, and as Executive Vice President, Corporate Development and Chief Financial Officer of Premcor, Inc. (formerly known as Clark Refining & Marketing, Inc.), a petroleum refiner and marketer. Ms. Clark holds a Bachelor of Arts degree from Queen's University and a Chartered Professional Accountant designation.
Mr. Christopher Burley (2018) B.Sc., M.B.A. Calgary, Alberta, Canada Other Public Directorships None	Mr. Burley is a Corporate Director and former Managing Director and Vice Chairman of Energy for Merrill Lynch Canada Inc., an investment banking firm. He has over two decades of experience in the investment banking industry. He is the Chairman and a director of WestJet Airlines Ltd. Mr. Burley is a graduate of the Institute of Corporate Directors' Education Program and holds the ICD.D designation.
Mr. Russell K. Girling [1] (2018) B. Comm., M.B.A. (Finance) Calgary, Alberta, Canada Other Public Directorships None	Mr. Girling was a Corporate Director and President and Chief Executive Officer of TC Energy Corporation and TransCanada PipeLines Limited from 2010 to 2020. Previously, he served as Chief Operating Officer from July 17, 2009 to June 30, 2010 and President, Pipelines from June 1, 2006 until June 30, 2010. Previously, Mr. Girling served as Chief Financial Officer and Executive Vice President, Corporate Development of TC Energy Corporation until May 31, 2006, and as Executive Vice President, Power from 1995 until his appointment as Chief Financial Officer in 1999. Mr. Girling has held various other leadership positions since joining TC Energy Corporation in 1994. Prior to his employment with TC Energy Corporation, he held several marketing and management positions at Suncor Inc., Northridge Petroleum Marketing and Dome Petroleum. Mr. Girling is a member of the Canadian Council of Chief Executives, US National Petroleum Council, the US Business Roundtable, and a member of the board of directors of the American Petroleum Institute and the Business Council of Canada. Mr. Girling also holds the ICD.D designation.

Name (Director Since)	Principal Occupation and Full Biography
Ms. Alice D. Laberge (2018) B.Sc., M.B.A. Vancouver, British Columbia Other Public Directorships Mercer International Inc., operator of pulp mills and producer of bioelectricity (NASDAQ) Russel Metals Inc., a North American metal distribution company (TSX)	Ms. Laberge is a Corporate Director and the former President and Chief Executive Officer of Fincentric Corporation, a global provider of software solutions to financial institutions. She was previously Senior Vice President and Chief Financial Officer of MacMillan Bloedel Ltd. She is a director of Mercer International Inc., Russel Metals Inc., the Canadian Public Accountability Board and the B.C. Cancer Foundation and has served as a director of the Royal Bank of Canada, SilverBirch Holdings Inc., Delta Hotels Ltd. and Catalyst Paper Corporation. She was recognized as a Fellow of the Institute of Corporate Directors in 2015.
Mr. Keith G. Martell (2018) B. Comm., CPA, CA Eagle Ridge, Saskatchewan, Canada Other Public Directorships None	Mr. Martell is President & Chief Executive Officer and Director of First Nations Bank of Canada, a Canadian chartered bank providing financial services with a focus on the Indigenous marketplace. He serves as a director of River Cree Enterprises Ltd., as a trustee of the National Indian Brotherhood Trust and a governor of the University of Saskatchewan. He previously served as a director of the Canadian Chamber of Commerce, Public Sector Pension Investment Board of Canada and The North West Company Inc. Mr. Martell is a designated Chartered Professional Accountant and holds a Bachelor of Commerce and an Honorary Doctorate of Laws from the University of Saskatchewan.
Mr. Aaron W. Regent (2018) B.A., FCPA, FCA Toronto, Ontario, Canada Other Public Directorships The Bank of Nova Scotia, a global financial services provider (TSX, NYSE)	Mr. Regent serves as the Chair of the Board of The Bank of Nova Scotia. He is also the Founding and Managing Partner of Magris Resources Inc. and Chairman and Chief Executive Officer of Niobec Inc. Mr. Regent has acquired significant financial experience during his time as President and Chief Executive Officer of Barrick Gold Corporation, Senior Managing Partner of Brookfield Asset Management and Co-Chief Executive Officer of the Brookfield Infrastructure Group, and as President and Chief Executive Officer of Falconbridge Limited. Mr. Regent is a member of the Chartered Professional Accountants of Ontario.

1 Member of the Audit Committee of the Board until June 25, 2020.

17.4 Pre-Approval Policies and Procedures

Subject to applicable law, the Audit Committee is directly responsible for the compensation and oversight of the work of the independent auditors. The Audit Committee has implemented a Pre-Approval Policy for Audit and Non-Audit Services for the pre-approval of services performed by our auditors. The objective of this policy is to specify the scope of services permitted to be performed by our auditors and to ensure that the independence of our auditors is not compromised through engaging them for other services. Our Audit Committee pre-approves all audit services and all permitted non-audit services provided by our external auditors and reviews on a quarterly basis whether these services affect our external auditors' independence. All services provided by our auditors in 2020 complied with the Pre-Approval Policy for Audit and Non-Audit Services, and professional standards and securities regulations governing auditor independence.

17.5 External Auditor Service Fees (by Category)

The following table sets out the fees billed to us by KPMG LLP and its affiliates for professional services rendered during the years ended December 31, 2020 and 2019. During these years, KPMG LLP was the Company's only external auditor.

Category	Years Ended December 31 (US$)	
	2020	**2019**
		(Restated) [1]
Audit Fees [2]	6,477,700	5,465,600
Audit-Related Fees [3]	133,600	114,700
Tax Fees [4]	132,700	368,800
All Other Fees [5]	239,200	344,300
Total	**6,983,200**	**6,293,400**

1 2019 fee disclosure – the comparative amounts have been restated to reflect fees billed in the 2019 fiscal year.
2 For professional services rendered by KPMG LLP for the integrated audit of the Company's annual financial statements, interim review of the Company's interim financial statements, and audits of statutory financial statements of international subsidiaries.
3 For professional services rendered by KPMG LLP for specified audit procedures regarding financial assurances issued to certain government agencies, and services which are reasonably related to the performance of the audit of the Company's financial statements and are not included in Audit Fees.
4 For professional services rendered by KPMG LLP for tax compliance, tax advice and tax planning; review of tax filings; assistance with the preparation of tax filings; tax advice relating to asset dispositions; and other tax planning, compliance, and transaction services. These amounts include fees paid to KPMG LLP specifically for tax compliance and preparation services rendered in 2020 and 2019 in the amount of $122,300 and $317,100, respectively.
5 For professional services rendered by KPMG LLP for a cybersecurity maturity assessment, real-time assessment of a system implementation, and assurance advisory services over greenhouse gas emission and sustainability reporting.

18 – Additional Information

Additional financial information is provided in the 2020 Consolidated Financial Statements and the 2020 MD&A. Further, additional information, including historical information concerning directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, and securities authorized for issuance under equity compensation plans is contained in the Company's management proxy circular dated March 20, 2020 for the annual meeting of the Company's shareholders that took place on May 6, 2020.

Additional information related to Nutrien may be found on the Company's website at www.nutrien.com, on the Canadian Securities Administrators' website at www.sedar.com and on the EDGAR section of the US SEC's website at www.sec.gov.

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Schedule A

Audit Committee Charter

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Introduction

The Audit Committee (the "**Committee**") is established to assist the Board of Directors (the "**Board**") of Nutrien Ltd. (the "**Corporation**") in fulfilling its oversight responsibilities with respect to the accounting and financial reporting processes and the reviews and audits of the financial statements of the Corporation by monitoring: (i) the quality and integrity of the Corporation's financial statements and related disclosures; (ii) the Corporation's internal control systems, including internal control over financial reporting; (iii) specific elements of risk management (including all financial risk management) delegated to the Committee by the Board; (iv) the qualifications and independence of the external auditors of the Corporation and the recommendation of the Board to shareholders for the appointment thereof; (v) the performance of the Corporation's Internal Audit function and external auditors; and

(vi) the Corporation's compliance with legal and regulatory requirements with respect to matters within the Committee's mandate and the Code of Ethics.

Management is responsible for preparing the consolidated financial statements of the Corporation and the external auditors are responsible for auditing those financial statements. Nothing in this Charter is intended, or may be construed, to impose on any member of the Committee a standard of care or diligence that is in any way more onerous or extensive than the standard to which all directors are subject under applicable laws or regulatory requirements.

In this Charter, "**Committee Chair**" means the Chair of the Committee; "**Chair**" means the Board Chair; and "**CEO**" means the Chief Executive Officer of the Corporation.

Composition

The members of the Committee shall be appointed by the Board, on the recommendation of the Corporate Governance & Nominating Committee. Any member of the Committee may be removed or replaced at any time by the Board and shall cease to be a member of the Committee on ceasing to be a director. Subject to the above, each member of the Committee shall serve as a member of the Committee until the next annual meeting of shareholders after his or her appointment.

The Committee shall consist of not less than three and not more than eight members. Each Committee member shall be independent according to the independence standards set out in the Corporate Governance Framework, including applicable independence requirements of stock exchanges on which the Corporation is listed and securities laws, rules and regulations.

Each member of the Committee shall be "financially literate", and at least one member of the Committee shall be designated as the "audit committee financial expert" and shall have "accounting or related financial management expertise", in each case, as such qualification is interpreted by the Board in its business judgment and as defined by applicable requirements of stock exchanges on which the Corporation is listed and securities laws, rules and regulations.

No member of the Committee shall serve on the audit committees of more than two other publicly listed companies, unless the Board determines that such simultaneous service would not impair the ability of such member to effectively serve on the Committee and discloses such determination in the Corporation's annual management proxy circular.

The Board may fill vacancies on the Committee from among its members, on the recommendation of the Corporate Governance & Nominating Committee. If and whenever a vacancy shall exist on the Committee, the remaining members may exercise all its powers so long as a quorum remains in place.

The members of the Committee shall be entitled to receive such remuneration for acting as members of the Committee as the Board may from time to time determine.

The Corporate Secretary or such other person acceptable to the members shall act as Secretary to the Committee.

Committee Chair

The Board, upon recommendation of the Corporate Governance & Nominating Committee, shall appoint a Committee Chair. The Committee Chair may be removed and replaced by the Board.

If the Committee Chair is not present at any meeting of the Committee, one of the other members of the Committee present at the meeting shall be chosen by the Committee to chair the meeting.

The Committee Chair shall have the duties and responsibilities set forth in **Annex 1** which is incorporated by reference herein.

Quorum

Fifty percent of the members of the Committee shall constitute a quorum. All determinations of the Committee shall be made by a majority of its members present at a meeting duly called and held.

Meetings

All Committee members are expected to attend, in person or via teleconference, video conference, or other electronic communications facilities that permits all participants to communicate adequately, all meetings of the Committee, to come prepared for the meeting, and to remain in attendance for the duration of the meeting. The powers of the Committee may be exercised by resolution in writing signed by all members of the Committee who would have been entitled to vote on that resolution at a meeting of the Committee.

The Committee may invite such directors, officers, employees and external advisors of the Corporation as it may see fit from time to time to attend meetings of the Committee and assist in the discussion and consideration of the duties of the Committee.

The time at which and place where the meetings of the Committee shall be held, and the calling of meetings and the procedure at such meetings, shall be determined by the Committee in accordance with the Corporation's articles, by-laws, and applicable laws.

The Committee shall meet at each Committee meeting alone without Management present, and shall meet separately with applicable senior Management, the external auditors, and the Chief Audit Executive.

Responsibilities

The Committee, to the extent required by applicable laws or rules, or otherwise considered by the Committee to be necessary or appropriate, is responsible for the oversight in respect of the Corporation's financial disclosure and accounting practices, internal control systems (including internal control over financial reporting), specific elements of risk management (including all financial risk management) delegated to the Committee by the Board, the external auditors, the Internal Audit function, and legal and regulatory compliance with respect to matters within the Committee's mandate and the Code of Ethics.

To fulfill its duties and responsibilities, the Committee shall:

Financial Disclosure and Accounting

- meet with Management and the external auditors to review and discuss, and to recommend to the Board for approval prior to public disclosure, the annual audited financial statements and the specific disclosures in "Management's Discussion and Analysis of Financial Condition and Results of Operations" ("**MD&A**");
- meet with Management and the external auditors to review and discuss, and to approve prior to public disclosure, the unaudited quarterly financial statements, including the specific disclosures in the MD&A and quarterly interim reports (including annual guidance);
- review and discuss with Management and the external auditors prior to public disclosure each press release that contains significant financial information respecting the Corporation or contains estimates or information regarding the Corporation's future financial performance or prospects; and the type and presentation of information to be included in such press releases (in particular, the use of "pro forma" or "adjusted" information that is not in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("**IFRS**"));
- review and discuss with Management and the external auditors, and recommend to the Board for approval prior to public disclosure:
    - the portions of the Annual Information Form containing significant information within the Committee's mandate;

- the portions of the Corporation's annual management proxy circular containing significant information within the Committee's mandate;
- all financial statements included in prospectuses or other offering documents;
- all prospectuses and all documents which may be incorporated by reference in a prospectus, other than any pricing supplement issued pursuant to a shelf prospectus; and
- significant financial information, including "pro forma" or "adjusted" non-IFRS information respecting the Corporation contained in a publicly disclosed document (other than routine investor relations or similar communications);

- review and discuss with Management and the external auditors (including those of the following that are contained in any report of the external auditors): (1) any analyses prepared by Management and/or the external auditors setting forth significant financial reporting issues and judgments made in connection with the preparation of the financial statements, including analyses of the effects of alternative accounting principles in accordance with IFRS; (2) all critical accounting policies and practices to be used by the Corporation in preparing its financial statements; (3) all material alternative treatments of financial information within IFRS that have been discussed with Management, ramifications of the use of these alternative treatments, and the treatment preferred by the external auditors; and (4) other material communications between the external auditors and Management, such as any Management Representation Letter or Schedule of Unadjusted Differences;
- review and discuss with Management and the external auditors significant accounting and reporting issues and understand their impact on the financial statements, including complex or unusual transactions and areas involving significant assumptions; major issues regarding accounting principles and financial statement presentation, including any significant changes in the Corporation's selection or application of accounting principles, and the effect of regulatory and accounting initiatives, as well as off balance sheet structures, on the financial statements of the Corporation, any significant issues as to the adequacy of the Corporation's internal controls and any special audit steps adopted in light of significant control deficiencies;
- review and discuss with Management and the external auditors non-IFRS financial measures, as well as financial information and earnings guidance provided externally, including to analysts and rating agencies;
- review with Management and the external auditors the results of the annual audit, including any restrictions on the scope of the external auditors' activities or on access to requested information, and the resolution of any significant disagreements with Management;
- review Management's Internal Control Report and the related attestation by the external auditors of the Corporation's internal controls over financial reporting; and
- review with Management and the external auditors and, if necessary, legal counsel, any litigation, claim or contingency, including tax assessments, or material reports or inquiries from regulators or governmental agencies, that could have a material effect upon the financial position of the Corporation, and the manner in which these matters have been disclosed in the financial statements.

Internal Controls

- assess the effectiveness of the Corporation's internal control systems, including internal control over financial reporting and information technology strategy, risks and, in consultation with the Safety, Health, Environment + Security Committee, cyber security controls and related matters;
- understand the scope of Internal Audit's and the external auditors' review of internal controls over financial reporting, and obtain reports on significant findings and recommendations, together with Management's responses;
- annually review the Corporation's disclosure controls and procedures, including any significant deficiencies in or material non-compliance with such controls and procedures;
- receive and review reports from the Corporation's Disclosure Committee and periodically review the Corporation's Disclosure Policy;
- review and discuss with the CEO and Chief Financial Officer their disclosures made during their annual and quarterly certification processes about significant deficiencies or material weaknesses in the design or operation of internal controls or any fraud that involves Management or other employees who have a significant role in the Corporation's internal controls;

- discuss with Management the Corporation's material financial risk exposures and the steps Management has taken to monitor and control such exposures; and
- review executive officers' expenses and aircraft usage reports and periodically report to the Corporate Governance & Nominating Committee thereon, as appropriate.

Risk Management

- regularly review with Management the Corporation's material risks within the Committee's scope (i.e. the principal financial risks facing the Corporation and any other risks specifically delegated to the Committee by the Board), the assessment of those risks, and how they are being managed or mitigated; and
- monitor and review at least annually Management processes and controls designed to identify, assess, monitor and manage the risks referred to above.

Internal Audit

- review with Management, the external auditors, and Internal Audit (and if appropriate, approve) the Charter, plans, activities, and organizational structure of the Internal Audit function;
- review the significant findings prepared by Internal Audit and recommendations issued by any external party relating to Internal Audit issues, together with Management's response thereto;
- take reasonable steps to ensure there are no unjustified or inappropriate restrictions or limitations on the functioning of the Internal Audit function, or on access to requested information;
- review the adequacy of the resources of Internal Audit to satisfy itself as to the effectiveness, objectivity and independence of the Internal Audit function;
- review and concur on the appointment, replacement, or dismissal of the Chief Audit Executive (or such individual in a similar capacity or position who performs a substantially similar function); and
- review the performance and effectiveness of the Internal Audit function.

External Audit

- meet with the external auditors prior to the annual audit to review (and if appropriate, approve) the proposed audit scope, approach and staffing (including coordination of audit efforts with Internal Audit) and budget;
- monitor the progress of the annual audit;
- obtain feedback about the conduct of the external audit from key employees engaged in the process;
- when applicable, review the annual post-audit letter from the external auditors and Management's response thereto and follow-up in respect of any identified weakness;
- at least annually, obtain and review a report by the external auditors describing: (i) the external auditors' internal quality control procedures, and (ii) any material issues raised by the most recent internal quality control review, or peer review, of the external auditors, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, respecting one or more independent audits carried out by the external auditors, and any steps taken to deal with any such issues;
- annually receive from the external auditors, and review, a report on items required to be communicated to the Committee by applicable rules and regulations;
- annually review the independence of the external auditors, including their formal written statement of independence delineating all relationships between the external auditors and the Corporation, review all such relationships, and consider applicable auditor independence standards and take any decisions and actions that are necessary and appropriate where the Committee becomes aware of the potential for a conflict (or the reasonable perception of a conflict) between the interests of the external auditors and the interests of the Corporation;

- annually evaluate the performance of the external auditors, including the lead audit partner, and report to the Board on its conclusions regarding the external auditors and recommendation to shareholders for appointment of the external auditors;
- investigate and consider whether any action is required if the external auditors resign;
- ensure the rotation of the lead audit partner having primary responsibility for the audit as required by applicable law; and
- set clear hiring policies for partners, employees and former partners and employees of the present and former external auditors.

Oversight in Respect of Audit and Non-Audit Services

- subject to confirmation by the external auditors of their compliance with Canadian and US regulatory requirements, be directly responsible (subject to Board confirmation) for the appointment of the external auditors for the purpose of preparing or issuing any audit report or performing other audit, review or attest services for the Corporation, such appointment to be confirmed by the Corporation's shareholders at each annual meeting;
- be directly responsible (subject to Board confirmation) for the approval of fees to be paid to the external auditors for audit services, and shall pre-approve the retention of the external auditors for any permitted non-audit service to the Corporation;
- be directly responsible for the retention and oversight of the services of the external auditors (including resolution of disagreements between Management and the external auditors regarding financial reporting) for the purpose of preparing or issuing an audit report or performing other audit, review or attest services for the Corporation (with the external auditors reporting directly to, and being accountable to, the Committee);
- have the sole authority to pre-approve all audit services and all permitted non-audit services to the Corporation, provided that the Committee need not approve in advance non-audit services where:
    - the aggregate amount of all such non-audit services provided to the Corporation constitutes not more than 5% of the total amount of fees paid by the Corporation to the external auditors during the fiscal year in which the non-audit services are provided; and
    - such services were not recognized by the Corporation at the time of the engagement to be non-audit services; and
    - such services are promptly brought to the attention of the Committee and approved prior to the completion of the audit by the Committee or by one or more members of the Committee to whom authority to grant such approvals has been delegated by the Committee.
- have the sole authority to delegate to one or more designated members of the Committee the authority to grant pre-approvals required by this section, provided that the decision of any member to whom authority is delegated to pre-approve a service shall be presented to the Committee at its next scheduled meeting. If the Committee approves an audit service within the scope of the engagement of the external auditors, such audit service shall be deemed to have been pre-approved for purposes of this section.

Compliance

- establish procedures for: (i) the receipt, retention and treatment of complaints received by the Corporation regarding accounting, internal accounting controls or auditing matters; and (ii) the confidential, anonymous submission by employees of the Corporation of concerns regarding questionable accounting or auditing matters, and institute and oversee any special investigations as needed;
- review with the Chief Legal Officer (or such individual in a similar capacity or position who performs a substantially similar function) the Corporation's significant compliance policies and any legal matters or reports or inquiries received from regulators or governmental agencies that could have a material effect upon the financial position of the Corporation and that are not subject to the oversight of another committee of the Board;
- review the effectiveness of the system for monitoring compliance with laws and regulations (including those with respect to anti-fraud and anti-bribery) and the results of Management's investigations and follow-up of any instances of non-compliance that could have a material effect upon the financial position of the Corporation and that are not subject to the oversight of another committee of the Board;
- review the process for communicating the Corporation's Code of Ethics to the Corporation's personnel and monitoring compliance therewith; and

- report annually to shareholders describing the Committee's composition, responsibilities and how they were discharged, and any other information required by applicable legislation or regulation, including approval of non-audit services.

The Committee may perform such other functions as the Committee deems necessary or appropriate for the performance of its responsibilities and duties.

Delegation

The Committee may from time to time delegate any of its responsibilities to a subcommittee comprised of one or more members of the Committee and shall also carry out such other duties that may be delegated to it by the Board from time to time.

Other Matters

At the Corporation's expense, the Committee may retain, when it considers it necessary or desirable, outside consultants and advisors to advise the Committee independently on any matter. The Committee shall have the sole authority to retain and terminate any such consultants or advisors, including sole authority to establish or review a consultant's or advisor's fees and other retention terms, and to direct the payment thereof.

The Corporation will provide appropriate funding, as determined by the Committee, for payment of ordinary administrative expenses of the Committee that are necessary or appropriate in carrying out its duties.

Authority to make minor technical amendments to this Charter is hereby delegated to the Corporate Secretary, who will report any amendments to the Committee at its next meeting.

The Committee's performance and effectiveness shall be evaluated annually, in accordance with a process developed by the Corporate Governance & Nominating Committee and approved by the Board. The results of that evaluation, including progress on adopted recommendations, shall be reported to the Corporate Governance & Nominating Committee and to the Board.

On an annual basis, this Committee Charter shall be reviewed and assessed, and any proposed changes shall be submitted to the Corporate Governance & Nominating Committee for review and recommendation, and then to the Board for approval.

Date of Last Revision: February 19, 2020

ANNEX 1

AUDIT COMMITTEE CHAIR
POSITION DESCRIPTION

The Committee Chair shall provide overall leadership to enhance the effectiveness of the Committee and be responsible to:

- set the “tone” for the Committee and its members to foster ethical and responsible decision making, appropriate oversight of Management and appropriate corporate governance practices;
- encourage free and open discussion at meetings of the Committee;
- schedule and set the agenda for Committee meetings with input from other Committee members, the Chair and Management as appropriate;
- facilitate the timely, accurate and proper flow of information to and from the Committee, and arrange sufficient time during Committee meetings to fully discuss agenda items;
- report to the Board following each meeting of the Committee on the activities, findings and any recommendations of the Committee;
- provide advice and counsel to the senior members of Management in the areas covered by the Committee’s mandate;
- proactively encourage training and education of the Committee and its members in areas falling within the Committee’s mandate;
- take reasonable steps to ensure that Committee members understand the boundaries between the Committee and Management responsibilities;
- organize the Committee to function independently of Management and take reasonable steps to ensure that the Committee has an opportunity at each of its meetings to meet in separate closed sessions without Management present, and with or without internal personnel or external advisors as needed or appropriate;
- lead the Committee in monitoring and evaluating, in consultation with the Corporate Governance & Nominating Committee, the performance and effectiveness of the Committee as a whole and the contributions to the Committee of individual directors; and
- take all other reasonable steps to ensure that the responsibilities and duties of the Committee, as outlined in its Charter, are well understood by the Committee members and executed as effectively as possible.

SCHEDULE B
MINERAL PROJECTS

For the purposes of NI 43-101, our Allan, Cory, Lanigan, Rocanville and Vanscoy potash operations are the properties material to Nutrien.

a) Allan Potash Operations

Certain scientific and technical information regarding our Allan potash operations is based on the technical report titled "National Instrument 43-101 Technical Report on Allan Potash Deposit (KL 112R A), Saskatchewan, Canada" dated effective December 31, 2018 ("Allan Technical Report") prepared under the supervision of Craig Funk, B.Sc., M.Sc., P.Eng., P.Geo., who is a "qualified person" as defined in NI 43-101. The Allan Technical Report has been filed with the securities regulatory authorities in each of the provinces of Canada and furnished to the SEC. Portions of the following information are based on assumptions, qualifications and procedures that are not fully described herein. References should be made to the full text of the Allan Technical Report.

i) Project Description, Location and Access

General

The Allan mine is located in central Saskatchewan, approximately 45 kilometers east of the city of Saskatoon, Saskatchewan. The Legal Land Description (Saskatchewan Township/Range) of the Allan surface plant is Section 22 Township 34 Range 01 West of 3rd Meridian. More precisely, the Allan Shaft #2 collar is located at:

- Latitude: 51 degrees 55 minutes 55.56 seconds North
- Longitude: 106 degrees 04 minutes 18.84 seconds West
- Elevation: 524.26 meters above mean sea level (SL)
- Northing: 5,754,028.978 m
- Easting: 426,303.225 m
- Projection: UTM
- Datum: NAD83
- Zone: 13

The Company owns approximately 3,212 hectares (7,938 acres) of surface rights required for current Allan mine operations, including all areas covered by the existing surface plant and Tailings Management Area ("TMA"), and all surface lands required for anticipated future Allan mine and expanded milling operations.

The Allan mine surface facilities are accessed by an existing paved road that is part of the Saskatchewan Provincial Highway System. All potash product is shipped by rail over existing track.

The Allan mine is served by a number of villages within 50 kilometers of the mine site. The nearest city is Saskatoon (45 km distant) Allan is situated near the northern extent of the Great Plains of North America. Topography is relatively flat, with gently rolling hills and occasional valleys. There are no rivers or other major watercourse channels near the Allan mine site.

Mineral Rights

Mineral rights at Allan are mined pursuant to mining leases with the Province of Saskatchewan, Canada ("Crown"), and with non-Crown ("Freehold") mineral rights owners. Crown mineral rights are governed by *The Subsurface Mineral Tenure Regulations, 2015* (Saskatchewan), and Crown leases are approved and issued by the Saskatchewan Ministry of Energy and Resources ("SMER"). The original Allan Crown Subsurface Mineral Lease, numbered KL 112, was signed and executed in September 1962. In the following years, minor amendments were made to the lease, resulting in Crown Subsurface Mineral Lease KL 112R. In October 2017, a large area of land totaling 20,784 hectares (51,359 acres) was added to the lease resulting in Crown Subsurface Mineral Lease KL 112R A ("Allan Crown Lease").

The Allan Crown Lease covers an area of approximately 75,112 hectares (185,605 acres). At Allan, the Company has leased potash mineral rights for 45,484 hectares (112,393 acres) of Crown land and owns or has leased approximately 17,932 hectares (44,311 acres) of Freehold land within the lease boundary. The Allan Crown Lease term is for a period of 21 years from September 2004, with renewals (at the Company's option) for 21-year periods. Freehold lands also remain under lease providing, generally, that production is continuing and that there is a continuation of the Allan Crown Lease.

Within the Allan Crown Lease area, 19,183 hectares (47,403 acres) are mined pursuant to unitization agreements with mineral rights holders (Crown and Freehold) within two unitized areas. Allan Unit Area #1 includes 9,888 hectares (24,343 acres), while Allan Unit Area #2 includes 9,295 hectares (22,969 acres).

When underground workings of a potash mine are designed, there are inevitably regions that are mined with higher mining extraction (e.g., production panels) and other regions where mining extraction is lower (e.g., conveyor-belt development rooms). To treat mineral rights holders in both low extraction and high extraction areas fairly, and to promote good mining practices, a unitization agreement is the preferred method for determining royalty payouts. Under a unitization agreement, each mineral rights holder is paid a royalty based on their proportional share of the entire unit area regardless of whether or not their lands are actually mined. For example, if one mineral rights holder owns rights to 4,000 hectares within a 40,000 hectare unit area, they would be paid 10% of the total monthly royalty payout from that unit area.

ii) History

Ten potash mines were brought into production in Saskatchewan between 1962 to 1970. With over 50 years of production history, most potash mines have contracted or expanded production in response to the demand for potash. No new mines had been commissioned until 2017. Most of the operating mines are conventional underground mines, while three operate using solution mining methods.

Exploration drilling for potash in the Allan area was carried out in the 1950s and 1960s. The Allan mine was built by a consortium of companies (U. S. Borax, Homestake Potash Company, and Swift Canadian Company) in the 1960s. Potash production began at Allan in April 1968 and the mine has run on a continuous basis other than short-term shutdowns taken for inventory management purposes, occasional plant maintenance and construction work, or other outages that are typical for operations of this nature.

PotashCorp acquired a 60% ownership of the Allan mine in 1978 (through purchase of the U. S. Borax and Swift Canadian interests) and became the operator of the mine in 1981. In 1990, PotashCorp purchased the remaining 40% interest.

A major refurbishment and expansion of the Allan mine was completed in 2013, increasing nameplate capacity to 4.0 million tonnes of finished potash products per year. At Allan, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1968.

iii) Geological Setting, Mineralization and Deposit Types

Geological Setting and Mineralization

Much of southern Saskatchewan is underlain by the Prairie Evaporite Formation, a layered sequence of salts and anhydrite which contains the world's largest deposits of potash. The potash extracted from the predominantly sylvinite ore has its main use as a fertilizer.

The 100 m to 200 m thick Prairie Evaporite Formation is overlain by approximately 400 m of Devonian carbonates followed by 100 m of Cretaceous sandstone, 400 m of Cretaceous shales, and 100m of recent Pleistocene glacial tills to surface. The Prairie Evaporite Formation is underlain by Devonian carbonates. The Phanerozoic stratigraphy of Saskatchewan is remarkable in that units are flat-lying and relatively undisturbed over very large areas.

Potash mineralization in this region of Saskatchewan is predominantly sylvinite, which is comprised mainly of the minerals sylvite ("KCl") and halite or rock salt ("NaCl"), with trace carnallite ("$KMgCl_3$ $6H_2O$") and minor water insolubles. Potash fertilizer is concentrated, nearly pure KCl (i.e., greater than 95% pure KCl), but ore grade is traditionally reported on a % K_2O equivalent basis. The "% K_2O equivalent" gives a standard measurement of the nutrient value of different potassium-bearing rocks and minerals. To convert from % K_2O equivalent tonnes to actual KCl tonnes, multiply by 1.58.

Over the past three years (2018, 2019, 2020), the average, measured potash ore grade of the mill feed at Allan was 25.3% K_2O equivalent. The average ore grade reported from 18 historic surface drillhole intersections, all within the Allan Crown Lease, is 26.65% K_2O equivalent. Per the Allan Technical Report, the average ore grade observed from in-mine samples is 24.8% K_2O equivalent.

Deposit Type

There are three mineable potash members within the Prairie Evaporite Formation of Saskatchewan. Stratigraphically highest to lowest, these members are: Patience Lake, Belle Plaine and Esterhazy.

The Allan potash deposit lies within the Patience Lake Member of Prairie Evaporite Formation. There are two potash seams named A Zone and B Zone within this Member; at present, only the A Zone is being mined at Allan. Some test mining has been carried out in the B Zone, but no mining is done in this layer at present. Neither the Esterhazy nor the White Bear Potash Members are present in the Allan area. The Belle Plaine Potash Member is not well-developed, and therefore is not mined.

Allan potash mineralization occurs at about 1,000 meters depth below surface. The A Zone is approximately 3.35 meters thick and occurs near the top of the Prairie Evaporite Formation salts. Salt cover from the ore zone to overlying units is approximately 12 m. The Allan mine operates as a conventional, underground potash mine.

iv) Exploration

Before the Allan mine was established in 1968, all exploration consisted of drilling from surface and analysis of core from these drillholes. Since mining began in 1968, exploration drilling has been infrequent.

In most of southern Saskatchewan, potash mineralization is in place wherever Prairie Evaporite Formation salts exist, are flat-lying and are undisturbed. Since the surface seismic exploration method is an excellent tool for mapping the top and bottom of Prairie Evaporite salts, this has become the main potash exploration tool in any existing Saskatchewan subsurface (potash) mineral lease. Historically, 2D seismic, and now the more accurate 3D seismic methods are used to map continuity and extent of potash beds in flat-lying potash deposits. Seismic data are relied upon to identify collapse structures that must be avoided in the process of mine development since these structures can act as conduits for water. As a result, isolation pillars or mining buffer zones are left around these anomalous features. This practice reduces the overall mining extraction ratio, but the risk of inflow to mine workings is effectively mitigated.

Seismic coverage is outlined in the Allan Technical Report.

Experience has shown that the potash mining zone is continuous when seismic data are undisturbed and flat-lying. Surface seismic data are generally collected three to five years in advance of mining. Any area recognized as seismically unusual is identified early, and mine plans are adjusted to avoid these regions.

v) Drilling

For the original Allan potash test holes drilled in the 1950s and 1960s, the primary objective of this drilling was to sample the potash horizons to establish basic mining parameters. Seismic surveys (2D) were done sparingly in those days, so the drillhole information was relied upon heavily to evaluate potash deposits. Test holes would penetrate the evaporite section with a hydrocarbon-based drilling mud (oil-based or diesel fuel) to protect the potash mineralization from dissolution. Basic geophysical well-logs were acquired, and in many cases, drill stem tests were run on the Dawson Bay Formation to help assess mine inflow potential. Core samples from the targeted potash intersections were split or quartered (cut with a masonry saw) crushed and analysed to establish potash grades.

Relatively thin interbeds or seams, referred to as clay seams in the potash industry, are an ever-present component of the A Zone and B Zone at Allan. These seams, along with the clay or clay-like material disseminated throughout the rock, make up the water insoluble portion of the mineralized horizons. The same sequences of clay seams can be correlated for many kilometers across the central Saskatchewan potash mining district.

At Allan, a particular sequence of three clay seams marks the top of the A Zone. These seams are used to guide the vertical positioning of the mining machine. The uppermost portion of the sequence of three seams is maintained at the top of the mining cut to keep the cutting “on grade”. Cutting too high above this upper seam or top marker results in dilution, as halite (rather than sylvinite) immediately overlies the production zone. In practice though, the top marker seam is slightly overcut (between 10 cm to 20 cm) to prevent an unstable condition from being created. Clay seams are often planes of weakness, and if they are undercut, material immediately below the clay seam becomes a hazard as it may separate and fall. Since the hazard must be remediated prior to proceeding, thus slowing production, the moderately diluted mineral grade that results from the overcutting is preferable from a safety point of view.

The A Zone mining interval was historically fixed at 3.35 m (11 feet). Recently acquired mining machines cut at a fixed height of 3.65 m (12 feet). At present, seven older mining machines cut at a height of 3.35 m (11 feet) and four new mining machines cut at a height of 3.65 m (12 feet). These mining heights allow for comfortable working headroom and efficient extraction of potash ore. It is difficult to determine at which mining height certain Mineral Resources and Reserves will be cut in the future, so the more conservative mining height of 3.35 m (11 feet) was applied to Mineral Resource and Reserve calculations.

The original exploration area was explored with a number of test holes spaced at intervals of 1.6 km to 6.4 km (1–4 miles). Assays from most of these original test holes were studied by independent consultant David S. Robertson and Associates (1978) and are found in Table A. An additional six historical test holes were studied by Nutrien staff in 2018, which are also listed in Table A below. In each case, the best 3.35 m (11 feet) mining interval intersected in each drillhole was determined from the assay values, using clay marker seams as a guide. Note that one of the above-mentioned test holes was omitted from the assay calculation due to a section of missing core in the ore zone, one was omitted due to erroneous assay data which could not be resolved and another two were omitted due to an ore grade of less than 15% K_2O. With decades of mining experience at Allan, it is the opinion of the Allan Technical Report authors that areas of low grade (i.e., <15% K_2O) are localized with a relatively small lateral extent.

Drillhole assay data for the A Zone at Allan gives an estimated mean grade of 26.65% K_2O with 4.96% water insolubles.

B Zone mineralization is indicated by gamma ray geophysical log response in each of the exploration drillholes listed in Table A indicating a potash Mineral Resource. Some test mining of the B Zone has been done. However, sustained production from that zone has not been established. Assay results for the B Zone are not presented here.

Table A: Assay results for all potash test holes within Allan Crown Lease

Average in 3.35 m (11 feet) mining interval (undiluted)			
Drillhole	**Year Drilled**	**% K_2O**	**% Water Insolubles**
04-10-033-01 W3	1954	*	*
12-32-034-02 W3	1956	28.74	5.76
16-11-033-01W3	1956	*	*
04-29-034-01 W3	1957	25.79	4.74
01-25-034-01 W3	1957	28.05	4.74
16-11-034-02 W3	1957	29.05	3.40
13-11-034-01 W3	1957	28.75	4.54
13-11-034-03 W3	1957	21.97	1.74
16-09-035-01 W3	1957	25.04	5.11
05-26-035-01 W3	1957	16.78	*
09-29-033-02 W3	1957	*	*
09-28-034-01 W3	1961	29.53	5.26
09-27-034-01 W3	1961	30.63	4.52
09-26-034-01 W3	1961	27.71	6.33
09-33-034-01 W3	1961	23.95	5.89
08-34-034-01 W3	1961	26.31	5.76
09-35-034-01 W3	1961	25.89	8.64
05-22A-034-01 W3	1961	26.47	3.19
16-14-034-01 W3	1962	26.78	5.25
01-17-034-01 W3	1962	28.63	5.29
01-12-034-01 W3	1962	*	*
14-23-034-03 W3	1969	29.56	4.18
Average (from 18 usable values):		**26.65**	**4.96**

Due to the remarkably consistent mineralogy and continuity of the resource, as experienced through decades of mine production, no potash exploration drilling has been done at Allan since 1969. Instead of exploration drillholes, seismic surveying has been relied upon to explore ahead of mine development. Where normal Prairie Evaporite sequences are mapped in the seismic data, potash beds have unfailingly been present. Localized and relatively small mine anomalies, not mapped in seismic data do occur. When they do, they are dealt with in the normal course of mining and extraction through these anomalous areas and are typically minimized. Anomalies associated with possible water inflow problems, which are mapped in the seismic data, are avoided.

vi) Sampling Preparation, Analyses and Security

Basic Approach

Exploration in the Allan area was conducted in the 1950s and 1960s. Sampling and assaying of potash core samples was done using methods considered consistent with standard procedures for potash exploration at these times.

Drillhole sampling methods have remained essentially the same over the years. Short segments of core usually about 1 foot (0.3 m) in length are labeled based on visible changes in mineralization, and sometimes based on more or less fixed intervals. Each segment of core is then split using some type of rock or masonry saw. The split portion of core is then bagged and labeled and sent to a laboratory for chemical analysis. Historical potash samples remain stored at the Subsurface Geological Laboratory (Regina, Saskatchewan) of the SMER. Most of these have deteriorated substantially.

All in-mine samples were analysed in the Allan mill laboratory using analysis techniques that were up to date for the era in which the sample was collected.

Regarding quality assurance for analytical results of in-mine samples, the Company participates in the Canpotex Producer Sample Exchange Program using methods developed by the Saskatchewan Potash Producers Association ("SPPA"). The Sample Exchange Program monitors the accuracy of analytical procedures used in its labs. In the early 1970s, the SPPA initiated a round-robin Sample Exchange Program, the purpose of which was to assist the potash laboratories in developing a high level of confidence in analytical results. This program, now named the Canpotex Producer Sample Exchange Program using SPPA Methods ("CPSEP"), has continued up to the present. Current participants include all Canpotex member potash mine site labs, the Nutrien Pilot Plant Lab, and independent third-party surveyor labs. The CPSEP provides participants with three unknown potash samples for analysis quarterly. Results for the unknown sample analysis are correlated by an independent agency that distributes statistical analysis and a summary report to all participants. Completed exchange program samples can be used for control standards as required in QA/QC sections of standard analytical procedures.

The Nutrien Pilot Plant is secured in the same way as modern office buildings are secured. Authorized personnel have access and visitors are accompanied by staff. No special security measures are taken beyond that. Currently, no external laboratory certification is held by the Nutrien Pilot Plant. On occasion, product quality check samples are sent to the Saskatchewan Research Council ("SRC"), a fully certified analytical facility.

In the opinion of the authors, the sample preparation, security, and analytical procedures are acceptable, are consistent with industry-standard practices, and are adequate for Mineral Resource and Reserve estimation purposes.

Mean Potash Mineral Grade From In-Mine Samples

At Allan, in-mine grade samples are taken by collecting fine "muck" from the floor of the mine approximately once per week per active mining face. This is roughly equivalent to a sample taken every 68 m to 74 m in production panels, and a sample taken every 85 m to 128 m in development panels. Per the Allan Technical Report, in-mine potash mineral grade samples collected from the Allan A Zone were analysed in the Allan mill laboratory using analysis techniques that were up to date for the era in which the sample was collected.

The median ore grade for this family of in-mine samples is 25.5% K_2O equivalent and the mean ore grade is 24.8%.

Per the Allan Technical Report, the B Zone mineral grade at Allan is reported to be 20.3% K_2O equivalent, the grade observed from the in-mine samples at the Lanigan mine where the B Zone has been extensively mined. Even though Allan mine is some distance from Lanigan, this is considered to be the best estimate of expected mineral grade for this potash layer because the deposit is known to be regionally continuous from west of Vanscoy to east of Lanigan. Although it is possible that once mining proceeds into the B Zone the reported grade could change from what is reported, it is expected that any such change would be minimal.

Potash Ore Density From In-Mine Mineral Grade Measurements

An estimate of in-situ rock density is used to calculate potash mineralization volumes in Mineral Resource and Reserve assessments. A common approach, and the one used by Nutrien, is to determine in-place Mineral Resource and Reserve volumes (m^3), then multiply this number by in-situ bulk-rock density (kg / m^3) to give in-place Mineral Resource and Reserve tonnes. Well-log data from drillholes can be used to calculate bulk density if accurate and calibrated well-logs are acquired during exploration drilling. In practical terms, modern well-logs tend to meet these criteria, but historic well-logs (collected before the 1990s) do not. In Saskatchewan, almost all potash exploration drilling took place in the 1950s and 1960s, well before density logs were accurate and reliable.

Another approach, and the one used by Nutrien, is to look up density values for the minerals which constitute potash rock – values determined in a laboratory to a high degree of accuracy and published in reliable scientific journals / textbooks – then apply these

densities to the bulk rock. Given that the density of each pure mineral is quantified and known, the only variable is what proportion of each mineral makes up the bulk rock. An obvious benefit of this approach is that a mean value computed on in-mine samples has a much greater confidence interval than a mean value computed from just a few drillhole assays.

The four main mineralogical components of the ore zones of Saskatchewan's Prairie Evaporite Formation with their respective mineral densities are:

Mineral	Density (kg / m^3)	Components
Halite	2,170	NaCl
Sylvite	1,990	KCl
Carnallite	1,600	$KMgCl_3 \cdot 6(H_2O)$
Insolubles	2,510	Anhydrite, dolomite, quartz, muscovite, and other minor mineral components (*Nutrien Pilot Plant, 2018*)

All Nutrien potash mines measure and record the in-mine % K_2O grade and insoluble content of the mined rock. The magnesium content is not measured at Allan since carnallite is a negligible component of the ore here. From this set of measurements, density of the ore can be calculated.

The value for insoluble density is based on known densities of the constituent parts of the insoluble components of the mineralization and the average occurrence of these insoluble components, which is known from over 50 years of mining experience at Allan. Assuming the lowest plausible density of insolubles known for Saskatchewan potash deposits of this nature, the effect upon overall bulk-rock ore density and Mineral Resource and Reserve calculations would be negligible.

From life-of-mine in-mine samples taken at Allan, bulk density for the Allan A Zone has been determined to be:

= (halite density * % halite) + (sylvite density * % sylvite) + (insolubles density * % insolubles)
= (2,170 kg / m^3 * 58.1%) + (1,900 kg / m^3 * 39.3%) + (2,510 kg / m^3 * 2.7%)
= 2,116 kg / m^3

$RHO_{bulk\text{-}rock}$ (Allan A Zone) = 2,110 kg / m^3

This method is as accurate as the ore grade measurements and mineral density estimates.

To date, not enough B Zone mining has been carried out at Allan to permit a bulk density calculation based on Allan in-mine grade samples. The mining of 3.537 million tonnes of the B Zone represents a relatively small amount of material for a potash mine. The historic mining that was conducted in the B Zone at Allan was localized in only one geographic area, so data from this mining are not considered representative of what will be seen once mining proceeds in this layer. Although it is possible that once enough mining has occurred in the B Zone to give enough samples with all constituent minerals measured, the reported proportions of the various mineral constituents could change from what is reported. It is expected that any such change would have only a minimal effect on bulk-rock density used in tonnage calculations.

Instead, we use the potash bulk-rock density calculated using in-mine grade samples from Lanigan B Zone:

$RHO_{bulk\text{-}rock}$ (Allan B Zone) = $RHO_{bulk\text{-}rock}$ (Lanigan B Zone) = 2,120 kg / m^3

This estimate is considered acceptable since both Allan B Zone and Lanigan B Zone are the same potash seam.

Assay Data Verification

Most of the original drillhole assays were studied by independent consultant David S. Robertson and Associates (1978). In 2018, six historical drillhole assay results were studied by Nutrien technical staff, Jodi Derkach (P.Geo.) and Tanner Soroka (P.Geo.).

The original assay results for core samples from historical drillholes were taken as accurate in these studies, as there is no way to reliably reanalyze these samples. Most of the remaining samples in storage have long since deteriorated to the point where they are not usable.

Ore grades of in-mine samples are measured in-house at the Allan mine laboratory by Company staff using modern, standard chemical analysis tools and procedures; an independent agency does not verify these results. However, check sampling through the CPSEP does occur.

It should be noted that assay results from historical drillholes match in-mine sample results reasonably well – within 1% – even though drillhole sample spacing is much greater. This correlation is further validation of the in-mine sampling methodology. Mean mineral grade determined from in-mine samples taken from over 50 years of mining at Allan is thought to provide the most accurate measurement of potash grade for the Allan mine, also providing a good basis for estimating ore grade in areas of future mining at Allan.

Exploration Data Verification

The purpose of any mineral exploration program is to determine extent, continuity, and grade of mineralization to a certain level of confidence and accuracy. For potash exploration, it is important to minimize the amount of cross-formational drilling, since each drillhole is a potential conduit for subsurface groundwater from overlying (or underlying) water-bearing formations into future mine workings. Every potash test drillhole from surface sterilizes potash mineralization as a safety pillar is required around every surface drillhole once underground mining commences. This is the main reason that exploration drilling has not been carried out at Allan in recent years.

Initial sampling and assaying of cores were done during potash exploration at Allan in the 1950s and 1960s. Methods were consistent with standard procedures for that era. The mine began production in 1968 and, with the exception of a single potash test hole in 1969, no further core drilling has been conducted since then. This approach to potash sampling is in accordance with widely accepted industry practice for areas adjacent and contiguous to an existing operating potash mine.

Assay of physical samples (drillhole cores and/or in-mine samples) is the only way to gain information about mineral grade, but extent and continuity of mineralization are correctly determined using data collected from geophysical surveys correlated with historic drilling information. To date surface seismic data at Allan have been collected, analysed, and verified by Company staff, at times in cooperation with an independent consultant.

Data for the mineral resource and reserve estimates for Allan mine were verified by Company staff as follows:

- Review of potash assay sample information (drillholes and in-mine grade samples);
- Review of surface geophysical exploration results (3D and 2D seismic data);
- Crosscheck of mined tonnages reported by mine site technical staff with tonnages estimated from mine survey information; and
- Crosscheck of mineral resource and reserve calculations carried out by corporate technical staff.

In the opinion of the authors, this approach to data verification of potash mineral grade and surface seismic information is in accordance with generally accepted industry practice for areas adjacent and contiguous to an existing operating potash mine.

vii) Mineral Processing and Metallurgical Testing

At Allan, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1968.

Over the 52-year mine life, 164.244 million tonnes of potash ore have been mined and hoisted at Allan to produce 57.919 million tonnes of finished potash product (from start-up in 1968 to December 31, 2020). Given this level of sustained production over 52 years, basic mineralogical processing and prospective metallurgical testing of Allan potash is not considered relevant.

viii) Mineral Resource and Mineral Reserve Estimates

Definitions of Mineral Resource

The Canadian Institute of Mining and Metallurgy and Petroleum (“CIM”) has defined mineral resource in *The CIM Definition Standards for Mineral Resources and Reserves* (2014) as:

Inferred Mineral Resource: That part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.

Indicated Mineral Resource: That part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade quality continuity between points of observation.

Measured Mineral Resource: That part of a mineral resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.

CIM defines Modifying Factors as “considerations used to convert mineral resources into mineral reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.”

In south-central Saskatchewan, where geological correlations are straightforward, and within a (potash) subsurface mineral lease with an operating potash mine, mineral resource categories are generally characterized by the Company as follows:

Inferred Mineral Resource: Areas of limited exploration, such as areas that have been investigated through regional geological studies, or areas with 2D regional surface seismic coverage, little or no drilling, at some distance from underground workings, and within the applicable Crown lease.

Indicated Mineral Resource: Areas of adequate exploration, such as areas with 3D surface seismic coverage, little or no drilling, at some distance from underground workings, and within the applicable Crown lease.

Measured Mineral Resource: Areas of detailed, physical exploration through actual drilling or mine sampling, near existing underground workings, and within the applicable Crown lease.

The Allan mine began production in 1968 and, except for a single test hole in 1969, no further core drilling has been carried out since then. Instead, exploration involved collecting surface seismic data, which became better in quality over the years. Exploration drilling has demonstrated the presence of the potash horizon, and seismic coverage shows the continuity of the Prairie Evaporite Formation within which the potash horizon occurs.

Along with this approach, analysis of in-mine samples for potash grade has provided us with an observation-based understanding of the potash mineralized zone at Allan that is far superior to the level of understanding provided by any surface drilling-based exploration program. The authors believe that this approach provides a body of information that guides and constrains exploration inferences in a much better way than could be achieved from any conventional exploration investigation in areas immediately surrounding, and contiguous to, the Allan potash mine.

Mineral Resource Estimates

Exploration information used to calculate reported Mineral Resource tonnages at Allan consist of both physical sampling (drillhole and in-mine) and surface seismic (2D and 3D). Based on the definitions and guidelines above, all mineral rights leased or owned by the Company, and within Allan Crown Lease, are assigned to one of the three mineral resource categories.

Mineral resources are reported as mineralization in-place and are exclusive of Mineral reserves. In-place tonnes were calculated for each of the mineral resource categories using the following parameters:

Mining Height:	3.353 meters (11 feet)
Ore Density:	2.110 tonnes/cubic meter (A Zone)
Ore Density:	2.120 tonnes/cubic meter (B Zone)

The mineral resources per the Allan Technical Report are as follows:

Allan A Zone:		
Inferred Resource	2,678	millions of tonnes
Indicated Resource	366	millions of tonnes
Measured Resource	1,006	millions of tonnes
Total A Zone Resource	4,050	millions of tonnes
Allan B Zone:		
Inferred Resource	2,691	millions of tonnes
Indicated Resource	367	millions of tonnes
Measured Resource	1,506	millions of tonnes
Total B Zone Resource	4,564	millions of tonnes
Total for Allan (A Zone + B Zone):		
Inferred Resource	5,369	millions of tonnes
Indicated Resource	733	millions of tonnes
Measured Resource	2,512	millions of tonnes
Total A Zone + B Zone Resource	8,614	millions of tonnes

The December 31, 2020 Mineral Resource estimates remain the same as the estimates outlined in the Allan Technical Report.

The average mineral grade of the Allan A Zone Mineral Resource is 24.8% K_2O equivalent and was determined from in-mine samples at Allan collected over the life of the mine. The average mineral grade of the Allan B Zone Mineral Resource is 20.3% K_2O equivalent and was determined from in-mine samples at Lanigan mine where the B Zone has been extensively mined.

The tonnage reported in the Allan A Zone Measured Resource is comprised of the potash that is within 1.6 km (1 mile) of physically sampled location (i.e., drillholes or mine workings). Also included as Measured Resource is the potash in the pillars of mined-out areas of the Allan mine as there is the possibility of retrieving ore from the remnant mining pillars at some point in the future. An example of this is the Patience Lake mine which was successfully converted from a conventional mine to a solution mine after being lost to flooding in 1989. Since mining of remnant mining pillars is not anticipated in the near future at Allan, in-place pillar mineralization remains as a Mineral Resource rather than a Mineral Reserve at this time.

Definitions of Mineral Reserve

CIM defined mineral reserve in The CIM Definition Standards for Mineral Resources and Reserves (2014) as:

Probable Mineral Reserve: The economically mineable part of an indicated, and in some circumstance, a measured, mineral resource. The confidence in the modifying factors applying to a probable mineral reserve is lower than that applying to a proven mineral reserve.

Proven Mineral Reserve: The economically mineable part of a measured mineral resource. A proven mineral reserve implies a high degree of confidence in the modifying factors.

CIM defines Modifying Factors as “considerations used to convert Mineral Resources into Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.”

For Saskatchewan, in regions adjacent and contiguous to an operating potash mine, mineral reserve categories are characterized by the Company as follows:

Probable Mineral Reserve: Identified recoverable potash mineralization classified as a measured resource, within a 1.6 km (1 mile) radius of a sampled mine entry or exploration drillhole, and within the applicable Crown lease.

Proven Mineral Reserve: identified recoverable potash mineralization classified as a measured resource, delineated on at least two sides by sampled mined entries or exploration drillholes to a maximum of 3.2 km (2 miles) apart, and within the applicable Crown lease.

Along with this approach, analysis of in-mine samples for potash grade has provided us with an observation-based understanding of the potash mineralized zone at Allan that is far superior to the level of understanding provided by any surface drilling-based exploration program. An understanding of the amount of ore that can be conventionally mined from the measured resource category using current mining practices comes from decades of potash mining experience at Allan.

Mineral Reserve Estimates

Using the definitions outlined above, a portion of the Allan A Zone Measured Resource has been converted to Mineral Reserve. The assigned Mineral Reserve category is dependent on proximity to sampled mined entries also described above. An overall extraction ratio for the Allan mine has been applied to the qualifying areas outlined as Measured Resource.

The overall extraction ratio at the Allan mine is 33%. It was derived by dividing the total tonnes mined to date by the tonnage equivalent of the total area of the mine workings (i.e., the perimeter around the mine workings) less future mining blocks. Since an extraction ratio has been applied, mineral reserves are considered recoverable ore, and are reported as such.

The mineral reserves per the Allan Technical Report are as follows:

Allan A Zone:		
Probable Reserve	250	millions of tonnes
Proven Reserve	99	millions of tonnes
Total A Zone Reserve =	349	millions of tonnes

Allan B Zone:		
Probable Reserve	nil	
Proven Reserve	nil	
Total B Zone Reserve =	nil	
Total for Allan (A Zone + B Zone):		
Probable Reserve	250	millions of tonnes
Proven Reserve	99	millions of tonnes
Total A Zone and B Zone Reserve =	349	millions of tonnes

The average mineral grade of the Allan A Zone mineral reserve is 24.8% K_2O equivalent and was determined from in-mine samples at Allan over the life of the mine.

The December 31, 2020 Mineral Reserve estimates essentially remain the same as the estimates outlined in the Allan Technical Report. Tonnes mined since the Allan Technical Report (i.e. 14.006 million tonnes) can be removed from the A Zone Proven Reserve resulting in a total A Zone Proven Reserve estimate of 85 million tonnes.

ix) Mining Operations

All conventional potash mines in Saskatchewan operate at 900 m to 1,200 m below surface within 9 m to 30 m of the top of the Prairie Evaporite Formation. Over the scale of any typical Saskatchewan potash mine, potash beds are tabular and regionally flat-lying, with only moderate local variations in dip. At Allan, potash ore is mined using conventional mining methods, whereby:

- Shafts are sunk to the potash ore body;
- Continuous mining machines cut out the ore, which is hoisted to surface through the production shaft;
- Raw potash is processed and concentrated in a mill on surface; and
- Concentrated finished potash products (near-pure KCl) are sold and shipped to markets in North America and offshore.

Sinking of the two original shafts (Shaft #1 and Shaft #2) from surface to the potash zone was completed in early 1968, and the first potash ore was hoisted by Allan in April of that year. The Allan mine has run on a continuous basis other than short-term shutdowns taken for inventory management purposes, occasional plant maintenance and construction work, or other outages that are typical for operations of this nature.

In recent years, the Allan mine underwent a major expansion which brought the nameplate capacity up to 4.0 million tonnes of finished potash products per year. In 2020, operational capability at the Allan facility was 2.8 million tonnes per year. Operational capability may vary during the year and year-to-year including as between our potash operations.

Virtually all Allan underground mining rooms are in one potash mineralized zone, the upper layer (or A Zone) of the Patience Lake Member of the Prairie Evaporite Formation (the host evaporite salt). In contrast, some potash mines further east in Saskatchewan mine in a different potash layer, the Esterhazy Member of the Prairie Evaporite Formation. Per the Allan Technical Report, mine elevations range from approximately 980 m to 1,120 m, averaging approximately 1,010 m. These depths to A Zone potash mineralization are anticipated over most of the Allan lease area. Mine workings are protected from aquifers in overlying formations by approximately 12 m of overlying salt and potash beds, along with salt plugged porosity in the Dawson Bay Formation, a carbonate layer lying immediately above potash hosting salt beds.

The Allan mine is a conventional underground mining operation whereby continuous mining machines are used to excavate the potash ore by the stress-relief mining method. Continuous conveyor belts transport ore from the mining face to the bottom of the production shaft. The highest mineral grade section of the Allan potash seam is approximately 3.35 m (11 feet) thick, with gradations to lower grade salts immediately above and below the mining horizon. The actual mining thickness at Allan is dictated by the height of continuous boring machines used to cut the ore. Per the Allan Technical Report, seven older borers are designed to cut at a thickness of 3.35 m (11 feet) and four new borers are designed to cut 3.65 m (12 feet).

Allan cuts to a marker (clay) seam that is slightly above the high-grade mineralized zone to establish a safe and stable mine roof. The top marker seam is slightly overcut by 10 to 20 cm. Clay seams are often planes of weakness, and if they are undercut, material immediately below the clay seam becomes a hazard as it may separate and fall. Since the hazard must be remediated prior to proceeding, thus slowing production, the moderately diluted mineral grade that results from the overcutting is preferable from a safety point of view.

Conservative local extraction ratios (never exceeding 45% in any mining block) are employed at all Saskatchewan mines, including Allan, in order to minimize potential detrimental effects of mining on overlying strata; this is common practice in flat-lying, tabular ore bodies overlain by water-bearing layers.

From the shaft-bottom, potash ore is hoisted approximately 1,000 m from the potash level through the vertical shafts to a surface mill. In addition to hoisting potash ore to surface, the production shaft also provides fresh air ventilation to the mine and serves as a secondary egress. The service shaft is used for service access, and exhaust ventilation from the mine.

Over the 52-year mine life, 164.244 million tonnes of potash ore have been mined and hoisted at Allan to produce 57.919 million tonnes of finished potash products (from start-up in 1968 to December 31, 2020). The life-of-mine average concentration ratio (raw-ore/finished potash products) is 2.84 and the overall extraction ratio over this period is 33%.

x) Processing and Recovery Operations

At Allan, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1968. Raw potash ore is processed on surface and concentrated finished potash products (near-pure KCl) are sold and shipped to markets in North America and offshore.

Over the past three years, production of finished potash products at Allan was:

- 2018: 2.410 million tonnes finished potash products at 61.17% K_2O (average grade)
- 2019: 2.178 million tonnes finished potash products at 61.20% K_2O (average grade)
- 2020: 2.792 million tonnes finished potash products at 61.20% K_2O (average grade)

Over the past decade actual mill recovery rates have been between 82.9% and 87.0%, averaging 85.51%. Given the long-term experience with potash geology and actual mill recovery at Allan no fundamental potash milling problems are anticipated in the foreseeable future.

Quality control testing and monitoring geared towards fine-tuning and optimizing potash milling and concentrating processes are conducted on a continual basis at all Nutrien mine sites and at Nutrien research facilities. At Allan, this is no exception; test work to optimize circuit performance and ensure product quality is carried out on an ongoing basis.

xi) Infrastructure, Permitting and Compliance Activities

Project Infrastructure

Infrastructure is in place to meet current and projected requirements for transportation, energy (electricity and natural gas), water and process materials at Allan.

The Allan mine is served by a number of villages within 50 kilometers of the mine site. The nearest city is Saskatoon (approximately 45 km distant). Surface facilities are accessed by existing paved roads and highways that are part of the Saskatchewan Provincial Highway System. All potash product is shipped by rail over existing track.

At present, high-voltage power capacity at Allan is 47 MVA. The ten-year projection of power utilization indicates that the utility can meet all foreseeable future demand.

The Allan operation requires a sustained fresh water supply for the milling process which is provided from a local reservoir called the Bradwell Reservoir operated by SaskWater (approximately 6 km distant). This water supply provides a sustainable source of process water for Allan milling operations without having any impact on other users of water in the area.

Environmental Studies, Permitting and Compliance Activities

The tailings management strategy at all Nutrien potash mines in Saskatchewan, including Allan, is one of sequestering solid mine tailings in an engineered and provincially licensed TMA near the surface plant site. The Allan TMA currently covers an area of approximately 600 hectares (1,483 acres) of land owned by the Company. Solid potash mine tailings typically consist of 85% to 95% rock salt (NaCl) and 5% to 15% insoluble (carbonate mud = $CaCO_3$, anhydrite mud = $CaSO_4$, and clays like chlorite, illite and so on). An engineered slurry-wall (in some portions, a compacted earth trench barrier) has been constructed where required around approximately half of the Allan TMA. In future years this wall can be expanded if required for operational needs. The slurry-wall provides secondary containment for any saline mine waters, minimizing brine impacts from the TMA to surrounding surface water bodies and near-surface aquifers. Areas surrounding the TMA are closely monitored: this includes everything from daily visual perimeter inspections to annual investigations and inspections of surrounding groundwater and aquifers.

Allan currently operates two brine disposal wells near the surface plant of the Allan mine where clear salt brine (i.e., no silt, clay slimes, or other waste) is borehole injected into the Winnipeg / Deadwood Formations, deep subsurface aquifers approximately 1,500 m to 1,700 m below the surface. The groundwater in these extensive deep aquifers is naturally saline.

Emissions to air (mostly salt dust and potash dust) are kept below regulatory limits through various modern air pollution abatement systems (e.g., dust collection systems built into mill processes) that are provincially licensed. This same procedure is followed at all Nutrien mines in Saskatchewan.

The Allan operation requires a sustained fresh water supply for the milling process which is provided by a waterline from the Bradwell Reservoir (approximately 6 km distant). This water supply is provincially licensed and provides a sustainable source of process water for Allan milling operations without having any impact on other users of water in the area.

In Saskatchewan, all potash tailings management activities are carried out under an “Approval to Operate” granted by the Saskatchewan Ministry of Environment (“SMOE”), the provincial regulator. The Allan mine is in compliance in all material respects with all regulations stipulated by the Environmental Protection Branch of the SMOE. The current Allan Approval to Operate has been granted to July 1, 2028, the renewal date.

In terms of long-term decommissioning, environmental regulations of the Province of Saskatchewan require that all operating potash mines in Saskatchewan create a long-term decommissioning and reclamation plan that will ensure all surface facilities are removed, and the site is left in a chemically and physically stable condition once mine operations are complete. The Company has conducted numerous studies of this topic, and the most recent decommissioning and reclamation plan for Allan was approved by SMOE technical staff in October 2016. Because the current expected mine life for Allan is many decades into the future, it is not meaningful to come up with detailed engineering designs for decommissioning annually. Instead, decommissioning plans are reviewed every five years and updated to accommodate new concepts, technological change, incorporation of new data and adjustments of production forecasts and cost estimates. Any updated decommissioning and reclamation reports generated by this process are submitted to provincial regulatory agencies. For Allan, a revised decommissioning and reclamation plan is required in July 2021.

In addition to the long-term decommissioning plan, provincial regulations require that every potash producing company in Saskatchewan set up an Environmental Financial Assurance Fund, which is to be held in trust for the decommissioning, restoration and rehabilitation of the plant site after mining is complete. This fund is for all mines operated by Nutrien in the Province of Saskatchewan (i.e., Allan, Cory, Lanigan, Patience Lake, Rocanville and Vanscoy).

xii) Capital and Operating Costs

The Allan mine has been in operation since 1968; in the years immediately preceding this, major capital investment was made to bring this mine into production. Since then, capital expenditures were made on a regular and ongoing basis to sustain production and to expand production from time to time.

A major refurbishment and expansion of the Allan mine was completed in 2013, increasing nameplate capacity to 4.0 million tonnes of finished potash products per year. This work involved enhancement of hoists and shaft conveyances, major expansions of both mine and mill, improvements to loadout facilities and some infrastructure improvements. All construction was carried out without significant disruption to existing potash production from the site.

xiii) Exploration, Development and Production

Potash production in any given year at the Allan potash mine is a function of many variables, so actual production in any given year can vary dramatically from tonnages produced in previous years. The mineral reserve tonnage and historic average production are used to estimate remaining mine life. If the average mining rate seen over the past three years (6.851 million tonnes of potash ore mined and hoisted per year) is sustained, and if mineral reserves remain unchanged, then the Allan mine life is 49 years from December 31, 2020.

b) Cory Potash Operations

Certain scientific and technical information regarding our Cory potash operations is based on the technical report titled "National Instrument 43-101 Technical Report on Cory Potash Deposit (KL 103C), Saskatchewan, Canada" dated effective December 31, 2020 ("Cory Technical Report") prepared under the supervision of Craig Funk, B.Sc., M.Sc., P.Eng., P.Geo., who is a "qualified person" as defined in NI 43-101. The Cory Technical Report has been filed with the securities regulatory authorities in each of the provinces of Canada and furnished to the SEC. Portions of the following information are based on assumptions, qualifications and procedures that are not fully described herein. References should be made to the full text of the Cory Technical Report.

i) Project Description, Location and Access

General

The Cory mine is located in central Saskatchewan, approximately 7 kilometers west of the city of Saskatoon, Saskatchewan. The Legal Land Description (Saskatchewan Township/Range) of the Cory surface operation is Section 18 Township 36 Range 06 West of 3rd Meridian. More precisely, the Cory service shaft collar is located at:

- Latitude: 52 degrees 05 minutes 30.15 seconds North
- Longitude: 106 degrees 51 minutes 16.32 seconds West
- Elevation: 503 meters above mean SL
- Northing: 5,772,861 m
- Easting: 372,951 m
- Projection: UTM
- Datum: NAD83
- Zone: 13

The Company owns approximately 2,109 hectares (5,212 acres) of surface rights required for current Cory mine operations, including all areas covered by the existing surface plant and Tailings Management Area (TMA), and all surface lands required for anticipated future Cory mine and expanded milling operations. Surface facilities are accessed by an existing paved road that is part of the Saskatchewan Provincial Highway System. All potash product is shipped by rail over existing track.

The Cory mine is served by a number of villages within 50 kilometers of the mine site. The nearest city is Saskatoon (7 km distant). Cory is situated near the northern extent of the Great Plains of North America. Topography is relatively flat, with gently rolling hills and occasional valleys. The Cory surface plant lies approximately 10 km northwest of the South Saskatchewan River, a major continental drainage channel.

Mineral Rights

Mineral rights at Cory are mined pursuant to mining leases with the Province of Saskatchewan, Canada (the Crown), and with non-Crown (Freehold) mineral rights owners. Crown mineral rights are governed by *The Subsurface Mineral Tenure Regulations, 2015*, and Crown Leases are approved and issued by the SMER. The original Cory Crown Subsurface Mineral Lease, numbered KL 103, was signed and executed in September 1962. In the following years, minor amendments were made to the Lease, resulting in Crown Subsurface Mineral Lease KL 103B.

Following the Merger, synergies were identified and realized whereby 3,503 hectares (8,656 acres) of inaccessible land in the northern part of Nutrien's adjacent Vanscoy Crown Lease were transferred into the Cory Crown Subsurface Mineral Lease KL 103C (the "Cory Crown Lease") where they could be developed, while 1,298 hectares (3,207 acres) of inaccessible land from the Cory Crown Lease were transferred into Vanscoy's Crown Lease where they could be developed. Vanscoy's Crown Subsurface Mineral Lease KL 114C was amended in 2020 at the same time as KL 103C.

KL 103C covers an area of approximately 51,438 hectares (127,107 acres). At Cory, the Company has leased potash mineral rights for 28,507 hectares (70,412 acres) of Crown Land and owns or has leased approximately 18,351 hectares (45,346 acres) of Freehold Land within the lease boundary. The Cory Crown Lease term is for a period of 21 years from September 15, 2004, with renewals (at the Company's option) for 21-year periods. Freehold Lands also remain under lease providing, generally, that production is continuing and that there is a continuation of the Crown Lease.

Within the Cory Crown Lease area 29,772 hectares (73,569 acres) are mined pursuant to a unitization agreement with mineral rights holders (Crown and Freehold).

ii) History

See “Mineral Projects – a) Allan Potash Operations – ii) History” above for a general overview of the history of potash mines in Saskatchewan.

Exploration drilling for potash in the Cory area was carried out in the 1950s and 1960s. The Cory mine was built by a company called Duval Sulphur and Potash Company in the 1960s. Potash production began at Cory in 1968 and the mine has run on a continuous basis other than short-term shutdowns taken for inventory management purposes, occasional plant maintenance and construction work, or other outages that are typical for operations of this nature. PotashCorp acquired the Cory mine in 1976.

A major refurbishment and expansion of the Cory mine was completed in 2013 increasing nameplate capacity to 3.0 million tonnes of finished potash products per year. At Cory potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1968.

iii) Geological Setting, Mineralization and Deposit Types

Geological Setting and Mineralization

See “Mineral Projects – a) Allan Potash Operations – iii) Geological Setting, Mineralization and Deposit Types – Geological Setting and Mineralization” above for a general overview of geological setting and mineralization for potash mines in Saskatchewan.

Over the past three years (2018, 2019, 2020), the average measured potash ore grade of the mill feed at Cory was 23.8% K_20 equivalent. The average ore grade reported from 11 historic surface drillhole intersections, all within Cory Subsurface Mineral Lease KL 103C, is 25.5% K_20 equivalent. The average ore grade observed from thousands of in-mine samples collected to the end of December 2020 is 21.9% K_20 equivalent

Deposit Type

There are three mineable potash members within the Prairie Evaporite Formation of Saskatchewan. Stratigraphically highest to lowest these members are: Patience Lake, Belle Plaine and Esterhazy.

The Cory potash deposit lies within the Patience Lake Potash Member of Prairie Evaporite Formation. There are two potash seams named A Zone and B Zone within this Member; at present, only the A Zone is being mined at Cory. Some test mining has been carried out in the B Zone, but no mining is done in this layer at present. Neither the Esterhazy nor the White Bear Potash Members are present in the Cory area. The Belle Plaine Potash Member is not well-developed, and therefore is not mined.

Cory potash mineralization occurs at a depth averaging approximately 1,010 m below surface. The A Zone is approximately 3.35 m thick and occurs near the top of the Prairie Evaporite Formation salts. Salt cover from the ore zone to overlying units is approximately 12 m. The Cory mine operates as a conventional, underground potash mine.

iv) Exploration

Before the Cory mine was established, all exploration consisted of drilling from surface and analysis of core from these drillholes. Since mining began in 1968, there have been several exploration drillholes that intersect the ore zone of the Prairie Evaporite Formation.

In most of southern Saskatchewan, potash mineralization is in place wherever Prairie Evaporite Formation salts exist, are flat-lying, and are undisturbed. Since the surface seismic exploration method is an excellent tool for mapping the top and bottom of Prairie Evaporite salts, this has become the main potash exploration tool in any existing Saskatchewan Subsurface (potash) Mineral Lease. Historically, 2D seismic, and now full coverage 3D seismic methods are used to map continuity and extent of potash beds in flat-lying potash deposits. Seismic data are relied upon to identify collapse structures that must be avoided in the process of mine development since these structures can act as conduits for water ingress to the mine. As a result, isolation pillars or mining buffer zones are left around these anomalous features. This practice reduces the overall mining extraction ratio, but the risk of inflow to mine workings are effectively mitigated.

Seismic coverage is outlined in the Cory Technical Report.

Experience has shown that the potash mining zone is continuous when seismic data are undisturbed and flat-lying. It is now Nutrien’s policy to collect detailed 3D seismic data ahead of mining. Any areas recognized as seismically unusual are identified early, and mine plans are adjusted as needed.

v) Drilling

For the original Cory potash test holes drilled in the 1950s and 1960s, the primary objective of drilling was to sample potash horizons to establish basic mining parameters. Seismic surveys (2D) were done sparingly in those days, so the drillhole information was relied upon heavily to evaluate potash deposits. Test holes would penetrate the evaporite section with a hydrocarbon-based drilling mud (oil-based or diesel fuel) to protect the potash mineralization from dissolution. Basic geophysical well-logs were acquired, and in many cases, drill stem tests were run on the Dawson Bay Formation to help assess water-make potential of the caprock. Core samples from the targeted potash intersections were split or quartered (cut with a masonry saw), crushed, and analysed to establish potash grades.

Relatively thin interbeds or seams of insoluble material, referred to as clay seams in the potash industry, are an ever-present component of the A Zone and B Zone at Cory. These seams, along with the clay or clay-like material disseminated throughout the mining horizon, make up the water insoluble portion of the ore. The same sequences of clay seams can be correlated for many kilometers across the central Saskatchewan potash mining district.

At Cory, a particular sequence of three clay seams marks the top of the A Zone. These seams are used to guide the vertical positioning of the mining machine. The uppermost portion of the sequence of three seams is maintained at the top of the mining cut to keep the cutting “on grade”. Cutting too high above this upper seam or top marker results in dilution, as halite (rather than sylvinite) immediately overlies the production zone. In practice though, the top marker seam is slightly overcut (between 10 cm to 20 cm) to prevent an unstable condition from being created. Clay seams are often planes of weakness, and if they are undercut, material immediately below the clay seam becomes a hazard as it may separate and fall. Since the hazard must be remediated prior to advancing mining, thus slowing production, the moderately diluted mineral grade that results from the overcutting is preferable from a safety point of view.

The A Zone mining interval at Cory has been fixed at 3.35 m (11’). This mining height allows for comfortable working headroom and efficient extraction of potash ore.

The original exploration area was explored with 15 test holes laid out in an approximate 1.6 km by 6.4 km (1 mile by 4 mile) grid pattern. Of these drill holes, two did not have assays performed and two have anomalous hydrogeological indicators and the area around them is excluded from mine development. Original drill core assays were studied by independent consultant David S. Robertson and Associates (1976). Since mining commenced in 1968, no potash test holes have been completed where assays were acquired. All drilling and sampling were carried out following the regulations in place at the time.

Assays from all drillholes within Cory’s current Crown Lease (KL 103C) are provided in Table B. In each case, the best 3.35 m (11’) mining interval intersected in the drillhole was determined from the assay values, using clay marker seams as a guide. With over 50 years of mining experience at Cory, it is the opinion of the authors that areas of low grade (i.e. <15% K2O) are localized with a relatively small lateral extent. Drillhole assay data for the A Zone at Cory gives an estimated mean grade of 25.5% K_2O with 4.9% water insolubles.

B Zone mineralization is indicated by gamma ray geophysical log response in each of the exploration drillholes listed in Table B indicating a potash Mineral Resource. Although some test mining has been carried out in the B Zone, sustained production from that zone has not been established. Assay results for the B Zone are not presented here.

Table B: Assay results for all potash test holes within Cory Lease KL 103C.

Average in 3.35 m (11’) mining interval (undiluted)			
Drillhole	**Year Drilled**	**%K_2O**	**% Water Insolubles**
14-28-036-06 W3	1954	*	*
04-28-037-07 W3	1955	24.9	4.6
01-11-037-07 W3	1955	26.0	4.8
08-22-036-07 W3	1956	29.1	4.6
16-06-037-08 W3	1957	24.5	3.2
04-16-036-07 W3	1965	27.0	6.2
16-34-035-07 W3	1965	28.0	4.9
01-25-035-07 W3	1965	17.3	6.8
01-32-036-07 W3	1965	26.4	5.2
06-18-036-06 W3	1965	23.8	3.9
05-07-036-06 W3	1965	26.5	4.7
04-04-036-06 W3	1965	29.4 (anomalous)	4.6 (anomalous)
05-30-036-06 W3	1965	27.3	4.9
01-16-036-06 W3	1965	25.6 (anomalous)	5.7 (anomalous)
13-01-038-08 W3	1968	*	*
Average of 11 usable values:		**25.5**	**4.9**

Due to the remarkably consistent mineralogy and continuity of the resource, as experienced over 50 years of mine production, only a few exploration drilling programs were conducted after the 1960s. Instead of exploration drillholes, seismic surveying has been relied upon to explore ahead of mine development. Where normal Prairie Evaporite sequences are mapped in the seismic data, potash beds have unfailingly been present. Localized, relatively small mine anomalies not mapped in seismic data do occur. When they do, they are dealt with in the normal course of mining and extraction through these anomalous areas is typically minimized. Anomalies associated with possible water inflow problems, which are mapped in the seismic data, are avoided.

vi) Sampling Preparation, Analyses and Security

Basic Approach

Exploration in the Cory area was initially conducted in the 1950s and 1960s. Sampling and assaying of potash core samples was done using methods considered consistent with standard procedures for potash exploration at these times.

Drillhole sampling methods have remained essentially the same over the years. Short segments of core usually about 1 foot (0.3 m) in length are labeled based on visible changes in mineralization, and sometimes based on fixed intervals. Each segment of core is then split using some type of rock or masonry saw. The split portion of core is then bagged and labeled and sent to a laboratory for chemical analysis. Historical potash samples remain stored at the Subsurface Geological Laboratory (Regina, Saskatchewan) of the SMER. Most of these have deteriorated substantially.

All in-mine samples were analysed in the Cory mill laboratory using analysis techniques that were up to date for the era in which the sample was collected.

Regarding quality assurance for analytical results of in-mine samples, the Company participates in the Canpotex Producer Sample Exchange Program using methods developed by the Saskatchewan Potash Producers Association ("SPPA"). The Sample Exchange Program monitors the accuracy of analytical procedures used in its labs. In the early 1970s, the SPPA initiated a round-robin Sample Exchange Program, the purpose of which was to assist the potash laboratories in developing a high level of confidence in analytical results. This program, now named the Canpotex Producer Sample Exchange Program using SPPA Methods ("CPSEP"), has continued up to the present. Current participants include all Canpotex member potash mine site labs, the Nutrien Pilot Plant Lab, and independent third-party surveyor labs. The CPSEP provides participants with three unknown potash samples for analysis quarterly. Results for the unknown sample analysis are correlated by an independent agency that distributes statistical analysis and a summary report to all participants. Completed exchange program samples can be used for control standards as required in QA/QC sections of standard analytical procedures.

The Nutrien Pilot Plant is secured in the same way as modern office buildings are secured. Authorized personnel have access and visitors are accompanied by staff. No special security measures are taken beyond that. Currently, no external laboratory certification is held by the Nutrien Pilot Plant. On occasion, product quality check samples are sent to the SRC, a fully certified analytical facility.

In the opinion of the authors, the sample preparation, security, and analytical procedures are acceptable, are consistent with industry-standard practices, and are adequate for Mineral Resource and Reserve estimation purposes.

Mean Potash Mineral Grade From In-Mine Samples

It has been the practice at Cory for the past several years to acquire two in-mine grade samples at the start of every cutting sequence and is done by collecting fine "muck" from the floor of the mine. The sampling frequency is equivalent to two samples taken approximately every 25 m in production panels, and two samples taken approximately every 50 m in development panels. In-mine grade sampling practices at Cory have varied over the years resulting in an irregular sample set. It is the belief of the authors that the average grade reported from these in-mine samples will become increasingly representative of Cory A Zone potash mineralization as standardized sampling continues. It will also lead to a normalized data distribution. At Cory, mill feed grade data collected over the years suggests a higher average grade than is found in the in-mine sample set.

Per the Cory Technical Report, in-mine potash mineral grade samples collected from the Cory A Zone were analysed in the Cory mill laboratory using analysis techniques that were up to date for the era in which the sample was collected.

The median ore grade for this family of in-mine samples is 23.0% K_2O equivalent and the mean ore grade is 21.9%.

Per the Cory Technical Report, the B Zone mineral grade at Cory is reported to be 20.3% K_2O equivalent, which is the grade observed from in-mine samples at the Lanigan mine where the B Zone has been extensively mined. Even though Cory mine is some distance from Lanigan, this is considered to be the best estimate of expected mineral grade for this potash layer because the deposit is known to be regionally continuous from west of Vanscoy to east of Lanigan. Although it is possible that once mining proceeds into the B Zone the reported grade could change from what is reported, it is expected that any such change would be minimal.

Potash Ore Density From In-Mine Mineral Grade Measurements

An estimate of in-situ rock density is used to calculate potash mineralization volumes in Mineral Resource and Reserve assessments. A common approach, and the one used by Nutrien, is to determine in-place Mineral Resource and Reserve volumes (m^3), then multiply this number by in-situ bulk-rock density (kg / m^3) to give in-place Mineral Resource and Reserve tonnes. Well-log data from drillholes can be used to calculate bulk density if accurate and calibrated well-logs are acquired during exploration drilling. In practical terms, modern well-logs tend to meet these criteria, but historic well-logs (collected before the 1990s) do not. In Saskatchewan, almost all potash exploration drilling took place in the 1950s and 1960s, well before density logs were accurate and reliable.

Another approach, and the one used by Nutrien, is to look up density values for the minerals which constitute potash rock – values determined in a laboratory to a high degree of accuracy and published in reliable scientific journals / textbooks – then apply these densities to the bulk rock. Given that the density of each pure mineral is quantified and known, the only variable is what proportion of each mineral makes up the bulk rock. An obvious benefit of this approach is that a mean value computed on the in-mine samples has a much greater confidence interval than a mean value computed from just a few drillhole assays.

The four main mineralogical components of the ore zones of Saskatchewan's Prairie Evaporite Formation with their respective mineral densities are:

Mineral	Density (kg / m^3)	Components
Halite	2,170	NaCl
Sylvite	1,990	KCl
Carnallite	1,600	$KMgCl_3 \cdot 6(H_2O)$
Insolubles	2,510	Anhydrite, dolomite, quartz, muscovite, and other minor mineral components

(Nutrien Pilot Plant, 2018)

Historical Cory in-mine mineral grade analyses did not include measurements of the insoluble content, so the approach described above cannot be used at Cory. Instead, potash bulk-rock density is calculated using thousands of in-mine samples from the adjacent Vanscoy A Zone. All Nutrien potash mines now measure and record the in-mine % K_2O grade and insoluble content of the mined rock. Magnesium content is not measured at Cory or Vanscoy since carnallite is a negligible component of the ore here.

The value for insoluble density is based on known densities of the constituent parts of the insoluble components of the mineralization and the average occurrence of these insoluble components, which is known from over 50 years of mining experience at Vanscoy. Assuming the lowest plausible density of insolubles known for Saskatchewan potash deposits of this nature, the effect upon overall bulk-rock ore density and Mineral Resource and Reserve calculations would be negligible.

From life-of-mine in-mine samples taken at Vanscoy, bulk density for the Cory A Zone has been determined to be:

$$\mathbf{RHO_{bulk\text{-}rock}\,(Cory\ A\ Zone) = RHO_{bulk\text{-}rock}\,(Vanscoy\ A\ Zone) = 2{,}116\ kg\ /\ m^3}$$

This method is as accurate as the ore grade measurements and mineral density estimates.

This estimate is considered acceptable since Cory and Vanscoy are mining the same potash seam, both mines use boring machines that are the same height, and both mines use the same basic mineral grade sampling methodology.

Not enough test mining of the B Zone has been conducted at Cory to permit a bulk density calculation based on Cory in-mine grade samples. If test mining of the B Zone at Cory is conducted in future, there may be enough samples with all constituent minerals measured to warrant a change from what is reported. It is expected that any such change would have only a minimal effect on bulk-rock density used in tonnage calculations.

Instead, the potash bulk-rock density is calculated using thousands of in-mine grade samples from Lanigan B Zone:

$$\mathbf{RHO_{bulk\text{-}rock}\,(Cory\ B\ Zone) = RHO_{bulk\text{-}rock}\,(Lanigan\ B\ Zone) = 2{,}120\ kg\ /\ m^3}$$

This estimate is considered acceptable since both Cory B Zone and Lanigan B Zone are the same potash seam. Should the Cory B Zone bulk density change from the predicted value of 2,120 kg / m^3, the later defined Cory B Zone Mineral Resources and Reserves will also change, albeit, insignificantly.

Assay Data Verification

The majority of original drill core assays were studied by independent consultant David S. Robertson and Associates (1976).

The original assay results for core samples from historical drillholes were taken as accurate in these studies, as there is no way to reliably reanalyse these samples. Most of the remaining samples in storage have long since deteriorated to the point where they are not usable.

Ore grades of in-mine samples are measured inhouse at the Cory mine laboratory by Company staff using modern, standard chemical analysis tools and procedures; an independent agency does not verify these results. However, check sampling through the CPSEP Methods does occur.

It should be noted that assay results from historical drillholes match in-mine sample results reasonably well – within 1% – even though drillhole sample spacing is much greater. This correlation is further validation of the in-mine sampling methodology. Mean mineral grade determined from in-mine samples taken from over 50 years of mining at Cory is thought to provide the most accurate measurement of potash grade for the Cory mine, also providing a good basis for estimating ore grade in areas of future mining at Cory.

Exploration Data Verification

The purpose of any mineral exploration program is to determine extent, continuity, and grade of mineralization to a certain level of confidence and accuracy. For potash exploration, it is important to minimize the amount of cross-formational drilling, since each drillhole is a potential conduit for subsurface groundwater from overlying (or underlying) water-bearing formations into future mine workings. Every potash test drillhole from surface sterilizes potash mineralization; a safety pillar is required around every surface drillhole once underground mining commences.

Initial sampling and assaying of cores were done during potash exploration at Cory in the 1950s and 1960s. Methods were consistent with standard procedures for that era. The mine began production in 1968 and test drilling conducted after that was largely for the purpose of better understanding the caprock rather than potash mineralization. This approach to potash sampling is in accordance with widely accepted industry practice for areas adjacent and contiguous to an existing operating potash mine.

Assay of physical samples (drillhole cores and/or in-mine samples) is the only way to gain information about mineral grade, but extent and continuity of mineralization are correctly determined using data collected from geophysical surveys correlated with historic drilling information. To date, surface seismic data at Cory have been collected, analysed, and verified by Company staff, at times, in cooperation with independent consultants.

Data for the Mineral Resource and Reserve estimates for Cory mine were verified by Company staff as follows:

- Review of potash assay sample information (drillholes and in-mine grade samples),
- Review of surface geophysical exploration results (3D and 2D seismic data),
- Crosscheck of mined tonnages reported by mine site technical staff with tonnages estimated from mine survey information, and
- Crosscheck of Mineral Resource and Mineral Reserve calculations carried out by corporate technical staff.

In the opinion of the authors, this approach to data verification of potash mineral grade and surface seismic information is in accordance with generally accepted industry practice for areas adjacent and contiguous to an existing operating potash mine.

vii) Mineral Processing and Metallurgical Testing

At Cory, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1968.

Over the 52-year mine life, 123.510 million tonnes of potash ore have been mined and hoisted to produce 38.672 million tonnes of finished potash product (from startup in 1968 to December 31, 2020). Given this level of sustained production over several decades, basic mineralogical processing and prospective metallurgical testing of Cory potash is not considered relevant.

viii) Mineral Resource and Mineral Reserve Estimates

Definitions of Mineral Resource

See “Mineral Projects – a) Allan Potash Operations – viii) Mineral Resource and Mineral Reserve Estimates – Definitions of Mineral Resource” for an overview of CIM’s mineral resource categories and the Company’s general characterization of mineral resources categories for its potash mines.

The Cory mine began production in 1968 and test drilling conducted after that was largely for the purpose of better understanding the caprock rather than potash mineralization. Instead, exploration involved collecting surface seismic data, which became better in quality over the years. Exploration drilling has demonstrated the presence of the potash horizon, and seismic coverage shows the continuity of the Prairie Evaporite Formation within which the potash horizon occurs.

Along with this approach, analysis of in-mine samples for potash grade has provided an observation-based understanding of the potash mineralized zone at Cory that is far superior to the level of understanding provided by any surface drilling-based exploration program. The authors believe that this approach provides a body of information that guides and constrains exploration inferences in a much better way than could be achieved from any conventional exploration investigation in areas immediately surrounding, and contiguous to, the Cory potash mine.

Mineral Resource Estimates

Exploration information used to calculate reported Mineral Resource tonnages at Cory consist of both physical sampling (drillhole and in-mine) and surface seismic (2D and 3D). Based on the definitions and guidelines above, all mineral rights leased or owned by the Company, and within Cory Crown Lease, are assigned to one of the three mineral resource categories.

Mineral resources are reported as mineralization in-place and are exclusive of Mineral reserves. In-place tonnes were calculated for each of the mineral resource categories using the following parameters:

Mining Height:	3.35 meters (11 feet)
Ore Density:	2.116 tonnes / cubic metre (A Zone)
Ore Density:	2.120 tonnes / cubic metre (B Zone)

The mineral resources per the Cory Technical Report are as follows:

Cory A Zone:		
Inferred Resource	1,284	millions of tonnes
Indicated Resource	612	millions of tonnes
Measured Resource	1,056	millions of tonnes
Total A Zone Resource	2,952	millions of tonnes

Cory B Zone:		
Inferred Resource	1,286	millions of tonnes
Indicated Resource	613	millions of tonnes
Measured Resource	1,396	millions of tonnes
Total B Zone Resource	3,295	millions of tonnes

Total Cory Resource (A Zone + B Zone):		
Inferred Resource	2,570	millions of tonnes
Indicated Resource	1,225	millions of tonnes
Measured Resource	2,452	millions of tonnes
Total A Zone + B Zone Resource	6,247	millions of tonnes

Per the Cory Technical Report, the average mineral grade of the Cory A Zone mineral resource is 21.9% K_2O equivalent and was determined from in-mine samples at Cory. The average mineral grade of the Cory B Zone mineral resource is 20.3% K_2O equivalent and was determined from in-mine samples at Lanigan mine where the B Zone has been extensively mined.

The tonnage reported in the Cory A Zone Measured Resource is comprised of the potash that is within 1.6 km (1 mile) of physically sampled location (i.e. drillholes or mine workings). Also included as Measured Resource is the potash in the pillars of mined-out areas of the Cory mine as there is the possibility of retrieving ore from the remnant mining pillars at some point in the future. An example of this is the Patience Lake mine which was successfully converted from a conventional mine to a solution mine after being lost to flooding in 1989. Since mining of remnant mining pillars is not anticipated in the near future at Cory, in-place pillar mineralization remains as a Mineral Resource rather than a Mineral Reserve at this time.

Definitions of Mineral Reserve

See “Mineral Projects – a) Allan Potash Operations – viii) Mineral Resource and Mineral Reserve Estimates – Definitions of Mineral Reserve” for an overview of CIM’s mineral reserve categories and the Company’s general characterization of mineral reserve categories for its potash mines.

Along with this approach, analysis of in-mine samples for potash grade has provided an observation-based understanding of the potash mineralized zone at Cory that is far superior to the level of understanding provided by any surface drilling-based exploration program. An understanding of the amount of ore that can be conventionally mined from the Measured Resource category using current mining practices comes from over 50 years of potash mining experience at Cory.

Mineral Reserve Estimates

Using the definitions outlined above, a portion of the Cory A Zone Measured Resource has been converted to Mineral Reserve. The assigned Mineral Reserve category is dependent on proximity to sampled mined entries also described above. An overall extraction ratio for the Cory mine has been applied to the qualifying areas outlined as Measured Resource.

The overall extraction ratio at the Cory mine is 27%. It was derived by dividing the total tonnes mined to date by the tonnage equivalent of the total area of the mine workings (i.e. the perimeter around the mine workings) less future mining blocks. Since an extraction ratio has been applied, Mineral Reserves are considered recoverable ore, and are reported as such. Note that only drillholes whose 1.6 km radii are contiguous to mine workings or the 1.6 km radius placed around mine workings are used to compute probable mineral reserve. The remaining non-contiguous drillholes remain in the measured resource category
The mineral reserves per the Cory Technical Report are as follows:

Cory A Zone:		
Probable Reserve	141	millions of tonnes
Proven Reserve	73	millions of tonnes
Total A Zone Reserve =	214	millions of tonnes
Cory B Zone:		
Probable Reserve	nil	
Proven Reserve	nil	
Total B Zone Reserve =	nil	
Total for Cory (A Zone + B Zone):		
Probable Reserve	141	millions of tonnes
Proven Reserve	73	millions of tonnes
Total A Zone and B Zone Reserve =	214	millions of tonnes

The average mineral grade of the Cory A Zone Mineral Reserve is 21.9% K_2O equivalent and was determined from in-mine samples at Cory.

ix) Mining Operations

All conventional potash mines in Saskatchewan operate at 900 m to 1,200 m below surface within 9 m to 30 m of the top of the Prairie Evaporite Formation. Over the scale of any typical Saskatchewan potash mine, potash beds are tabular and regionally flat-lying, with only moderate local variations in dip. At Cory, potash ore is mined using conventional mining methods, whereby:

- Shafts are sunk to the potash ore body;
- Continuous mining machines cut out the ore, which is hoisted to surface through the production shaft;
- Raw potash is processed and concentrated in a mill on surface; and
- Concentrated finished potash products (near-pure KCl) are sold and shipped to markets in North America and offshore.

Sinking of the two original shafts (Shaft #1 and Shaft #2) from surface to the potash zone was completed in 1968, and the first potash ore was hoisted in the fall of that year. The Cory mine has run on a continuous basis since the first ore was hoisted in 1968, other than short-term shutdowns taken for inventory management purposes, occasional plant maintenance and construction work, or other outages that are typical for operations of this nature.

In recent years, the Cory mine underwent a major expansion which brought the nameplate capacity up to 3.0 million tonnes of finished potash products per year. In 2020, operational capability at the Cory facility was 1.0 million tonnes per year. Operational capability may vary during the year and year-to-year including as between our potash operations.

Virtually all Cory underground mining rooms are in one potash mineralized zone, the upper layer (or A Zone) of the Patience Lake Member of the Prairie Evaporite Formation (the host evaporite salt). In contrast, some potash mines further east in Saskatchewan mine in a different potash layer, the Esterhazy Member of the Prairie Evaporite Formation. At Cory, mine elevations average approximately 1,010 m depth below surface. Mine workings are protected from aquifers in overlying formations by approximately 12 m of overlying salt and potash beds, along with salt plugged porosity in the Dawson Bay Formation, a carbonate layer lying immediately above potash hosting salt beds.

The Cory mine is a conventional underground mining operation whereby continuous mining machines are used to excavate the potash ore by the stress-relief mining method. Continuous conveyor belts transport ore from the mining face to the bottom of the production shaft. Mining methods employed in Saskatchewan are discussed in Jones and Prugger (1982) and in Gebhardt (1993). The highest mineral grade section of the Cory potash seam is approximately 3.35 m (11') thick, with gradations to lower grade salts immediately above and below the mining horizon. The actual mining thickness at Cory is dictated by the height of continuous boring machines used to cut the ore which has been fixed at 3.35 m (11'). This mining height allows for comfortable working headroom and efficient extraction of potash ore.

Cory cuts to a marker (clay) seam that is slightly above the high-grade mineralized zone to establish a safe and stable mine roof. The top marker seam is slightly overcut by 10 cm to 20 cm. Clay seams are often planes of weakness, and if they are undercut, material immediately below the clay seam becomes a hazard as it may separate and fall. Since the hazard must be remediated prior to proceeding, thus slowing production, the moderately diluted mineral grade that results from the overcutting is preferable from a safety point of view.

Conservative local extraction ratios (never exceeding 45% in any mining block) are employed at all Saskatchewan mines, including Cory, in order to minimize potential detrimental effects of mining on overlying strata; this is common practice in flat-lying, tabular ore bodies overlain by water-bearing layers.

From the shaft-bottom, potash ore is hoisted approximately 1,000 m from the potash level through the vertical shafts to a surface mill. In addition to hoisting potash ore to surface, the production shaft provides fresh air ventilation to the mine and serves as a secondary egress. The Service Shaft is used for service access, primary egress, and exhausting ventilation from the mine.

Over the 52-year mine life, 123.510 million tonnes of potash ore have been mined and hoisted to produce 38.672 million tonnes of finished potash product (from startup in 1968 to December 31, 2020). The life-of-mine average concentration ratio (raw ore / finished potash products) is 3.19 and the overall extraction ratio over this period is 27%.

x) Processing and Recovery Operations

At Cory, potash ore has been mined and concentrated to produce saleable quantities of high grade finished potash products since 1968. Raw potash ore is processed on surface and concentrated finished potash products (near-pure KCl) are sold and shipped to markets in North America and offshore.

Over the past three years, production of finished potash products at Cory was:

2018: 0.810 million tonnes finished potash products at 62.63% K_2O (average grade)
2019: 0.973 million tonnes finished potash products at 61.79% K_2O (average grade)
2020: 1.403 million tonnes finished potash products at 61.58% K_2O (average grade)

Over the past decade, actual mill recovery rates have been between 69.0% and 80.6%, averaging 73.7%. Historically, mill recoveries at Cory were lower than at other Nutrien plants because a larger portion, and at one point all, of Cory's total production was made through the crystallization process. Given the long-term experience with potash geology and actual mill recovery at Cory, no fundamental potash milling problems are anticipated in the foreseeable future.

Quality control testing and monitoring geared towards fine-tuning and optimizing potash milling and concentrating processes are conducted on a continual basis at all Nutrien mine sites and at Nutrien research facilities. At Cory, this is no exception; test work to optimize circuit performance and ensure product quality is carried out on an ongoing basis.

xi) Infrastructure, Permitting and Compliance Activities

Project Infrastructure

Infrastructure is in place to meet current and projected requirements for transportation, energy (electricity and natural gas), water and process materials at Cory.

The Cory mine is served by a number of villages within 50 kilometers of the mine site. The nearest city is Saskatoon (approximately 7 km distant). Surface facilities are accessed by existing paved roads and highways that are part of the Saskatchewan Provincial Highway System. All potash product is shipped by rail over existing track.

At present, high-voltage power capacity at Cory is 52 MVA. The ten-year projection of power utilization indicates that the utility can meet all foreseeable future demand.

The Cory operation requires a sustained fresh water supply for the milling process which is provided by a waterline from the South Saskatchewan River (approximately 10 km distant). This water supply is provincially licensed and provides a sustainable source of process water for Cory milling operations without having any impact on other users of water in the area.

Environmental Studies, Permitting and Compliance Activities

The tailings management strategy at all Nutrien potash mines in Saskatchewan, including Cory, is one of sequestering solid mine tailings in an engineered and provincially licenced TMA near the surface plant site. The Cory TMA currently covers an area of approximately 416 hectares (1,027 acres) of land owned by the Company. Solid potash mine tailings typically consist of 85% to 95% rock salt (NaCl) and 5% to 15% insolubles (carbonate mud = $CaCO_3$, anhydrite mud = $CaSO_4$, and clays like chlorite, illite, and so on). An engineered slurry-wall has been constructed on the north, west, and south sides of the Cory TMA in the areas where near-surface aquifers could be impacted by mine waters. Near-surface geology to the east of the TMA limits the possibility of brine migration into these areas. The slurry-wall provides secondary containment of any saline mine waters, stopping these brines from reaching surrounding near-surface aquifers. Areas surrounding the TMA are closely monitored: this includes everything from daily visual perimeter inspections to annual investigations and inspections of surrounding groundwater and aquifers.

Cory currently operates four brine disposal wells near the surface plant of the Cory mine where clear salt brine (i.e. no silt, clay slimes, or other waste) is borehole-injected into the Winnipeg / Deadwood Formations, deep subsurface aquifers approximately 1,500 m to 1,700 m below the surface. The disposal wells are provincially licensed, and groundwater in these extensive deep aquifers is naturally saline.

Emissions to air (mostly salt dust and potash dust) are kept below regulatory limits through various modern air pollution abatement systems (e.g. dust collection systems built into mill processes) that are provincially licensed. This same procedure is followed at all Nutrien mines in Saskatchewan.

The Cory operation requires a sustained fresh water supply for the milling process which is provided by a waterline from the South Saskatchewan River (approximately 10 km distant). This water supply is provincially licensed and provides a sustainable source of process water for Cory milling operations without having any impact on other users of water in the area.

In Saskatchewan, all potash tailings management activities are carried out under an "Approval to Operate" granted by the SMOE, the provincial regulator. The Cory mine is in compliance with all regulations stipulated by the Environmental Protection Branch of SMOE. The current Cory Approval to Operate has been granted to July 1, 2028, the renewal date.

In terms of long-term decommissioning, environmental regulations of the Province of Saskatchewan require that all operating potash mines in Saskatchewan create a long-term decommissioning and reclamation plan that will ensure all surface facilities are removed, and the site is left in a chemically and physically stable condition once mine operations are complete. The Company has conducted numerous studies of this topic, and the most recent decommissioning and reclamation plan for Cory was approved by SMOE technical staff in October 2016. Because the current expected mine life for Cory is many decades into the future, it is not meaningful to come up with detailed engineering designs for decommissioning annually. Instead, decommissioning plans are reviewed every five years, and updated to accommodate new concepts, technological change, incorporation of new data, and adjustments of production forecasts and cost estimates. Any updated decommissioning and reclamation reports generated by this process are submitted to provincial regulatory agencies. For Cory, a revised decommissioning and reclamation plan is required in July 2021.

In addition to the long-term decommissioning plan, provincial regulations require that every potash producing company in Saskatchewan set up an Environmental Financial Assurance Fund, which is to be held in trust for the decommissioning, restoration and rehabilitation of the plant site after mining is complete. This fund is for all mines operated by Nutrien in the Province of Saskatchewan (i.e. Allan, Cory, Lanigan, Patience Lake, Rocanville, and Vanscoy).

xii) Capital and Operating Costs

The Cory mine has been in operation since 1968; in the years immediately preceding this, major capital investment was made to bring this mine into production. Since then, capital expenditures were made on a regular and ongoing basis to sustain production, and to expand production from time to time.

A major refurbishment and expansion of the Cory mine was completed in 2013 increasing nameplate capacity to 3.0 million tonnes of finished potash products per year. This work involved increased hoist capacity, infrastructure improvements, major expansions of mine and mill, and improvements to loadout facilities. All construction was carried out without significant disruption to existing potash production from the site.

xiii) Exploration, Development and Production

Potash production in any given year at the Cory mine is a function of many variables, so actual production in any given year can vary dramatically from tonnages produced in previous years. The Mineral Reserve tonnage and historic average production are used to estimate remaining mine life. If the average mining rate seen over the past three years (3.626 million tonnes of potash ore mined and hoisted per year is sustained), and if Mineral Reserves remain unchanged, then the Cory mine life is 59 years from December 31, 2020.

c) Lanigan Potash Operations

Certain scientific and technical information regarding our Lanigan potash operations is based on the technical report titled "National Instrument 43-101 Technical Report on Lanigan Potash Deposit (KLSA 001 C), Saskatchewan, Canada" dated effective December 31, 2018 ("Lanigan Technical Report") prepared under the supervision of Craig Funk, B.Sc., M.Sc., P.Eng., P.Geo., who is a "qualified person" as defined in NI 43-101. The Lanigan Technical Report has been filed with the securities regulatory authorities in each of the provinces of Canada and furnished to the SEC. Portions of the following information are based on assumptions, qualifications and procedures that are not fully described herein. References should be made to the full text of the Lanigan Technical Report.

i) Project Description, Location and Access

The Lanigan mine is located in central Saskatchewan, approximately 100 kilometers east of the city of Saskatoon, Saskatchewan. The Legal Land Description (Saskatchewan Township/Range) of the Lanigan surface operation is Section 28 Township 33 Range 23 West of 2nd Meridian. More precisely, the Lanigan Shaft #2 collar is located at:

- Latitude: 51 degrees 51 minutes 20.48 seconds North
- Longitude: 105 degrees 12 minutes 34.79 seconds West
- Elevation: 535.34 meters above mean SL
- Easting: 485,560.306 m
- Northing: 5,745,008.726 m
- Projection: UTM
- Datum: NAD83
- Zone: 13

The Company owns approximately 3,700 hectares (9,140 acres) of surface rights required for current Lanigan mine operations, including all areas covered by the existing surface plant and Tailings Management Area (TMA), and all surface lands required for anticipated future Lanigan mine and expanded milling operations. Surface facilities are accessed by an existing paved road that is part of the Saskatchewan Provincial Highway System. All potash product is shipped by rail over existing track.

Lanigan is situated near the northern extent of the Great Plains of North America. Topography is relatively flat, with gently rolling hills and occasional valleys. There are no rivers or other major watercourse channels near the Lanigan minesite.

Mineral Rights

Mineral rights at Lanigan are mined pursuant to mining leases with the Province of Saskatchewan, Canada (the Crown), and with non-Crown (Freehold) mineral rights owners. Crown mineral rights are governed by *The Subsurface Mineral Tenure Regulations, 2015*, and Crown Leases are approved and issued by the SMER. The original Lanigan Crown Subsurface Mineral Lease, numbered KL 100, was entered into in March 1964. A minor amendment to this lease in September 1989 resulted in KL 100R. In November 2009, a large area of land was added to the lease resulting in KLSA 001. Shortly after that, in June 2011, a minor amendment to the lease resulted in KLSA 001 A. KLSA 001 B was issued in September 2014 when portions of the adjacent exploration permits, granted in September 2011, were added to the lease. Finally, in November 2015, a minor change to the lease resulted in KLSA 001 C ("Lanigan Crown Lease").

The Lanigan Crown Lease covers an area of approximately 56,328 hectares (139,190 acres), At Lanigan, the Company has leased potash mineral rights for 38,188 hectares (94,365 acres) of Crown land and owns or has leased approximately 17,913 hectares (44,265 acres) of Freehold land within the lease boundary. The Lanigan Crown lease term is for a period of 21 years from March 2006, with renewals (at the Company's option) for 21-year periods. Freehold lands also remain under lease providing, generally, that production is continuing and that there is a continuation of the Crown lease.

Within the Lanigan Crown lease area, 55,950 hectares (138,256 acres) are mined pursuant to unitization agreements with mineral rights holders (Crown and Freehold) within two unitized areas. Lanigan Unit Area #1 includes 19,990 hectares (49,395 acres) while Lanigan Unit Area #2 includes 35,961 hectares (88,861 acres).

ii) History

See "Mineral Projects – a) Allan Potash Operations – ii) History" above for a general overview of the history of potash mines in Saskatchewan.

Exploration drilling for potash in the Lanigan area was carried out in the 1950s and 1960s. The Lanigan mine was built by a company named Alwinsal Potash of Canada Ltd., a consortium of German and French mining and fertilizer companies. Potash production began at Lanigan in 1968 and the mine has run on a continuous basis other than short-term shutdowns taken for inventory management purposes, occasional plant maintenance and construction work, or other outages that are typical for operations of this nature. PotashCorp acquired the Lanigan mine in 1976.

Mill rehabilitation, mine expansion and hoist improvement projects were completed at Lanigan between 2005 and 2010. The expansion construction was carried out without significant disruption to existing potash production from the site.

At Lanigan, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1968. As of December 31, 2020, the annual nameplate capacity at Lanigan is 3.8 million tonnes.

iii) Geological Setting, Mineralization and Deposit Types

Geological Setting and Mineralization

See “Mineral Projects – a) Allan Potash Operations – iii) Geological Setting, Mineralization and Deposit Types – Geological Setting and Mineralization” above for a general overview of geological setting and mineralization for potash mines in Saskatchewan.

Over the past three years (2018, 2019, 2020), the average, measured potash ore grade of the mill feed at Lanigan was 22.2% K_20 equivalent. The average ore grade reported from 19 historic surface drillhole intersections, all within Lanigan Subsurface Mineral Lease KLSA 001 C, is 25.29% K_20 equivalent for A Zone, and 23.21% K_20 equivalent for B Zone Per the Lanigan Technical Report, the average A Zone ore grade observed from 1,485 in-mine samples is 23.5% K_2O equivalent, and the average B Zone ore grade observed from 20,230 in-mine samples is 20.3% K_2O equivalent.

Deposit Type

There are three mineable potash members within the Prairie Evaporite Formation of Saskatchewan. Stratigraphically highest to lowest, these members are: Patience Lake, Belle Plaine and Esterhazy.

The Lanigan potash deposit lies within the Patience Lake Member of Prairie Evaporite Formation. There are two potash seams named A Zone and B Zone within this Member; both the A Zone and B Zone are being mined at Lanigan. The Belle Plaine potash member is present at Lanigan but is not economically mineable, while the Esterhazy Member is poorly developed and not economically mineable.

Lanigan potash mineralization occurs at an average of about 990 m below surface. Salt cover from the top of the A Zone mining horizon to overlying units is approximately 7 m thick and salt cover from the top of the B Zone mining horizon to overlying units is approximately 12 m thick. The Lanigan mine operates as a conventional, underground potash mine.

iv) Exploration

Before the Lanigan mine was established in 1968, all exploration consisted of drilling from surface and analysis of core from these drillholes. Since mining began in 1968, exploration drilling has been infrequent.

In most of southern Saskatchewan, potash mineralization is in place wherever Prairie Evaporite Formation salts exist, are flat-lying and are undisturbed. Since the surface seismic exploration method is an excellent tool for mapping the top and bottom of Prairie Evaporite salts, this has become the main potash exploration tool in any existing Saskatchewan subsurface (potash) mineral lease. Historically, 2D seismic, and now the more accurate 3D seismic methods are used to map continuity and extent of potash beds in flat-lying potash deposits. Seismic data are relied upon to identify collapse structures that must be avoided in mine development since these structures can act as conduits for water. As a result, isolation pillars or mining buffer zones are left around these anomalous features. This practice reduces the overall mining extraction ratio, but the risk of inflow to mine workings is effectively mitigated.

Seismic coverage is outlined in the Lanigan Technical Report.

Experience has shown that the potash mining zone is continuous when seismic data are undisturbed and flat-lying. Surface seismic data are generally collected three to five years in advance of mining. Any area recognized as seismically unusual is identified early, and mine plans are adjusted to avoid these regions.

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v) Drilling

For the original Lanigan potash test holes drilled in the 1950s and 1960s, the primary objective of this drilling was to sample the potash horizons to establish basic mining parameters. Seismic surveys (2D) were done sparingly in those days, so the drillhole information was relied upon heavily to evaluate potash deposits. Test holes would penetrate the evaporite section with a hydrocarbon-based drilling mud (oil-based or diesel fuel) to protect the potash mineralization from dissolution. Basic geophysical well-logs were acquired, and in many cases, drill stem tests were run on the Dawson Bay Formation to help assess mine inflow potential. Core samples from the targeted potash intersections were split or quartered (cut with a masonry saw), crushed and analysed to establish potash grades.

Relatively thin interbeds or seams, referred to as clay seams in the potash industry, are an ever-present component of the A Zone and B Zone at Lanigan. These seams, along with the clay or clay-like material disseminated throughout the rock, make up the water insoluble portion of the mineralized horizons. The same sequences of clay seams can be correlated for many kilometers across the central Saskatchewan potash mining district.

At Lanigan, a particular sequence of two clay seams marks the top of the A Zone. A distinct clay seam marks the top of the B Zone; this clay seam is immediately overlain by a much less consistent clay seam referred to as Shadowband at Lanigan. In 2013, Lanigan modified its cutting practices in the B Zone to improve mine roof stability. This modification involved cutting a slightly higher horizon, just above Shadowband, thus removing the risk associated with the seam. The goal of improved mine roof stability was achieved; however, less potash and more salt is now being mined resulting in a slightly lower reported ore grade for B Zone.

The clay seams are used to guide the vertical positioning of the mining machine. The uppermost portion of the sequence of three seams is maintained at the top of the mining cut to keep the cutting “on grade”. Cutting too high above this upper seam or top marker results in dilution, as lower grade material immediately overlies the production zone. In practice though, the top marker seam is slightly overcut (between 10 cm to 20 cm) to prevent an unstable condition from being created. Clay seams are often planes of weakness, and if they are undercut, material immediately below the clay seam becomes a hazard as it may separate and fall. Since the hazard must be remediated prior to proceeding, thus slowing production, the moderately diluted mineral grade that results from the overcutting is preferable from a safety point of view.

The A Zone mining interval is fixed at 3.66 m (12 feet). B Zone mining machines have a fixed mining height of 2.74 m (9 feet). In a normal B Zone production room, ore is extracted in two lifts resulting in a mining height of approximately 4.88 m (16 feet). These mining heights allow for comfortable working headroom and efficient extraction of potash ore.

The original Lanigan exploration area was explored with 12 test holes spaced at intervals of 1.6 km to 3.4 km (1–3 miles). In total, 27 potash test holes have been drilled within the Lanigan Crown Lease, but only 19 are used in the average ore grade calculation for A Zone in Table C, and only 19 are used in the average ore grade calculation for B Zone in Table C. Certain drillholes within the Lanigan Crown Lease were not assayed, while others intersected abnormal geology whereby a normal potash zone could not be picked given the limited data available and, therefore, the resulting % K_2O and % water insoluble content could not be evaluated with confidence.

Drill core assay results were studied by independent consultant David S. Robertson and Associates (1976) and by Nutrien technical staff. Results are found in Table C below. The best 3.66 m (12 feet) mining interval in A Zone, and the best approximately 4.88 m (16 feet) mining interval in B Zone was determined from the assay values in each potash test well, using clay marker seams as a guide. Note that while B Zone drillhole assays were derived using intervals of between 4.07 m and 7.30 m averaging 5.08 m, a more conservative mining height of 4.88 m is used for mineral resource and reserve estimates.

Drillhole assay data for the A Zone at Lanigan give an estimated mean grade of 25.29% K_2O with 5.78% water insolubles.

Drillhole assay data for B Zone at Lanigan give an estimated mean grade of 23.21% K_2O with 5.59% water insolubles.

Table C: Assay results for all potash test holes within the Lanigan Crown Lease.

		A Zone			B Zone		
Location	**Year Drilled**	**Interval (m)**	**% K_2O Equiv.**	**% Water Insol.**	**Interval (m)**	**% K_2O Equiv.**	**% Water Insol.**
01-29-033-22 W2	1955	3.66	27.68	6	*5.49*	*	*
13-34-033-23 W2	1956	-	*	*	-	*	*
16-12-034-24 W2	1956	-	*	*	*4.51*	*25.77*	*
12-24-034-23 W2	1957	3.66	25.61	2.78	*5.12*	*18.51*	*2.37*

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Location	Year Drilled	A Zone			B Zone		
		Interval (m)	% K_2O Equiv.	% Water Insol.	Interval (m)	% K_2O Equiv.	% Water Insol.
04-28-033-23 W2	1958	3.66	25.87	2.13	*4.85*	*25.75*	*6.3*
04-29-032-22 W2	1959	-	*	*	-	*	*
13-11-033-23 W2	1959	3.66	21.17	9.65	*4.16*	*26.85*	*5.5*
09-26-033-23 W2	1959	3.66	27.33	2.24	*4.51*	*25.18*	*6.6*
03-10-034-23 W2	1959	3.66	22.06	*	*4.07*	*23.97*	*5.7*
01-10-033-24 W2	1959	3.66	27.32	*	*4.92*	*24.58*	*4.2*
04-24-033-24 W2	1959	3.66	25.68	1.91	*5.19*	*24.02*	*5*
13-18-033-22 W2	1960	3.66	26.29	7.1	*4.72*	*22.84*	*8.15*
08-02-033-23 W2	1960	3.66	26.93	7.1	*7.59*	*15.73*	*5.25*
12-04-033-23 W2	1960	3.66	26.53	6.54	*4.76*	*24.61*	*5.8*
12-16-033-23 W2	1960	3.66	23.87	8.4	*4.31*	*25.89*	*4.2*
09-22-033-23 W2	1960	3.66	29.45	5.69	*5.04*	*25.15*	*6.8*
02-30-033-23 W2	1960	-	*	*	-	*	*
13A-30-033-23 W2	1960	3.66	25.36	8.88	*7.3*	*14.79*	*3.51*
01-12-033-24 W2	1960	3.66	24.72	7.33	*5.02*	*26.62*	*4.8*
12-04-033-23 W2	1961	-	*	*	-	*	*
08-03-033-23 W2	1973	-	*	*	-	*	*
01-20-033-23 W2	1975	-	*	*	*5.96*	*22.4*	*5.6*
04-07-033-22 W2	1981	3.66	22.8	4.15	-	*	*
03-26-032-23 W2	1981	3.66	20.59	6.21	4.57	18.8	7.17
04-28-032-23 W2	1981	3.66	25.67	*	4.94	25.59	6.88
16-25-033-23 W2	1981	-	*	*	-	*	*
13-25-032-24 W2	1981	3.66	25.57	6.4	4.88	24.01	6.8
Average (of usable values):		**3.66**	**25.29**	**5.78**	**5.10**	**23.21**	**5.59**

Italicized numbers from Robertson Associates 1976

*Assay sampling incomplete. In drillholes that intersected abnormal potash geology, a normal potash zone could not be picked given the limited data available and, therefore, the resulting % K_2O and % water insoluble content could not be evaluated with confidence.

Due to the remarkably consistent mineralogy and continuity of the resource, as experienced through decades of mine production, very little potash exploration drilling has been done at Lanigan since 1961. Instead of exploration drillholes, seismic surveying has been relied upon more and more to explore ahead of mine development. Where normal Prairie Evaporite sequences are mapped in the seismic data, potash beds have unfailingly been present. Localized, relatively small mine anomalies, not mapped in seismic data, do occur. When they do, they are dealt with in the normal course of mining and extraction through these anomalous areas is typically minimized. Anomalies associated with possible water inflow problems, which are mapped in the seismic data, are avoided.

vi) Sampling Preparation, Analyses and Security

Basic Approach

Exploration in the Lanigan area was conducted in the 1950s and 1960s. A second phase of drilling associated with a mine expansion project occurred in 1981. Sampling and assaying of potash core samples was done using methods considered consistent with standard procedures for potash exploration at these times.

Drillhole sampling methods have remained essentially the same over the years. Short segments of core usually about 0.3 m (1 foot) in length are labeled based on visible changes in mineralization and sometimes based on more or less fixed intervals. Each segment of core is then split using some type of rock or masonry saw. The split portion of core is then bagged and labeled and sent to a laboratory for chemical analysis. Historical potash samples remain stored at the Subsurface Geological Laboratory (Regina, Saskatchewan) of the SMER. Most of these have deteriorated substantially.

All in-mine samples were analysed in the Lanigan mill laboratory using analysis techniques that were up-to-date for the era in which the sample was collected.

Regarding quality assurance for analytical results of in-mine samples, the Company participates in the Canpotex Producer Sample Exchange Program (CPSEP) using methods developed by the Saskatchewan Potash Producers Association (SPPA). The CPSEP monitors the accuracy of analytical procedures used in its labs. In the early 1970s, the SPPA initiated a round-robin Sample Exchange Program, the purpose of which was to assist the potash laboratories in developing a high level of confidence in analytical results. The CPSEP uses the proven SPPA Methods and has continued up to the present. Current participants include all Canpotex member potash mine site labs, the Nutrien Pilot Plant Lab, and independent third-party surveyor labs. The CPSEP provides participants with three unknown potash samples for analysis quarterly. Results for the unknown sample analysis are correlated by an independent agency that distributes statistical analysis and a summary report to all participants. Completed exchange program samples can be used for control standards as required in QA/QC sections of standard analytical procedures.

The Nutrien Pilot Plant is secured in the same way as modern office buildings are secured. Authorized personnel have access and visitors are accompanied by staff. No special security measures are taken beyond that. Currently, no external laboratory certification is held by the Nutrien Pilot Plant. On occasion, product quality check samples are sent to the SRC, a fully certified analytical facility.

In the opinion of the authors, the sample preparation, security, and analytical procedures are acceptable, are consistent with industry-standard practices, and are adequate for Mineral Resource and Reserve estimation purposes.

Mean Potash Mineral Grade From In-Mine Samples

In the Lanigan A Zone, in-mine grade samples are taken by collecting fine “muck” from the floor of the mine at the start of every cutting sequence. This is equivalent to a sample taken every approximately 23 m (76 feet) in production panels, and a sample taken every approximately 47 m (155 feet) in development panels. Per the Lanigan Technical Report, in-mine potash mineral grade samples collected from the Lanigan A Zone were analysed in the Lanigan mill laboratory using up-to-date analysis techniques. The median ore grade for the family of in-mine samples is 24.5% K_2O equivalent and the mean ore grade is 23.5%.

In the Lanigan B Zone, in-mine grade samples are taken from the floor every 60 m (200 feet) in newly mined rooms. Per the Lanigan Technical Report, in-mine potash mineral grade samples collected from the Lanigan B Zone were analysed in the Lanigan mill laboratory using analysis techniques that were up to date for the era in which the sample was collected.

The median ore grade for this family of in-mine samples is 20.8% K_2O equivalent and the mean ore grade is 20.3%.

In 2013, Lanigan modified its cutting practices in the B Zone to improve mine roof stability. This modification involved cutting in a slightly higher, but more stable horizon. The goal of improved mine roof stability was achieved; however, less potash and more salt is now being mined resulting in a slightly lower reported ore grade for B Zone.

Potash Ore Density From In-Mine Mineral Grade Measurements

An estimate of in-situ rock density is used to calculate potash mineralization volumes in Mineral Resource and Reserve assessments. A common approach, and the one used by Nutrien, is to determine in-place Mineral Resource and Reserve volumes (m^3), then multiply this number by in-situ bulk-rock density (kg / m^3) to give in-place Mineral Resource and Reserve tonnes. Well-log data from drillholes can be used to calculate bulk density if accurate and calibrated well-logs are acquired during exploration drilling. In practical terms, modern well-logs tend to meet these criteria, but historic well-logs (collected before the 1990s) do not. In Saskatchewan, almost all potash exploration drilling took place in the 1950s and 1960s, well before density logs were accurate and reliable.

Another approach, and the one used by Nutrien, is to look up density values for the minerals which constitute potash rock – values determined in a laboratory to a high degree of accuracy and published in reliable scientific journals / textbooks – then apply these densities to the bulk rock. Given that the density of each pure mineral is quantified and known, the only variable is what proportion of each mineral makes up the bulk rock. An obvious benefit of this approach is that a mean value computed on in-mine samples has a much greater confidence interval than a mean value computed from just a few drillhole assays.

The four main mineralogical components of the ore zones of Saskatchewan’s Prairie Evaporite Formation with their respective mineral densities are:

Mineral	Density (kg /m^3)	Components
Halite	2,170	NaCl
Sylvite	1,990	KCl
Carnallite	1,600	$KMgCl_3 \cdot 6(H_2O)$
Insolubles	2,510	Anhydrite, dolomite, quartz, muscovite, and other minor mineral components *(Nutrien Pilot Plant, 2018)*

All Nutrien potash mines measure and record the in-mine % K_2O grade and insoluble content of the mined rock. Magnesium content is measured at Lanigan since carnallite is sometimes a component of the ore here. From this set of measurements, density of the ore can be calculated.

The value for insoluble density is based on known densities of the constituent parts of the insoluble components of the mineralization and the average occurrence of these insoluble components, which is known from over 50 years of mining experience at Lanigan. Assuming the lowest plausible density of insolubles known for Saskatchewan potash deposits of this nature, the effect upon overall bulk-rock ore density and Mineral Resource and Reserve calculations would be negligible.

From life-of-mine in-mine samples taken at Lanigan, bulk density for the Lanigan B Zone has been determined to be:

= (halite density * % halite) + (sylvite density * % sylvite) + (carnallite * % carnallite) + (insolubles density * % insolubles)
= (2,170 kg / m^3 * 59.5%) + (1,900 kg / m^3 * 30.8%) + (1,600 kg / m^3 * 4.9%) + (2,510 kg / m^3 * 4.8%)
= 2,120 kg / m^3

$RHO_{bulk\text{-}rock}$ (Lanigan B Zone) = 2,120 kg / m^3

To date, not enough A Zone mining has been carried out at Lanigan to permit the calculation of a proper in-situ bulk-rock potash density based solely on in-mine grade samples. A Zone mining has proven successful at Lanigan and takes place in several different geographic locations within the Lanigan Crown Lease. Therefore, it is likely that, in the future, enough in-mine samples will be available to support the calculation of an accurate in-situ bulk-rock density for A Zone potash ore. However, in the interim, Allan Potash's in-situ bulk-rock density for A Zone potash is used; this has been calculated using in-mine samples from the Allan A Zone:

$RHO_{bulk\text{-}rock}$ (Lanigan A Zone) = $RHO_{bulk\text{-}rock}$ (Allan A Zone) = 2,110 kg/m^3

This estimate is considered acceptable since both Allan A Zone and Lanigan A Zone are the same potash seam.

Assay Data Verification

Original drill core assays were studied by independent consultant David S. Robertson and Associates (1976). The original assay results for core samples from historical drillholes were taken as accurate in these studies, as there is no way to reliably reanalyze these samples. Most of the remaining samples in storage have long since deteriorated to the point where they are not usable. Nutrien technical staff Jennifer Scott (P.Geo) and Tanner Soroka (P.Geo) reanalysed assay results from the A Zone using a 3.66 m (12 feet) mining interval, the mining height currently used in the Lanigan A Zone. Former Company staff evaluated assay results from potash test holes drilled in 1981.

Ore grades of in-mine samples are measured in-house at the Lanigan mine laboratory by Company staff using modern, standard chemical analysis tools and procedures; an independent agency does not verify these results. However, check sampling through the CPSEP has occurred.

It should be noted that assay results from historical drillholes match in-mine sample results reasonably well – within 1% – even though drillhole sample spacing is much greater. This correlation is further validation of the in-mine sampling methodology. Mean mineral grade determined from in-mine samples taken from over 50 years of mining at Lanigan is thought to provide the most accurate measurement of potash grade for the Lanigan mine, also providing a good basis for estimating ore grade in areas of future mining at Lanigan.

Exploration Data Verification

The purpose of any mineral exploration program is to determine extent, continuity and grade of mineralization to a certain level of confidence and accuracy. For potash exploration, it is important to minimize the amount of cross-formational drilling, since each drillhole is a potential conduit for subsurface groundwater from overlying (or underlying) water-bearing formations into future mine workings. Every potash test hole from surface sterilizes potash mineralization as a safety pillar is required around every surface drillhole once underground mining commences. This is the main reason that minimal exploration drilling has been carried out at Lanigan in recent years.

Initial sampling and assaying of cores were done during potash exploration at Lanigan in the 1950s and 1960s. Methods were consistent with standard procedures for that era. The mine began production in 1968 and, except for a potash test hole in 1975 and four potash test holes in 1981 no further core drilling has been carried out since then. This approach to potash sampling is in accordance with widely accepted industry practice for areas adjacent and contiguous to an existing operating potash mine**.**

Assay of physical samples (drillhole cores and/or in-mine samples) is the only way to gain information about mineral grade, but extent and continuity of mineralization are correctly determined using data collected from geophysical surveys correlated with historic drilling information. To date, surface seismic data at Lanigan have been collected, analysed and verified by Company staff, at times, in cooperation with an independent consultant.

Data for the mineral reserve and mineral resource estimates for Lanigan mine were verified by Company staff as follows:

- Review of potash assay sample information (drillholes and in-mine grade samples);
- Review of surface geophysical exploration results (3D and 2D seismic data);
- Crosscheck of mined tonnages reported by mine site technical staff with tonnages estimated from mine survey information; and
- Crosscheck of mineral resource and reserve calculations carried out by corporate technical staff.

In the opinion of the authors, this approach to data verification of potash mineral grade and surface seismic information is in accordance with generally accepted industry practice for areas adjacent and contiguous to an existing operating potash mine.

vii) Mineral Processing and Metallurgical Testing

At Lanigan, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1968.

Over the 52-year mine life, 220.881 million tonnes of potash ore have been mined and hoisted to produce 64.354 million tonnes of finished potash product (from start-up in 1968 to December 31, 2020). Given this level of sustained production over 52 years, basic mineralogical processing and prospective metallurgical testing of Lanigan potash is not considered relevant.

viii) Mineral Resource and Mineral Reserve Estimates

Definitions of Mineral Resources

See “Mineral Projects – a) Allan Potash Operations – viii) Mineral Resource and Mineral Reserve Estimates – Definitions of Mineral Resource” for an overview of CIM’s mineral resource categories and the Company’s general characterization of mineral resource categories for its potash mines.

The Lanigan mine began production in 1968, and since then just seven potash exploration drillholes have been drilled in the Lanigan lease area; three of which are unusable for assay analysis. Instead, exploration involved collecting surface seismic data, which became better in quality over the years. Exploration drilling has demonstrated the presence of the potash horizon, and seismic coverage shows the continuity of the Prairie Evaporite Formation within which the potash horizon occurs.

Along with this approach, analysis of in-mine samples for potash grade has provided us with an observation-based understanding of the potash mineralized zones at Lanigan that is far superior to the level of understanding provided by any surface drilling-based exploration program. The authors believe that this approach provides a body of information that guides and constrains our exploration inferences in a much better way than could be achieved from any conventional exploration investigation in areas immediately surrounding, and contiguous to, the Lanigan potash mine.

Mineral Resource Estimates

Exploration information used to calculate reported mineral resource tonnages at Lanigan consist of both physical sampling (drillhole and in-mine) and surface seismic (2D and 3D). Based on the definitions and guidelines described above, all mineral rights leased or owned by the Company, and within the Lanigan Crown Lease, are assigned to one of the three mineral resource categories.

Mineral resources are reported as mineralization in-place and are exclusive of mineral reserves. In-place tonnes were calculated for each of the mineral resource categories using the following parameters:

Mining Height (A Zone):	3.66 meters (12 feet)
Mining Height (B Zone):	4.88 meters (16 feet)
Ore Density (A Zone):	2.110 tonnes/cubic meter
Ore Density (B Zone):	2.120 tonnes/cubic meter

The mineral resources per the Lanigan Technical Report are as follows:

Lanigan A Zone Resource:		
Inferred Resource	671	million tonnes
Indicated Resource	1,325	million tonnes
Measured Resource	2,142	million tonnes
Total A Zone Resource	4,138	million tonnes
Lanigan B Zone Resource:		
Inferred Resource	899	million tonnes
Indicated Resource	1,775	million tonnes
Measured Resource	2,578	million tonnes
Total B Zone Resource	5,252	million tonnes
Total Resource for Lanigan (A Zone + B Zone):		
Inferred Resource	1,570	million tonnes
Indicated Resource	3,100	million tonnes
Measured Resource	4,720	million tonnes
Total A Zone + B Zone Resource	9,390	million tonnes

The December 31, 2020 Mineral Resource estimates remain the same as those outlined in the Lanigan Technical Report.

Per the Lanigan Technical Report, the average mineral grade of the Lanigan A Zone Mineral Resource is 23.5% K_2O equivalent and was determined from in-mine samples at Lanigan. The average mineral grade of the Lanigan B Zone Mineral Resource is 20.3% K_2O equivalent and was determined from in-mine samples at Lanigan.

The tonnage reported as Lanigan A Zone Measured Resource is comprised of both potash ore that is within 1.6 km (1 mile) of A Zone mine workings, and potash ore that is left behind as pillars in mined-out areas of the A Zone at Lanigan. Also included as Lanigan A Zone Measured Resource is the potash ore within 1.6 km (1 mile) of drillholes for which A Zone assay results are available.

Similarly, the tonnage reported as Lanigan B Zone Measured Resource is comprised of both potash ore that is within 1.6 km (1 mile) of B Zone mine workings, and potash ore that is left behind as pillars in mined-out areas of the B Zone at Lanigan. Also included as Lanigan B Zone Measured Resource is the potash ore within 1.6 km (1 mile) of drillholes for which B Zone assay results are available.

Also included as Measured Resource is the potash in the pillars of mined-out areas of the Lanigan mine as there is the possibility of retrieving ore from the remnant mining pillars at some point in the future. An example of this is the Patience Lake mine which was successfully converted from a conventional mine to a solution mine after being lost to flooding in 1989. Since mining of remnant mining pillars is not anticipated in the near future at Lanigan, in-place pillar mineralization remains as a Mineral Resource rather than a Mineral Reserve at this time.

Definitions of Mineral Reserve

See “Mineral Projects – a) Allan Potash Operations – viii) Mineral Resource and Mineral Reserve Estimates – Definitions of Mineral Reserve” for an overview of CIM’s mineral reserve categories and the Company’s general characterization of mineral reserve categories for its potash mines.

Along with this approach, analysis of in-mine samples for potash grade has provided us with an observation-based understanding of the potash mineralized zone at Lanigan that is far superior to the level of understanding provided by any surface drilling-based exploration program. An understanding of the amount of ore that can be conventionally mined from the measured resource category using current mining practices comes from decades of potash mining experience at Lanigan.

Mineral Reserve Estimates

Using the definitions outlined above, a portion of the Lanigan A Zone and B Zone Measured Resource has been converted to Mineral Reserve. The assigned Mineral Reserve category is dependent on proximity to sampled mined entries also described above. An overall extraction ratio for the Lanigan mine has been applied to the qualifying area outlined as Measured Resource.

The overall extraction ratio at the Lanigan mine is 26%. It was derived by dividing the total tonnes mined to date by the tonnage equivalent of the total area of the mine workings (i.e., the perimeter around the mine workings). Since an extraction ratio has been applied, mineral reserves are considered recoverable ore and are reported as such.

Currently, in any specific mining block at Lanigan, only one zone is mined (i.e., bi-level mining is not in practice). As such, mineral reserve has been split by ore zone that will be mined in the future; A Zone Mineral Reserve and B Zone Mineral Reserve do not overlap. Unmined B Zone potash mineralization directly underlying the defined A Zone Mineral Reserve is classified as B Zone Measured Resource. In the same way, unmined A Zone potash mineralization directly overlying the defined B Zone Mineral Reserve is classified as A Zone Measured Resource.

The mineral reserves per the Lanigan Technical Report are as follows:

Lanigan A Zone:		
Probable Reserve	142	million tonnes
Proven Reserve	19	million tonnes
Total A Zone Reserve =	161	million tonnes
Lanigan B Zone:		
Probable Reserve	287	million tonnes
Proven Reserve	92	million tonnes
Total B Zone Reserve =	379	million tonnes
Total for Lanigan (A Zone + B Zone):		
Probable Reserve	429	million tonnes
Proven Reserve	111	million tonnes
Total A Zone and B Zone Reserve =	540	million tonnes

Per the Lanigan Technical Report, average mineral grade of the Lanigan A Zone Mineral Resource is 23.5% K_2O equivalent and was determined from in-mine samples at Lanigan. The average mineral grade of the Lanigan B Zone Mineral Resource is 20.3% K_2O equivalent and was determined from in-mine samples at Lanigan.

The December 31, 2020 Mineral Reserve estimates essentially remain the same as those outlined in the Lanigan Technical Report. Tonnes mined since the Lanigan Technical Report (i.e. 9.037 million tonnes from A Zone and 4.082 million tonnes from B Zone) can be removed from A Zone and B Zone Proven Reserve. This results in an A Zone Proven Reserve of 10.2 million tonnes, and a B Zone Proven Reserve of 88.9 million tonnes.

ix) Mining Operations

All conventional potash mines in Saskatchewan operate at 900 m to 1,200 m below surface within 9 m to 30 m of the top of the Prairie Evaporite Formation. Over the scale of any typical Saskatchewan potash mine, potash beds are tabular and regionally flat-lying, with only moderate local variations in dip. At Lanigan, potash ore is mined using conventional mining methods, whereby:

- Shafts are sunk to the potash ore body;
- Continuous mining machines cut out the ore, which is hoisted to surface through the production shaft;
- Raw potash is processed and concentrated in a mill on surface; and
- Concentrated finished potash products (near-pure KCl) are sold and shipped to markets in North America and offshore.

Potash ore was first hoisted at Lanigan in the fall of 1968. The Lanigan mine has run on a continuous basis since then, other than short-term shutdowns taken for inventory management purposes, occasional plant maintenance and construction work, or other outages that are typical for operations of this nature.

In recent years, mill rehabilitation, mine expansion and hoist improvement projects were completed which brought the nameplate capacity to 3.8 million tonnes per year. In 2020, operational capability at the Lanigan facility was 2.3 million tonnes per year. Operational capability may vary during the year and year-to-year including as between our potash operations.

Virtually all Lanigan underground mining rooms are in one of two potash mineralized zones within the Patience Lake Member of the Prairie Evaporite Formation (the host evaporite salt). In this Member, there are two potash seams named A Zone (the upper seam) and B Zone (the lower seam); at present, both the A Zone and B Zone are being mined at Lanigan. The A Zone and B Zone are separated by approximately 4 m to 6 m of tabular salt. In contrast, some potash mines further east in Saskatchewan mine in a different potash layer, the Esterhazy Member of the Prairie Evaporite Formation. Per the Lanigan Technical Report, mine elevations range from approximately 940 m to 1,030 m, averaging approximately 990 m. These depths to potash mineralization are anticipated over most of the Lanigan lease area. Mine workings are protected from aquifers in overlying formations by approximately 7 m (A Zone) to 12 m (B Zone) of overlying salt and potash beds, along with salt plugged porosity in the Dawson Bay Formation, a carbonate layer lying immediately above potash hosting salt beds.

The Lanigan mine is a conventional underground mining operation where continuous mining machines are used to excavate potash ore by the stress-relief method in the A Zone and the long-room and pillar mining method in the B Zone. Currently, in any specific mining block, only one zone is mined (i.e., bi-level mining is not in practice). Continuous conveyor belts transport ore from the mining face to the bottom of the production shaft. Mining methods employed in Saskatchewan are discussed in Jones and Prugger (1982) and in Gebhardt (1993).

The actual mining thickness at Lanigan is dictated by the height of continuous boring machines used to cut the ore. The A Zone mining interval is fixed at 3.66 m (12 feet). The 3.66 m (12 feet) mining height also allows for comfortable working headroom and efficient extraction of potash ore. The thickness of the B Zone mining horizon varies somewhat and there is some flexibility in the thickness of the potash ore that is extracted there. Production mining machines have a fixed mining height of 2.74 m (9 feet). In a normal production room ore is extracted in two lifts resulting in a mining height of approximately 4.88 m (16 feet).

Carnallite sometimes occurs in minor amounts in the basal part of the B Zone. Carnallite is an undesirable mill feed material. If more than minor amounts of carnallite are detected in the floor after the first lift of a production room in the B Zone, it is left in the floor (i.e., a second lift is not cut). In these instances, the B Zone mining height is just 2.74 m (9 feet). Carnallite is found in trace amounts in the A Zone; however, due to its low occurrence, mining practices remain unchanged when it is encountered.

Mining systems used in both A Zone and B Zone cut to a marker (clay) seam that is slightly above the high-grade mineralized zone to establish a safe and stable mine roof. In both zones, the top marker seam is slightly overcut by 10 to 20 cm. Clay seams are often planes of weakness, and if they are undercut material immediately below the clay seam becomes a hazard as it may separate and fall. Since the hazard must be remediated prior to proceeding, thus slowing production, the moderately diluted mineral grade that results from the overcutting is preferable from a safety point of view.

In 2013, Lanigan modified its cutting practices in the B Zone to improve mine roof stability. This modification involved cutting in a slightly higher, but more stable horizon. The goal of improved mine roof stability was achieved; however, less potash and more salt is now being mined resulting in a slightly lower reported ore grade for B Zone.

Conservative local extraction ratios (never exceeding 45% in any mining block) are employed at all Saskatchewan mines, including Lanigan, in order to minimize potential detrimental effects of mining on overlying strata; this is common practice in flat-lying, tabular ore bodies overlain by water-bearing layers.

From the shaft-bottom potash ore is hoisted approximately 1,000 m from the potash level through the vertical shafts to a surface mill. In addition to hoisting potash ore to surface, the production shaft provides fresh air ventilation to the mine and serves as secondary egress. The service shaft is used for service access, and exhausting ventilation from the mine.

Over the 52-year mine life, 220.881 million tonnes of potash ore have been mined and hoisted at Lanigan to produce 64.354 million tonnes of finished potash products (from start-up in 1968 to December 31, 2020). The life-of-mine average concentration ratio (raw ore/finished potash products) is 3.43 and the overall extraction ratio over this period is 26%.

x) Processing and Recovery Operations

At Lanigan, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1968. Raw potash ore is processed on surface and concentrated red potash products are sold and shipped to markets in North America and offshore.

Over the past three years, production of finished potash products at Lanigan was:

- 2018: 1.962 million tonnes finished potash products at 60.97% K_2O (average grade)
- 2019: 1.748 million tonnes finished potash products at 60.83% K_2O (average grade)
- 2020: 2.330 million tonnes finished potash products at 60.97% K_2O (average grade)

Over the past decade, actual mill recovery rates have been between 81.7% and 85.9%, averaging 83.59%.

Given the long-term experience with potash geology and actual mill recovery at Lanigan, no fundamental potash milling problems are anticipated in the foreseeable future.

Quality control testing and monitoring geared towards fine-tuning and optimizing potash milling and concentrating processes are conducted on a continual basis at all Nutrien mine sites and at Nutrien research facilities. At Lanigan, this is no exception; test work to optimize circuit performance and ensure product quality is carried out on an ongoing basis.

xi) Infrastructure, Permitting and Compliance Activities

Project Infrastructure

Infrastructure is in place to meet current and projected requirements for transportation, energy (electricity and natural gas), water and process materials at Lanigan.

The Lanigan mine is served by a number of villages within 50 kilometres of the minesite. The nearest cities are Humboldt (approximately 45 km distant) and Saskatoon (approximately 100 km distant). Surface facilities are accessed by existing paved roads and highways that are part of the Saskatchewan Provincial Highway System. All potash product is shipped by rail over existing track.

At present, high voltage power capacity at Lanigan is 52 MVA. The ten-year projection of power utilization indicates that the utility can meet all foreseeable future demand.

The Lanigan operation requires a sustained fresh water supply for the milling process which is provided by a waterline from the Dellwood Reservoir (approximately 10 km distant) and from a regional aquifer called the Hatfield Valley Aquifer. This water supply provides a sustainable source of process water for Lanigan milling operations without having any impact on other users of water in the area.

Environmental Studies, Permitting and Compliance Activities

The tailings management strategy at all Nutrien potash mines in Saskatchewan, including Lanigan, is one of sequestering solid mine tailings in an engineered and provincially licensed TMA near the surface plant site. The Lanigan TMA currently covers an area of approximately 708 hectares (1,750 acres) of land owned by the Company. Solid potash mine tailings typically consist of 85% to 95% rock salt (NaCl) and 5% to 15% insolubles (carbonate mud = $CaCO_3$, anhydrite mud = $CaSO_4$, and clays like chlorite, illite, and so on). An engineered slurry-wall has been constructed on the south and south-west sides of the Lanigan TMA in the areas where near-surface aquifers could be impacted by mine waters. Near-surface geology on all other sides of the TMA limits the possibility of brine migration into these areas. The slurry-wall provides secondary containment of any saline mine waters, stopping these brines from reaching surrounding near-surface aquifers. Areas surrounding the TMA are closely monitored; this includes everything from daily visual perimeter inspections to annual investigations and inspections of surrounding groundwater and aquifers.

Lanigan currently operates three brine disposal wells near the surface plant of the Lanigan mine where clear salt brine (i.e. no silt, clay-slimes, or other waste) is borehole-injected into the Winnipeg / Deadwood Formations, deep subsurface aquifers approximately 1500 m to 1700 m below surface. The groundwater in these extensive deep aquifers is naturally saline.

Emissions to air (mostly salt dust and potash dust) are kept below regulatory limits through various modern air pollution abatement systems (e.g. dust collection systems built into mill processes) that are provincially licensed. This same procedure is followed at all Nutrien mines in Saskatchewan.

The Lanigan operation requires a sustained fresh water supply for the milling process which is provided by a waterline from the Dellwood Reservoir (approximately 10 km distant) and from a regional aquifer called the Hatfield Valley Aquifer. This water supply is provincially licensed and provides a sustainable source of process water for Lanigan milling operations without having any impact on other users of water in the area.

In Saskatchewan, all potash tailings management activities are carried out under an “Approval to Operate” granted by the SMOE. The Lanigan mine is in compliance in all material respects with all regulations stipulated by the Environmental Protection Branch of the SMOE. The current Lanigan Approval to Operate has been granted to July 1, 2028, the renewal date.

In terms of long-term decommissioning, environmental regulations in the Province of Saskatchewan require that all operating potash mines in Saskatchewan create a long-term decommissioning and reclamation plan that will ensure all surface facilities are removed and the site is left in a chemically and physically stable condition once mine operations are complete. The Company has conducted numerous studies of this topic, and the most recent decommissioning and reclamation plan for Lanigan was approved by SMOE technical staff in October 2016. Because the current expected mine life for Lanigan is many decades into the future, it is not meaningful to come up with detailed engineering designs for decommissioning annually. Instead, decommissioning plans are reviewed every five years, and updated to accommodate new concepts, technological change, incorporation of new data and adjustments of production forecasts and cost estimates. Any updated decommissioning and reclamation reports generated by this process are submitted to provincial regulatory agencies. For Lanigan, a revised decommissioning and reclamation plan is required in July 2021.

In addition to the long-term decommissioning plan, provincial regulations require that every potash producing company in Saskatchewan set up an Environmental Financial Assurance Fund, which is to be held in trust for the decommissioning, restoration and rehabilitation of the plant site after mining is complete. This fund is for all mines operated by Nutrien in the Province of Saskatchewan (i.e., Allan, Cory, Lanigan, Patience Lake, Rocanville and Vanscoy).

xii) Capital and Operating Costs

The Lanigan mine has been in operation since 1968; in the years immediately preceding this, major capital investment was made to bring this mine into production. Since then, capital expenditures were made on a regular and ongoing basis to sustain production, and to expand production from time to time.

Most recently, mill rehabilitation, mine expansion and hoist improvement projects were completed at Lanigan between 2005 and 2010. The expansion construction was carried out without significant disruption to existing potash production from the site.

xiii) Exploration, Development and Production

Potash production in any given year at the Lanigan mine is a function of many variables, so actual production in any given year can vary dramatically from tonnages produced in previous years. The mineral reserve tonnage and historic average production are used to estimate remaining mine life. If the average mining rate seen over the past three years (6.699 million tonnes of potash ore mined and hoisted per year) is sustained, and if mineral reserves remain unchanged, then Lanigan A Zone mine life is 23 years from December 31, 2020 and Lanigan B Zone mine life is 56 years from December 31, 2020.

d) Rocanville Potash Operations

Certain scientific and technical information regarding our Rocanville potash operations is based on the technical report titled "National Instrument 43-101 Technical Report on Rocanville Potash Deposit (KL 305) Saskatchewan, Canada" dated effective December 31, 2018 (the "Rocanville Technical Report") prepared under the supervision of Craig Funk, B.Sc., M.Sc., P.Eng., P.Geo., who is a "qualified person" as defined in NI 43-101. The Rocanville Technical Report has been filed with the securities regulatory authorities in each of the provinces of Canada and furnished to the SEC. Portions of the following information are based on assumptions, qualifications and procedures that are not fully described herein. References should be made to the full text of the Rocanville Technical Report.

i) Project Description, Location and Access

General

The Rocanville mine is located in southeastern Saskatchewan near the Saskatchewan-Manitoba Provincial Boundary, approximately 15 kilometers northeast of the town of Rocanville, Saskatchewan. The Legal Land Description (Saskatchewan Township/Range) of the Rocanville surface plant is Section 22 Township 17 Range 30 West of the 1st Meridian. More precisely, the Rocanville #2 Shaft collar is located at:

- Latitude: 50 degrees 28 minutes 19.54 seconds North
- Longitude: 101 degrees 32 minutes 42.58 seconds West
- Elevation: 480.36 meters above mean SL
- Northing: 5,596,826.122 m
- Easting: 745,137.307 m
- Projection: UTM
- Datum: NAD83
- Zone: 13

The Company owns approximately 3,061 hectares (7,564 acres) of surface rights required for current Rocanville mine operations, including all areas covered by the existing surface plant and Tailings Management Area (TMA), and all surface lands required for anticipated future Rocanville mine and expanded milling operations. Surface facilities are accessed by an existing paved road that is part of the Saskatchewan Provincial Highway System. Most finished potash products are shipped by rail over existing track, with some product shipped by truck over the North American highway system.

The Rocanville mine is served by a number of towns and villages within 50 kilometers of the mine site. The nearest towns are Rocanville (15 km distant), Moosomin and Esterhazy (both 50 km distant). The nearest city is Yorkton (100 km distant). Rocanville is situated near the north extent of the Great Plains of North America. Topography is relatively flat, with gently rolling hills and occasional valleys.

Mineral Rights

Mineral rights at Rocanville are mined pursuant to mining leases with the Province of Saskatchewan, Canada (the Crown), and with non-Crown (Freehold) mineral rights owners. Crown mineral rights are governed by *The Subsurface Mineral Tenure Regulations, 2015* , and Crown Leases are approved and issued by the SMER. The original Rocanville Crown Subsurface Mineral Lease KL 111 was entered into in June 1966. In the following years various minor amendments were made to this Crown lease, resulting in Crown Subsurface Mineral Lease KL 111R.

In May 2007, application was made for a Permit to Prospect for Subsurface Minerals (Potash Exploration Permit KP 338A) covering approximately 26,184 hectares (64,702 acres) of Crown mineral rights in the area just west of and adjoining the existing Rocanville Crown Lease KL 111R.

A new Crown Subsurface Mineral Lease numbered KLSA 002 was issued in February 2010 incorporating all Crown mineral rights within the existing Crown Lease KL 111R and approximately two-thirds of Crown mineral rights covered in KP 338A. The portion of the lands that were not part of the Lease amalgamation remained as Crown Exploration Permit KP 338B until December 2016 when they were converted to a Crown Subsurface Mineral Lease numbered KL 249.

In October 2017, Rocanville Crown Subsurface Mineral Lease KL 305 (“Rocanville Crown Lease”) was formed by the amalgamation of Crown Subsurface Leases KLSA 002 (KLSA 002 B, following minor amendments) and KL 249. The Rocanville Crown Lease covers an area of approximately 113,975 hectares (281,639 acres). At Rocanville, the Company has leased potash mineral rights for 54,184 hectares (133,892 acres) of Crown land and owns or has leased approximately 45,612 hectares (112,710 acres) of Freehold land within the lease boundary. The Rocanville Crown lease term is for a period of 21 years from October 2017, with renewals at the Company’s option for 21-year periods. Freehold lands also remain under lease providing, generally, that production is continuing and that there is a continuation of the Crown lease.

Within the current Rocanville Crown lease area, 80,181 hectares (198,132 acres) are mined pursuant to unitization agreements with mineral rights holders (Crown and Freehold) within two Unitized Areas. Rocanville Unit Area #1 includes 35,234 hectares (87,065 acres) while Rocanville Unit Area #2 includes 44,947 hectares (111,067 acres).

ii) History

See “Mineral Projects – a) Allan Potash Operations – ii) History” above for a general overview of the history of potash mines in Saskatchewan.

Exploration drilling for potash in the Rocanville, Saskatchewan area was carried out in the 1960s. Thirty-four potash test holes were drilled during this early exploration phase: 25 in Saskatchewan and nine in Manitoba. The Rocanville mine was built by a company called Sylvite of Canada Ltd. (a division of Hudson’s Bay Mining and Smelting Ltd.) in the late 1960s, and potash production began at Rocanville in 1970. The mine has run on a continuous basis other than short-term shutdowns taken for inventory management purposes, occasional plant maintenance and construction work, or other outages that are typical for operations of this nature. Potash Corporation of Saskatchewan Inc. acquired the Rocanville mine in 1977.

A major refurbishment and expansion of the Rocanville mine was completed in 2013. Following that, production was ramped up through 2017 when a nameplate capacity of 6.5 million tonnes of finished potash was announced. At Rocanville, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1970.

iii) Geological Setting, Mineralization and Deposit Types

Geological Setting and Mineralization

See “Mineral Projects – a) Allan Potash Operations – iii) Geological Setting, Mineralization and Deposit Types – Geological Setting and Mineralization” above for a general overview of geological setting and mineralization for potash mines in Saskatchewan.

Over the past three years (2018, 2019, 2020), the average, measured potash ore grade of the mill feed at Rocanville was 22.7% K_2O equivalent. Per the Rocanville Technical Report, the average ore grade reported from surface drillhole intersections, all within Rocanville Crown Lease, is 22.4% K_2O equivalent. Average ore grade observed from in-mine samples is 23.4% K_2O equivalent.

Deposit Type

There are three mineable potash members within the Prairie Evaporite Formation of Saskatchewan. Stratigraphically highest to lowest, these members are: Patience Lake, Belle Plaine, and Esterhazy.

The Rocanville potash deposit lies within the Esterhazy Member of the Prairie Evaporite Formation. The Patience Lake Member potash beds are not present in the Rocanville Area. The Belle Plaine and White Bear Members are present, but not conventionally mineable in the Rocanville area. The potash zone at Rocanville is approximately 2.4 meters thick and occurs near the top of the Prairie Evaporite Formation. Potash mineralization in this area is flat-lying and continuous.

Per the Rocanville Technical Report, mine elevations range from approximately 895 m to 1040 m, averaging approximately 955 m. Within the Rocanville Lease, depths to the top of the ore zone can reach up 1,250 m (the deepest potash exploration drillhole) but are expected to be shallower than 1,200 m over most of the lease area. Salt cover from the ore zone to overlying units is approximately 30 m. The Rocanville mine operates as a conventional underground potash mine.

iv) Exploration

Before the Rocanville mine was established in 1970, all exploration consisted of drilling test holes from surface and analysis of core from these drillholes. Since mining began in 1970, exploration drilling has been infrequent.

In most of southern Saskatchewan, potash mineralization is in place wherever Prairie Evaporite Formation salts exist; they are flat-lying and are undisturbed. Since the surface seismic exploration method is an excellent tool for mapping the top and bottom of Prairie Evaporite salts this has become the main potash exploration tool in any existing Saskatchewan Subsurface (potash) Mineral Lease. Historically, 2D seismic, and now the more accurate 3D seismic methods are used to map continuity and extent of potash beds in flat-lying potash deposits. Seismic data are relied upon to identify collapse structures that must be avoided in the process of mine development since these structures can act as conduits for water. As a result, isolation pillars or mining buffer zones are left around these anomalous features. This practice reduces the overall mining extraction ratio, but the risk of inflow to mine workings is effectively mitigated.

Seismic coverage is outlined in the Rocanville Technical Report.

Experience has shown that the potash mining zone is continuous when seismic data are undisturbed and flat-lying. Surface seismic data are generally collected three to five years in advance of mining. Any area recognized as seismically unusual is identified early, and mine plans are adjusted to avoid these regions.

v) Drilling

For the original Rocanville potash test holes drilled in 1960s, the primary objective of this drilling was to sample the potash horizon to establish basic mining parameters. Seismic surveys (2D) were done sparingly in those days, so the drillhole information was relied upon heavily to evaluate potash deposits. Test holes would penetrate the evaporite section with a hydrocarbon-based drilling mud (oil-based or diesel fuel) to protect the potash mineralization from dissolution. Basic geophysical well-logs were acquired and in many cases drill stem tests were run on the Dawson Bay Formation, a carbonate immediately overlying the Prairie Evaporite Formation, to help assess mine inflow potential. Core samples from the targeted potash intersections were split or quartered (cut with a masonry saw) crushed and analysed to establish potash grades.

Original Rocanville drillhole assay data are taken from Robertson et al. (1977), where the best 2.44 m (8 feet) mining interval – the original mining height at Rocanville – is reported. As explained in the Robertson Associates report, the Rocanville prospect was originally explored by 34 drillholes in Saskatchewan and Manitoba. Of these original drillholes, 26 are located within the current Rocanville Crown Lease and are shown in Table D below.

Potash intersections for one drillhole in Table D revealed anomalously low grades. With decades of mining experience at Rocanville, it is the opinion of the authors of the Rocanville Technical Report that areas of low grade (i.e., <15% K_2O) are localized with a relatively small lateral extent. Therefore, the average grade calculation does not include these drillholes.

Except for an exploration drilling program in 2008, drilling has been infrequent since the 1950s and 1960s. Each of the 2008 exploration drillholes and the shaft pilot hole were drilled in such a way as to protect the potash minerals from dissolution while core sampling through the targeted mining zone (the Esterhazy Member of the Prairie Evaporite Formation). To accomplish this, the aquifers above the top of salt (top of the Prairie Evaporite) were isolated behind a casing before the drilling mud was changed over to an oil-based system. Each drillhole penetrated approximately 10 m into the Winnipegosis Formation, which lies immediately below Prairie Evaporite salts, before drilling was terminated (i.e., through the Prairie Evaporite Formation and far enough into the underlying formation to permit proper geophysical logging of the base of salt).

Hydrogeology in the formations immediately overlying the Prairie Evaporite Formation was evaluated in part by core sampling through the Dawson Bay Formation (for examination of porosity and permeability). As well, drill stem tests were run in the Dawson Bay and Lower Souris River Formations. In the shaft pilot hole, core sampling and drill stem testing were done more extensively as part of a comprehensive investigation for a shaft liner design. In every drillhole, coring and testing of formations above the Prairie Evaporite was completed prior to setting the casing and changing the drilling mud to an oil-based system.

A standard suite of geophysical logs was run in each drillhole. These logs included: Gamma Ray, Neutron, Density, Electrical Resistivity (or Induction), Sonic (full-waveform P & S) and Caliper. In certain drillholes, additional specialized logs were run for fracture mapping and/or porosity investigation over certain geological intervals. A deviation survey was run in each drillhole; the results of which were found to be minimal (i.e., all holes are vertical). Stages of open-hole logging had to be completed before casing was put in place. The stages depended on formational permeability (such as the Mannville Formation, which is a major regional aquifer and needs to be isolated) and formational composition (it is necessary to change drilling mud when drilling through salts to not dissolve the rock).

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Potash core samples from the four 2008 exploration drillholes and the Scissors Creek shaft pilot hole were assayed. The assay results for these drillholes are listed in Table D. Note that 2008 assay results are for the best 2.59 m (8.5 feet) mining interval, since an operational decision was made to develop parts of the western portion of Rocanville Crown Lease at a height of 2.59 m (8.5 feet). This mining height allows for more headroom with minimal negative impact on ore grade. Mining machines at Rocanville use potassium sensing technology to ensure that rooms are always cut in the best available potash ore. It is difficult to determine at which mining height certain Mineral Resources and Reserves will be cut in the future, so the more conservative mining height of 2.51 m (8.25 feet) was applied to mineral resource and reserve calculations.

Drillhole assay data for the Rocanville mining interval gives an estimated mean grade of 22.4% K_2O, with 1.2% water insolubles and 3.6% carnallite (Table D).

Table D: Assay results for all potash test holes within the Rocanville Crown Lease.

Weighted Average for 2.44 m (8 feet) Mining Interval				
Drillhole	**Year Drilled**	**% K_2O**	**% Water Insolubles**	**% Carnallite**
01-04-17-30 W1	1957	23.84	1.15	4.34
16-14-017-01W2	1957	Excluded	N/A	N/A
04-20-17-32 W1	1958	22.74	0.95	1.77
08-32-17-30 W1	1959	20.74	1.06	5.18
10-12-17-30 W1	1959	16.35	1.06	7.62
13-16-18-30 W1	1959	20.32	0.75	0.74
05-07-18-30 W1	1961	19.95	1.07	4.92
16-04-18-30 W1	1961	21.89	1.26	5.71
02-11-18-30 W1	1961	24.87	0.97	0.2
01-16-17-30 W1	1964	27.05	1.31	4.29
04-20-17-30 W1	1964	23.86	1.22	0.19
16-22-17-30 W1	1964	29.06	1.38	0.11
14-36-17-30 W1	1964	17.06	0.93	6.8
14-36-17-30 W1*	1964	26.26	1.42	4.76
03-28-17-30 W1	1966	26.32	1.26	6.48
13-14-17-30 W1	1966	23.73	1.4	7.02
04-24-17-30 W1	1966	17.88	0.81	0.19
10-34-17-30 W1	1966	24.85	1.48	0.18
11-25-17-30 W1	1966	19.6	1.15	2.13
11-14-18-30 W1	1966	26.53	1.09	0.22
13-22-17-30 W1	1967	35.1	1.3	5.4
01-14-17-33 W1	1967	25.62	2.72	2.52
13-22-17-33 W1	1967	21.75	2.61	7.24
16-26-17-33 W1	1967	24.01	0.92	0.16
14-05-17-30 W1	1969	15.56	0.96	10.27
01-14-17-30 W1	1971	15.67	1.15	N/A
04-01-019-31W1	1989	22.48	0.64	0.00
06-13-17-32 W1**	2008	23.6	0.41	0.25
08-02-18-32 W1**	2008	20.7	1.06	0.76
13-09-16-33 W1**	2008	23.44	1.42	8.32
04-34-16-33 W1**	2008	15.7	0.67	8.84
09-11-18-33 W1**	2008	18.03	0.36	0.25
Average of 31 useable values:		**22.41**	**1.16**	**3.56**

*Refers to a deflection, or whipstock, off original drillhole
**Refers to drillhole from the 2008 exploration program where the best 2.59 m (8.5 feet) mining interval is reported

Due to the remarkably consistent mineralogy and continuity of the potash, as experienced through decades of mine production, very little potash exploration drilling has been done at Rocanville since start-up. Instead of exploration drillholes, seismic surveying has been relied upon to explore ahead of mine development. Where normal Prairie Evaporite sequences are mapped in the seismic data, potash beds have unfailingly been present. Localized, relatively small mine anomalies, not mapped in seismic data, do occur. When they do, they are dealt with in the normal course of mining and extraction through these anomalous areas is typically minimized. Anomalies associated with possible water inflow problems, which are mapped in the seismic data, are avoided.

vi) Sampling Preparation, Analyses and Security

Basic Approach

Exploration in the Rocanville area was conducted in two very different time periods: the 1960s, then in 2008. Sampling and assaying of potash cores samples was done using methods considered consistent with standard procedures for potash exploration at these times.

Drillhole sampling methods have remained essentially the same over the years. Short segments of core usually about 0.3 m (1 foot) in length are labeled based on visible changes in mineralization and sometimes based on more or less fixed intervals. Each segment of core is then split in half using some type of rock or masonry saw. The split portion of core is then bagged and labeled and sent to a laboratory for chemical analysis. Samples from historical drillholes were sometimes quartered; most historical samples have deteriorated substantially. Exploration drillhole samples from 2008 were halved. Potash samples remain stored at the Subsurface Geological Laboratory (Regina, Saskatchewan) of the SMER.

All in-mine samples were analysed in the Rocanville mill laboratory using analysis techniques that were up-to-date for the era in which the sample was collected.

Regarding quality assurance for analytical results of in-mine samples, the Company participates in the Canpotex Producer Sample Exchange Program (CPSEP) using methods developed by the Saskatchewan Potash Producers Association (SPPA). The CPSEP monitors the accuracy of analytical procedures used in its labs. In the early 1970s, the SPPA initiated a round-robin Sample Exchange Program, the purpose of which was to assist the potash laboratories in developing a high level of confidence in analytical results. The CPSEP uses the proven SPPA Methods and has continued up to the present. Current participants include all Canpotex member potash mine site labs, the Nutrien Pilot Plant Lab, and independent third-party surveyor labs. The CPSEP provides participants with three unknown potash samples for analysis quarterly. Results for the unknown sample analysis are correlated by an independent agency that distributes statistical analysis and a summary report to all participants. Completed exchange program samples can be used for control standards as required in QA/QC sections of standard analytical procedures.

The Nutrien Pilot Plant is secured in the same way as modern office buildings are secured. Authorized personnel have access and visitors are accompanied by staff. No special security measures are taken beyond that. Currently, no external laboratory certification is held by the Nutrien Pilot Plant. On occasion, product quality check samples are sent to the SRC, a fully certified analytical facility.

In the opinion of the authors of the Rocanville Technical Report, the sample preparation, security, and analytical procedures are acceptable, are consistent with industry standard practices and are adequate for mineral resource and reserve estimation purposes.

Mean Potash Mineral Grade From In-Mine Samples

In-mine grade samples are taken at 60 m intervals in every underground mine room at Rocanville. Traditionally, Rocanville in-mine grade samples were collected as chips along a sidewall from back (roof) to floor; this methodology is referred to as channel sampling. In 2015, in-mine grade samples were taken by collecting fine “muck” from the floor of the mine at the same 60 m sampling interval. Nutrien technical staff believe that collecting samples from the floor is as representative of ore grade in the mining interval as channel sampling, and far less labor-intensive.

Per the Rocanville Technical Report, in-mine ore grade samples were collected and analysed in the Rocanville mill laboratory using analysis techniques that were up to date for the era in which the sample was collected.

The median ore grade for this family of in-mine samples is 23.6% K_2O equivalent and the mean ore grade is 23.4%.

Potash Ore Density From In-Mine Mineral Grade Measurements

An estimate of in-situ rock density is used to calculate potash mineralization volumes in Mineral Resource and Reserve assessments. A common approach, and the one used by Nutrien, is to determine in-place Mineral Resource and Reserve volumes (m^3), then multiply this number by in-situ bulk-rock density (kg / m^3) to give in-place Mineral Resource and Reserve

tonnes. Well-log data from drillholes can be used to calculate bulk density if accurate and calibrated well-logs are acquired during exploration drilling. In practical terms, modern well-logs tend to meet these criteria, but historic well-logs (collected before the 1990s) do not. In Saskatchewan, almost all potash exploration drilling took place in the 1950s and 1960s, well before density logs were accurate and reliable.

Another approach, and the one used by Nutrien, is to look up density values for the minerals which constitute potash rock – values determined in a laboratory to a high degree of accuracy and published in reliable scientific journals / textbooks – then apply these densities to the bulk rock. Given that the density of each pure mineral is quantified and known, the only variable is what proportion of each mineral makes up the bulk rock. An obvious benefit of this approach is that a mean value computed on in-mine samples has a much greater confidence interval than a mean value computed from just a few drillhole assays.

The four main mineralogical components of the ore zones of Saskatchewan's Prairie Evaporite Formation with their respective mineral densities are:

Mineral	Density (kg / m^3)	Components
Halite	2,170	NaCl
Sylvite	1,990	KCl
Carnallite	1,600	$KMgCl_3 \cdot 6(H_2O)$
Insolubles	2,510	Anhydrite, dolomite, quartz, muscovite, and other minor mineral components *(Nutrien Pilot Plant, 2018)*

All Nutrien potash mines measure and record the in-mine % K_2O grade and insoluble content of the mined rock. The magnesium content is not measured at Vanscoy since carnallite is a negligible component of the ore here. From this set of measurements, density of the ore can be calculated.

The value for insoluble density is based on known densities of the constituent parts of the insoluble components of the mineralization and the average occurrence of these insoluble components, which is known from over 50 years of mining experience at Rocanville. Assuming the lowest plausible density of insolubles known for Saskatchewan potash deposits of this nature, the effect upon overall bulk-rock ore density and Mineral Resource and Reserve calculations would be negligible.

From life-of-mine in-mine samples taken at Rocanville, bulk density has been determined to be:

= (halite density * % halite) + (sylvite density * % sylvite) + (carnallite * % carnallite) + (insolubles density * % insolubles)
= (2,170 kg / m^3 * 57.5%) + (1,900 kg / m^3 * 35.4%) + (1600 kg / m^3 * 6.1%) (2,510 kg / m^3 * 1.0%)
= 2080 kg / m^3

$RHO_{bulk\text{-}rock}$ (Rocanville) = 2,080 kg / m^3

This method is as accurate as the ore grade measurements and mineral density estimates.

Assay Data Verification

Original drillhole ore grade assays were studied by independent consultant David S. Robertson and Associates (1977). The original assay results for core samples from historical drillholes were taken as accurate in these studies, as there is no way to reliably reanalyze these samples. Most of the remaining core samples in storage have long since deteriorated to the point where they are no longer usable.

Assay data for the 2008 core samples were supervised and verified by the Company's former Chief Geologist, T. Danyluk (P.Geo.) .

Ore grades of in-mine samples are measured in-house at the Rocanville mine laboratory by Company staff using modern, standard chemical analysis tools and procedures; an independent agency does not verify these results. However, check sampling through the CPSEP has occurred.

It should be noted that assay results from historical drillholes match in-mine sample results reasonably well – within 1% – even though drillhole sample spacing is much greater. This correlation is further validation of the in-mine sampling methodology. Mean mineral grade determined from in-mine samples taken from over 50 years of mining at Rocanville is thought to provide the most accurate measurement of potash grade for the Rocanville mine, also providing a good basis for estimating ore grade in areas of future mining at Rocanville.

Exploration Data Verification

The purpose of any mineral exploration program is to determine extent, continuity and grade of mineralization to a certain level of confidence and accuracy. For potash exploration, it is important to minimize the amount of cross-formational drilling, since each drillhole is a potential conduit for subsurface groundwater from overlying (or underlying) water-bearing formations into future mine workings. Every potash test drillhole from surface sterilizes potash mineralization as a safety pillar is required around every surface drillhole once underground mining commences. This is the main reason that minimal exploration drilling has been carried out at Rocanville in recent years.

Initial sampling and assaying of cores were done during potash exploration at Rocanville in the 1960s. Methods were consistent with standard procedures for that era. The mine began production in 1970 and no further core drilling was carried out by the Company at Rocanville until 2008 when the decision was made to expand the mine westward.

Assay of physical samples (drillhole cores and/or in-mine samples) is the only way to gain information about mineral grade, but extent and continuity of mineralization are correctly determined using data collected from geophysical surveys correlated with historic drilling information. To date, surface seismic data at Rocanville have been collected, analysed and verified by Company staff, at times, in cooperation with an independent consultant.

Data for the mineral reserve and mineral resource estimates for Rocanville mine were verified by Company staff as follows:

- Review of potash assay sample information (drillholes and in-mine grade samples);
- Review of surface geophysical exploration results (3D and 2D seismic data);
- Crosscheck of mined tonnages reported by mine site technical staff with tonnages estimated from mine survey information; and
- Crosscheck of mineral resource and reserve calculations carried out by corporate technical staff.

In the opinion of the authors, this approach to data verification of potash mineral grade and surface seismic information is in accordance with generally accepted industry practice for areas adjacent and contiguous to an existing operating potash mine.

vii) Mineral Processing and Metallurgical Testing

At Rocanville, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1970.

Over the 50-year mine life, 281.175 million tonnes of potash ore have been mined and hoisted at to produce 91.397 million tonnes of finished potash product (from startup in 1970 to December 31, 2020). Given this level of sustained production over 50 years, basic mineralogical processing and prospective metallurgical testing of Rocanville potash is not considered relevant.

viii) Mineral Resource and Mineral Reserve Estimates

Definitions of Mineral Resource

See “Mineral Projects – a) Allan Potash Operations – viii) Mineral Resource and Mineral Reserve Estimates – Definitions of Mineral Resource” for an overview of CIM’s mineral resource categories and the Company’s general characterization of mineral resource categories for its potash mines.

The Rocanville mine began production in 1970 and core drilling has been infrequent over the years, except for five holes drilled during the 2008 exploration program. Exploration primarily involves collecting surface seismic data which has become better in quality over the years. Exploration drilling has demonstrated the presence of the potash horizon and seismic coverage shows the continuity of the Prairie Evaporite Formation within which the potash horizon occurs.

Along with this approach, analysis of in-mine samples for potash grade has provided us with an observation-based understanding of the potash mineralized zone at Rocanville that is far superior to the level of understanding provided by any surface drilling-based exploration program. We believe that our approach provides a body of information that guides and constrains our exploration inferences in a much better way than could be achieved from any conventional exploration investigation in areas immediately surrounding, and contiguous to, the Rocanville potash mine.

Mineral Resource Estimates

Exploration information used to calculate reported mineral resource tonnages at Rocanville consist of both physical sampling (drillhole and in-mine) and surface seismic (2D and 3D). Based on the definitions and guidelines above, all mineral rights leased or owned by the Company and within the Rocanville Crown Lease are assigned to one of the three mineral resource categories.

Mineral resources are reported as mineralization in-place and are exclusive of mineral reserves. In-place tonnes were calculated for each of the mineral resource categories using the following parameters:

Mining Height:	2.51	meters (8.25 feet)
Ore Density:	2.080	tonnes/cubic meter

The mineral resources per the Rocanville Technical Report are as follows:

Inferred Resource	1,376	million tonnes
Indicated Resource	1,342	million tonnes
Measured Resource	1,761	million tonnes
Total Resource =	4,479	million tonnes

The December 31, 2020 Mineral Resource estimates remain the same as the estimates outlined in the Rocanville Technical Report.

The average mineral grade of the Rocanville Mineral Resource is 23.4% K_2O equivalent and was determined from in-mine samples at Rocanville.

The tonnage reported in the Rocanville Measured Resource is comprised of the potash that is within 1.6 km (1 mile) of physically sampled location (i.e., drillhole or mine working). Also included as Measured Resource is the potash in the pillars of mined-out areas of the Vanscoy mine as there is the possibility of retrieving ore from the remnant mining pillars at some point in the future. An example of this is the Patience Lake mine which was successfully converted from a conventional mine to a solution mine after being lost to flooding in 1989. Since mining of remnant mining pillars is not anticipated in the near future at Rocanville, in-place pillar mineralization remains as a Mineral Resource rather than a Mineral Reserve at this time.

Definitions of Mineral Reserve

See “Mineral Projects – a) Allan Potash Operations – viii) Mineral Resource and Mineral Reserve Estimates – Definitions of Mineral Reserve” for an overview of CIM’s mineral reserve categories and the Company’s general characterization of mineral reserve categories for its potash mines.

Along with this approach, analysis of in-mine samples for potash grade has provided us with an observation-based understanding of the potash mineralized zone at Rocanville that is far superior to the level of understanding provided by any surface drilling-based exploration program. An understanding of the amount of ore that can be conventionally mined from the measured resource category using current mining practices comes from decades of potash mining experience at Rocanville.

Mineral Reserve Estimates

Using the definitions outlined above, a portion of the Rocanville Measured Resource has been converted to Mineral Reserve. The assigned Mineral Reserve category is dependent on proximity to sampled mined entries also described above. An overall extraction ratio for the Rocanville mine has been applied to the qualifying areas outlined as Measured Resource

The overall extraction ratio at the Rocanville mine is 31%. It was derived by dividing the total tonnes mined to date by the tonnage equivalent of the total area of the mine workings (i.e., the perimeter around the mine workings) less future mining blocks. Since an extraction ratio has been applied Mineral Reserves are considered recoverable ore and are reported as such.

The mineral reserves per the Rocanville Technical Report are as follows:

Probable Reserve	348	million tonnes
Proven Reserve	195	million tonnes
Total Reserve (Proven + Probable) =	543	million tonnes

The average mineral grade of the Rocanville Mineral Reserve is 23.4% K_2O equivalent and was determined from in-mine samples at Rocanville.

The December 31, 2020 Mineral Reserve estimates essentially remain the same as the estimates outlined in the Rocanville Technical Report. Tonnes mined since the Rocanville Technical Report (i.e. 32.982 million tonnes) can be removed from the Proven Reserve resulting in a total Proven Reserve estimate of 162 million tonnes.

ix) Mining Operations

All conventional potash mines in Saskatchewan operate at 900 m to 1,200 m below surface within 9 m to 30 m of the top of the Prairie Evaporite Formation. Over the scale of any typical Saskatchewan potash mine, potash beds are tabular and regionally flat-lying, with only moderate local variations in dip. At Rocanville potash ore is mined using conventional mining methods, whereby:

- Shafts are sunk to the potash ore body;
- Continuous mining machines cut out the ore, which is hoisted to surface through the shafts;
- Raw potash is processed and concentrated in a mill on surface; and
- Concentrated finished potash products (near-pure KCl) are sold and shipped to markets in North America and offshore.

Sinking of the two original shafts (Shaft #1 and Shaft #2) from surface to the potash zone was completed in early 1970, and the first potash ore was hoisted by the fall of that year. The Rocanville mine has run on a continuous basis since the first ore was hoisted in 1970, other than short-term shutdowns taken for inventory management purposes, occasional plant maintenance and construction work, or other outages that are typical for operations of this nature.

In recent years the Rocanville mine has undergone a major expansion which brought the nameplate capacity of the Rocanville facility to 6.5 million tonnes of finished potash products per year. In 2020, operational capability at the Rocanville facility was 5.4 million tonnes per year. Operational capability may vary during the year and year-to-year including as between our potash operations.

Virtually all Rocanville underground mining rooms are in one potash mineralized zone within the Esterhazy Member the Prairie Evaporite Formation (the host evaporite salt). In contrast, Nutrien potash mines further west in Saskatchewan mine in a different potash layer, the Patience Lake Member of the Prairie Evaporite. Per the Rocanville Technical Report, mine elevations range from approximately 895 m to 1,040 m, averaging approximately 955 m. Within the Rocanville Crown Lease, depths to the top of the ore zone can reach up 1,250 m (the deepest potash exploration drillhole) but are expected to be shallower than 1,200 m over most of the lease area. Mine workings are protected from aquifers in overlying formations by approximately 30 m of overlying salt and potash beds, along with salt plugged porosity in the Lower Dawson Bay Formation, a carbonate layer lying immediately above potash hosting salt beds.

The Rocanville mine is a conventional underground mining operation whereby continuous mining machines are used to excavate the potash ore by the long-room and pillar mining method. Continuous conveyor belts transport ore from the mining face to the bottom of the production shaft. Mining methods employed in Saskatchewan are discussed in Jones and Prugger (1982) and in Gebhardt (1993).

The highest mineral grade section of the Rocanville potash seam is approximately 2.3 m (7.5 feet) thick, with gradations to lower grade sylvinite salts immediately above and below the mining horizon. The actual mining thickness at Rocanville is dictated by the height of continuous boring machines used to cut the ore, which are designed to cut slightly thicker than the high-grade mineralized zone. Historically, Rocanville borers cut at a thickness of 2.44 m (8 feet). These five older machines were recently adjusted to cut a thicker 2.51 m (8.25 feet) mining height. Six newly acquired boring machines cut a slightly thicker 2.59 m (8.5 feet) mining height. This mining height allows for more headroom with minimal negative impact on ore grade. Mining machines at Rocanville use potassium sensing technology to ensure that rooms are always cut in the best available potash ore. It is difficult to determine at which mining height certain mineral resources and reserves will be cut in the future, so the more conservative mining height of 2.51 m (8.25 feet) was applied to mineral resource and reserve calculations.

Conservative local extraction ratios (never exceeding 45% in any mining block) are employed at all Saskatchewan mines, including Rocanville, in order to minimize potential detrimental effects of mining on overlying strata; this is common practice in flat-lying, tabular ore bodies overlain by water-bearing layers.

From the shaft-bottom, potash ore is hoisted approximately 960 m from the potash level through the vertical shafts to a surface mill. Both production shafts also provide exhaust ventilation from underground workings; the third shaft from surface at Scissors Creek is used for service access, fresh air ventilation and second egress.

Over the 50-year mine life, 281.175 million tonnes of potash ore have been mined and hoisted at Rocanville to produce 91.397 million tonnes of finished potash products (from startup in 1970 to December 31, 2020). The life-of-mine average concentration ratio (raw ore/finished potash products) is 3.08 and the overall extraction ratio over this period is 31%.

x) Processing and Recovery Operations

At Rocanville, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1970. Raw potash ore is processed on surface, and concentrated finished potash products (near-pure KCl) are sold and shipped to markets in North America and offshore.

Over the past three years, production of finished potash products at Rocanville was:

- 2018: 5.222 million tonnes finished potash products at 60.46% K_2O (average grade)
- 2019: 5.144 million tonnes finished potash products at 60.53% K_2O (average grade)
- 2020: 5.285 million tonnes finished potash products at 60.60% K_2O (average grade)

Over the past decade actual mill recovery rates have been between 81.5% and 85.7%, averaging 83.42%. Given the long-term experience with potash geology and actual mill recovery at Rocanville no fundamental potash milling problems are anticipated in the foreseeable future.

Quality control testing and monitoring geared towards fine-tuning and optimizing potash milling and concentrating processes are conducted on a continual basis at all Nutrien mine sites and at Nutrien research facilities. At Rocanville, this is no exception; test work to optimize circuit performance and ensure product quality is carried out on an ongoing basis.

xi) Infrastructure, Permitting and Compliance Activities

Project Infrastructure

Infrastructure is in place to meet current and projected requirements for transportation, energy (electricity and natural gas), water and process materials at Rocanville.

The Rocanville mine is served by a number of towns and villages within 50 kilometers of the mine site. The nearest towns are Rocanville (15 km distant), Moosomin and Esterhazy (both 50 km distant). The nearest city is Yorkton (100 km distant). Surface facilities are accessed by an existing paved road that is part of the Saskatchewan Provincial Highway System. Most finished potash products are shipped by rail over existing track, with some product shipped by truck over the North American highway system.

At present, high voltage power utilization at the Rocanville mine is 84 MVA (i.e., 72 MVA to the Rocanville Plant site plus 12 MVA to the Scissors Creek site). The ten-year projection of power utilization indicates that the utility can meet foreseeable future demand.

The Rocanville operation requires a sustained fresh water supply for the milling process which is sourced from two subsurface reservoirs called the Welby Plains Surficial Aquifer and the Welby Plains Middle Aquifer. These aquifers provide a sustainable source of process water for Rocanville milling operations, without having any perceptible impact on other users of water drawn from these aquifers.

Environmental Studies, Permitting and Compliance Activities

The tailings management strategy at all Nutrien potash mines in Saskatchewan, including Rocanville, is one of sequestering solid mine tailings in an engineered and provincially licensed TMA near the surface plant site. The Rocanville TMA currently covers an area of approximately 567 hectares (1,400 acres) of land owned by the Company. Solid potash mine tailings typically consist of 85% to 95% rock salt (NaCl) and 5% to 15% insolubles (carbonate mud = $CaCO_3$, anhydrite mud = $CaSO_4$, and clays like chlorite, illite, and so on). An engineered slurry-wall has been constructed around the entire Rocanville TMA. The slurry-wall provides secondary containment for any saline mine waters, minimizing brine impacts from the TMA to surrounding surface water bodies and near-surface aquifers. Areas surrounding the TMA are closely monitored: this includes everything from daily visual perimeter inspections to annual investigations and inspections of surrounding subsurface aquifers.

Rocanville currently operates five brine disposal wells near the surface plant of the Rocanville mine where clear salt brine (i.e., no silt, clay slimes or other waste) is borehole-injected into the Interlake Carbonates, at a depth of approximately 1,200 m to 1,400 m below surface. The groundwater in these extensive deep aquifers is naturally saline.

Emissions to air (mostly salt dust and potash dust) are kept below regulatory limits through various modern air pollution abatement systems (e.g., dust collection systems built into mill processes) that are provincially licensed. This same procedure is followed at all Nutrien mines in Saskatchewan.

The Rocanville operation requires a sustained fresh water supply for the milling process which is sourced from two subsurface reservoirs called the Welby Plains Surficial Aquifer and the Welby Plains Middle Aquifer. This water supply is provincially licensed and provides a sustainable source of process water for Rocanville milling operations, without having any perceptible impact on other users of water drawn from these aquifers.

In Saskatchewan, all potash tailings management activities are carried out under an “Approval to Operate” granted by the SMOE. The Rocanville mine is in compliance with all regulations stipulated by the Environmental Protection Branch of the SMOE. The current Rocanville Approval to Operate has been granted to July 1, 2028, the renewal date.

In terms of long-term decommissioning, environmental regulations in the Province of Saskatchewan require that all operating potash mines in Saskatchewan create a long-term decommissioning and reclamation plan that will ensure all surface facilities are removed, and the site is left in a chemically and physically stable condition once mine operations are complete. The Company has conducted numerous studies of this topic, and the most recent decommissioning and reclamation plan for Rocanville was approved by SMOE technical staff in October 2016. Because the current expected mine life for Rocanville is many decades into the future, it is not meaningful to come up with detailed engineering designs for decommissioning annually. Instead, decommissioning plans are reviewed every five years, and updated to accommodate new concepts, technological change, incorporation of new data and adjustments of production forecasts and cost estimates. Any updated decommissioning and reclamation reports generated by this process are submitted to provincial regulatory agencies. For Rocanville, a revised decommissioning and reclamation plan is required in July 2021.

In addition to the long-term decommissioning plan, provincial regulations require that every potash producing company in Saskatchewan set up an Environmental Financial Assurance Fund, which is to be held in trust for the decommissioning, restoration and rehabilitation of the plant site after mining is complete. This fund is for all mines operated by Nutrien in the Province of Saskatchewan (i.e., Allan, Cory, Lanigan, Patience Lake, Rocanville, and Vanscoy).

xii) Capital and Operating Costs

The Rocanville mine has been in operation since 1970; in the years immediately preceding this, major capital investment was made to bring this mine into production. Since then, capital expenditures were made on a regular and ongoing basis to sustain production and to expand production from time to time.

A major refurbishment and expansion of the Rocanville mine was completed in 2013. Following that, production was ramped up through 2017 when a nameplate capacity of 6.5 million tonnes of finished potash was announced. This work involved construction of a third shaft, enhancement of hoists and shaft conveyances, major expansions of both mine and mill, improvements to loadout facilities and some infrastructure improvements. All construction was carried out without significant disruption to existing potash production from the site.

xiii) Exploration, Development and Production

Potash production in any given year at the Rocanville mine is a function of many variables, so actual production in any given year can vary dramatically from tonnages produced in previous years. The mineral reserve tonnage and historic average production are used to estimate remaining mine life. If the average mining rate seen over the past three years (16.572 million tonnes of potash ore mined and hoisted per year) is sustained, and if mineral reserves remain unchanged then the Rocanville mine life is 31 years from December 31, 2020.

e) Vanscoy Potash Operations

Certain scientific and technical information regarding our Vanscoy potash operations is based on the technical report titled "National Instrument 43-101 Technical Report on Vanscoy Potash Deposit (KL 114C) Saskatchewan, Canada" dated effective December 31, 2020 ("Vanscoy Technical Report") prepared under the supervision of Craig Funk, B.Sc., M.Sc., P.Eng., P.Geo., who is a "qualified person" as defined in NI 43-101. The Vanscoy Technical Report has been filed with the securities regulatory authorities in each of the provinces of Canada and furnished to the SEC. Portions of the following information are based on assumptions, qualifications and procedures that are not fully described herein. References should be made to the full text of the Vanscoy Technical Report.

i) Project Description, Location and Access

The Vanscoy mine is located in central Saskatchewan, approximately 26 kilometers west of the city of Saskatoon, Saskatchewan. The Legal Land Description (Saskatchewan Township / Range) of the Vanscoy surface plant is Section 16 Township 35 Range 08 West of 3rd Meridian. More precisely, the Vanscoy service shaft collar is located at:

- Latitude: 52 degrees 00 minutes 28.74 seconds North
- Longitude: 107 degrees 05 minutes 25.18 seconds West
- Elevation: 505 meters above mean SL
- Easting: 356,531 m
- Northing: 5,763,989 m
- Projection: UTM
- Datum: NAD83
- Zone: 13

The Company owns approximately 2,740 hectares (6,770 acres) of surface rights required for current Vanscoy mine operations, including all areas covered by the existing surface plant and Tailings Management Area (TMA), and all surface lands required for anticipated near-future Vanscoy mine and expanded milling operations. Surface facilities are accessed by an existing paved road that is part of the Saskatchewan Provincial Highway System. All potash product is shipped by rail over existing track.

The Vanscoy mine is served by a number of villages within 50 kilometers of the mine site. The nearest city is Saskatoon (26 km distant). Vanscoy is situated near the northern extent of the Great Plains of North America. Topography is relatively flat, with gently rolling hills and occasional valleys. The Vanscoy surface plant lies approximately 20 km north-west of the South Saskatchewan River, a major continental drainage channel.

Mineral Rights

Mineral rights at Vanscoy are mined pursuant to mining leases with the Province of Saskatchewan, Canada (the Crown), and with non-Crown (Freehold) mineral rights owners. Crown mineral rights are governed by *The Subsurface Mineral Tenure Regulations, 2015,* and Crown Leases are approved and issued by the SMER. The original Vanscoy Crown Subsurface Mineral Lease, numbered KL 114, was signed and executed in January 1969. In the following years, minor amendments were made to the Lease, resulting in Crown Subsurface Mineral Lease KL 114B.

In April 2007, application was made for a Permit to Prospect for Subsurface Minerals (Potash Exploration Permit KP 313) covering approximately 22,623 hectares (55,919 acres) of Crown mineral rights in the area just south of and adjoining the existing Vanscoy Crown Lease KL 114. In March 2008, the SMER approved the conversion of Agrium's Potash Exploration Permit KP 313 to a new Crown Subsurface Mineral Lease numbered KL 204.

In December 2020, after additional geological studies were completed, Vanscoy Crown Subsurface Mineral Lease KL 114C (the "Vanscoy Crown Lease") was executed incorporating most of the lands held previously under KL 204. As part of this amalgamation of the two leases, a total of 14,138 hectares (34,935 acres) of Crown land previously held under KL 204 deemed unmineable was surrendered. There was, however, a substantial and favourable net gain, when an additional 19,952 hectares (49,303 acres) of undisposed Crown mineral land to the west of the Vanscoy lease was secured following the lease expansion process set out in *The Subsurface Mineral Tenure Regulations, 2015*.

Additionally, following the Merger, synergies were identified and realized whereby 3,503 hectares (8,656 acres) of inaccessible land in the northern part of Vanscoy's Crown Lease were transferred into Nutrien's adjacent Cory Crown Lease where they could be developed, while 1,298 hectares (3,207 acres) of inaccessible land from the Cory Crown Lease were transferred into Vanscoy's Crown Lease where they could be developed. Cory's Crown Subsurface Mineral Lease KL 103C was amended in 2020 at the same time as KL 114C.

KL 114C covers an area of approximately 82,115 hectares (202,910 acres). At Vanscoy, the Company has leased potash mineral rights for 63,973 hectares (158,081 acres) of Crown land and owns or has leased from freeholders approximately 13,669 hectares (33,777 acres) within the lease boundary. The Vanscoy Crown Lease term is for a period of 21 years from July 1, 2012, with renewals (at the Company's option) for 21-year periods. Freehold lands also remain under lease providing, generally, that production is continuing and that there is a continuation of the Crown Lease.

Within the Vanscoy Crown Lease area 12,671.59 hectares (31,312.17 acres) are mined pursuant to a unitization agreement with mineral rights holders. Mining has occurred outside of Unit #1 in lands that are leased but not unitized. There are plans for a second unitization agreement at Vanscoy.

ii) History

See "Mineral Projects – a) Allan Potash Operations – ii) History" above for a general overview of the history of potash mines in Saskatchewan.

Exploration drilling for potash in the Vanscoy area was first carried out in the 1960s. The Vanscoy mine was built by Cominco Ltd. (formerly the Consolidated Mining and Smelting Company of Canada Limited) in the 1960s. Potash production began at Vanscoy in April 1969. With the exception of the 1970 inflow which halted production for two years, the Vanscoy mine has run on a continuous basis other than short-term shutdowns taken for inventory management purposes, occasional plant maintenance and construction work, or other outages that are typical for operations of this nature.

In 1993, Cominco Fertilizers Ltd. was formed as a separate entity from Cominco Ltd. In 1995 all Cominco involvement in Cominco Fertilizers Ltd. ceased and shares were transferred to the new entity, Agrium.

A major refurbishment and expansion of the Vanscoy mine was completed in 2015, increasing nameplate capacity to 3.0 million tonnes of finished potash products per year. At Vanscoy, potash ore has been mined and concentrated to produce saleable quantities of high grade finished potash products since 1969.

iii) Geological Setting, Mineralization and Deposit Types

Geological Setting and Mineralization

See "Mineral Projects – a) Allan Potash Operations – iii) Geological Setting, Mineralization and Deposit Types – Geological Setting and Mineralization" above for a general overview of geological setting and mineralization for potash mines in Saskatchewan.

Over the past three years (2018, 2019, 2020), the average, measured potash ore grade of the mill feed at Vanscoy was 25.6% K_20 equivalent. The average ore grade reported from 36 historic surface drillhole intersections, all within Vanscoy Subsurface Mineral Lease KL 114C, is 24.9 K_20 equivalent. The average ore grade observed from thousands of in-mine samples collected to the end of December 2020 is 24.2% K_20 equivalent.

Deposit Type

There are three mineable potash members within the Prairie Evaporite Formation of Saskatchewan. Stratigraphically highest to lowest, these members are: Patience Lake, Belle Plaine, and Esterhazy.

The Vanscoy potash deposit lies within the Patience Lake Potash Member of Prairie Evaporite Formation. There are two potash seams named A Zone and B Zone within this Member; at present, only the A Zone is being mined at Vanscoy and no test mining has been carried out in the B Zone to date. Neither the Esterhazy nor the White Bear Potash Members are present in the Vanscoy area. The Belle Plaine Potash Member is not well-developed, and therefore is not mined.

Vanscoy potash mineralization occurs at approximately 1,000 m to 1,120 m depth below surface. The A Zone is approximately 3.35 m thick and occurs near the top of the Prairie Evaporite Formation salts. Salt cover from the ore zone to overlying units is approximately 12 m. The Vanscoy mine operates as a conventional, underground potash mine.

iv) Exploration

Before the Vanscoy mine was established, all exploration consisted of drilling from surface and analysis of core from these drillholes. Since mining began in 1969, there have been several exploration drillholes that intersect the ore zone of the Prairie Evaporite Formation.

In most of southern Saskatchewan, potash mineralization is in place wherever Prairie Evaporite Formation salts exist, are flat-lying, and are undisturbed. Since the surface seismic exploration method is an excellent tool for mapping the top and bottom of Prairie Evaporite salts, this has become the main potash exploration tool in any existing Saskatchewan Subsurface (potash) Mineral Lease. Historically, 2D seismic, and now full coverage 3D seismic methods are used to map continuity and extent of potash beds in flat-lying potash deposits. Seismic data are relied upon to identify collapse structures that must be avoided in the process of mine development since these structures can act as conduits for water ingress to the mine. As a result, isolation pillars or mining buffer

zones are left around these anomalous features. This practice reduces the overall mining extraction ratio, but the risk of inflow to mine workings are effectively mitigated.

Seismic coverage is outlined in the Vanscoy Technical Report.

Experience has shown that the potash mining horizon is continuous when seismic data are undisturbed and flat-lying. It is now Nutrien's policy to collect detailed 3D seismic data ahead of mining. Any areas recognized as seismically unusual is identified early, and mine plans are adjusted as needed.

v) Drilling

For the original Vanscoy potash test holes drilled in the 1950s and 1960s, the primary objective of drilling was to sample potash horizons to establish basic mining parameters. Seismic surveys (2D) were done sparingly in those days, so the drillhole information was relied upon heavily to evaluate potash deposits. Test holes would penetrate the evaporite section with a hydrocarbon-based drilling mud (oil-based or diesel fuel) to protect the potash mineralization from dissolution. Basic geophysical well-logs were acquired, and in many cases, drill stem tests were run on the Dawson Bay Formation to help assess water-make potential of the caprock. Core samples from the targeted potash intersections were split or quartered (cut with a masonry saw), crushed, and analysed to establish potash grades.

Relatively thin interbeds or seams of insoluble material, referred to as clay seams in the potash industry, are an ever-present component of the A Zone and B Zone at Vanscoy. These seams, along with the clay or clay-like material disseminated throughout the mining horizon, make up the water insoluble portion of the ore. The same sequences of clay seams can be correlated for many kilometers across the central Saskatchewan potash mining district.

At Vanscoy, a particular sequence of three clay seams marks the top of the A Zone. These seams are used to guide the vertical positioning of the mining machine. The uppermost portion of the sequence of three seams is maintained at the top of the mining cut to keep the cutting "on grade". Cutting too high above this upper seam or top marker results in dilution, as halite (rather than sylvinite) immediately overlies the production zone. In practice though, the top marker seam is slightly overcut (between 10 cm to 20 cm) to prevent an unstable condition from being created. Clay seams are often planes of weakness, and if they are undercut, material immediately below the clay seam becomes a hazard as it may separate and fall. Since the hazard must be remediated prior to advancing mining, thus slowing production, the moderately diluted mineral grade that results from the overcutting is preferable from a safety point of view.

The A Zone mining interval at Vanscoy has been fixed at 3.35 m (11'). This mining height allows for comfortable working headroom and efficient extraction of potash ore.

The original exploration area was explored with 23 test holes laid out in a 1.6 km to 3.2 km (1 mile by 2 mile) grid pattern. Initial exploratory drilling was conducted under the engineering supervision of E.D. Bietz of J.C. Sproule & Associates, and under the well site geological supervision of Dr. W.J. Pearson and D.M. Lane of C.M.&S. Since mining commenced in 1969, 19 additional drillholes have been completed. These later holes were conducted under the engineering supervision of either Cavern Engineering Ltd., Artisan Consulting, or Barlon Engineering Group Ltd., and under the well site geological supervision of either R.H. Brown Consulting Geologists Ltd. or North Rim Exploration Consultants Ltd. Logging and assaying of the core were performed by ADM Consulting Ltd. All drilling and sampling was carried out following the regulations in place at the time.

Assays from all drillholes within Vanscoy's current Crown Lease (KL 114C) are provided in Table A. In each case, the best 3.35 m (11') mining interval intersected in the drillhole was determined from the assay values, using clay marker seams as a guide. With over 50 years of mining experience at Vanscoy, it is the opinion of the authors that areas of low grade (i.e. <15% K_2O) are localized with a relatively small lateral extent. Drillhole assay data for the A Zone at Vanscoy gives an estimated mean grade of 24.9% K_2O with 5.1% water insolubles.

B Zone mineralization is indicated by gamma ray geophysical log response in each of the exploration drillholes listed in Table A indicating a potash Mineral Resource, but no test mining has been carried out in the B Zone to date. Assay results for the B Zone are not presented here.

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Table A: Assay results for all potash test holes within Vanscoy Lease KL 114C.

Average in 3.35 m (11') mining interval (undiluted)			
Drillhole	**Year Drilled**	**%K2O**	**% Water Insolubles**
13-22-036-08 W3	1957	27.6	2.4
15-32-034-08 W3	1964	6.5	5.9
16-28-034-08 W3	1964	29.4	4.3
04-36-035-09 W3	1964	29.1	7.8
04-10-035-08 W3	1964	26.3	6.4
04-18-035-08 W3	1964	25.8	5.6
04-20-035-08 W3	1964	26.3	4.8
04-22-035-08 W3	1964	29.7	3.5
04-24-035-08 W3	1964	1.6	5.2
04-28-035-08 W3	1964	28.1	2.7
04-34-035-08 W3	1964	26.8	4.4
13-01-035-08 W3	1964	28.9	5.8
13-11-035-08 W3	1964	28.6	5.5
14-29-035-08 W3	1964	25.9	4.3
16-06-035-08 W3	1964	27.4	4.3
16-08-035-08 W3	1964	28.0	6.3
11-16-035-08 W3	1965	26.1	5.6
13-16-035-08 W3	1965	26.5	6.0
13-23-035-08 W3	1965	28.9	3.9
02-16-036-08 W3	1989	26.7	5.4
01-24-034-08 W3	1999	25.7	4.3
04-03-035-07 W3	2007	27.9	6.2
01-21-034-07 W3	2010	27.7	5.5
12-31-034-07 W3	2010	24.5	3.6
13-35-033-08 W3	2010	26.7	5.9
01-11-035-07 W3	2011	29.4	4.0
01-15-035-07 W3	2011	18.2	6.8
01-29-034-07 W3	2011	9.1	4.2
08-07-034-07 W3	2011	19.1	3.4
08-11-035-07 W3	2011	*	*
13-09-034-07 W3	2011	*	*
13-23-034-07 W3	2011	26.8	6.8
15-28-034-08 W3	2011	27.4	5.0
16-26-034-07 W3	2011	29.3	6.2
04-05-034-07 W3	2011	27.2	6.0
06-03-034-07 W3	2011	25.0	5.2
07-07-034-06 W3	2018	25.9	5.1
02-25-035-08 W3	2019	23.6	6.4
Average of 36 usable values:		**24.9**	**5.1**

Due to the remarkably consistent mineralogy and continuity of the resource as experienced over 50 years of mine production, only a few exploration drilling programs were conducted after the 1960s. Instead of exploration drillholes, seismic surveying has been relied upon to explore ahead of mine development. Where normal Prairie Evaporite sequences are mapped in the seismic data, potash beds have unfailingly been present. Localized, relatively small mine anomalies not mapped in seismic data do occur. When they do, they are dealt with in the normal course of mining, and extraction through these anomalous areas is typically minimized. Anomalies associated with possible water inflow problems, which are mapped in the seismic data, are avoided.

vi) Sampling Preparation, Analyses and Security

Basic Approach

Exploration in the Vanscoy area was initially conducted in the 1950s and 1960s. Sampling and assaying of potash core samples was done using methods considered consistent with standard procedures for potash exploration at these times.

Drillhole sampling methods have remained essentially the same over the years. Potash core samples are acquired as described above. Short segments of core usually about 1 foot (0.3 m) in length are labeled based on visible changes in mineralization, and

sometimes based on fixed intervals. Each segment of core is then split using some type of rock or masonry saw. The split portion of core is then bagged and labeled and sent to a laboratory for chemical analysis. Historical potash samples remain stored at the Subsurface Geological Laboratory (Regina, Saskatchewan) of the SMER. Most of these have deteriorated substantially.

All in-mine samples were analysed in the Vanscoy mill laboratory using analysis techniques that were up to date for the era in which the sample was collected.

Regarding quality assurance for analytical results of in-mine samples, the Company participates in the Canpotex Producer Sample Exchange Program (CPSEP) using methods developed by the Saskatchewan Potash Producers Association (SPPA). The CPSEP monitors the accuracy of analytical procedures used in its labs. In the early 1970s, the SPPA initiated a round-robin Sample Exchange Program, the purpose of which was to assist the potash laboratories in developing a high level of confidence in analytical results. The CPSEP uses the proven SPPA Methods and has continued up to the present. Current participants include all Canpotex member potash mine site labs, the Nutrien Pilot Plant Lab, and independent third-party surveyor labs. The CPSEP provides participants with three unknown potash samples for analysis quarterly. Results for the unknown sample analysis are correlated by an independent agency that distributes statistical analysis and a summary report to all participants. Completed exchange program samples can be used for control standards as required in QA/QC sections of standard analytical procedures.

The Nutrien Pilot Plant is secured in the same way as modern office buildings are secured. Authorized personnel have access and visitors are accompanied by staff. No special security measures are taken beyond that. Currently, no external laboratory certification is held by the Nutrien Pilot Plant. On occasion, product quality check samples are sent to the SRC, a fully certified analytical facility.

In the opinion of the authors, the sample preparation, security, and analytical procedures are acceptable, are consistent with industry-standard practices, and are adequate for Mineral Resource and Reserve estimation purposes.

Mean Potash Mineral-Grade From In-Mine Samples

At Vanscoy, in-mine grade samples have been acquired by 1) sampling ore from the beltline, 2) channel samples from the sidewall, or 3) collecting fine “muck” from the floor of the mine. At present, fine muck sampling from the floor is most common, and each mining room is sampled at a frequency of approximately 95 m to 125 m. Since start-up in 1969 through to the end of December 2020, a total of 3,173 useable in-mine potash mineral grade samples were collected from the Vanscoy A Zone, the main potash horizon at Vanscoy. All samples were analysed in the Vanscoy mill laboratory using analysis techniques that were up to date for the era in which the sample was collected.

The median ore grade for this family of in-mine samples is 25.5% K_2O equivalent and the mean ore grade is 24.2%.

Per the Vanscoy Technical Report, the B Zone at Vanscoy, mineral grade is reported to be 20.3% K_2O equivalent, the grade observed from 20,230 in-mine samples at the Lanigan mine where the B Zone has been extensively mined. Even though Vanscoy mine is some distance from Lanigan, this is considered the best estimate of expected mineral grade for this potash layer because the deposit is known to be regionally continuous from west of Vanscoy to east of Lanigan (Fuzesy, 1982 and references therein). Although it is possible that if mining proceeds into the B Zone, the reported grade could change from what is reported. It is expected that any such change would be minimal.

Potash Ore Density From In-Mine Mineral Grade Measurements

An estimate of in-situ rock density is used to calculate potash mineralization volumes in Mineral Resource and Reserve assessments. A common approach, and the one used by Nutrien, is to determine in-place Mineral Resource and Reserve volumes (m^3), then multiply this number by in-situ bulk-rock density (kg / m^3) to give in-place Mineral Resource and Reserve tonnes. Well-log data from drillholes can be used to calculate bulk density if accurate and calibrated well-logs are acquired during exploration drilling. In practical terms, modern well-logs tend to meet these criteria, but historic well-logs (collected before the 1990s) do not. In Saskatchewan, almost all potash exploration drilling took place in the 1950s and 1960s, well before density logs were accurate and reliable.

Another approach, and the one used by Nutrien, is to look up density values for the minerals which constitute potash rock – values determined in a laboratory to a high degree of accuracy and published in reliable scientific journals / textbooks – then apply these densities to the bulk rock. Given that the density of each pure mineral is quantified and known, the only variable is what proportion of each mineral makes up the bulk rock. An obvious benefit of this approach is that a mean value computed on the in-mine samples has a much greater confidence interval than a mean value computed from just a few drillhole assays.

The four main mineralogical components of the ore zones of Saskatchewan’s Prairie Evaporite Formation with their respective mineral densities are:

Mineral	Density (kg / m^3)	Components
Halite	2,170	$NaCl$
Sylvite	1,990	KCl
Carnallite	1,600	$KMgCl_3 \cdot 6(H_2O)$
Insolubles	2,510	Anhydrite, dolomite, quartz, muscovite, and other minor mineral components *(Nutrien Pilot Plant, 2018)*

All Nutrien potash mines measure and record the in-mine % K_2O grade and insoluble content of the mined rock. The magnesium content is not measured at Vanscoy since carnallite is a negligible component of the ore here. From this set of measurements, density of the ore can be calculated.

The value for insoluble density is based on known densities of the constituent parts of the insoluble components of the mineralization and the average occurrence of these insoluble components, which is known from over 50 years of mining experience at Vanscoy. Assuming the lowest plausible density of insolubles known for Saskatchewan potash deposits of this nature, the effect upon overall bulk-rock ore density and Mineral Resource and Reserve calculations would be negligible.

From life-of-mine in-mine samples taken at Vanscoy, bulk density for the Vanscoy A Zone has been determined to be:

= (halite density * % halite) + (sylvite density * % sylvite) + (insolubles density * % insolubles)
= (2,170 kg / m^3 * 57.3%) + (1,900 kg / m^3 * 38.3%) + (2,510 kg / m^3 * 4.4%)
= 2,116 kg / m^3

$RHO_{bulk\text{-}rock}$ (Vanscoy A Zone) = 2,116 kg / m^3

This method is as accurate as the ore grade measurements and mineral density estimates.

No test mining of the B Zone has been conducted at Vanscoy to permit a bulk density calculation based on Vanscoy in-mine grade samples. If test mining of the B Zone at Vanscoy is conducted in future, there may be enough samples with all constituent minerals measured to warrant a change from what is reported. It is expected that any such change would have only a minimal effect on bulk-rock density used in tonnage calculations.

Instead, the potash bulk-rock density is calculated using thousands of in-mine grade samples from Lanigan B Zone:

$RHO_{bulk\text{-}rock}$ (Vanscoy B Zone) = $RHO_{bulk\text{-}rock}$ (Lanigan B Zone) = 2,120 kg / m^3

This estimate is considered acceptable since both Vanscoy B Zone and Lanigan B Zone are the same potash seam. Should the Vanscoy B Zone bulk density change from the predicted value of 2,120 kg / m^3, the later defined Vanscoy B Zone Mineral Resources and Reserves will also change, albeit, insignificantly.

Assay Data Verification

Most of the original drillhole assays were sent to Core Laboratories Canada Ltd. in Calgary, Alberta for analyses. Later drillholes, along with two historical drillholes still intact, were prepared for sampling by ADM Consulting Ltd. and sent to SRC Geoanalytical Laboratory for analyses using accredited assaying procedures.

The original assay results for core samples from historical drillholes were taken as accurate in these studies, as there is no way to reliably reanalyse these samples. Most of the remaining samples in storage have long since deteriorated to the point where they are not usable.

Ore grades of in-mine samples are measured inhouse at the Vanscoy mine laboratory by Company staff using modern, standard chemical analysis tools and procedures; an independent agency does not verify these results. However, check sampling through the CPSEP has occurred.

It should be noted that assay results from historical drillholes match in-mine sample results reasonably well – within 1% – even though drillhole sample spacing is much greater. This correlation is further validation of the in-mine sampling methodology. Mean mineral grade determined from in-mine samples taken from over 50 years of mining at Vanscoy is thought to provide the most accurate measurement of potash grade for the Vanscoy mine, also providing a good basis for estimating ore grade in areas of future mining at Vanscoy.

Exploration Data Verification

The purpose of any mineral exploration program is to determine extent, continuity, and grade of mineralization to a certain level of confidence and accuracy. For potash exploration, it is important to minimize the amount of cross-formational drilling, since each drillhole is a potential conduit for subsurface groundwater from overlying (or underlying) water-bearing formations into future mine workings. Every potash test drillhole from surface sterilizes potash mineralization; a safety pillar is required around every surface drillhole once underground mining commences.

Initial sampling and assaying of cores were done during potash exploration at Vanscoy in the 1950s and 1960s. Methods were consistent with standard procedures for that era. The mine began production in 1969 and test drilling conducted after that was largely for the purpose of better understanding the caprock rather than potash mineralization. This approach to potash sampling is in accordance with widely accepted industry practice for areas adjacent and contiguous to an existing operating potash mine.

Assay of physical samples (drillhole cores and/or in-mine samples) is the only way to gain information about mineral grade, but extent and continuity of mineralization are correctly determined using data collected from geophysical surveys correlated with historic drilling information. To date, surface seismic data at Vanscoy have been collected, analysed, and verified by Company staff, at times, in cooperation with an independent consultant.

Data for the Mineral Resource and Reserve estimates for Vanscoy mine were verified by Company staff as follows:

- Review of potash assay sample information (drillholes and in-mine grade samples),
- Review of surface geophysical exploration results (3D and 2D seismic data),
- Crosscheck of mined tonnages reported by mine site technical staff with tonnages estimated from mine survey information, and
- Crosscheck of Mineral Resource and Mineral Reserve calculations carried out by corporate technical staff.

In the opinion of the authors, this approach to data verification of potash mineral grade and surface seismic information is in accordance with generally accepted industry practice for areas adjacent and contiguous to an existing operating potash mine.

vii) Mineral Processing and Metallurgical Testing

At Vanscoy, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1969.

Over the 51-year mine life, 180.108 million tonnes of potash ore have been mined and hoisted to produce 60.885 million tonnes of finished potash product (from startup in 1969 to December 31, 2020). Given this level of sustained production over several decades, basic mineralogical processing and prospective metallurgical testing of Vanscoy potash is not considered relevant.

viii) Mineral Resource and Mineral Reserve Estimates

Definitions of Mineral Resource

See “Mineral Projects – a) Allan Potash Operations – viii) Mineral Resource and Mineral Reserve Estimates – Definitions of Mineral Resource” for an overview of CIM’s mineral resource categories and the Company’s general characterization of mineral resources categories for its potash mines.

The Vanscoy mine began production in 1969 and test drilling conducted after that was largely for the purpose of better understanding the caprock rather than potash mineralization. Instead, exploration involved collecting surface seismic data, which became better in quality over the years. Exploration drilling has demonstrated the presence of the potash horizon, and seismic coverage shows the continuity of the Prairie Evaporite Formation within which the potash horizon occurs.

Along with this approach, analysis of in-mine samples for potash grade has provided an observation-based understanding of the potash mineralized zone at Vanscoy that is far superior to the level of understanding provided by any surface drilling-based exploration program. The authors believe that this approach provides a body of information that guides and constrains exploration inferences in a much better way than could be achieved from any conventional exploration investigation in areas immediately surrounding, and contiguous to, the Vanscoy potash mine.

Mineral Resource Estimates

Exploration information used to calculate reported Mineral Resource tonnages at Vanscoy consist of both physical sampling (drillhole and in-mine) and surface seismic (2D and 3D) . Based on the definitions and guidelines above, all mineral rights leased or owned by the Company, and within Vanscoy Crown Lease, are assigned to one of the three mineral resource categories.

Mineral resources are reported as mineralization in-place and are exclusive of Mineral reserves. In-place tonnes were calculated for each of the mineral resource categories using the following parameters:

Mining Height:	3.35 meters (11 feet)
Ore Density:	2.116 tonnes / cubic metre (A Zone)
Ore Density:	2.120 tonnes / cubic metre (B Zone)

The mineral resources per the Vanscoy Technical Report are as follows:

Vanscoy A Zone:		
Inferred Resource	932	millions of tonnes
Indicated Resource	1,850	millions of tonnes
Measured Resource	1,975	millions of tonnes
Total A Zone Resource	4,757	millions of tonnes

Vanscoy B Zone:		
Inferred Resource	933	millions of tonnes
Indicated Resource	1,853	millions of tonnes
Measured Resource	2,669	millions of tonnes
Total B Zone Resource	5,455	millions of tonnes

Total Vanscoy Resource (A Zone + B Zone):		
Inferred Resource	1,865	millions of tonnes
Indicated Resource	3,703	millions of tonnes
Measured Resource	4,644	millions of tonnes
Total A Zone + B Zone Resource	10,212	millions of tonnes

Per the Vanscoy Technical Report, the average mineral grade of the Vanscoy A Zone Mineral Resource is 24.2% K_20 equivalent and was determined from thousands of in-mine samples at Vanscoy. The average mineral grade of the Vanscoy B Zone Mineral Resource is 20.3% K_20 equivalent and was determined from thousands of in-mine samples at Lanigan mine where the B Zone has been extensively mined.

The tonnage reported in the Vanscoy A Zone Measured Resource is comprised of the potash that is within 1.6 km (1 mile) of a physically sampled location (i.e. drillholes or mine workings). Also included as Measured Resource is the potash in the pillars of mined-out areas in the Vanscoy mine as there is the possibility of retrieving ore from the remnant mining pillars at some point in the future. An example of this is the Patience Lake mine which was successfully converted from a conventional mine to a solution mine after being lost to flooding in 1989. Since mining of remnant mining pillars is not anticipated in the near future at Vanscoy, in-place pillar mineralization remains as a Mineral Resource rather than a Mineral Reserve at this time.

Definitions of Mineral Reserve

See “Mineral Projects – a) Allan Potash Operations – viii) Mineral Resource and Mineral Reserve Estimates – Definitions of Mineral Reserve” for an overview of CIM’s mineral reserve categories and the Company’s general characterization of mineral reserve categories for its potash mines.

Along with this approach, analysis of in-mine samples for potash grade has provided us with an observation-based understanding of the potash mineralized zone at Vanscoy that is far superior to the level of understanding provided by any surface drilling-based exploration program. An understanding of the amount of ore that can be conventionally mined from the Measured Resource category using current mining practices comes from decades of potash mining experience at Vanscoy.

Mineral Reserve Estimates

Using the definitions outlined above, a portion of the Vanscoy A Zone Measured Resource has been converted to Mineral Reserve. The assigned Mineral Reserve category is dependent on proximity to sampled mined entries also described above. An overall extraction ratio for the Vanscoy mine has been applied to the qualifying areas outlined as Measured Resource.

The overall extraction ratio at the Vanscoy mine is 28%. It was derived by dividing the total tonnes mined to date by the tonnage equivalent of the total area of the mine workings (i.e. the perimeter around the mine workings) less future mining blocks. Since an extraction ratio has been applied, Mineral Reserves are considered recoverable ore, and are reported as such. Note that only drillholes whose 1.6 km radii are contiguous to mine workings or the 1.6 km radius placed around mine workings are used to compute probable mineral reserve. The remaining non-contiguous drillholes remain in the measured resource category.

The Mineral Reserves for Vanscoy as of December 31, 2020 are as follows:

Vanscoy A Zone:		
Probable Reserve	326	millions of tonnes
Proven Reserve	183	millions of tonnes
Total A Zone Reserve	509	millions of tonnes

Vanscoy B Zone:	
Probable Reserve	nil
Proven Reserve	nil
Total B Zone Reserve	nil

Total Vanscoy Reserves (A Zone + B Zone):		
Probable Reserve	326	millions of tonnes
Proven Reserve	183	millions of tonnes
Total A Zone + B Zone Reserve	509	millions of tonnes

The average mineral grade of the Vanscoy A Zone Mineral Reserve is 24.2% K_2O equivalent, and was determined from thousands of in-mine samples at Vanscoy.

ix) Mining Operations

All conventional potash mines in Saskatchewan operate at 900 m to 1200 m below surface within 9 m to 30 m of the top of the Prairie Evaporite Formation. Over the scale of any typical Saskatchewan potash mine, potash beds are tabular and regionally flat-lying, with only moderate local variations in dip. At Vanscoy, potash ore is mined using conventional mining methods, whereby:

- Shafts are sunk to the potash ore body;
- Continuous mining machines cut out the ore, which is hoisted to surface through the production shaft;
- Raw potash is processed and concentrated in a mill on surface; and
- Concentrated finished potash products (near-pure KCl) are sold and shipped to markets in North America and offshore.

Sinking of the two original shafts (Shaft #1 and Shaft #2) from surface to the potash zone was completed in 1968, and the first potash ore was hoisted the year after. With the exception of the 1970 inflow which halted production for two years, the Vanscoy mine has run on a continuous basis other than short-term shutdowns taken for inventory management purposes, occasional plant maintenance and construction work, or other outages that are typical for operations of this nature.

In recent years, the Vanscoy mine underwent a major expansion which brought the nameplate capacity up to 3.0 million tonnes of finished potash products per year. In 2020, operational capability at the Vanscoy facility was 1.7 million tonnes per year. Operational capability may vary during the year and year-to-year including as between our potash operations.

Virtually all Vanscoy underground mining rooms are in one potash mineralized zone, the upper layer (or A Zone) of the Patience Lake Member of the Prairie Evaporite Formation (the host evaporite salt). In contrast, some potash mines further east in Saskatchewan mine in a different potash layer. At Vanscoy, mine elevations range from approximately 1,000 m to 1,120 m depth below surface. Mine workings are protected from aquifers in overlying formations by approximately 12 m of overlying salt and potash beds, along with salt plugged porosity in the Dawson Bay Formation, a carbonate layer lying immediately above potash hosting salt beds.

The Vanscoy mine is a conventional underground mining operation whereby continuous mining machines are used to excavate the potash ore by the stress-relief mining method. Continuous conveyor belts transport ore from the mining face to the bottom of the production shaft. Mining methods employed in Saskatchewan are discussed in Jones and Prugger (1982) and in Gebhardt (1993). The highest mineral grade section of the Vanscoy potash seam is approximately 3.35 m (11') thick, with gradations to lower grade salts immediately above and below the mining horizon. The actual mining thickness at Vanscoy is dictated by the height of continuous boring machines used to cut the ore which has been fixed at 3.35 m (11'). This mining height allows for comfortable working headroom and efficient extraction of potash ore.

Vanscoy cuts to a marker (clay) seam that is slightly above the high-grade mineralized zone to establish a safe and stable mine roof. The top marker seam is slightly overcut by 10 cm to 20 cm. Clay seams are often planes of weakness, and if they are undercut, material immediately below the clay seam becomes a hazard as it may separate and fall. Since the hazard must be remediated prior to proceeding, thus slowing production, the moderately diluted mineral grade that results from the overcutting is preferable from a safety point of view.

Conservative local extraction ratios (never exceeding 45% in any mining block) are employed at all Saskatchewan mines, including Vanscoy, in order to minimize potential detrimental effects of mining on overlying strata; this is common practice in flat-lying, tabular ore bodies overlain by water-bearing layers.

From the shaft-bottom, potash ore is hoisted approximately 1,000 m from the potash level through the vertical shafts to a surface mill. In addition to hoisting potash ore to surface, the production shaft is used for exhaust ventilation from the mine and serves as a secondary egress. The Service Shaft is used for service access, primary egress, and fresh air ventilation into the mine.

Over the 51-year mine life, 180.108 million tonnes of potash ore have been mined and hoisted at Vanscoy to produce 60.885 million tonnes of finished potash products (from startup in 1969 to December 31, 2020). The life-of-mine average concentration ratio (raw ore / finished potash products) is 2.96 and the overall extraction ratio over this period is 28%.

x) Processing and Recovery Operations

At Vanscoy, potash ore has been mined and concentrated to produce saleable quantities of high grade finished potash products since 1969.

Raw potash ore is processed on surface, and concentrated finished potash products (near-pure KCl) are sold and shipped to markets in North America and offshore.

Over the past three years, production of finished potash products at Vanscoy was:

2018: 2.242 million tonnes finished potash products at 61.03% K_2O (average grade)
2019: 1.414 million tonnes finished potash products at 60.90% K_2O (average grade)
2020: 0.513 million tonnes finished potash products at 60.76% K_2O (average grade)

Over the past decade, actual mill recovery rates have been between 76.0% and 83.2%, averaging 80.4%. Given the long-term experience with potash geology and actual mill recovery at Vanscoy, no fundamental potash milling problems are anticipated in the foreseeable future.

Quality control testing and monitoring geared towards fine-tuning and optimizing potash milling and concentrating processes are conducted on a continual basis at all Nutrien mine sites and at Nutrien research facilities. At Vanscoy, this is no exception; test work to optimize circuit performance and ensure product quality is carried out on an ongoing basis.

xi) Infrastructure, Permitting and Compliance Activities

Project Infrastructure

Infrastructure is in place to meet current and projected requirements for transportation, energy (electricity and natural gas), water and process materials at Vanscoy.

The Vanscoy mine is served by a number of villages within 50 kilometers of the mine site. The nearest city is Saskatoon (26 km distant). Surface facilities are accessed by existing paved roads and highways that are part of the Saskatchewan Provincial Highway System. All potash product is shipped by rail over existing track.

At present, high voltage power capacity at Vanscoy is 57 MVA. The ten-year projection of power utilization indicates that the utility can meet all foreseeable future demand.

The Vanscoy operation requires a sustained fresh water supply for the milling process which is provided by a waterline from the Saskatchewan River (approximately 20 km distant). This water supply is provincially licensed and provides a sustainable source of process water for Vanscoy milling operations without having any impact on other users of water in the area.

Environmental Studies, Permitting and Compliance Activities

The tailings management strategy at all Nutrien potash mines in Saskatchewan, including Vanscoy, is one of sequestering solid mine tailings in an engineered and provincially licenced TMA near the surface plant site. The Vanscoy TMA currently covers an area of approximately 610 hectares (1,507 acres) of land owned by the Company. Solid potash mine tailings typically consist of 85% to 95% rock salt (NaCl) and 5% to 15% insolubles (carbonate mud = $CaCO_3$, anhydrite mud = $CaSO_4$, and clays like chlorite, illite, and so on). An engineered slurry-wall (bentonite cut-off wall) has been constructed around the Vanscoy TMA. In future years this wall can be expanded if required for operational needs. The slurry-wall provides secondary containment for any saline mine waters, minimizing brine impacts from the TMA to surrounding surface water bodies and near-surface aquifers. Areas surrounding the TMA are closely monitored: this includes everything from daily visual perimeter inspections to annual investigations and inspections of surrounding groundwater and aquifers.

Vanscoy currently operates two brine disposal wells near the surface plant of the Vanscoy mine where clear salt brine (i.e. no silt, clay slimes, or other waste) is borehole-injected into the Winnipeg / Deadwood Formations, deep subsurface aquifers approximately 1,500 m to 1,700 m below the surface. The disposal wells are provincially licensed, and groundwater in these extensive deep aquifers is naturally saline.

Emissions to air (mostly salt dust and potash dust) are kept below regulatory limits through various modern air pollution abatement systems (e.g. dust collection systems built into mill processes) that are provincially licensed. This same procedure is followed at all Nutrien mines in Saskatchewan.

The Vanscoy operation requires a sustained fresh water supply for the milling process which is provided by a waterline from the Saskatchewan River (approximately 20 km distant). This water supply is provincially licensed and provides a sustainable source of process water for Vanscoy milling operations without having any impact on other users of water in the area.

In Saskatchewan, all potash tailings management activities are carried out under an “Approval to Operate” granted by the SMOE, the provincial regulator. The Vanscoy mine is in compliance with all regulations stipulated by the Environmental Protection Branch of SMOE. The current Vanscoy Approval to Operate has been granted to July 1, 2028, the renewal date.

In terms of long-term decommissioning, environmental regulations of the Province of Saskatchewan require that all operating potash mines in Saskatchewan create a long-term decommissioning and reclamation plan that will ensure all surface facilities are removed, and the site is left in a chemically and physically stable condition once mine operations are complete. The Company has conducted numerous studies of this topic, and the most recent decommissioning and reclamation plan for Vanscoy was approved by SMOE technical staff in October 2016. Because the current expected mine life for Vanscoy is many decades into the future, it is not meaningful to come up with detailed engineering designs for decommissioning annually. Instead, decommissioning plans are

reviewed every five years, and updated to accommodate new concepts, technological change, incorporation of new data, and adjustments of production forecasts and cost estimates. Any updated decommissioning and reclamation reports generated by this process are submitted to provincial regulatory agencies. For Vanscoy, a revised decommissioning and reclamation plan is required in July 2021.

In addition to the long-term decommissioning plan, provincial regulations require that every potash producing company in Saskatchewan set up an Environmental Financial Assurance Fund, which is to be held in trust for the decommissioning, restoration and rehabilitation of the plant site after mining is complete. This fund is for all mines operated by Nutrien in the Province of Saskatchewan (i.e. Allan, Cory, Lanigan, Patience Lake, Lanigan, Rocanville, and Vanscoy).

xii) Capital and Operating Costs

The Vanscoy mine has been in operation since 1969; in the years immediately preceding this, major capital investment was made to bring this mine into production. Since then, capital expenditures were made on a regular and ongoing basis to sustain production, and to expand production from time to time.

A major refurbishment and expansion of the Vanscoy mine was completed in 2015, increasing nameplate capacity to 3.0 million tonnes of finished potash products per year. This work involved increased hoist capacity, infrastructure improvements, major expansions of mine, mill, and TMA. All construction was carried out without significant disruption to existing potash production from the site.

xiii) Exploration, Development and Production

Potash production in any given year at the Vanscoy mine is a function of many variables, so actual production in any given year can vary dramatically from tonnages produced in previous years. The Mineral Reserve tonnage and historic average production are used to estimate remaining mine life. If the average mining rate seen over the past three years (4.003 million tonnes of potash ore mined and hoisted per year is sustained), and if Mineral Reserves remain unchanged, then the Vanscoy mine life is 127 years from December 31, 2020.

f) Taxes Relating to Potash Operations

Royalties are paid to the Province of Saskatchewan in connection with the Company's Potash operations, which holds most of the mineral rights in the lease areas, and royalties from Freehold lands are paid to various freeholders of mineral rights in the area. The Crown royalty rate is 3 percent and is governed by *The Subsurface Mineral Royalty Regulations, 2017*. The actual amount paid is dependent on selling price and production tonnes.

Municipal taxes are paid based on site property values to the applicable municipality in Saskatchewan. Saskatchewan potash production is taxed at the provincial level under *The Mineral Taxation Act, 1983*. This tax, governed by *The Potash Production Tax Regulations*, consists of a base payment and a profit tax, collectively known as the potash production tax. As a resource corporation in the Province of Saskatchewan, the Company is also subject to a resource surcharge equal to a percentage of the value of its resource sales (as defined in *The Corporation Capital Tax Act of Saskatchewan*). In addition to this, the Company pays federal and provincial income taxes based on corporate profits from all of its operations in Canada.

Exhibit 99.2

2020 MANAGEMENT'S DISCUSSION & ANALYSIS

Nutrien





MANAGEMENT'S DISCUSSION & ANALYSIS

As at and for the year ended December 31, 2020

The following management's discussion and analysis ("MD&A") is the responsibility of management and is dated as of February 18, 2021. The Board of Directors ("Board") of Nutrien carries out its responsibility for review of this disclosure principally through its audit committee, comprised exclusively of independent directors. The audit committee reviews and, prior to its publication, recommends to the Board approval of this disclosure. The Board has approved this disclosure. The term "Nutrien" refers to Nutrien Ltd. and the terms "we", "us", "our", "Nutrien" and "the Company" refer to Nutrien and, as applicable, Nutrien and its direct and indirect subsidiaries. This MD&A is based on the Company's audited consolidated financial statements for the year ended December 31, 2020 ("financial statements") based on International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board, unless otherwise stated.

This MD&A contains certain non-IFRS financial measures which do not have a standard meaning under IFRS and, therefore, may not be comparable to similar measures presented by other issuers. Such non-IFRS financial measures include:

- Adjusted EBITDA
- Adjusted net earnings and adjusted net earnings per share
- Adjusted EBITDA, adjusted net earnings per share and sustaining capital expenditures guidance
- Free cash flow and free cash flow including changes in non-cash operating working capital
- Potash cash cost of product manufactured
- Ammonia controllable cash cost of product manufactured
- Retail adjusted average working capital to sales
- Retail adjusted average working capital to sales excluding Nutrien Financial
- Retail cash operating coverage ratio
- Retail normalized comparable store sales
- Retail adjusted EBITDA per US selling location
- Nutrien Financial net interest margin
- Sustaining and investing capital expenditures
- Gross margin excluding depreciation and amortization per tonne - manufactured

For definitions, further information and reconciliation of these measures to the most directly comparable measures under IFRS, see the"Non-IFRS Financial Measures" section.

Also see the cautionary statement in the "Forward-Looking Statements" section.

All references to per share amounts pertain to diluted net earnings (loss) per share. Financial data in this annual report are stated in millions of US dollars which is the functional currency of Nutrien and the majority of its subsidiaries unless otherwise noted. N/m indicates information that is not meaningful.

See the "Terms and Definitions" section for definitions, abbreviations and terms used in this annual report.

Additional information relating to Nutrien (which, except as otherwise noted, is not incorporated by reference herein), including our Annual Information Form for the year ended December 31, 2020, can be found on SEDAR at www.sedar.com and on EDGAR at www.sec.gov. The Company is a foreign private issuer under the rules and regulations of the US Securities and Exchange Commission (the "SEC").

The information contained on or accessible from our website or any other website is not incorporated by reference into this MD&A or any other report or document we file with or furnish to applicable Canadian or US securities regulatory authorities.

NUTRIEN'S GLOBAL PROFILE

We operate globally & across the agriculture value chain

Nutrien is the world's largest provider of crop inputs and services, playing a critical role in helping growers increase food production in a sustainable manner. We produce and distribute 27 million tonnes of potash, nitrogen and phosphate products worldwide and we deliver leading solutions through the world's premier Ag retail network, providing exceptional access to growers across three continents. We continue to enhance our production and distribution capabilities across multiple paths including the development of our leading digital platform in the Ag retail market. We operate in 13 countries with more than 23,000 employees globally.



FIND OUT MORE

Nutrien Factbook

To view and download **our Industry Factbook,** visit https://www.nutrien.com/ resources

Nutrien Digital Video

To view the **Nutrien Digital video,** visit https://www.youtube.com/watch?v=Swg06_cjvno&feature=youtu.be

Nutrien Ag Solutions

To view **A Day in the Life of Nutrien Ag Solutions,** visit https://www.youtube. com/watch?v=OnUF1e1Do_A&t=70s

Potash Facility Tour

To view the **Nutrien Potash Facility Tour,** visit https://www.youtube.com/watch?v=OFECEkOcb4w

NUTRIEN'S STRATEGY

At Nutrien, our purpose is to Grow Our World from the Ground Up. Our unique mix of world-class assets and position across the agricultural value chain provides exceptional opportunities to create value.

Nutrien's strategy is to strengthen our channel to the grower and improve our competitive position as the world's largest crop input retailer through optimizing our world-class and low-cost production assets. We are focused on optimizing and investing in our business to create superior value for both shareholders and customers.

1 ENHANCING OUR LEADING POSITION

We focus on enhancing our world-class andlow-cost potash and nitrogen production network and creating value and efficiencies through the integration of our supply chain. This includes the optimization and growth of the world's largest Ag retail network. We develop and deliver value-enhancing whole-acre solutions to help growers produce abundant, healthy and sustainable food. These solutions include our comprehensive digital capabilities, agronomic tools and deep portfolio of proprietary products.

2 LEVERAGING TECHNOLOGY

We invest in new tools and solutions to help lower our costs, to drive efficiencies and safety and to better serve our customers, including the use of leading solutions for sustainable agriculture. We developed the leading digital agriculture retail platform that provides field planning, digital agronomy, e-commerce and sustainability solutions and we continue to expand our proprietary product portfolio. Our Next Generation Potash program continues to progress and we are executing initiatives in Nitrogen that leverage technology to lower production costs, increase efficiency and improve safety and sustainability results.

3 LEADING AG SUSTAINABILITY

Nutrien is focused on being a leader in reducing carbon emissions generated along the ag value chain. Nutrien's Carbon Program creates the opportunity to financially reward growers who apply best practices and climate smart products, which is expected to drive a step change in agricultural sustainability and improved carbon management. By leveraging our unique relationship with the grower, we can deliver an end-to-end program where we can add value throughout.

At our nitrogen production facilities, we have the capability to produce approximately 1 million tonnes of blue/low carbon ammonia annually, we are planning to expand the production of sustainable products and we are further planning to reduce our carbon footprint through energy use efficiency and abatement projects. At our potash mines, we are planning to reduce our carbon footprint and lower our costs through self-generated electricity and heat, and we are progressing projects to improve water management.

4 GROWING RETURNS & FINANCIAL STABILITY

Nutrien is focused on creating long-term value for shareholders, including earnings growth. We believe much of this growth is within our control by investing in our world-class Retail business, growing nutrient production and optimizing the entire network. Our capital allocation policy prioritizes sustaining our assets, preserving the strength and resiliency of our balance sheet, supporting a sustainable and growing dividend and applying a rigorous compete-for-capital reinvestment strategy to maximize shareholder value.

FOCUSED APPROACH TO VALUE CREATION

We developed a specific approach to capital allocation and clearly defined a strategy to grow the business, improve efficiencies and create value.

We established several priorities and initiatives designed to create value and deliver **Leading Solutions for Sustainable Agriculture** and we set clearly defined targets and performance metrics to measure progress. Our strategy and performance are supported by governance oversight and risk management by our Executive Leadership Team and Board of Directors.



NUTRIEN'S ENVIRONMENT, SOCIAL AND GOVERNANCE ("ESG") STRATEGY

Raising expectations of what an agriculture company can be.



NUTRIEN'S CARBON PROGRAM

Nutrien is working to solve some of the world's biggest challenges: producing more food with less land, water and environmental impact.



NUTRIEN AG SOLUTIONS

Driving a change in agriculture that delivers growth and reinforces our competitive advantages.



A GLOBAL LEADER IN POTASH

Growing sales with global demand and lowering production costs within our flexible network of mines.



WELL POSITIONED NITROGEN OPERATIONS

Improving operating rates, reducing greenhouse gas ("GHG") emissions and positioning for alternative product potential.



CAPITAL ALLOCATION

Focusing on financial growth and shareholder returns.



NUTRIEN'S ESG STRATEGY

At Nutrien, we are raising expectations of what an agriculture company can be and how we can make positive contributions.

We are integrating ESG practices across our Company with a cohesive strategy that is driven by our leadership and governance. Over the past year, our third party ESG ratings have increased by approximately 20 percent and our goal is to further improve by delivering a comprehensive ESG strategy and related targets in 2021. The strategy will provide a roadmap for our initiatives, targets and goals while creating accountability.

ENVIRONMENT



We are committed to reducing the environmental impacts of our operations on air, land and water, and developing products and innovative solutions that help growers tackle the environmental challenges facing the agriculture industry.

Working with growers to apply today's best practices is key to the sustainability of the agriculture industry. Development of new technologies, practices and programs are required to support this journey, which is why Nutrien launched a comprehensive agriculture carbon program and continues to invest in the development of a portfolio of sustainable products and solutions for growers. We are also helping drive nutrient use efficiency and farm productivity, provide environmentally sustainable soil and plant health solutions, and enable digital agronomic and sustainability analysis.

LEARN MORE
Nutrien's Carbon Program p14
Blue/low Carbon Ammonia p17
Next Generation Potash p16

SOCIAL



As part of Nutrien's purpose driven culture, we aim to develop respectful and positive relationships with our employees, contractors, suppliers, customers, and local communities.

We attract and retain our people by investing in the experience and engagement of our employees, developing the best talent, and fostering diversity and inclusion in Nutrien's culture. In addition, we have an effective succession management process to safeguard the long-term achievement of our strategy.

Nothing is more important to Nutrien than the well-being of our employees, which was emphasized by our response during the COVID-19 pandemic. Ensuring safe operations and delivering on our commitment to keep employees and contractors safe are also essential elements of delivering strong business performance.

GOVERNANCE



We embed strong corporate governance systems and principles in our business through a diverse and independent Board of Directors, strong ethical principles that inform our activities, and rigorous systems for cybersecurity and data privacy.

Nutrien's corporate governance framework includes policies and processes that define the roles of the Board and Executive Leadership Team. It also ensures that our business practices meet high ethical standards.

LEARN MORE
https://www.nutrien.com/what-we-do/governance

NUTRIEN'S CARBON PROGRAM

We have an opportunity to make a significant contribution to farming both from an environmental and an economic perspective. Doing so will require a new way of thinking about carbon and unprecedented collaboration across the value chain.

"Nutrien is working to solve some of the world's biggest challenges: producing more food with less land, water and environmental impact."

Chuck Magro, President and Chief Executive Officer – Nutrien



NUTRIEN'S CARBON PROGRAM

Nutrien launched what we expect to be the agricultural industry's most comprehensive end-to-end carbon program with a goal of making it easier for growers to increase productivity, improve sustainability and boost profitability. The program is designed to increase grower margins per acre and generate verifiable carbon credits that can be monetized.

This revolutionary program begins by targeting 100,000 acres of pilot farmland across North America in 2021 followed by a full roll-out, then a launch in Australia and South America. We are designing scalable programs that facilitate the use of climate smart inputs and sustainable practices to reduce GHG emissions, improve soil carbon sequestration, and measure the positive financial, productivity and environmental impacts.

NUTRIEN'S ROLE

Nutrien is uniquely positioned to be a leader due to our trusted relationship with growers, our focus on full acre solutions and our leading digital capabilities. Leveraging our digital crop planning capabilities, we build customized field plans that target agronomic practices and product recommendations designed to generate positive carbon outcomes and drive yield efficiency.

Nutrien's comprehensive Carbon Program is expected to deliver benefits to growers and the environment while engaging a broad base of value-chain partners and stakeholders. We believe this will foster further adoption of sustainable agricultural practices that drive positive environmental outcomes and preserve security of global food production to feed the world's growing population.

~$30

POTENTIAL PER ACRE [1]

Increased agronomic profitability (before carbon credits and may vary significantly based on existing practices).

~1-2MT

CO_2e/ACRE [1]

Reduced or sequestered, depending on grower practices adopted – an incremental revenue stream that could be worth +$10-20 per tonne as voluntary markets grow.

85%

OF CURRENT AG EMISSIONS EXPECTED TO BE OFFSET GLOBALLY BY 2050 [1]

(excluding livestock production, land use, land-use change and forestry)

[1] Estimated run-rate impact from ag industry carbon management improvements and representing the potential range of benefits from Nutrien's Carbon Program.

NUTRIEN AG SOLUTIONS

Nutrien Ag Solutions is the leading Ag retailer globally with multiple drivers to grow the business.

In addition to growing our footprint through acquisitions, we are driving change that can deliver stronger organic growth.

Our strategy starts with our unique connection and relationship with the grower supported by our more than 3,600 agronomists and our leading digital platform. We deliver whole-acre solutions to enhance productivity, profitability and sustainability. The five key drivers for our organic growth are outlined below.



1 Proprietary Product Expansion

Growing our line of proprietary products

We offer more than 2,000 proprietary products that contribute to significantly higher margins compared to third-party products. These products are often customized for specific growing regions and conditions, and include patented technologies.

We develop these products at the more than 30 facilities dedicated to innovation, breeding and associated production.

2 Optimize Assets

Optimizing the US's largest Ag retail chain & distribution network

As the largest Ag retailer in our key markets, we target optimization throughout our network. We are creating pathways to drive efficiency in our cash operating coverage ratio, average working capital and adjusted EBITDA per US selling location.

We established aggressive goals on each key performance indicator, we are executing against those goals and we are closely monitoring our performance.

3 Digital

Revolutionizing Ag retail with the leading integrated digital platform

Nutrien Ag Solutions provides the leading digital tool set in retail agriculture that facilitates our grower customers and our agronomists to collaborate in new and unique ways that drive efficiency, convenience, and a better outcome in the field.

The efficacy and efficiency of our digital platform is delivering tangible benefits that include improved customer loyalty and higher customer spend, all of which drive organic adjusted EBITDA growth.

LEARN MORE

Nutrien Digital video visit https://www.youtube.comwatch?v=Swg_06_cjvno&feature=youtu.be

4 Nutrien Financial

Building customized solutions that support customer retention and business growth

We developed Nutrien Financial to formalize short-term financing we have historically offered to our customers through payment terms, making it easier and more convenient for them to access credit and to enhance our collection and credit risk management practices. We expect Nutrien Financial will deliver earnings through improved customer retention, loyalty and purchasing while creating direct revenue from finance arrangements. It also reduces our cost of debt through favorable credit rating considerations.

LEARN MORE

Retail Financial Performance p24

5 Sustainability

Supporting growers in navigating challenges of ag sustainability

We believe Nutrien is uniquely positioned to offer the industry's most comprehensive, end-to-end carbon program making it easy for growers to adopt sustainable, agronomic practices that aim to generate positive carbon outcomes, translating into additional earnings for our farmer customers.

LEARN MORE

Nutrien's Carbon Program https://www.nutrien.com/sustainability/carbon-program

A GLOBAL LEADER IN POTASH

We are the largest soft rock miner and potash producer in the world, with unmatched competitive advantages.

We operate a flexible network of six mines with 5 million tonnes of available capacity we expect to deploy as demand grows or as opportunities arise. We operate the most reliable, safe and efficient network of assets in the industry.

Our available capacity is positioned to deploy strategically, and we are busy leveraging technology across our operations through our Next Generation Potash program.

What is the Next Generation Potash program? This program is a series of initiatives targeted to enhance and improve production, from the mine face right through to the mill. The benefit from the collective program is larger than the sum of its parts, and focuses on two key pillars to drive value:

SAFETY, COST EFFICIENCY & FLEXIBILITY



The active mining face presents the single largest safety risk to our underground workers and we are implementing tele-remote and autonomous operations to remove them from that risk.

We are empowering safety and value-driven decisions with real-time information supported by our digital capabilities, advanced process controls and smart planning to optimize our production process, increase production capabilities and lower production costs per tonne.

We are also extending asset life by monitoring and predicting key equipment parameters and performance.

ESG & SUSTAINABILITY



The Next Generation Potash program is also expected to reduce the environmental footprint of our potash operations. The self-generation of power and thermal energy will reduce CO_2 intensity and lower our cash production costs per tonne. At the same time, the use of advanced process control systems are expected to reduce natural gas consumption and leach water usage in the milling process.

In addition, by using more of our existing available capacity, we will also reduce the per tonne consumption of energy and materials.

As we enhance and improve our potash operations, Nutrien is committed to a fair transition into autonomous mining operations by evaluating the required transformation of our workforce.

IMPROVED SAFETY AND EFFICIENCY FROM DIGITAL INITIATIVES

100%

ROCANVILLE MINING FLEET ENABLED TO RUN OPERATOR NOT PRESENT DURING SHIFT CHANGES (~3 HOURS)

2

MINING MACHINES OUTFITTED WITH SURFACE REMOTE OPERATION CAPABILITIES AND AUTONOMOUS CONTROL AT LANIGAN

ROCANVILLE

SELF-GENERATED POWER UNDER CONSTRUCTION WITH OPPORTUNITY FOR FURTHER ROLL OUT

WELL POSITIONED NITROGEN OPERATIONS

Nutrien has a leading Nitrogen business with strategically advantaged assets and an opportunity to further optimize our business.

In addition to improving ammonia operating rates and enhancing safety and reliability, we have also invested to lower GHG emissions and expand our product mix.

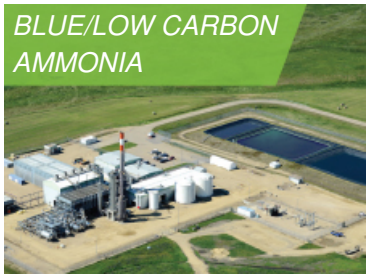
REDUCING GHG EMISSIONS



For Nutrien, nitrogen production represents more than three-quarters of our total scope 1 & 2 emissions, which is why we are focused on reducing that footprint.

We have several projects underway that are expected to reduce the carbon footprint of our nitrogen operations. Construction began on abatement projects totaling $50 million, that are expected to reduce CO_2 equivalent emissions by over 1 million tonnes by 2023, equating to an approximate 7 percent reduction in our company wide scope 1 & 2 emissions. Further, we have several other projects that will reduce our overall emission intensity.

BLUE/LOW CARBON AMMONIA



Nutrien is one of the world's largest blue/low carbon ammonia producers. We capture CO_2 at our Redwater and Geismar facilities, and sell it for industrial applications or permanently store it in large-scale carbon capture facilities.

We also produce low carbon ammonia at our Joffre plant which uses hydrogen as a feedstock. This process significantly lowers the GHG intensity per tonne of ammonia compared to a typical steam methane reforming process.

In 2020, we captured approximately 1 million tonnes of CO_2 equivalent with the capability to produce approximately 1 million tonnes of blue/low carbon ammonia.

ENVIRONMENTALLY SMART PRODUCTS



Nutrien produces and sells a wide-portfolio of products that minimize nitrogen loss, maximizes nitrogen utilization and reduces emissions.

We produce and sell over 400,000 tonnes of Environmentally Smart Nitrogen ("ESN") annually. This urea granule is contained within a flexible polymer coating which reduces nitrogen loss, and releases nitrogen at a rate matched with crop uptake.

We also produce and sell approximately 600,000 tonnes of diesel exhaust fluid ("DEF") which is a urea liquid solution that, when combined with diesel in larger vehicles and machinery, can improve fuel efficiency and reduce emissions.

Transporting ammonia then extracting its hydrogen can be a lower-risk and lower carbon alternative to transporting hydrogen, which can then be used in applications such as fuel cells. We are pursuing opportunities to leverage our low-cost ammonia production profile and strategically advantaged assets to be at the forefront of this developing market.

~1 MMT

BLUE/LOW CARBON AMMONIA PRODUCTION CAPABILITY

>2MMT

CO_2 CAPTURED INCLUDING BY PROJECTS IN CONSTRUCTION

~1 MMT

ENVIRONMENTALLY SMART PRODUCTS SOLD IN 2020

CAPITAL ALLOCATION

Nutrien is focused on creating long-term value through capital allocation. We have growth and other value generating project options across our integrated business model and comprehensive product and service offering.

Our capital allocation policy prioritizes sustaining our assets, preserving the strength and resiliency of our balance sheet, supporting a sustainable and growing dividend, and applying a rigorous compete-for-capital reinvestment strategy to maximize shareholder value.



NUTRIEN CAPITAL ALLOCATION POLICY

Sustaining Our Industry Leading Asset Base

The first priority is to sustain our assets to ensure we have safe and reliable operations to grow cash generation.

Maintain Strong Balance Sheet

Our balance sheet is built on two principles: securing reliable access to low-cost debt and preserving sufficient liquidity through our operating cycle.

We are focused on delivering a stable and growing dividend. This is core to our capital allocation policy. Nutrien's dividend provided an average yield of 4.6 percent in 2020, and has been increased three times to $0.46, and by a total of 15 percent over the previous three years.

Investment Funds Allocated on a Compete-for-Capital Basis

We allocate the remaining free cash flow on a compete-for-capital basis. Our internal approval process and strict hurdle rates ensure that we are allocating capital to the best alternatives on a risk adjusted basis, including evaluating against share repurchases.

OPERATING SEGMENT PERFORMANCE & OUTLOOK

WE REPORT OUR RESULTS IN FOUR REPORTABLE OPERATING SEGMENTS: NUTRIEN AG SOLUTIONS ("RETAIL"), POTASH, NITROGEN AND PHOSPHATE.

- In 2020, we revised the measure with which we evaluate our segments from EBITDA to adjusted EBITDA. Adjusted EBITDA provides a better indication of the segments performance as it excludes the impact of non-cash impairments and other costs that are centrally managed by our corporate function. We have presented adjusted EBITDA for the comparative period. Refer to Note 3 to the financial statements for details.
- Net sales (sales revenues less freight, transportation and distribution expenses) is the primary revenue measure used in planning and forecasting in the Potash, Nitrogen and Phosphate operating segments.



NUTRIEN AG SOLUTIONS ("RETAIL")



10%

TOTAL RETAIL ADJUSTED EBITDA/SALES

$1.08M

ACHIEVED 2020 TARGET OF $1M OF RETAIL ADJUSTED EBITDA PER US SELLING LOCATION

>$500M

EXPECTED ANNUAL NORMALIZED RUN-RATE REVENUE ACHIEVED IN BRAZIL (2021)

>$1.2B

DIGITAL PLATFORM RETAIL SALES

RETAIL OPERATING ENVIRONMENT

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Our Business

Nutrien Ag Solutions is the world's largest retailer of crop inputs and services. We are the leading provider of whole-acre solutions across North America, South America and Australia, helping farmers grow crops more efficiently, profitably and sustainably.

We operate over 2,000 retail locations across the US, Canada, Australia and South America, with approximately 1,200 locations in the US alone. The strength of our network ensures we can deliver whole-acre solutions when our grower customers need them.

We have over 3,600 agronomists and field experts, working directly with our customers to provide advice and support from the crop planning stage right through to harvest. They help growers to optimize crop yields, maximize returns and improve on sustainability practices.

Our award-winning Nutrien Ag Solutions digital platform has become the leading platform in Ag retail, which helps to foster a trusted relationship with our grower customers by providing insight, value-add solutions and convenience. Our agronomists can collaborate in a new and unique way that delivers better grower outcomes and drives value for Nutrien. We produce over 2,000 proprietary products that span the crop input chain, including seed, crop nutrients and crop protection, including a portfolio of specialty products that enhance sustainability practices. Our proprietary products deliver superior margins compared to third-party products and we produce and distribute from over 30 formulations facilities located in all key markets where we operate.

Nutrien recently unveiled a revolutionary end-to-end agricultural Carbon Program that leverages our unique and direct relationship with the grower to agronomic expertise, digital capabilities and our supply chain.

By combining these critical building blocks we believe our Carbon Program will enable us to scale sustainability outcomes for the grower by increasing productivity and monetizing improved carbon performance.

Competitive Landscape

The Ag retail industry is highly fragmented in most of our major markets, with a variety of ownership structures and varying degrees of access to capital.

The major markets where we operate are primarily comprised of many small Ag retailers along with a small number of mid-sized competitors. In the US, cooperatives of various sizes are also prominent. We believe scale and size will be required in the future in order to meet evolving grower needs.

Growers want whole-acre solutions that can include a full suite of products, services and solutions, rooted in sound unbiased agronomic advice and analytics, stressing the importance of timely delivery and reliability of supply.

In Brazil, the market is characterized by small to medium-sized independent owners and represents an opportunity for larger retailers, including Nutrien, to enhance the product, service and solution offerings to growers.

Our Strategy

We are building and enhancing trusted relationships with our grower customers by creating the leading channel that provides whole-acre solutions.

Our position as the leading Ag retailer with a local presence, world-class supply chain and portfolio of comprehensive solutions creates an advantageous position for Nutrien Ag Solutions to continue to perform and grow. Our strategy is focused on driving organic growth by delivering additional value to our customers, becoming more efficient and offering value-added products and services. We also intend to grow through strategic acquisitions.

Drive Organic Growth: Our organic growth strategy focuses on five key pillars that are intended to drive the transformation of Ag retail, offer value added solutions for growers and deliver efficiency and optimization throughout our network.

LEARN MORE

Nutrien Ag Solutions p15

Execute on Accretive Acquisitions: Nutrien Ag Solutions has a solid track record of growing in key markets and helping to consolidate the fragmented retail industry. Our tuck-in acquisition strategy continues to add value as we access new customers, further expand our proprietary solutions and integrate the business with our world-class supply chain network. We are also growing our business in Brazil and we continue to execute in this significant and strategic market. We established a corporate office and leadership team in country, where we intend to continue to grow the business and bring to market whole-acre, digital and sustainability solutions, similar to our other more mature markets.

2020 Performance

Nutrien Ag Solutions demonstrated growth, resilience and stability in the face of global volatility, achieving record adjusted EBITDA and record crop nutrient sales volumes.

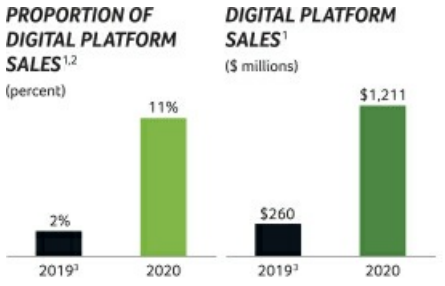
In addition to achieving record adjusted EBITDA in 2020, we improved our adjusted EBITDA margins as a result of double-digit organic growth, strong proprietary product sales and ongoing optimization of our network. We lowered Retail adjusted average working capital to sales by nearly $900 million, resulting in a 15 percent ratio and well below our 2023 target. We also improved our Retail cash operating coverage ratio and increased Retail adjusted EBITDA per US selling location to over $1 million.

We adapted quickly and effectively to COVID-19 risks, where the value and uptake of our digital capabilities was very apparent. Our award-winning digital platform experienced significant acceleration of adoption and usage in 2020, surpassing $1.2 billion in sales and representing 11 percent of total Retail sales in North America. We expect to expand the breadth of the platform to offer nearly all of our products and services in 2021. We will also be adding new functionalities to the platform such as field planning enhancements, precision Ag capabilities and expansion into Brazil and Australia.

2020 represented the first full year of earnings from the Ruralco acquisition, which closed in late 2019. We achieved our targeted annual run-rate synergies of $30 million well ahead of schedule, and identified an additional $20 million of run-rate synergies that we expect to capture by the end of 2021.

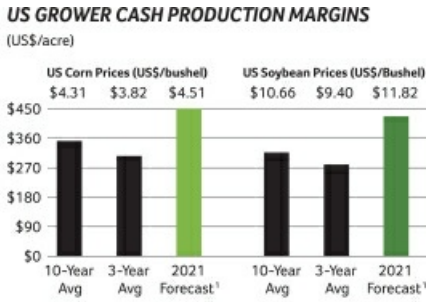
We also closed two acquisitions in Brazil in 2020, Agrosema Comercial Agricola Ltda. ("Agrosema") and Tec Agro Group. Our annual revenues in Brazil are expected to surpass $500 million on a run-rate basis in 2021, well on our way to reaching our target of $1 billion in revenues in Brazil by 2023.

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Source: Nutrien

1 Represents North America results.
2 North American digital Retail sales as a proportion of total North American Retail sales. 2019 has been restated to align with how we calculated this measure in 2020.
3 The launch of the platform was in March 2019.



Source: CRU, Fertecon, USDA, Bloomberg, Nutrien

1 2021F numbers are the December 2021 corn and November 2021 soybean futures contracts as of February 16, 2021.

2020 MARKET CONDITIONS

Key crop prices surged in the second half of 2020 driven by very tight global supply and demand fundamentals.

Growing conditions in North America improved considerably in 2020 relative to the 2019 season, however, the US had prevented planting of about 10 million acres, which is approximately twice the historic average. In addition, the Derecho windstorm in the MidWest resulted in significantly lower than expected production of US corn and soybeans. These factors and relatively low crop prices resulted in lower than expected crop input spending during the summer period.

The combination of lower than expected production and the record pace of Chinese grain and oilseed imports in 2020 resulted in US ending stocks for corn and soybeans projected to be at their lowest levels in six years, according to the USDA. This caused corn and soybean prices to rally in late 2020 and early 2021 to their highest levels in at least seven years.

Following several seasons of drought, Australian growers received much needed precipitation in 2020, resulting in a 76 percent increase in winter crop production. The increased planted area supported increased demand for crop inputs. While in Brazil, growers responded to strong crop prices by increasing soybean planting in the fall of 2020, despite less than ideal weather.

MARKET OUTLOOK

We expect a rebound in US planted crop acreage will support increased crop input demand in 2021.

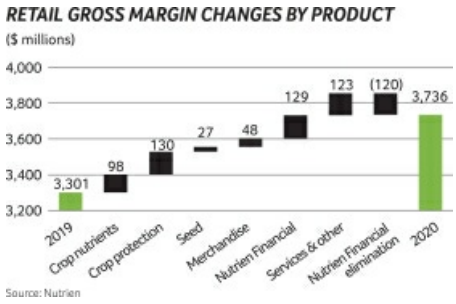
Assuming normal planting conditions in the US in the spring of 2021 and continued favorable crop margins, we expect planted acreage of major US crops will increase by approximately 10 million acres. US farmers were able to make excellent progress on fertilizer applications in the fall of 2020, and with the expected increase in acreage and strong crop prices, we expect growth in crop input expenditures in 2021.

The outlook for Australia is also strong as precipitation remained good in major Eastern growing regions. Growers benefited from higher global crop prices for their 2020 crop and, weather permitting, the outlook for crop input demand remains strong for 2021. In Brazil, growers are harvesting what is expected to be a record soybean crop, despite late planting and dry weather. We anticipate strong planted acreage and crop input demand in 2021, although there is some risk to the upcoming Safrinha corn plantings given the slower than usual soybean crop process.

RETAIL FINANCIAL PERFORMANCE

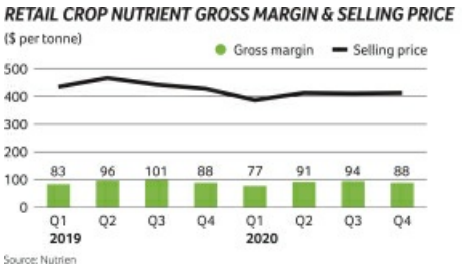
(millions of US dollars, except as otherwise noted)	Dollars			Gross Margin			Gross Margin (%)	
	2020	2019	% Change	2020	2019	% Change	2020	2019
Sales								
Crop nutrients	5,200	4,989	4	1,130	1,032	9	22	21
Crop protection products	5,602	4,983	12	1,303	1,173	11	23	24
Seed	1,790	1,712	5	363	336	8	20	20
Merchandise	943	598	58	157	109	44	17	18
Nutrien Financial	129	–	n/m	129	–	n/m	100	n/m
Services and other [1]	1,241	1,000	24	774	651	19	62	65
Nutrien Financial elimination [2]	(120)	–	n/m	(120)	–	n/m	100	n/m
	14,785	13,282	11	3,736	3,301	13	25	25
Cost of goods sold	11,049	9,981	11					
Gross margin	3,736	3,301	13					
Expenses [1,3]	2,974	2,665	12					
Earnings before finance costs and taxes ("EBIT")	762	636	20					
Depreciation and amortization	668	595	12					
EBITDA/Adjusted EBITDA	1,430	1,231	16					

1 Certain immaterial figures have been reclassified for the year ended December 31, 2019.
2 Represents elimination for the interest and service fees charged by Nutrien Financial to Retail branches.
3 Includes selling expenses of $2,795 million (2019 – $2,484 million).



The most significant contributors to the changes in our Retail financial performance were as follows:

	2020 vs 2019
Crop nutrients	Sales and gross margin increased in 2020 as higher global sales volumes more than offset the impact of lower selling prices. 2019 sales volumes in North America were negatively impacted by extreme weather. Gross margin percentage increased due to a larger proportion of higher-margin proprietary product sales.
Crop protection products	Sales and gross margin increased in 2020 primarily due to strong market share growth from contributions of our Ruralco acquisition and increased applications in the US. Gross margin percentage decreased by 0.3 percentage points compared to 2019 due to change in regional mix, with greater sales in lower-margin regions outside of the US.
Seed	Sales and gross margin increased in 2020 due to contributions from the Tec Agro Group and Agrosema acquisitions in Brazil and Ruralco in Australia. Gross margin percentage was relatively flat as a one percentage point gain in the US was offset by the growth in Australia where margins are lower.
Merchandise	Sales and gross margin increased in 2020 while gross margin percentage decreased due to strong demand in Australia and the related change in product sales mix.
Nutrien Financial	This was the first full year of operations for the Nutrien Financial business.
Services and other	Sales and gross margin increased in 2020, while gross margin percentage decreased, despite the increased sales and gross margin in Australia, where percentage margins are lower than in North America.
Selling expenses	Expenses increased in 2020 due to higher sales from acquisitions and from strong organic growth while expenses as a percentage of sales remained relatively flat.
Adjusted EBITDA	Adjusted EBITDA was higher in 2020 primarily due to higher sales volumes from acquisitions and from organic growth more than offsetting the impact of lower prices.





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SELECTED RETAIL MEASURES

	2020	2019
Proprietary products margin as a percentage of product line margin (%)		
Crop nutrients	25	23
Crop protection products	32	34
Seed	46	38
All products	22.9	23.3
All products before reclassification [1]	23.3	23.7
Crop nutrients sales volumes (tonnes – thousands)		
North America	9,746	8,812
International	2,986	2,236
Total	12,732	11,048
Crop nutrients selling price per tonne		
North America	421	465
International	367	398
Total	408	452
Crop nutrients gross margin per tonne		
North America	99	102
International	55	60
Total	89	93

1 Adjusted to reflect what the metric would have been prior to a reclassification of certain immaterial figures.

Financial performance measures	2020 Target	2020 Actuals	2019 Actuals
Retail adjusted EBITDA to sales ("Retail adjusted EBITDA margin")(%) [1,2]	10	10	9
Retail adjusted average working capital to sales (%) [1,2]	21	15	23
Retail adjusted average working capital to sales excluding Nutrien Financial (%) [1]		5	n/a
Retail cash operating coverage ratio (%) [1,2]		61.8	62.9
Retail cash operating coverage ratio before reclassification (%) [1,3]	61	61.1	62.2
Retail adjusted EBITDA per US selling location (thousands of US dollars) [1]	1,000	1,075	967
Retail normalized comparable store sales (%)		6	(1)
Retail digital platform sales to total sales (%) [4]		11	2
Retail grower engagement (%) [5]		10	5
Nutrien Financial net interest margin (%) [1]		5.3	n/a

1 Rolling four quarters ended December 31, 2020 and December 31, 2019 respectively.
2 2019 has been restated due to certain reclassification of immaterial figures.
3 Adjusted to reflect what the metric would have been prior to a reclassification of certain immaterial figures.
4 Grower and employee orders directly from the digital platform as a percentage of total sales in North America. 2019 has been restated to align with the 2020 calculation.
5 Percent of North American Retail growers doing one or more significant activities on the digital platform, such as ordering products, making payments, applying for Nutrien Finance or completing a field plan.

NUTRIEN FINANCIAL

We offer flexible financing solutions to our customers in support of Nutrien's agricultural product and service sales. Qualifying retail customers in the United States and Australia are offered extended payment terms, typically up to one year, to facilitate the alignment of grower crop cycles with cash flows. Nutrien Financial revenues are primarily earned through interest and service fees that are charged to our Retail branches or directly to our customers.

We hold a significant portion of receivables from customers that have historically experienced alow-default rate. We manage our credit portfolio based on a combination of review of customer credit metrics, past experience with the customer and exposure to any single customer. Nutrien Financial, which is a wholly owned finance captive, monitors and services the portfolio of our high- quality receivables from customers that have the lowest risk of default among Retail's receivables from customers. We monitor the results of this portfolio of receivables separately because we calculate the cost of capital attributable to the high-quality receivables from customers differently from our other receivables. Specifically, we assume a debt to equity ratio of 7:1 in funding Nutrien Financial receivables, based on the underlying credit quality of the assets.

Nutrien Financial relies on corporate capital for funding. We estimate the deemed interest expense using an average borrowing rate of 3.72 percent applied to the notional debt required to fund the portfolio of receivables from customers monitored and serviced by Nutrien Financial. The balance of our Retail receivables (outside of Nutrien Financial) are subject to marginally higher credit risk.

							As at December 31,	
(millions of US dollars)	Current	<31 days past due	31-90 days past due	>90 days past due	Gross Receivables	Allowance [1]	2020 Total	2019 Total
North America	962	130	44	38	1,174	(24)	1,150	821
International	178	2	16	47	243	(1)	242	–
Nutrien Financial receivables [2]	1,140	132	60	85	1,417	(25)	1,392	821

1 Bad debt expense on the above receivables was $26 million (2019 – $5 million) in the Retail segment.
2 Includes $1,147 million (2019 – $762 million) of very low risk of default and $270 million (2019 – $64 million) of low risk of default.

POTASH



12.8MMT

POTASH SALES VOLUMES

$59

POTASH CASH COST OF PRODUCT MANUFACTURED PER TONNE

+5MMT

AVAILABLE CAPACITY

POTASH OPERATING ENVIRONMENT

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Our Business

Nutrien is the best positioned company to continue to create value in the potash industry due to its size, high-quality and low-cost network of mines and flexible growth optionality.

Our extensive mine network provides for decades of reliable and safe production at a first-quartile cost profile, and places us as the world's largest potash producer with approximately 21 percent of global potash capacity.

Nutrien's Potash network is one of the lowest cost, most reliable and highest quality in the world. We have six mines as part of a diverse and flexible network that allows us to optimize our assets to cost-effectively position the right tonnes at the right time.

We have 5 million tonnes of available potash capacity that we expect to deploy over time as global demand grows, a characteristic that is unique to Nutrien.

In addition, we have line of sight to 5 million tonnes of incremental brownfield expansions which can be brought online at a much lower cost and much more quickly than any new greenfield mine being contemplated in the industry today. We have an extensive distribution system to service the North American market, and our stake in Canpotex ensures efficient and effective marketing and delivery of potash to over 40 international markets.

Safety is of paramount importance to Nutrien's culture and actions and we are proud to operate one of the safest potash operations in the world. This is made possible by our investment in maintaining our production network, decades of developing best practices in potash mining and the adoption of new technologies.

Competitive Landscape

A limited number of countries around the world possess a significant quantity and quality of potash. Canada has the largest known global potash reserves, accounting for approximately 40 percent of the total.

More than 70 percent of the world's potash capacity is held by the six largest producers. Our primary competitors are located in Russia, Belarus, Canada, Germany, Israel and Jordan.

Most major potash consuming countries in Asia and Latin America have limited or no indigenous production capability and rely on imports to meet their needs. This is an important difference between potash and other major crop nutrient industries. Trade typically accounts for approximately three-quarters of demand for potash resulting in a globally diversified marketplace.

The global demand growth rate for potash has outpaced that of other primary nutrients, averaging approximately 2.4 percent cumulative annual growth rate ("CAGR") since 2015, with the expectation of an additional 5 million tonnes of new demand added by 2023.

This growth is driven by increasing nutrient requirements of higher yielding crops and improving soil fertility practices, particularly in emerging markets where potash has been historically under-applied and crop yields lag.

Our Strategy

Nutrien has a unique position in the potash industry. We will use our extensive network to respond quickly and efficiently to market supply and demand dynamics, while we continue to incorporate new technologies to lower our production costs and optimize our asset base.

Incremental capacity: We will use our production platform, which includes 5 million tonnes of additional available capacity, to grow as the leader in the potash industry. We will deploy this capacity as demand grows and serve tonnes into the market when required. In addition, we have line of sight to 5 million tonnes of incremental brownfield capacity that we can develop in half the time, and at a fraction of the cost of a conventional greenfield mine to meet longer-term demand growth.

Next Generation Potash: We are investing in initiatives focused on leveraging automated and tele-remote mining and other digital technologies to continue to improve our safety performance, lower our production costs and reduce emissions. These improvements are being made from the mine face right through to the mill.

LEARN MORE
Next Generation Potash p16

Network optimization: We are focused on achieving the optimal production mix from our world-class platform, which maintains production flexibility while maximizing the benefits of our low-cost position on the cost curve and a leading domestic and offshore distribution network including our own integrated business. At the same time, we will undertake preventative maintenance to ensure the high-quality, reliability and safety of our operations.

2020 Performance

We continue to enhance our network by effectively managing our production and supply chain and optimizing volumes to minimize production costs.

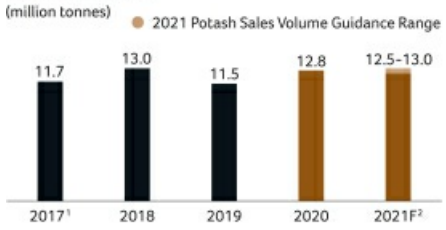
Nutrien sold 12.8 million tonnes of potash in 2020, up more than 1 million tonnes over 2019, highlighting the flexibility of our network and ability to move tonnes into the market when needed. We also reduced our cash COPM to $59 per tonne, the lowest level on record for Nutrien. This was despite a fire at our Vanscoy mine loadout facility and navigating the nuances of underground mining during the COVID-19 pandemic. Our strong network of mines and exceptional commitment from our people ensured that we were able to produce potash at targeted levels without sacrificing quality, value or safety.

We continued to progress our Next Generation Potash program. Rocanville's mining fleet is now able to run operator-not-present during shift change, and Lanigan has successfully piloted clay seam detection using artificial intelligence which will allow for autonomous control of mining machines. Predictive maintenance, value driven planning and scheduling and real-time connection of our workforce moved in lockstep to begin to unlock the full value of the program.

We took additional steps earlier this year to optimize our network by shifting production tonnes from our higher-cost Vanscoy site to other lower cost operations within our network.

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POTASH MANUFACTURED PRODUCT SALES VOLUMES

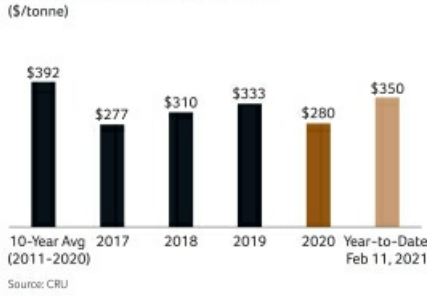


Source: Nutrien

1 2017 represents the historical combined results of PotashCorp and Agrium.

2 Based on potash manufactured product sales volume guidance as provided on February 17, 2021.

US MIDWEST FOB POTASH PRICE



Source: CRU

2020 MARKET CONDITIONS

Demand for potash fertilizers was excellent in 2020 despite the COVID-19 pandemic, largely supported by higher crop prices and improved agricultural fundamentals in key markets.

Deliveries to the North American market increased by about 1.5 million tonnes in 2020, supported by favorable application conditions, particularly during the extended fall application season, and strengthening in crop prices. Brazil imported record volumes of potash in 2020 supported by favorable crop economics. While palm oil prices increased dramatically in the second half of 2020, potash demand growth in Southeast Asia remained relatively limited especially in Malaysia, where plantations continue to struggle with COVID-19 related restrictions and labor shortages.

Import demand in both China and India was strong particularly in the second half of the year following the contract settlements in the second quarter of 2020, underpinned by tightened agricultural fundamentals.

Potash prices were pressured in many key spot markets during the first half of the year, however, prices increased steadily in the second half as the demand outlook continued to improve and outpaced new capacity additions from the Former Soviet Union ("FSU") region.

MARKET OUTLOOK

We expect the robust potash consumption trend will continue in 2021 supported by favorable crop economics, high affordability levels for farmers around the world and limited inventory build in major markets.

Despite strong shipments in North America in 2020, we believe almost all the potash delivered was applied to ground, leading to very tight inventories throughout the supply chain at the end of the year. Low inventories combined with favorable crop prices and planting outlook, should support strong potash demand in 2021. In Brazil, growers continue to be incentivized to invest and secure fertilizer needs for the 2021 soybean growing season. Shipments to Southeast Asian countries are expected to increase from 2020 levels, supported by a significant improvement in palm oil prices and a more normalized labor supply situation.

Potash consumption in India is expected to remain strong in 2021, while import growth can be subject to potential policy changes. In China, the agronomic need for higher potash application rates is well-known and domestic agricultural fundamentals are robust. India and China each settled a 2021 potash agreement with one supplier at price levels below what we considered to be reflective of market conditions. It is unclear how these agreements will impact potential contracts with other global potash suppliers. Global potash producers are well-positioned for much of the first half of 2021, despite not having contracts with China and India, and suppliers such as Canpotex have not placed volumes into those markets ahead of new contracts. We forecast global potash shipments will be 68 to 70 million tonnes in 2021.

We also project new supply additions will be limited in 2021, mostly from the FSU. With an expected increase in demand from key markets, we anticipate global potash market will be balanced to tight in 2021.

POTASH FINANCIAL PERFORMANCE

(millions of US dollars, except as otherwise noted)	Dollars			Tonnes (thousands)			Average per Tonne		
	2020	2019	% Change	2020	2019	% Change	2020	2019	% Change
Manufactured product									
Net sales									
North America	908	978	(7)	4,815	4,040	19	189	242	(22)
Offshore	1,238	1,625	(24)	8,009	7,481	7	155	217	(29)
	2,146	2,603	(18)	12,824	11,521	11	167	226	(26)
Cost of goods sold	1,183	1,103	7				92	96	(4)
Gross margin – manufactured	963	1,500	(36)				75	130	(42)
Gross margin – other [1]	–	1	(100)	**Depreciation and amortization**			35	34	3
Gross margin – total	963	1,501	(36)						
Expenses [2]	248	298	(17)	**Gross margin excluding depreciation and amortization – manufactured**			110	164	(33)
EBIT	715	1,203	(41)						
Depreciation and amortization	452	390	16	**Potash cash cost of product manufactured**			59	63	(6)
EBITDA	1,167	1,593	(27)						
Impairment of assets	23	–	n/m						
Adjusted EBITDA	1,190	1,593	(25)						

1 Includes other potash and purchased products and is comprised of net sales of $Nil (2019 – $1 million) less cost of goods sold of $Nil (2019 – $Nil).
2 Includes provincial mining and other taxes of $201 million (2019 – $287 million).

The most significant contributors to the changes in our Potash financial performance were as follows:

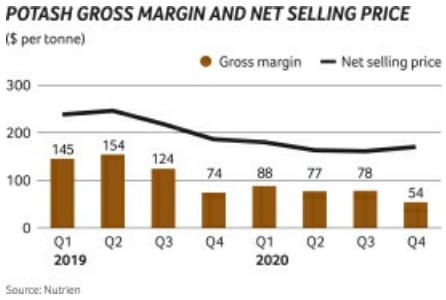
	2020 vs 2019
Sales volumes	North America and Offshore sales volumes increased in 2020 due to strong offshore demand, higher US planted acreage and strong fall application in North America in anticipation of higher planting in 2021.
Net realized selling price	Average selling prices decreased in 2020 due to lower global benchmark prices compared to 2019.
Cost of goods sold per tonne	Costs decreased in 2020 due to efficiency gains, higher production tonnes and favorable changes in mine production mix.
Provincial mining and other taxes	We are subject to Saskatchewan provincial resource taxes, including the potash production tax and the resource surcharge. Expenses decreased in 2020 primarily due to lower average potash selling prices, which are the basis for certain taxes.
Adjusted EBITDA	Adjusted EBITDA decreased in 2020 primarily due to lower net realized selling prices, which was partially offset by higher volumes of product sold, lower cash cost of goods sold per tonne and lower provincial mining and other taxes.

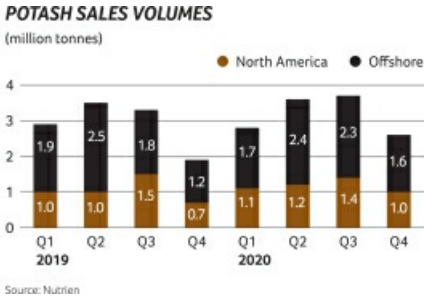
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CANPOTEX SALES BY MARKET

(percentage of sales volumes except as otherwise noted)	2020	2019	Change
Latin America	32	31	1
Other Asian markets [1]	25	27	(2)
China	22	22	–
India	14	10	4
Other markets	7	10	(3)

1 All Asian markets except China and India.



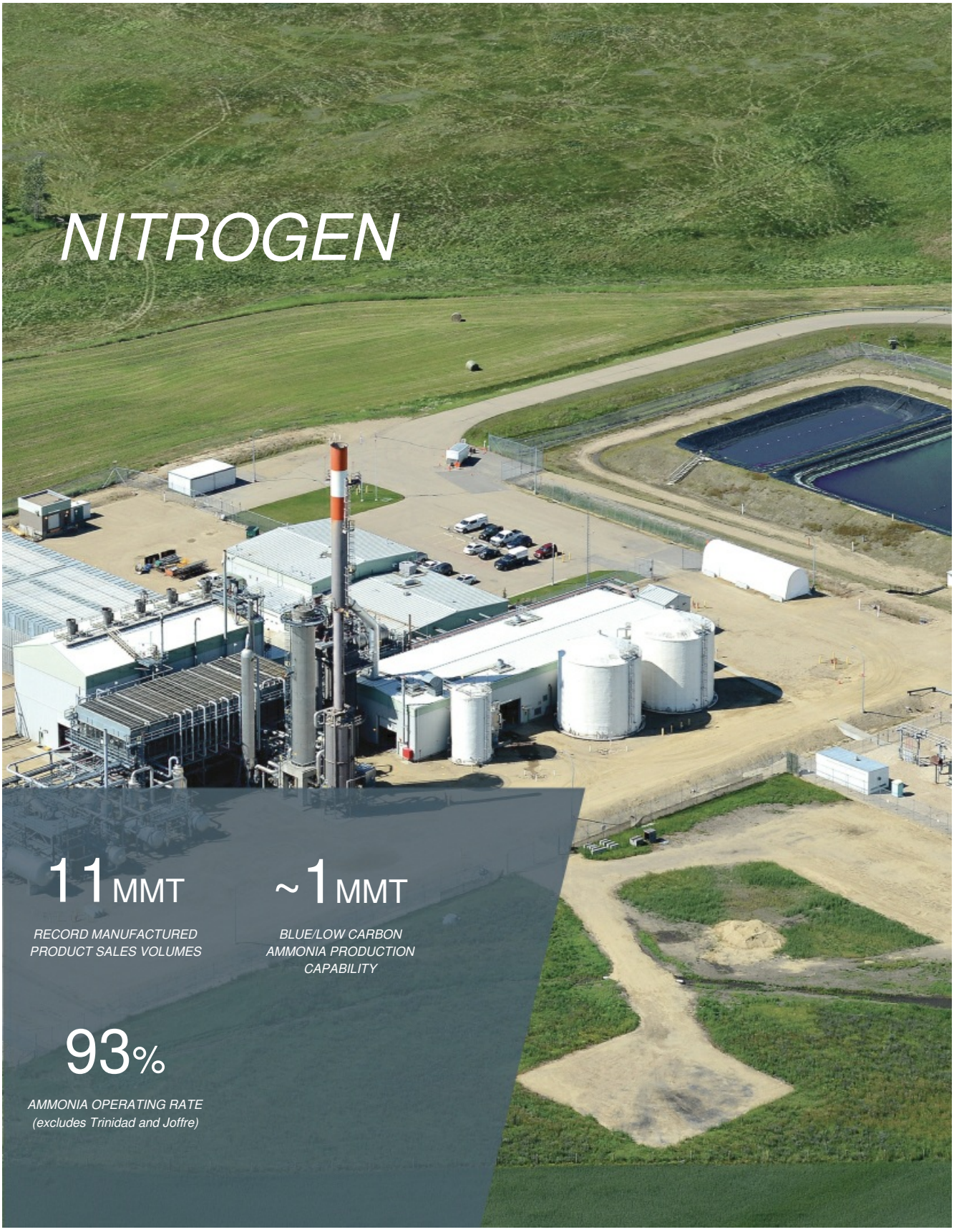


POTASH PRODUCTION

(million tonnes KCl)	Nameplate Capacity [1]	Operational Capability [2] 2021	Operational Capability [2] 2020	Production 2020	Production 2019
Rocanville Potash	6.5	5.4	5.4	5.29	5.14
Allan Potash	4.0	2.8	2.8	2.79	2.18
Vanscoy Potash	3.0	0.8	1.7	0.51	1.42
Lanigan Potash	3.8	2.5	2.3	2.33	1.75
Cory Potash	3.0	1.6	1.0	1.40	0.97
Patience Lake Potash	0.3	0.3	0.3	0.27	0.24
Total	20.6	13.4	13.5	12.59	11.70
Shutdown weeks [3]				38	55

1 Represents estimates of capacity as at December 31, 2020. Estimates based on capacity as per design specifications or Canpotex entitlements once determined. In the case of Patience Lake, estimate reflects current operational capability. Estimates for all other facilities do not necessarily represent operational capability.
2 Estimated annual achievable production level at current staffing and operational readiness (estimated at the beginning of the year, and may vary during the year, and year-to-year, including between our facilities). Estimate does not include inventory-related shutdowns and unplanned downtime.
3 Represents weeks of full production shutdown, excluding the impact of any periods of reduced operating rates and planned routine annual maintenance shutdowns and announced workforce reductions.

NITROGEN



11 MMT

RECORD MANUFACTURED PRODUCT SALES VOLUMES

~1 MMT

BLUE/LOW CARBON AMMONIA PRODUCTION CAPABILITY

93%

AMMONIA OPERATING RATE (excludes Trinidad and Joffre)

NITROGEN OPERATING ENVIRONMENT

N

Our Business

Nutrien has a large and diverse nitrogen portfolio, reinforced by a number of unique strategic advantages.

We operate nine nitrogen facilities across North America and Trinidad producing key nitrogen products and with an ammonia capacity of 7.1 million tonnes. Our sales portfolio represents a well-balanced combination of agricultural and industrial products, providing flexibility to optimize our product mix during changing market conditions. Agriculture sales represent approximately 60 percent of our nitrogen sales.

Our North American operations are situated in market, providing a selling and delivery advantage. The operations have access to some of the lowest cost natural gas feedstock in the world and represent approximately 80 percent of our total nitrogen sales volume. We have an extensive network of almost 200 terminals and warehouses with over 1.3 million tonnes of storage capacity, providing the ability to place product and service customers very efficiently.

Our Trinidad operations are advantageously situated on tide water, where we deliver to approximately 30 countries, with a focus on industrial end markets. Gas costs in Trinidad are primarily indexed to ammonia prices, which provides margin stability. We also have an investment in a world-scale nitrogen facility in Argentina, which fits well to serve the growing agricultural markets in South America.

One of Nutrien's strategic priorities is to be a leader in sustainability in the agricultural sector. We have made investments to reduce the carbon footprint associated with our nitrogen production including increasing blue/low carbon ammonia production capability. We also have many nitrogen-based fertilizer products that provide an innovative and effective role in reducing farming's environmental footprint, including our proprietary slow release environmentally smart nitrogen.

Competitive Landscape

Production of nitrogen is the most geographically diverse of the three primary nutrients due to the widespread availability of hydrogen sources.

Ammonia is primarily consumed close to the regions in which it is produced due to the high cost of transportation, whereas urea and nitrogen solutions are more widely transported and traded. We compete with other producers in Canada, the US and several offshore suppliers.

The US remains one of the largest importers of nitrogen and a key driver of global trade despite a significant increase in domestic capacity and production over the past few years. In developed regions of the world, nitrogen producers are focused on reducing CO_2 emissions. This has expanded industry opportunity as we look for more efficient and environmentally friendly production methods and application of nitrogen products.

Our Strategy

Nutrien is growing the nitrogen business through network optimization and strategic capacity expansion. We are also enhancing our competitive cost position and expanding our product portfolio.

Reliability, efficiency and productivity: We are investing in short-payback projects that improve safety, increase production and improve efficiency. In addition to higher production levels, these initiatives minimize production costs and provide a safe environment for our employees. We will continue to optimize our Nitrogen network to best leverage the production flexibility of our low-cost facilities and our extensive distribution network, capitalizing on the benefits of our integrated model that includes our Retail business.

LEARN MORE
Well Positioned Nitrogen Operations p17

Brownfield capacity expansion: We are growing and improving the position of our assets through low risk, high-return projects that enhance our product mix, improve our energy efficiency and expand our North American capacity. We are evaluating potential nitrogen projects that include 700,000 tonnes of additional capacity at a fraction of the cost of a greenfield plant and the long-term potential for producing green ammonia.

Sustainability leader: We are reducing the carbon footprint of our nitrogen operations through energy efficiency, carbon capture and CO_2 abatement initiatives. We are also expanding our portfolio of sustainable products including blue/low carbon ammonia, ESN and DEF.

2020 Performance

We set a historical record for manufactured nitrogen sales volumes of 11 million tonnes while achieving the best safety performance on record despite the lower global nitrogen demand in 2020.

We achieved record sales volumes in nitrogen in 2020, despite impacts that COVID-19 had on industrial demand. Optimization initiatives in our production network contributed to our ammonia operating rate increasing to 93 percent, while our ammonia controllable cash cost of product manufactured decreased by $2 per tonne.

We continued to advance on multi-year brownfield projects that are expected to increase total gross product capacity by approximately 1 million tonnes between 2018 and 2021 at a total estimated cost of $330 million. These projects also increase production efficiencies and reduce emissions throughout our network. The cost of these projects is significantly lower and quicker to bring online than greenfield economics.

Due to historically low global ammonia prices we curtailed production at our Trinidad facility in 2020, while maintaining flexibility to respond to improvement in market conditions.

Sales of our ESN and DEF products in 2020 grew by 8 percent and we captured approximately 1 million tonnes of CO_2 equivalent.

N

NITROGEN MANUFACTURED PRODUCT SALES VOLUMES

(million tonnes)



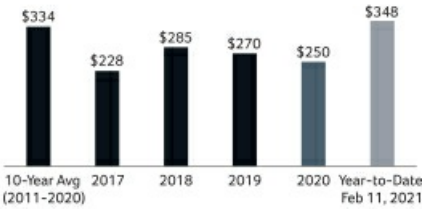
Source: Nutrien

1 2017 represents the historical combined results of PotashCorp and Agrium.

2 Based on nitrogen manufactured product sales volume guidance as provided on February 17, 2021.

US NOLA FOB UREA PRICE

($/tonne)



Source: CRU

2020 MARKET CONDITIONS

Despite lower nitrogen demand for industrial use in 2020, we estimate fertilizer demand for agricultural use in 2020 was the strongest in several years, despite the COVID-19 pandemic.

Lower global energy prices in the first three quarters of 2020 reduced nitrogen production costs in many regions, particularly in Europe and China. This, combined with weaker industrial demand due to reduced industrial activity and the global economic decline, resulted in lower nitrogen prices, particularly for ammonia in the first half of 2020. However, later in 2020 and into early 2021 we have seen higher energy prices in key producing regions, an improved agricultural outlook, combined with recovering industrial demand all of which supported global nitrogen markets. Meanwhile, production curtailments and outages, particularly in Trinidad, further contributed to tightened ammonia supply and demand fundamentals.

Strong urea import demand in India, totaling 10.3 million tonnes in 2020, played an essential role in supporting world urea markets. Brazil also imported record volumes of urea in 2020 of 7.1 million tonnes. Chinese urea exports were limited throughout much of the year by strong domestic fertilizer demand and limited exportable surplus, but the pace increased later in the year in response to strong global demand, resulting in exports of 5.5 million tonnes in 2020.

MARKET OUTLOOK

The combination of higher energy prices, improved global industrial nitrogen demand, coupled with strong crop prices and robust fertilizer demand growth, should support the nitrogen market in 2021.

European gas and global liquified natural gas prices have increased and the forward gas price curve indicates a significantly higher seasonal bottom in 2021 than 2020, which should lift global nitrogen production costs, particularly in Europe. In China, natural gas supply shortages and increasing coal prices are also expected to increase costs compared to historically low levels in 2020.

In the US, higher plantings, a positive outlook for the spring application season and significantly lower offshore imports supported urea prices entering 2021. Despite the potential for increased domestic urea production, we believe India will maintain imports between 9 and 10 million tonnes in 2021. We expect that Chinese urea exports will decline in 2021 to between 3 and 5 million tonnes as domestic demand remains strong, supported by robust agricultural fundamentals and more stringent environmental regulations which are likely to reduce exportable supplies.

While we expect some urea projects to come online in the second half of 2021, recent history suggests that some projects are likely to be delayed. Given the slower pace of projects anticipated to come on stream after 2021, we expect demand growth will outpace capacity additions in the next few years.

We expect global energy prices to increase in 2021 relative to 2020 and for North American natural gas price discounts to widen relative to other markets.

NITROGEN FINANCIAL PERFORMANCE

(millions of US dollars, except as otherwise noted)	Dollars			Tonnes (thousands)			Average per Tonne		
	2020	2019	% Change	2020	2019	% Change	2020	2019	% Change
Manufactured product									
Net sales									
Ammonia	621	743	(16)	2,778	2,971	(6)	224	250	(10)
Urea	933	932	–	3,475	3,037	14	268	307	(13)
Solutions, nitrates and sulfates	668	706	(5)	4,713	4,262	11	142	166	(14)
	2,222	2,381	(7)	10,966	10,270	7	203	232	(13)
Cost of goods sold	1,804	1,749	3				165	170	(3)
Gross margin – manufactured	418	632	(34)				38	62	(39)
Gross margin – other [1]	57	68	(16)	**Depreciation and amortization**			55	52	6
Gross margin – total	475	700	(32)						
Income [2]	(225)	(4)	n/m	**Gross margin excluding depreciation and amortization – manufactured**			93	114	(18)
EBIT	700	704	(1)						
Depreciation and amortization	599	535	12	**Ammonia controllable cash cost of product manufactured**			43	45	(4)
EBITDA	1,299	1,239	5						
Adjustments [2]	(219)	–	n/m						
Adjusted EBITDA	1,080	1,239	(13)						

1 Includes other nitrogen (including ESN® and Rainbow) and purchased products and is comprised of net sales of $518 million (2019 – $467 million) less cost of goods sold of $461 million (2019 – $399 million).

2 The adjustments consist primarily of the net gain on disposal of investment in MOPCO, which was recorded in other income. See Note 3 to the financial statements.

The most significant contributors to the changes in our Nitrogen financial performance were as follows:

	2020 vs 2019
Sales volumes	Sales volumes increased in 2020 due to recent expansion projects and strong operating rates at our North American facilities. Ammonia sales volumes decreased slightly due to reduced industrial demand and a plant closure in Trinidad.
Net realized selling price	Our average selling price for nitrogen products decreased in 2020 due to lower global and North American benchmark prices.
Cost of goods sold per tonne	Costs were slightly lower in 2020 due to lower natural gas prices and lower fixed costs. This more than offset higher depreciation and amortization per tonne related to expansion and turnaround work completed in late 2019.
Income	Other income increased due to a gain of $250 million recognized from the $540 million sale of our equity-accounted investment in MOPCO and settlement of related legal claims.
Adjusted EBITDA	Adjusted EBITDA decreased in 2020 primarily due to lower net realized selling prices more than offsetting higher sales volumes and lower cash cost of goods sold per tonne.

NATURAL GAS PRICES IN COST OF PRODUCTION

(US dollars per MMBtu, except as otherwise noted)	2020	2019	% Change
Overall gas cost excluding realized derivative impact	2.31	2.47	(6)
Realized derivative impact	0.05	0.11	(55)
Overall gas cost	2.36	2.58	(9)
Average NYMEX	2.08	2.63	(21)
Average AECO	1.68	1.22	38

N

	2020 vs 2019
Overall gas cost	Gas prices in our cost of production decreased in 2020 as lower US and Trinidad gas prices and a lower realized derivative impact more than offset higher Canadian gas prices.

SELECTED NITROGEN MEASURES

	2020	2019
Sales volumes (tonnes - thousands)		
Fertilizer	6,750	5,554
Industrial and feed	4,216	4,716
Net sales (millions of US dollars)		
Fertilizer	1,467	1,466
Industrial and feed	755	915
Net selling price per tonne		
Fertilizer	217	264
Industrial and feed	179	194

NITROGEN GROSS MARGIN, NET SELLING PRICE AND NATURAL GAS COST



NITROGEN SALES VOLUMES

(million tonnes)

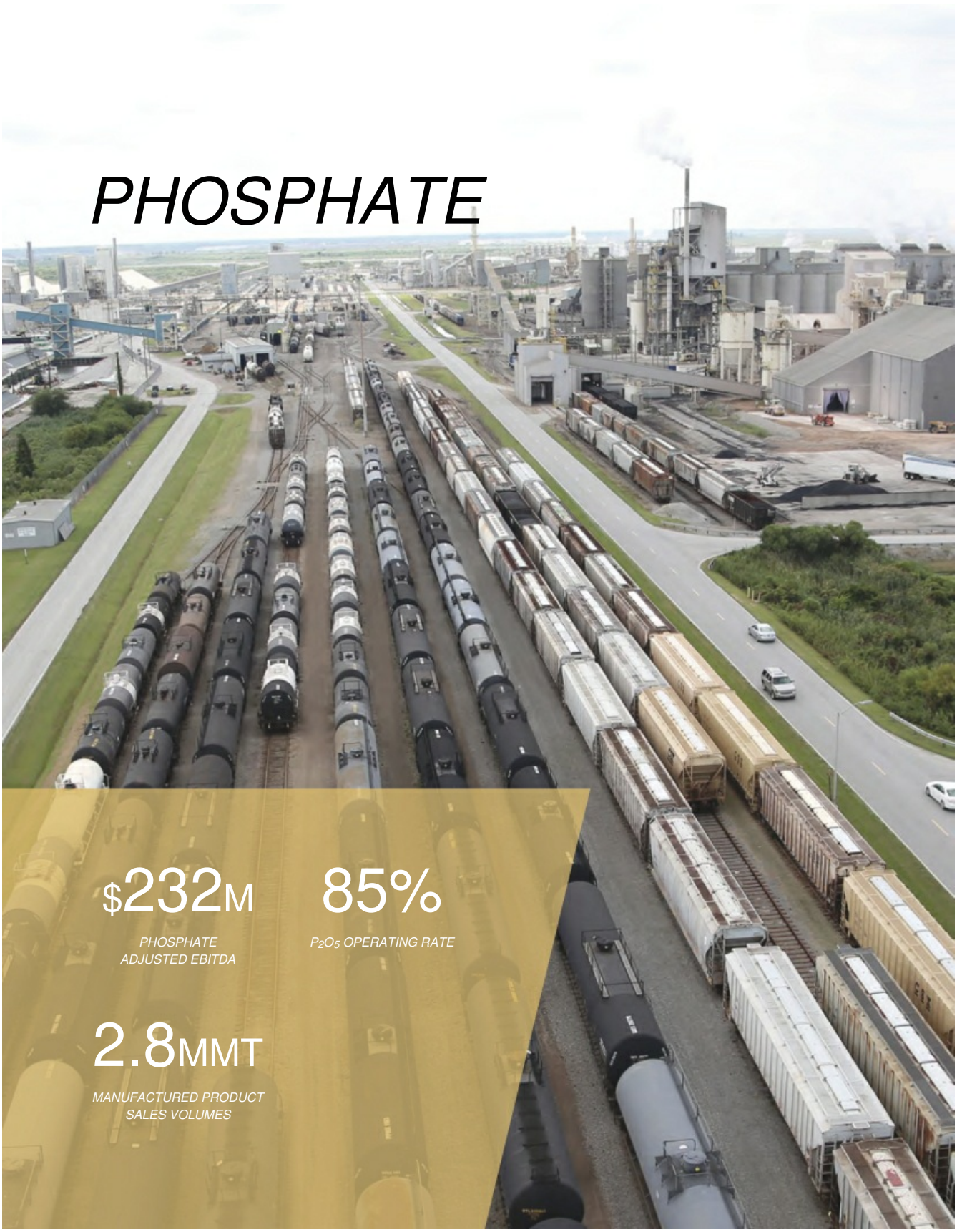


NITROGEN PRODUCTION

	Ammonia [1]			Urea [2]		
		Production			Production	
(million tonnes product)	Annual Capacity [3]	2020	2019	Annual Capacity [3]	2020	2019
Trinidad Nitrogen [4]	2.2	1.57	1.76	0.7	0.73	0.66
Redwater Nitrogen	0.9	0.85	0.76	0.7	0.75	0.60
Augusta Nitrogen	0.8	0.66	0.70	0.5	0.46	0.51
Lima Nitrogen	0.7	0.61	0.68	0.5	0.40	0.48
Geismar Nitrogen	0.5	0.55	0.54	0.4	0.35	0.33
Carseland Nitrogen	0.5	0.55	0.45	0.8	0.74	0.61
Fort Saskatchewan Nitrogen	0.5	0.48	0.48	0.4	0.44	0.45
Borger Nitrogen	0.5	0.40	0.37	0.6	0.53	0.46
Joffre Nitrogen	0.5	0.39	0.42	–	–	–
Total	7.1	6.06	6.16	4.6	4.40	4.10
Ammonia operating rate [5]		93	91			

1 All figures are shown on a gross production basis.
2 Reflects capacity and production of urea liquor prior to final product upgrade. Urea liquor is used in the production of solid urea, UAN and DEF.
3 Annual capacity estimates include allowances for normal operating plant conditions.
4 In 2020, we indefinitely closed one of our four ammonia plants in Trinidad in response to market conditions and lower global prices for ammonia.
5 Excludes Trinidad and Joffre.

PHOSPHATE



$232M

PHOSPHATE ADJUSTED EBITDA

85%

P_2O_5 OPERATING RATE

2.8MMT

MANUFACTURED PRODUCT SALES VOLUMES

PHOSPHATE OPERATING ENVIRONMENT

P

Our Business

We are the second largest phosphate producer in North America and sell approximately 3 million tonnes of finished product.

Nutrien has two integrated phosphate facilities in the US, both located near key fertilizer consuming markets and industrial customers.

Due to the high quality of our phosphate rock, we can produce a diverse mix of phosphate products,

including solid and liquid fertilizers, feed and industrial acids.

Competitive Landscape

Phosphate rock is found in significant quantity and quality in only a handful of geographic locations, and few with a progressive ethical and sustainability record.

Many factors impact the viability of developing a rock deposit for mining. These include the quality of the phosphate rock, government stability and subsidies, access to financing, environmental requirements and proximity to target markets. Given the concentration of deposits in North Africa and the Middle East, government stability is a major consideration when evaluating

potential phosphate projects. Significant low-cost capacity has been commissioned over the past few years, including most notably in Morocco and Saudi Arabia. The ability of these countries and others to add low-cost capacity and operate under less stringent environmental regulation, is resulting in a long-term oversupply in the global market.

We compete with producers primarily from China, Morocco, Russia, Saudi Arabia and the US. To produce finished phosphate products (DAP, MAP), access to low-cost ammonia and sulfur is also an important consideration.

Our Strategy

We are focused on optimizing our plant sites, driving our rock costs down further, and evaluating opportunities to increase production of higher-margin product.

We will leverage the quality and capabilities of our assets to produce and sell higher-margin industrial

and specialty fertilizer. We will advance continuous improvement to enhance the reliability and safety

of our assets while generating positive cash flows.

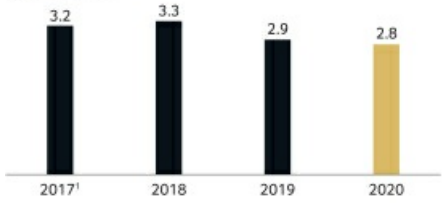
2020 Performance

In 2020 we lowered production costs per tonne and achieved record safety performance.

We achieved record safety results and lowered production costs per tonne partly attributed to eliminating the need for imported phosphate rock. We also entered into an agreement with Arkema Inc. to produce anhydrous hydrofluoric acid at our Aurora site, which is expected to provide a stable stream of earnings starting in 2022.

PHOSPHATE MANUFACTURED PRODUCT SALES VOLUMES

(million tonnes)

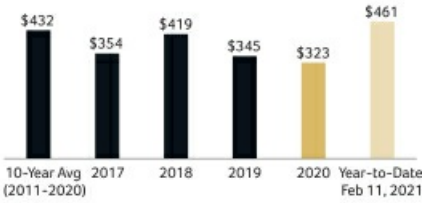


Source: Nutrien

1 2017 represents the historical combined results of PotashCorp and Agrium.

US TAMPA FOB DAP PRICE

($/tonne)



Source: CRU

2020 MARKET CONDITIONS

Global phosphate prices benefited from improved agricultural fundamentals and strong import demand in key markets particularly in Brazil and India.

Brazil imported record volumes of MAP and DAP in 2020 amid favorable crop prices. India's DAP imports were largely flat in 2020 compared to the previous year, but we believe DAP stocks in India ended the year at very low levels. The combination of strong demand in Brazil and India in the second half of 2020 tightened the global supply and demand balance, leading to a rebound from historically low prices. Meanwhile, a US countervailing duty petition against Moroccan and Russian phosphates in June 2020 further increased US domestic prices.

Chinese phosphate exports declined in 2020 as suppliers were largely focused on their domestic market due to better margins, low inventories and COVID-19 related production impediments. Although Morocco continued to increase dry phosphate exports throughout 2020, global supplies did not keep pace with the strong demand in the second half of the year.

MARKET OUTLOOK

We expect the phosphate market to remain firm in the near-term but with longer term uncertainty.

Raw material costs continue to increase, which has been supportive of phosphate prices and are expected to provide a higher floor in 2021. Global phosphate consumption is forecast to grow at approximately 1.5 percent, with demand growth projected for South Asia, North America and Latin America, partly offset by expected additional supplies from Morocco. However, we believe the ability of key low-cost global producers to continue to add capacity could limit the longevity of the recent recovery in prices in the medium term.

P

PHOSPHATE FINANCIAL PERFORMANCE

(millions of US dollars, except as otherwise noted)	Dollars			Tonnes (thousands)			Average per Tonne		
	2020	2019	% Change	2020	2019	% Change	2020	2019	% Change
Manufactured product									
Net sales									
Fertilizer	671	790	(15)	2,048	2,130	(4)	328	371	(12)
Industrial and feed	404	426	(5)	733	759	(3)	552	561	(2)
	1,075	1,216	(12)	2,781	2,889	(4)	387	421	(8)
Cost of goods sold	1,044	1,218	(14)				376	422	(11)
Gross margin – manufactured	31	(2)	n/m				11	(1)	n/m
Gross margin – other [1]	5	(3)	n/m	**Depreciation and amortization**			78	82	(5)
Gross margin – total	36	(5)	n/m						
Expenses	791	38	n/m	**Gross margin excluding depreciation and amortization – manufactured**			89	81	10
EBIT	(755)	(43)	n/m						
Depreciation and amortization	218	237	(8)						
EBITDA	(537)	194	n/m						
Impairment of assets	769	–	n/m						
Adjusted EBITDA	232	194	20						

1 Includes other phosphate and purchased products and is comprised of net sales of $127 million (2019 – $152 million) less cost of goods sold of $122 million (2019 – $155 million).

The most significant contributors to the changes in our Phosphate financial performance were as follows:

	2020 vs 2019
Sales volumes	Sales volumes decreased in 2020 from the conversion of the Redwater phosphate facility in the first half of 2019 to produce ammonium sulfate for our Nitrogen segment and from a lower operating rate.
Net realized selling price	Our average realized phosphate fertilizer prices decreased in 2020 consistent with lower global benchmark prices compared to 2019.
Cost of goods sold per tonne	Costs decreased in 2020 due to a change in estimate in the second quarter related to an asset retirement obligation, favorable non-cash inventory adjustments and lower raw material costs.
Impairment of assets	In 2020, we recorded non-cash impairments of assets relating to our property, plant and equipment at Aurora and White Springs of $545 million and $215 million, respectively, primarily due to lower long-term forecasted global phosphate prices. See the "Critical Accounting Estimates" section of this MD&A and Note 13 to the financial statements.
Adjusted EBITDA	Adjusted EBITDA increased in 2020 due to the impact of the change in estimates for our asset retirement obligation and favorable non-cash inventory adjustments more than offsetting lower net realized selling prices.

PHOSPHATE GROSS MARGIN AND NET SELLING PRICE

($ per tonne)



Source: Nutrien

PHOSPHATE SALES VOLUMES

(million tonnes)



Source: Nutrien

PHOSPHATE PRODUCTION

(million tonnes)	Phosphate Rock Annual Capacity	Phosphate Rock Production 2020	Phosphate Rock Production 2019	Phosphoric Acid (P_2O_5) Annual Capacity	Phosphoric Acid (P_2O_5) Production 2020	Phosphoric Acid (P_2O_5) Production 2019	Liquid Products Annual Capacity	Liquid Products Production 2020	Liquid Products Production 2019	Solid Fertilizer Products Annual Capacity	Solid Fertilizer Products Production 2020	Solid Fertilizer Products Production 2019
Aurora Phosphate	5.4	3.94	4.38	1.2	0.98	1.02	2.7[1]	1.99	2.01	0.8	0.83	0.85
White Springs Phosphate	2.0	1.81	1.61	0.5	0.46	0.49	0.7[2]	0.43	0.50	0.8	0.35	0.24
Total producing locations	7.40	5.75	5.99	1.70	1.44	1.51	3.40	2.42	2.51	1.60	1.18	1.09
Redwater Phosphate [3]	–	–	–	–	–	0.10	–	–	–	–	–	0.21
Total	7.40	5.75	5.99	1.70	1.44	1.61						
P_2O_5 operating rate					85	89						

1 A substantial portion is consumed internally in the production of downstream products. The balance is exported to phosphate fertilizer producers or sold domestically to dealers who custom mix liquid fertilizer. Capacity comprised 2.0 million tonnes merchant grade acid and 0.7 million tonnes superphosphoric acid.

2 Represents annual superphosphoric acid capacity. A substantial portion is consumed internally in the production of downstream products. The balance is exported to phosphate fertilizer producers and sold domestically to dealers who custom mix liquid fertilizer.

3 Phosphate operations at Redwater ceased in May 2019 and that facility is now used to produce ammonium sulfate for our Nitrogen operations.

In addition to the production above, annual capacity (in millions of tonnes) for phosphate feed and purified acid was 0.7 and 0.3, respectively. Production in 2020 was 0.31 and 0.20, respectively, and 2019 production was 0.30 and 0.21, respectively.

CORPORATE AND OTHERS FINANCIAL PERFORMANCE

"Corporate and Others" is a non-operating segment comprising corporate and administrative functions that provide support and governance to our operating business units. Eliminations of sales between operating segments in 2020 were $1,115 million (2019 – $1,060 million) with gross margin recovery of $21 million (2019 – $5 million). Eliminations are not part of the Corporate and Others segment.

(millions of US dollars, except as otherwise noted)	2020	2019	% Change
Sales [1]	82	133	(38)
Cost of goods sold	74	133	(44)
Gross margin	8	–	n/m
Selling expenses	(24)	(18)	33
General and administrative expenses	269	264	2
Provincial mining and other taxes	2	2	–
Share-based compensation expense	69	104	(34)
Impairment of assets	5	120	(96)
Other expenses	228	171	33
EBIT	(541)	(643)	(16)
Depreciation and amortization	52	42	24
EBITDA	(489)	(601)	(19)
Adjustments [2]	203	364	(44)
Adjusted EBITDA	(286)	(237)	21

1 Primarily relates to our non-core Canadian business that was sold in 2020.
2 See Note 3 to the financial statements.

The most significant contributors to the changes in our Corporate and Others financial performance were as follows:

	2020 vs 2019
Share-based compensation expense	Share-based compensation expense was lower in 2020 due to lower payout amounts and lower share-based award fair values.
Impairment of assets	In 2019, there were certain individually insignificant impairments of intangible assets and property, plant and equipment related primarily to changes to our future plans for those assets.
Other expenses	Increase in expense is due to COVID-19 related expenses, higher acquisition and integration related expenses and higher project costs related to our Retail enterprise resource planning system as part of our digital transformation in 2020. These were partially offset by Merger and related costs incurred in 2019 with no comparative in 2020. COVID-19 expenses are directly attributable and incremental to the pandemic and primarily consist of increased cleaning and sanitization costs, the purchase of personal protective equipment, discretionary supplemental employee costs and costs related to construction delays from access limitations and other government restrictions.

FINANCE COSTS, INCOME TAX (RECOVERY) EXPENSE AND OTHER COMPREHENSIVE INCOME

(millions of US dollars, except as otherwise noted)	2020	2019	% Change
Finance costs	520	554	(6)
Income tax (recovery) expense	(77)	316	n/m
Other comprehensive income	194	36	439

The most significant contributors to the changes in our finance costs, income tax expense and other comprehensive income were as follows:

2020 vs 2019

Finance costs

Finance costs decreased slightly as lower interest rates more than offset higher finance costs incurred as we managed our immediate liquidity position during the initial months of the COVID-19 pandemic.

Weighted Average Debt Balances and Rates
(millions of US dollars, except as otherwise noted)

	2020	2019
Short-term balance [1]	2,329	1,324
Short-term rate (%) [1]	1.7	4.5
Long-term balance (excluding lease obligations)	9,282	8,534
Long-term rate (excluding lease obligations) (%)	4.5	4.7
Lease obligations balance	1,089	1,024
Lease obligations rate (%)	3.1	3.4

1 North American weighted average short-term debt balances were $2,092 million (2019 – $1,063 million) and rates were 1.4 percent (2019 – 2.4 percent).

Income tax (recovery) expense

There was an income tax recovery in 2020 compared to an expense in 2019 primarily due to significantly lower earnings and discrete tax adjustments in 2020. The discrete tax adjustments in 2020 were primarily related to recoveries of prior year taxes due to US legislative changes. The change in effective tax rate is a result of a change in the proportionate earnings (loss) between jurisdictions.

Effective Tax Rates and Discrete Items
(millions of US dollars, except as otherwise noted)

	2020	2019
Actual effective tax rate on earnings (%)	3	24
Actual effective tax rate including discrete items (%)	(20)	24
Discrete tax adjustments that impacted the rate	(80)	2

Other comprehensive income

Other comprehensive income increased primarily due to a higher gain on translation of our Retail operations in Australia as the Australian dollar strengthened relative to the US dollar. There was also an increase in the net actuarial gain on our defined benefit pension plans.



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FINANCIAL HIGHLIGHTS

(millions of US dollars, except as otherwise noted)	2020	2019	2018
Sales [1]	20,908	20,084	19,636
Net earnings (loss) from continuing operations	459	992	(31)
Basic net earnings (loss) per share from continuing operations	0.81	1.70	(0.05)
Diluted net earnings (loss) per share from continuing operations	0.81	1.70	(0.05)
Net earnings	459	992	3,573
Basic net earnings per share	0.81	1.70	5.72
Diluted net earnings per share	0.81	1.70	5.72
Total assets	47,192	46,799	45,502
Total non-current financial liabilities	10,947	9,431	7,616
Dividends declared per share	1.80	1.33	2.06

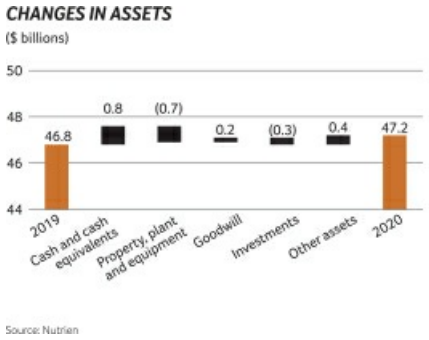
1 Certain immaterial figures have been reclassified for the year ended December 31, 2019.

	2020 vs 2019	2019 vs 2018
Sales	Sales increased as higher Retail sales from acquisitions and strong organic growth coupled with higher potash and nitrogen sales volumes, more than offset the impact of lower crop nutrient selling prices.	Sales increased primarily due to Retail acquisitions and higher potash realized prices, driven by higher global benchmark pricing in the first half of 2019, more than offsetting lower potash and nitrogen volumes.
Net earnings and earnings per share from continuing operations		We had earnings from continuing operations in 2019 compared to a loss from continuing operations in 2018, which was impacted by a non-cash impairment of property, plant and equipment in the Potash segment of $1,809 million. The repurchase of more than 36 million shares in 2019 positively impacted the 2019 per share amount.
Net earnings and earnings per share	Net earnings and earnings per share decreased compared to 2019 due to a non-cash impairment of our Phosphate property, plant and equipment at Aurora and White Springs and lower manufactured product margins from lower crop nutrient selling prices more than offsetting a net gain from disposal of our investment in MOPCO.	Net earnings and earnings per share were lower than 2018 primarily due to the 2018 gain on sale of our equity investments presented as discontinued operations offset by the 2018 non-cash impairment of property, plant and equipment in the Potash segment. The repurchase of more than 36 million shares in 2019 positively impacted the 2019 per share amount.
Assets and non-current financial liabilities	Assets increased slightly from 2019. Recent acquisitions and higher cash and cash equivalents offset the non-cash impairment of assets and disposal of our investment in MOPCO in 2020. Non-current financial liabilities increased due to higher long-term debt from the issuance of new notes.	Assets increased primarily due to Retail acquisitions and the addition of right-of-use assets from the adoption of IFRS 16, "Leases", partially offset by a decrease in cash and cash equivalents. Non-current financial liabilities increased primarily due to additional lease liabilities recognized upon the adoption of IFRS 16, "Leases", Retail acquisitions and the issuance of notes, partially offset by the repayment of notes.

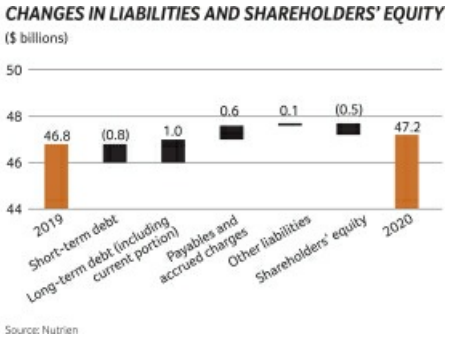
FINANCIAL CONDITION REVIEW

BALANCE SHEET ANALYSIS

The most significant contributors to the changes in our balance sheet are analyzed below.



Source: Nutrien



Source: Nutrien

Assets

For information regarding changes in **cash and cash equivalents,** refer to the "Sources and Uses of Cash" section and the consolidated statements of cash flows in our financial statements.

Property, plant and equipment decreased due to non-cash impairments recorded in 2020 primarily related to the phosphate-related assets.

Goodwill increased as a result of additional goodwill from the recent Retail acquisitions, primarily in Brazil.

Investments decreased as we sold our equity-accounted investment in MOPCO.

Other assets increased due to additional long-term income tax receivables recognized related to the US legislative changes (CARES Act) and higher accrued pension benefit assets from changes in actuarial assumptions.

Liabilities

Short-term debt decreased as we continue to manage our working capital needs.

Long-term debt (including current portion) increased due to the addition of $1.5 billion in notes issued in May 2020 exceeding the repayment of $500 million in notes that matured earlier in 2020.

Payables and accrued charges increased due to a shift in timing of vendor payments and additional vendor prepayment arrangements, whereby we made financial commitments to vendors to prepay for inventory in return for product discounts.

Shareholders' Equity

Retained earnings decreased due to dividends declared exceeding net earnings.

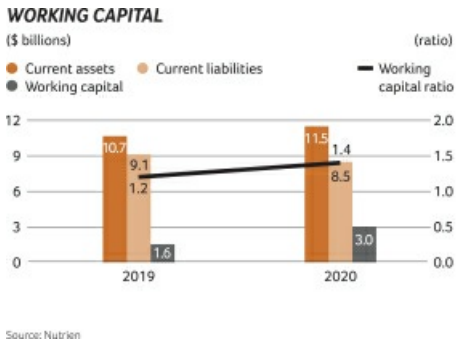
We do not hold material cash and cash equivalents in currencies other than the US dollar and Canadian dollar. We held approximately $200 million US dollar equivalent in Australia and South America. We do not depend on repatriation of cash from our foreign subsidiaries to meet our liquidity and capital resources needs in North America.

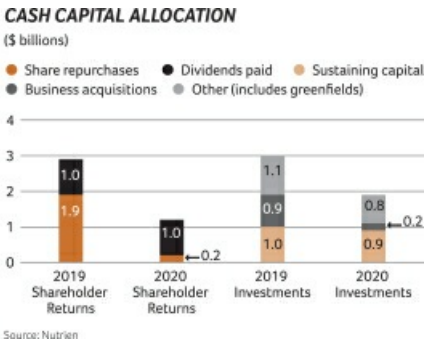
LIQUIDITY AND CAPITAL RESOURCES

SOURCES AND USES OF LIQUIDITY

Liquidity risk arises from our general funding needs and in the management of our assets, liabilities and capital structure. We manage liquidity risk to maintain sufficient liquid financial resources to fund our financial position and meet our commitments and obligations in a cost-effective manner. Our 2020 significant liquidity sources are listed below along with our expected ongoing primary uses of liquidity.

	Primary Uses of Liquidity	Primary Sources of Liquidity
	• operational expenses and prepayments • seasonal working capital requirements • sustaining and investing capital • business acquisitions • dividends and share repurchases • principal payments of debt securities	• cash from operations (including customer prepayments) • commercial paper issuances • increase of credit facility limits and drawdowns • debt capital markets
2020 Key Sources and Uses Included:	• Invested to sustain and grow our safe, reliable and cost-efficient operations. Sustaining capital expenditures were $919 million. Investing capital expenditures were $511 million. • Returned cash to our shareholders through dividends and share repurchases (see Note 23 to the financial statements). Dividends paid were $1,030 million and share repurchases were $160 million. • Repaid at maturity $500 million of 4.875 percent notes. See Note 18 to the financial statements. • Repaid a net $650 million in commercial paper and had none issued as at December 31, 2020.	• Issued $1.5 billion of notes on May 13, 2020. See Note 18 to the financial statements. • Established $1.5 billion of new committed revolving credit facilities in March and April 2020, in response to the market uncertainty caused by the COVID-19 pandemic. We closed these credit facilities after the issuance of the new notes, as described above. In 2020, we drew down from and later repaid $3.5 billion of our revolving credit facilities to provide additional liquidity in the volatile market caused by the COVID-19 pandemic. We continue to monitor our liquidity position. • Received $540 million on disposal of our investment in MOPCO and settlement of related legal claims.



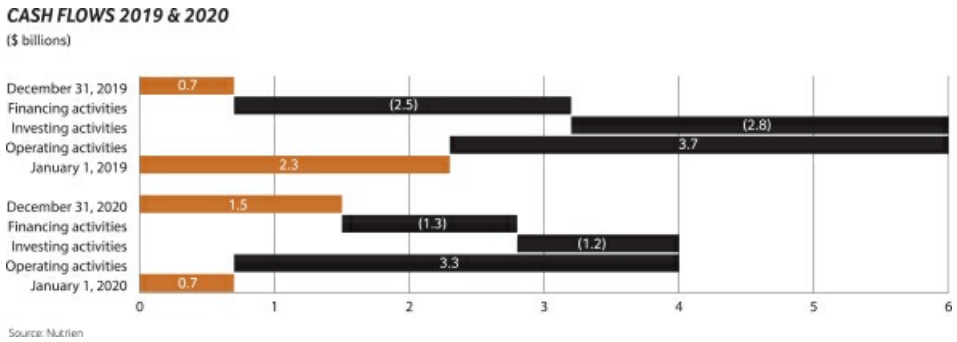


We believe that internally generated cash flow, supplemented by available borrowings under our existing financing sources, if necessary, will be sufficient to meet our anticipated capital expenditures and other cash requirements for the foreseeable future. We do not reasonably expect any presently known trend or uncertainty to affect our ability to access our historical sources of liquidity.

SOURCES AND USES OF CASH

Our cash flows from operating, investing and financing activities are summarized in the following table:

(millions of US dollars, except as otherwise noted)	2020	2019	% Change
Cash provided by operating activities	3,323	3,665	(9)
Cash used in investing activities	(1,204)	(2,798)	(57)
Cash used in financing activities	(1,339)	(2,479)	(46)
Effect of exchange rate changes on cash and cash equivalents	3	(31)	n/m
Increase (decrease) in cash and cash equivalents	783	(1,643)	n/m



Cash and cash equivalents increased by $783 million in 2020 compared to a decrease of $1,643 million in 2019, due to:

- proceeds of $540 million from the disposal of our investment in MOPCO and settlement of related legal claims,
- a decrease of $1.8 billion in share repurchases compared to the same period in 2019,
- a decrease of approximately $1 billion in Retail acquisitions and capital expenditures as we deferred or reduced capital projects mainly due to lower crop nutrient prices and COVID-19 precautions, and
- a decrease of approximately $500 million in long–term debt repayments compared to the same period in 2019.

The above factors were partially offset by:

- lower cash from our operating activities as a result of lower crop nutrient prices compared to 2019, and
- an increase of $1.1 billion in short-term net debt repayments compared to the same period in 2019 as a lower level of short-term debt was required in 2020 due to improved working capital.

CASH REQUIREMENTS

The following aggregated information about our contractual obligations and other commitments summarizes our liquidity and capital resource requirements as at December 31, 2020. The information presented in the table below does not include planned (but not legally committed) cash requirements. Planned or anticipated cash requirements that are not fully included in the table below include annual outflows for sustaining capital, investing capital, share repurchases, dividends and acquisitions. For information on income taxes and pension and other post retirement benefit funding, refer to Note 8 and Note 21, respectively, to the financial statements. Future cash requirements are subject to changes in regulations, actuarial assumptions, and our expected operating results.

On February 17, 2021, our Board approved a share repurchase program of up to a maximum of 28,468,448 or 5 percent of our outstanding common shares for cancellation. Subject to acceptance by the Toronto Stock Exchange, the 2021 share repurchase program will commence on March 1, 2021, and will expire on the earlier of February 28, 2022, the date on which we have acquired the maximum number of common shares allowable or the date we determine not to make any further repurchases.

(millions of US dollars) at December 31, 2020	Financial Statement Note Reference	Payments Due by Period				
		Total	Within 1 Year	1 to 3 Years	3 to 5 Years	Over 5 Years
Long-term debt	Note 18, 26	9,742	14	1,543	1,809	6,376
Estimated interest payments on long- term debt	Note 26	6,053	420	835	689	4,109
Lease liabilities	Note 19, 26	1,145	259	371	208	307
Estimated interest payments on lease liabilities	Note 26	160	22	37	25	76
Purchase commitments	Note 26	2,239	1,268	757	72	142
Capital commitments	Note 26	110	87	16	6	1
Other commitments	Note 26	430	132	118	53	127
Derivatives	Note 10	48	39	9	–	–
Asset retirement obligations and accrued environmental costs[1]	Note 22	2,788	124	225	145	2,294
Total		22,715	2,365	3,911	3,007	13,432

1 Commitments reflect the estimated cash outflows for these obligations. See Note 22 to the financial statements for details.

CAPITAL STRUCTURE AND MANAGEMENT

We manage our capital structure with a focus on maintaining a strong balance sheet, enabling a strong investment-grade credit rating.

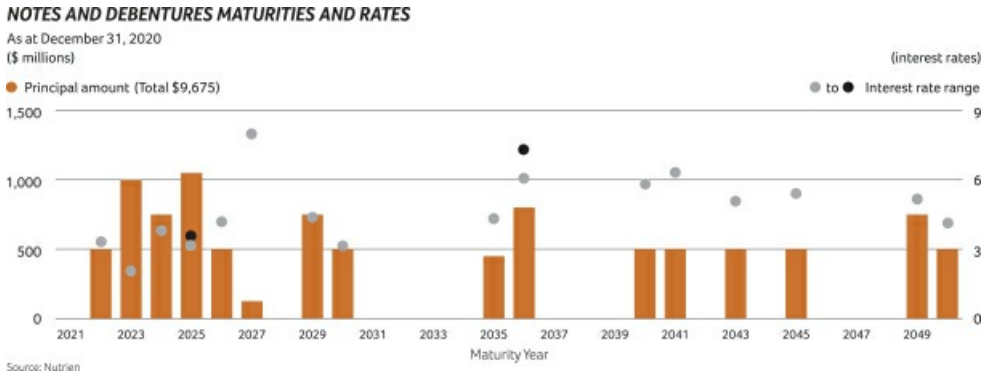
PRINCIPAL DEBT INSTRUMENTS

We use a combination of cash generated from operations and short-term and long-term debt to finance our operations. We have the following short-term debt instruments available:

(millions of US dollars)	Rate of Interest (%)	Total Facility Limit as at December 31, 2020	2020	2019
Credit facilities				
Unsecured revolving term credit facility [1]	Nil	4,500	–	–
Uncommitted revolving demand facility	Nil	500	–	–
Other credit facilities [2]	0.8 – 36.0	740	159	326
Commercial paper	Nil		–	650
Total			159	976

1 Matures April 10, 2023, subject to extension at the request of Nutrien provided that the resulting maturity date shall not exceed five years from the date of request.
2 Credit facilities are unsecured and consist of South American facilities with debt of $109 million (2019 – $149 million) and interest rates ranging from 1.7 percent to 36.0 percent, Australian facilities with debt of $19 million (2019 – $157 million) and an interest rate of 0.8 percent, and other facilities with debt of $31 million (2019 – $20 million) and an interest rate of 1.0 percent.

Our long-term debt consists primarily of notes and debentures with the following maturities and interest rates:



We also have lease obligations totaling $1,140 million (including current portion) with a weighted average effective interest rate of 2.9 percent as at December 31, 2020.

Following the decision by global regulators to replace Interbank Offered Rates ("IBORs") with alternative nearly risk-free rates ("RFRs"), in August 2020 the International Accounting Standards Board completed Phase 2 of the Interest Rate Benchmark Reform. We are in the process of identifying and updating existing contracts extending past 2021 that reference IBORs, and we expect no material impact to our financial statements as a result of the transition.

DEBT COVENANTS

Our credit facilities have financial tests and other covenants with which we must comply at each quarter-end. Non-compliance with any such covenants could result in accelerated payment of amounts borrowed and termination of lenders' further funding obligations under the credit facilities. We were in compliance with all such covenants as at December 31, 2020.

The accompanying table summarizes the limit and result of our key financial covenant.

At December 31	Limit	2020
Debt to capital ratio[1]	0.65:1.00	0.34:1.00

1 Refer to Note 24 to the financial statements for the detailed calculation.

CREDIT RATINGS

Our ability to access reasonably priced debt in the capital markets depends, in part, on the quality of our credit ratings. We continue to maintain investment-grade credit ratings for our long-term debt. A downgrade of the credit rating of our long-term debt could increase the interest rates applicable to borrowings under our credit facilities.

Commercial paper markets are normally a source of same-day cash for us. Our access to the US commercial paper market primarily depends on maintaining our current short-term credit ratings as well as general conditions in the money markets.

	Long-Term Debt Rating (Outlook)		Short-Term Debt Rating	
As at December 31,	2020	2019	2020	2019
Moody's	Baa2 (stable)	Baa2 (stable)	P-2	P-2
S&P	BBB (stable)	BBB (stable)	A-2	A-2

A security rating is not a recommendation to buy, sell or hold securities. Such ratings may be subject to revision or withdrawal at any time by the respective credit rating agency and each rating should be evaluated independently of any other rating.

OUTSTANDING SHARE DATA

	February 18, 2021
Common shares	569,790,353
Options to purchase common shares	10,295,789

For more information on **our capital structure and management,** see Note 24 to the financial statements.

For more information on **our short-term debt and long-term debt,** see Note 17 and Note 18 to the financial statements.

OFF-BALANCE SHEET ARRANGEMENTS

Principal off-balance sheet activities primarily include:

- Agreement to reimburse losses of Canpotex (see Note 29 to the financial statements).
- Issuance of guarantee contracts (see Note 22 and Note 27 to the financial statements).
- Agency arrangement with a financial institution in relation to certain customer loans (see Note 11 to the financial statements).
- Certain non-financial derivatives that were entered into and continued to be held for the purpose of the receipt or delivery of a non-financial item in accordance with expected purchase, sale or usage requirements. Other derivatives are included on our balance sheet at fair value (see Note 10 to the financial statements).

We do not reasonably expect any presently known trend or uncertainty to affect our ability to continue using these arrangements.

OTHER FINANCIAL INFORMATION

Related Party Transactions

Our most significant related party is Canpotex, which provides us with low-cost marketing and logistics for the offshore potash markets that we serve. Refer to Note 28 to the financial statements for information on our related party transactions.

Market Risks Associated With Financial Instruments

Market risk is the potential for loss from adverse changes in the market value of financial instruments. The level of market risk to which we are exposed varies depending on the composition of our derivative instrument portfolio, as well as current and expected market conditions. See Note 10 to the financial statements for information on our financial instruments, including the risks and risk management associated with such instruments.

Critical Accounting Estimates

We prepare our financial statements in accordance with IFRS, which requires us to make judgments, assumptions and estimates in applying accounting policies. Critical accounting estimates are those which are highly uncertain at the time they are made or where different estimates would be reasonably likely to have a material impact on our financial condition or results of operations. We have discussed the development, selection and application of our key accounting policies, and the critical accounting estimates and assumptions they involve, with the audit committee of the Board.

Financial Statement Reference [1]	Critical Accounting Estimate Description
Note 13 and Note 30	**Long-lived asset impairment**

In 2020, we identified an impairment indicator in our Phosphate cash-generating units ("CGUs") due to lower long-term forecasted global phosphate prices, and recorded impairments to our property, plant and equipment at Aurora and White Springs of $545 million and $215 million, respectively.

The recoverable amount of Aurora was determined using a fair value less costs of disposal ("FVLCD") methodology based on after-tax discounted cash flows (using a five-year projection and a terminal year thereafter to the expected mine life) discounted at a post-tax rate of 10.5%. The recoverable amount of White Springs was determined using a value in use methodology assuming an end of mine life in 2029 and a post-tax discount rate of 12.0%. The recoverable amounts of Aurora and White Springs are most sensitive to the following key assumptions: our internal sales price forecasts, which consider projections from an independent third-party data source, discount rates and expected mine life. We used key assumptions that were based on historical data and estimates of future results from internal sources, external price benchmarks, mineral reserve technical reports, as well as industry and market trends.

The following table highlights sensitivities to the recoverable amount, which could result in additional impairment losses or reversals of previously recorded losses. The sensitivities have been calculated independently of changes in other key variables.

	Aurora	
Key Assumptions	**Change in Assumption**	**Change in Recoverable Amount** (millions of US dollars)
Net selling price	±$10 per tonne	±150
Discount rate	±1.0 percentage point	±120

For our White Springs CGU, there were no reasonably possible changes in the key assumptions that would result in a substantial change in the recoverable amount.

In 2020, we performed impairment testing on the Trinidad CGU, part of our Nitrogen segment, due to the indefinite closure of an ammonia plant in response to market conditions and lower long-term forecasted global ammonia prices. No impairment resulted from comparing the carrying amount of the Trinidad CGU to its recoverable amount determined on a FVLCD methodology. FVLCD was based on after-tax discounted cash flows (using a five-year projection and a 2.0% terminal growth rate) discounted at a post-tax rate of 12.6%.

The following table indicates the percentages by which key assumptions would need to change individually for the estimated Trinidad CGU recoverable amount to be equal to the carrying amount:

Key Assumptions	**Change Required for Carrying Amount to Equal Recoverable Amount**
Net selling price (5-year average)	4 percent decrease
Production volumes (5-year average)	5 percent decrease
Discount rate (post-tax)	0.9 percentage point increase

Financial Statement Reference [1]	Critical Accounting Estimate Description
Note 14 and Note 30	**Goodwill impairment** Operating segments other than Phosphate have goodwill allocated to them that must be assessed for impairment when events or circumstances indicate there could be an impairment, or at least annually. Based on our assumptions at the time of our goodwill impairment testing, the excess of the recoverable amount of each of our CGUs or groups of CGUs containing goodwill was in excess of their carrying amounts. Key assumptions in our testing models may change, and changes that could reasonably be expected to occur may cause impairment. The excess of the recoverable amount of the Retail – North America group of CGUs over the carrying amount is $1.7 billion, which is 13 percent. The sensitivity of Retail – North America's recoverable amount to changes in key assumptions is as follows:

Key Assumptions	Percentage Point Change	Change in Recoverable Amount (millions of US dollars)
Discount rate	+0.1	(270)
	-0.1	280
Terminal growth rate	+0.1	240
	-0.1	(230)
Forecasted EBITDA over forecast period	+5.0	900
	-5.0	(900)

Note 25	**Business combinations – measurement of assets acquired and liabilities assumed** Significant judgment for our business combinations included identifying assets acquired and liabilities assumed, and estimation of their fair values. To determine fair values, we used quoted market prices or widely accepted valuation techniques. Key assumptions include discount rates and revenue growth rates specific to the acquired assets or liabilities assumed. We performed a thorough review of all internal and external sources of information available on circumstances that existed at the acquisition date. We also engaged independent valuation experts on certain acquisitions to assist in determining the fair value of certain assets acquired and liabilities assumed and related deferred income tax impacts. In 2020, all of the business combinations were in the Retail segment.
Note 8 and Note 29	**Income taxes – measurement** Significant estimates for the measurement of our income taxes include assessing the probability and measurement of our uncertain tax provisions related to complex global tax regulations, estimating forecasted taxable income and the timing of reversal of temporary differences, and assessing the probability of future taxable income used to recognize deferred tax assets. Although we believe our assumptions and estimates are reasonable, our tax assets are realizable and our accruals for tax liabilities are adequate for all open tax years based on our interpretation of tax laws and prior experience, actual results could differ. Changes in the income tax legislations, regulations and interpretations may result in a material impact to our financial statements. Income taxes are recorded in our Corporate and Others segment.
Note 22	**Asset retirement obligations ("AROs") and accrued environmental costs ("ERLs") – measurement** The Potash and Phosphate segments have these liabilities (which have a high degree of estimation uncertainty for future costs and estimated timelines) associated with their mining operations while the Corporate and Others segment has AROs and ERLs associated with non-operational mines. For the Nitrogen segment, we have not recorded any asset retirement obligations as no significant asset retirement obligations have been identified or there is no reasonable basis for estimating a date or range of dates of cessation of operations. We considered the historical performance of our facilities as well as our planned maintenance, major upgrades and replacements which can extend the useful lives of our facilities indefinitely.

1 Included in the notes are a description of the estimate and the methodology for calculating (when applicable) key areas of judgment related to the estimate and changes to the estimate (if any).

QUARTERLY RESULTS

(millions of US dollars, except as otherwise noted)	2020 Q4	2020 Q3	2020 Q2	2020 Q1	2019 Q4	2019 Q3	2019 Q2	2019 Q1
Sales [1]	4,052	4,227	8,431	4,198	3,462	4,185	8,704	3,733
Net earnings (loss)	316	(587)	765	(35)	(48)	141	858	41
Adjusted EBITDA	768	670	1,721	508	664	787	1,870	704
Net earnings per share ("EPS")								
Basic	0.55	(1.03)	1.34	(0.06)	(0.08)	0.25	1.48	0.07
Diluted	0.55	(1.03)	1.34	(0.06)	(0.08)	0.24	1.47	0.07

1 Certain immaterial figures have been reclassified in each quarter of 2019 and in the first three quarters of 2020.

Seasonality in our business results from increased demand for products during the planting season. Crop input sales are generally higher in the spring and fall application seasons. Crop nutrient inventories are normally accumulated leading up to each application season. Our cash collections generally occur after the application season is complete, while customer prepayments made to us are concentrated in December and January and inventory prepayments paid to our vendors are typically concentrated in the period from November to January. Feed and industrial sales are more evenly distributed throughout the year.

Since the fourth quarter of 2019, Potash earnings have been impacted by lower net realized selling prices caused by a temporary slowdown in global demand. In the third quarter of 2020, earnings were impacted by non-cash impairments of property, plant and equipment primarily in the Phosphate segment as a result of lower forecasted global phosphate prices. Earnings were impacted by a net gain from disposal of our MOPCO investment and settlement of related legal claims in the fourth quarter of 2020.

Fourth Quarter Financial Performance

(millions of US dollars, unless otherwise noted) Three months ended December 31	Sales 2020	Sales 2019	Sales % Change	Gross Margin 2020	Gross Margin 2019	Gross Margin % Change
Retail						
Crop nutrients	1,108	907	22	236	186	27
Crop protection products	828	635	30	343	281	22
Seed	152	99	54	58	60	(3)
Merchandise	240	211	14	41	44	(7)
Nutrien Financial	37	–	n/m	37	–	n/m
Services and other [1]	290	339	(14)	207	185	12
Nutrien Financial elimination [2]	(37)	–	n/m	(37)	–	n/m
Total	2,618	2,191	19	885	756	17

1 Certain immaterial figures have been reclassified for the three months ended December 31, 2019.
2 Represents elimination for the interest and service fees charged by Nutrien Financial to Retail branches.

(US dollars, unless otherwise noted) Three months ended December 31	Manufactured Product Sales Tonnes (thousands) 2020	2019	% Change	Manufactured Product Average Net Price per MT 2020	2019	% Change
Potash						
North America	1,041	651	60	192	226	(15)
Offshore	1,613	1,234	31	156	164	(5)
Sales	2,654	1,885	41	170	186	(9)
Cost of goods sold				116	112	4
Gross margin				54	74	(27)
Nitrogen						
Ammonia	730	571	28	216	245	(12)
Urea	853	695	23	270	278	(3)
Solutions, nitrates and sulfates	1,262	1,096	15	133	152	(13)
Sales	2,845	2,362	20	195	212	(8)
Cost of goods sold				162	171	(5)
Gross margin				33	41	(20)
Phosphate						
Fertilizer	466	466	–	387	334	16
Industrial and feed	182	181	1	551	581	(5)
Sales	648	647	–	433	403	7
Cost of goods sold				410	395	4
Gross margin				23	8	188

Highlights of our 2020 fourth quarter compared to the 2019 fourth quarter results were as follows:

	Q4 2020 vs Q4 2019
Retail	Gross margin increased due to higher sales from recent acquisitions in Brazil and improved weather conditions in the US and Australia. Selling expenses increased due to the acquisitions and higher sales activity, but decreased as a percentage of sales.
Potash	Gross margin increased from higher sales volumes due to strong domestic and offshore demand supported by improved crop prices, increased planted acreage in the US and strong fall application in North America in anticipation of higher planting in 2021. This was partially offset by decreased net realized selling prices due to lower year-over-year global benchmark prices as well as increased cost of goods sold per tonne as a result of higher depreciation and amortization related to production mix and the timing of maintenance projects relative to the fourth quarter of 2019. Cost of goods sold per tonne was positively impacted by higher production levels and production efficiencies.
Nitrogen	Gross margin increased from higher sales volumes across all product lines due to favorable weather conditions in North America supporting a strong application season and from a lower cost of goods sold per tonne resulting from lower depreciation and amortization per tonne which offset an increase in natural gas costs. These factors were partially offset by a lower net realized selling price, which was consistent with lower global and North American benchmark prices. Other income increased due to a gain on disposal of our MOPCO investment and settlement of related legal claims in the fourth quarter of 2020.
Phosphate	Gross margin increased due to a higher realized fertilizer selling price from a recovery in global benchmark prices which was partially offset by lower industrial and feed prices and was impacted by timing lags to benchmark prices. This was partially offset by an increase in cost of goods sold per tonne resulting from higher input costs and lower production volumes, which more than offset lower depreciation and amortization following the non-cash impairment in the third quarter of 2020.
Other fourth quarter financial highlights	Impairment of assets decreased from $87 million to $1 million primarily due to certain impairments of various intangible assets and property, plant and equipment recorded in the fourth quarter of 2019 with no similar impairments in the fourth quarter of 2020. Share-based compensation expense increased from $9 million to $60 million primarily due to an increase in share price in the fourth quarter of 2020 compared to a decrease in the fourth quarter of 2019. An income tax recovery was recorded in the fourth quarter of 2020 as the $250 million net gain on disposal of our investment in MOPCO did not increase income tax expense due to available capital losses. We also had discrete tax adjustments primarily related to recoveries of prior year taxes due to US legislative changes. An income tax recovery was recorded in the fourth quarter of 2019 due to a loss before income taxes. The change in the actual effective tax rate on earnings is a result of a change in the proportionate earnings (loss) between jurisdictions. We had higher cash flows in the fourth quarter of 2020 compared to the same period in 2019 from proceeds from disposal of investment in MOPCO and higher cash from operations from higher Retail sales and working capital improvements.

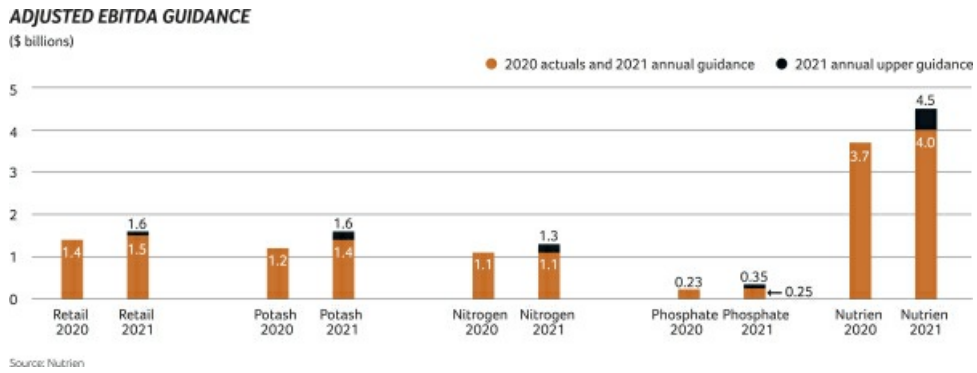
2021 GUIDANCE

(billions of US dollars except as otherwise noted)	2021 Guidance Ranges [1] Low	High
Adjusted net earnings per share ("Adjusted EPS") [2]	2.05	2.75
Adjusted EBITDA	4.0	4.5
Retail adjusted EBITDA	1.5	1.6
Potash adjusted EBITDA	1.4	1.6
Nitrogen adjusted EBITDA	1.1	1.3
Phosphate adjusted EBITDA (millions)	250	350
Potash sales tonnes (millions) [3]	12.5	13.0
Nitrogen sales tonnes (millions) [3]	10.9	11.4
Depreciation and amortization	1.9	2.0
Effective tax rate on adjusted earnings (%)	22	24
Sustaining capital expenditures	1.1	1.2

1 See the "Forward-Looking Statements" section.
2 Assumes 570 million shares outstanding for all EPS guidance and sensitivities.
3 Manufactured product only. Nitrogen sales tonnes excludes ESN® and Rainbow products.

ASSUMPTIONS

2021 Average Canadian to US dollar exchange rate	1.29
2021 NYMEX natural gas (US dollars per MMBtu)	2.80



2021 SENSITIVITIES

PRICE AND VOLUME SENSITIVITIES

(millions of US dollars, except EPS amounts)		Effect on Adjusted EPS	Adjusted EBITDA
Price	Potash changes by $25/tonne	± 0.35	± 260
	Ammonia changes by $25/tonne	± 0.06	± 47
	Urea changes by $25/tonne	± 0.11	± 82
Volume	Potash changes by 100,000 tonnes	± 0.01	± 11
	Nitrogen changes by 50,000 N tonnes	± 0.01	± 7
Retail	Crop nutrients changes by 1% [1]	± 0.07	± 55
	Crop protection changes by 1% [1]	± 0.07	± 54
	Seed changes by 1% [1]	± 0.03	± 20

1 Gross margin as a percentage of sales.

INPUT COST SENSITIVITIES

(millions of US dollars, except EPS amounts)		Effect on Adjusted EPS	Adjusted EBITDA
NYMEX natural gas price changes by $1/MMBTu	(impact on Nitrogen)	± 0.21	± 155
Canadian to US dollar changes by $0.02		± 0.02	± 14

ENTERPRISE RISK MANAGEMENT

Nutrien integrates risk management into our strategic and business activities to facilitate informed risk taking. We focus on identifying and managing risks that are critical to achieving our strategic objectives.

Risk Governance

Risk management is governed by our Board and Board committees, who oversee our Executive Leadership Team in understanding the principal risks to our business and strategy. Responsibility and accountability for risk management are embedded in all levels of our organization, and we strive to integrate risk management into key decision-making processes and strategy. By considering risk throughout our business, we seek to align our strategy with our vision and effectively manage the risks that could have an impact on our ability to deliver our strategy.

COVID-19 Update

We are continually assessing and responding to the effects of the COVID-19 pandemic on our employees, customers. and suppliers, and evaluating governmental and other public health authority actions being taken to curtail its spread. Our operations have been designated as part of critical infrastructure and as essential businesses (or equivalents) in our core markets, allowing us to continue to operate. We have implemented COVID-19 safety protocols across our operations to help protect and support our employees, customers and suppliers. We have also successfully shifted virtually all of our corporate staff to a work-from-home program. Our crisis management team and leadership continue to monitor the COVID-19 situation and adjust plans accordingly. While COVID-19 has had limited impact on our reported results to date, future impacts will depend on future developments, which cannot currently be predicted and may negatively impact our business, results of operations, financial condition or liquidity.

Key Risks

We characterize a Key Risk as a risk or combination of risks that could threaten the achievement of our vision and ability to deliver on our strategy. We evaluate and develop responses for those risks that could have a significant safety and health, environmental, financial or reputational impact. In addition to COVID-19, we consider the following to be Key Risks at this time. *For a more detailed discussion of all our risks, including COVID-19, refer to Nutrien's 2020 Annual Information Form.*

1 / Agriculture Changes and Trends

Associated Key Priorities

Description

The following factors, in addition to other factors, could impact our strategy, demand for our products and/or financial performance: farm and industry consolidation; shifting grower demographics; agriculture productivity and development including soil health; climate change; water management; changes in consumer food preferences; governments and climate-related initiatives; and technological innovation and digital business models.

Risk Management Approach

Our integrated business platform and diversified earnings portfolio are designed to respond and adapt to changes in agriculture. Nutrien also provides a diverse portfolio of expertise, products, services and digital analytics that support growers to produce higher yields in a sustainable manner. We recently launched our plan to create the agricultural industry's most comprehensive Carbon Program, designed to provide end-to-end support for growers to drive improved sustainability and boost profitability. Our digital tools also allow growers to track their sustainability outcomes, providing transparency to value-chain partners. Our teams have strong industry knowledge and direct customer relationships across the value chain, providing unique insights on trends and developments in the agriculture industry.

See pages 11 & 14 of this report for information on Nutrien's Strategy and our Carbon Program.

Sustainability Growth & Capital Allocation Innovation & Technology Employees

Enterprise Risk Management Continued

2 Shifting Market Fundamentals

Associated Key Priorities

Description

Changes in global macroeconomic conditions – including trade tariffs and/or other trade restrictions, increased price competition or a significant change in agriculture production or consumption trends – could lead to a low crop price environment and reduced demand for our products or increased prices or decreased availability of raw materials used in making our products.

Risk Management Approach

Our diversified business model and portfolio of agricultural products, services and solutions, combined with our global presence, is designed to enable us to respond to changing economic conditions.

We have a favorable cost-to-service position and the flexibility to make operational changes across our portfolio in order to minimize the impact of changing market dynamics. We also engage in market development, education, training and customer relations initiatives that support growth.

3 Changing Regulations

Associated Key Priorities

Description

Changing laws, regulations and government policies – including those relating to health and safety, taxes and royalties, environmental and climate change, including regulation of GHG emissions – could affect our ability to produce or sell certain products, reduce our efficiency and competitive advantage, increase our costs of raw material, energy, transportation or compliance, or require us to make capital improvements to our operations – all of which could impact our financial performance or reputation.

Risk Management Approach

We have a Government & Industry Affairs Team and an active engagement strategy with governments and regulators that keeps us current on regulatory developments affecting our business, allowing us to anticipate new policies and put the Company in the best position for success while leveraging our industry association allies. We have a sustainability strategy, an active Issues Management Team and are in the process of developing a climate action plan to assist in managing the impact of potential regulatory changes.

4 Cybersecurity Threats

Associated Key Priorities

Description

Cyberattacks or breaches of our systems, including our Retail digital platform, or exposure to potential computer viruses, could lead to disruptions to our operations, loss of data, or the unintended disclosure of confidential information and/or personally identifiable information or property damage. Any of these could result in business disruptions, reputational damage, personal injury, or third-party claims, impacting our operations, financial performance or reputation.

Risk Management Approach

We maintain an enhanced focus on cybersecurity in conjunction with our cybersecurity strategy, policy and framework. Threat and risk assessments are completed for all new information technology systems, and our cybersecurity incident response processes are backstopped by external response measures.

Sustainability Growth & Capital Allocation Innovation & Technology Employees

Enterprise Risk Management Continued

5 / Political, Economic and Social Instability

Associated Key Priorities

Description

Political, economic and social instability may affect our business including, for instance, if any of the jurisdictions in which we operate introduce restrictions on monetary distributions, forced divestitures or changes to or nullification of existing agreements, mining permits or leases. Instability in political or regulatory regimes could also affect our ability to do business and could impact our sales and operating results, our reputation or the value of our assets.

Risk Management Approach

We have a Government & Industry Affairs Team and an active engagement strategy with governments, regulators and other stakeholders in the countries where we operate or plan to operate. We assess capital investments and project decisions against political, country and other related risk factors. Dedicated teams regularly monitor developments and global trends that may impact us.

6 / Stakeholder Support

Associated Key Priorities

Description

Our stakeholders may not support our business plans, structure, strategy or core sustainability such as ESG initiatives and climate targets, and social responsibilities. Loss of stakeholder confidence impairs our ability to execute our business plans, negatively impacts our ability to produce or sell our products, and may lead to reputational and financial losses or shareholder action.

Risk Management Approach

We have an Issues Management Team that continuously monitors stakeholder issues and that regularly engages with our stakeholders to identify and address their concerns and communicate the long-term value opportunities associated with our business plans. We recently launched our plan to create the agricultural industry's most comprehensive Carbon Program and have a sustainability strategy that is structured to support what matters most to our stakeholders. We also are in the process of developing our climate action plan.

See page 13 of this report for information on our ESG strategy.

7 / Talent and Organizational Culture

Associated Key Priorities

Description

An inability to attract, develop, engage or retain skilled employees, or establish the right organizational culture, could impact productivity, reliability, safety performance, costs, customer relationships, and/or our reputation.

Risk Management Approach

We have a proactive in-house Talent Attraction and Sourcing Team that focuses on efficiently building a diverse and talented workforce with the current and future skills we need. We are committed to the career development of our employees and building a culture grounded in our organizational purpose and the values of safety and integrity. Our active listening strategy keeps a pulse on employee experience and engagement and our inclusive culture. Our talent succession process focuses on identifying and managing critical roles and the proactive build of internal and external bench strength with an eye to diversity. Our incentive programs are competitive and performance-based and support our purpose-driven culture.

Sustainability Growth & Capital Allocation Innovation & Technology Employees

8 / Retail Business Model

Associated Key Priorities

Description

Digital innovations, increased research and development activity, and new technologies in the agriculture industry, among other factors, could alter the competitive environment, impacting our Retail operations and financial performance.

Refer to Nutrien's 2020 Annual Information Form for risk factors related to the implementation of our new enterprise resource planning system.

Risk Management Approach

Our full-service offering, continued investment in technology, and integrated digital platform position our Retail business as a leader in agricultural solutions for growers. We are actively involved in the ag technology innovation space through external investments and partnerships. We seek to maintain strong relationships with industry partners, positioning Nutrien Ag Solutions as a key part of the ag value chain for both suppliers and growers.

Our dedicated in-house product innovation teams continue to invest in enhancing our digital platform and e-commerce capabilities through focused research and development and acquisitions.

9 / Capital Redeployment

Associated Key Priorities

Description

Our inability to deploy capital to efficiently achieve sustained growth or to effectively execute on opportunities – whether due to market conditions, lack of options or otherwise, or deploying capital in a manner inconsistent with our strategic priorities – could impact our returns, operations, reputation or access to capital.

Risk Management Approach

We are focused on creating long-term value and our capital allocation policy prioritizes sustaining our assets, preserving the strength and resiliency of our balance sheet, supporting a sustainable dividend, and applying a rigorous compete-for-capital re-investment strategy to maximize shareholder value.

See page 18 of this report for our Capital Allocation Policy.

10 / Safety, Health & Environment

Associated Key Priorities

Description

Our operations are subject to safety, health and environmental risks inherent in the mining, manufacturing, transportation, storage and distribution of our products. These factors could result in injuries or fatalities, or impact the biodiversity, water resources or related ecosystems near our operations, impacting our operations, financial performance or reputation.

Risk Management Approach

We have robust governance processes that ensure we follow all regulatory, industry and internal standards of safety, health and environmental responsibility that involve independent audits and assessments. We have structured incident prevention and response systems in place, conduct regular security vulnerability assessments and maintain protocols for employees working and traveling abroad. We have developed crisis communication protocols and emergency response programs and personnel can be deployed in the event of a significant incident.

We maintain environmental monitoring and control systems, including third-party reviews of key containment structures.

CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to provide reasonable assurance that information required to be disclosed by Nutrien in its annual filings, interim filings (as these terms are defined in National Instrument 52-109 – Certification of Disclosure in Issuers' Annual and Interim Filings ("NI 52-109")) and other reports filed or submitted by us under securities legislation is recorded, processed, summarized and reported within the required time periods. Our Chief Executive Officer and Chief Financial Officer, after evaluating the effectiveness of our disclosure controls and procedures as of the end of the period covered by the annual filings, being December 31, 2020, have concluded that, as of such date, our disclosure controls and procedures were effective in providing reasonable assurance that information required to be disclosed by Nutrien in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is (a) recorded, processed, summarized and reported within the time periods specified in the securities legislation, and (b) accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives.

Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended, and NI 52-109. Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and preparation of financial statements for external purposes in accordance with IFRS.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the design and effectiveness of our internal control over financial reporting as of the end of the fiscal year covered by this report based on the framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control – Integrated Framework (2013). Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as at December 31, 2020, Nutrien Ltd. did maintain effective internal control over financial reporting.

In 2020, as part of our digital transformation, we implemented a new enterprise resource planning system in the Retail segment. The Digital Transformation implementation in the Retail environment has resulted in a more automated control environment for our Canadian and Loveland Products operations. This change has materially affected our internal control over financial reporting.

On September 30, 2019, we completed the Ruralco acquisition. The acquisition of Ruralco was previously excluded from management's evaluation of the effectiveness of the Company's internal control over financial reporting as of December 31, 2019 due to the proximity of the acquisition to year-end. As a result of the acquisition of Ruralco and the integration of the Australian Retail operations, the internal control over the Australian Retail operations came into scope of the Company's internal control over financial reporting in the fourth quarter of 2020. We completed the integration of our Ruralco control environment into the Nutrien control environment to ensure controls were operating effectively as at December 31, 2020. Management used appropriate procedures to ensure internal controls were in place during and after implementation. The integration of the Australian Retail operations has materially affected our internal control over financial reporting.

COVID-19 has also affected our business. In 2020, corporate office staff and many site administrative staff have worked from home. This change has required certain processes and controls that were previously done or documented manually to be completed and retained in electronic form. This change has not materially affected our internal control over financial reporting.

Except as discussed herein, there have been no changes in, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

The effectiveness of the Company's internal control over financial reporting as at December 31, 2020 was audited by KPMG LLP, as reflected in their report, which is included in this 2020 Annual Report.

FORWARD-LOOKING STATEMENTS

Certain statements and other information included in this document, including within the "2021 Guidance" section, constitute "forward-looking information" or "forward-looking statements" (collectively, "forward-looking statements") under applicable securities laws (such statements are often accompanied by words such as "anticipate", "forecast", "expect", "believe", "may", "will", "should", "estimate", "intend" or other similar words). All statements in this document, other than those relating to historical information or current conditions, are forward-looking statements, including, but not limited to: Nutrien's business strategies, plans, prospects and opportunities; Nutrien's 2021 annual guidance, including our expectations regarding our adjusted net earnings per share and adjusted EBITDA (consolidated and by segment); expectations regarding adjusted EBITDA growth; expectations regarding our growth and capital allocation intentions and strategies; capital spending expectations for 2021; expectations regarding performance of our operating segments in 2021, including our operating segment market outlooks and market conditions for 2021, and the anticipated supply and demand for our products and services, expected market and industry conditions with respect to crop nutrient application rates, planted acres, crop mix, prices and the impact of import and export volumes; expectations regarding our sustainability, environmental (including climate), diversity and inclusion and innovation and technology strategies, initiatives, plans and targets; expectations regarding the expansion and enhancement of our Retail digital platform; expectations regarding repurchases of our common shares, including the timing thereof; expectations regarding the sufficiency of Nutrien's liquidity, including the sources thereof, to meet its anticipated capital expenditures and other cash requirements; expectations regarding the impact to Nutrien of the transition from interbank offered rates to nearly risk-free rates; the negotiation of sales contracts; the implementation of our carbon program and the benefits to Nutrien and growers therefrom; and acquisitions and divestitures, and the expected synergies associated with certain acquisitions, including the timing thereof. These forward-looking statements are subject to a number of assumptions, risks and uncertainties, many of which are beyond our control, which could cause actual results to differ materially from such forward-looking statements. As such, undue reliance should not be placed on these forward-looking statements.

All of the forward-looking statements are qualified by the assumptions that are stated or inherent in such forward-looking statements, including the assumptions referred to below and elsewhere in this document. Although we believe that these assumptions are reasonable, having regard to our experience and our perception of historical trends, this list is not exhaustive of the factors that may affect any of the forward-looking statements and the reader should not place an undue reliance on these assumptions and such forward-looking statements. Current conditions, economic and otherwise, render assumptions, although reasonable when made, subject to greater uncertainty. The additional key assumptions that have been made include, among other things, assumptions with respect to our ability to successfully complete, integrate and realize the anticipated benefits of our already completed and future acquisitions and divestitures, and that we will be able to implement our standards, controls, procedures and policies in respect of any acquired businesses and to realize the expected synergies; that future business, regulatory and industry conditions will be within the parameters expected by us, including with respect to prices, margins, demand, supply, product availability, supplier agreements, availability and cost of labor and interest, exchange and effective tax rates; assumptions with respect to global economic conditions and the accuracy of our market outlook expectations for 2021 and in the future; our expectations regarding the impacts, direct and indirect, of the COVID-19 pandemic on our business, customers, business partners, employees, supply chain, other stakeholders and the overall economy; the adequacy of our cash generated from operations and our ability to access our credit facilities or capital markets for additional sources of financing; our ability to identify suitable candidates for acquisitions and divestitures and negotiate acceptable terms; our ability to maintain investment grade ratings and achieve our performance targets; our ability to successfully negotiate sales contracts; our ability to successfully implement new initiatives and programs; and our ability to redeploy capital to generate higher returns for shareholders.

Events or circumstances that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to: general global economic, market and business conditions; failure to complete announced and future acquisitions or divestitures at all or on the expected terms and within the expected timeline; climate change and weather conditions, including impacts from regional flooding and/or drought conditions; crop planted acreage, yield and prices; the supply and demand and price levels for our products; governmental and regulatory requirements and actions by governmental authorities, including changes in government policy (including tariffs, trade restrictions and climate change initiatives), government ownership requirements, changes in environmental, tax and other laws or regulations and the interpretation thereof; political risks, including civil unrest, actions by armed groups or conflict and malicious acts including terrorism; the occurrence of a major environmental or safety incident; innovation and cybersecurity risks related to our systems, including our costs of addressing or mitigating such risks; counterparty and sovereign risk; delays in completion of turnarounds at our major facilities; interruptions of or constraints in availability of key inputs, including natural gas and sulfur; any significant impairment of the carrying amount of certain assets; risks related to reputational loss; certain complications that may arise in our mining processes; the ability to attract, engage and retain skilled employees and strikes or other forms of work stoppages; the COVID-19 pandemic and its resulting effects on economic conditions, restrictions imposed by public health authorities or governments, fiscal and monetary responses by governments and financial institutions and disruptions to global supply chains; and other risk factors detailed from time to time in Nutrien reports filed with the Canadian securities regulators and the Securities and Exchange Commission in the United States.

The purpose of our expected adjusted net earnings per share and adjusted EBITDA (consolidated and by segment) guidance ranges, as well as our adjusted earnings per share and adjusted EBITDA price and volume and input costs sensitivities ranges, are to assist readers in understanding our expected and targeted financial results, and this information may not be appropriate for other purposes.

The forward-looking statements in this document are made as of the date hereof and Nutrien disclaims any intention or obligation to update or revise any forward-looking statements in this document as a result of new information or future events, except as may be required under applicable Canadian securities legislation or applicable US federal securities laws.

APPENDIX – NON-IFRS FINANCIAL MEASURES

We use both IFRS and certainnon-IFRS financial measures to assess performance. Non-IFRS financial measures are numerical measures of a company's historical or future financial performance, financial position or cash flow that are not specified, defined or determined under IFRS, and are not presented in our financial statements. Non-IFRS measures either exclude amounts that are included in, or include amounts that are excluded from, the most directly comparable measure specified, defined or determined under IFRS. In evaluating these measures, investors should consider that the methodology applied in calculating such measures may differ among companies and analysts.

Management believes the non-IFRS financial measures provide transparent and useful supplemental information to help investors evaluate our financial performance, financial condition and liquidity using the same measures as management. These non-IFRS financial measures should not be considered as a substitute for, or superior to, measures of financial performance prepared in accordance with IFRS.

The following section outlines our non-IFRS financial measures, their definitions, and why management uses each measure. It includes reconciliations to the most directly comparable IFRS measures. Except as otherwise described herein, our non-IFRS financial measures are calculated on a consistent basis from period to period and are adjusted for specific items in each period, as applicable. As non-recurring or unusual items arise, we generally exclude these items in our calculation.

ADJUSTED EBITDA (CONSOLIDATED)

Most directly comparable IFRS financial measure: Net earnings (loss).

Definition: Adjusted EBITDA is calculated as net earnings (loss) before finance costs, income taxes, depreciation and amortization, Merger and related costs, certain acquisition and integration related costs, share-based compensation, impairment of assets, certain foreign exchange gain/loss (net of related derivatives), COVID-19 related expenses, loss on disposal of business and net gain on disposal of investment in MOPCO. In 2020, we amended our calculation of adjusted EBITDA to adjust for the impact of COVID-19 related expenses, loss on disposal of business and net gain on disposal of investment in MOPCO. There were no similar income or expenses in the comparative period. To align with the change in our segment performance measure effective in 2020, we will primarily use adjusted EBITDA going forward as our consolidated performance measure.

Why we use the measure and why it is useful to investors: It is not impacted by long-term investment and financing decisions, but rather focuses on the performance of our day-to-day operations. It provides a measure of our ability to service debt and to meet other payment obligations.

(millions of US dollars)	2020	2019
Net earnings	459	992
Finance costs	520	554
Income tax (recovery) expense	(77)	316
Depreciation and amortization	1,989	1,799
EBITDA	2,891	3,661
Merger and related costs	–	82
Acquisition and integration related costs	60	16
Share-based compensation expense	69	104
Impairment of assets	824	120
COVID-19 related expenses	48	–
Foreign exchange loss, net of related derivatives	19	42
Loss on disposal of business	6	–
Net gain on disposal of investment in MOPCO	(250)	–
Adjusted EBITDA	3,667	4,025

ADJUSTED EBITDA (CONSOLIDATED), ADJUSTED NET EARNINGS PER SHARE AND SUSTAINING CAPITAL EXPENDITURES GUIDANCE

Adjusted EBITDA, adjusted net earnings per share and sustaining capital expenditures guidance are forward-looking non-IFRS financial measures. We do not provide a reconciliation of such forward-looking measures to the most directly comparable financial measures calculated and presented in accordance with IFRS due to unknown variables and the uncertainty related to future results. These unknown variables may include unpredictable transactions of significant value that may be inherently difficult to determine, without unreasonable efforts. Guidance for adjusted EBITDA and adjusted net earnings per share excludes the impacts of acquisition and integration related costs, share-based compensation, certain foreign exchange gain/loss (net of related derivatives), and COVID-19 related expenses. Guidance for sustaining capital expenditures includes expected expenditures required to sustain operations at existing levels and includes major repairs and maintenance and plant turnarounds.

ADJUSTED NET EARNINGS AND ADJUSTED NET EARNINGS PER SHARE

Most directly comparable IFRS financial measure: Net earnings (loss) and net earnings (loss) per share.

Definition: Net earnings (loss) before certain acquisition and integration related costs, share-based compensation, certain foreign exchange gain/loss (net of related derivatives), COVID-19 related expenses (including those recorded under finance costs), loss on disposal of business, net gain on disposal of investment in MOPCO and impairment of assets, net of tax. We generally apply the annual forecasted effective tax rate to our adjustments during the year and, at year-end, we apply the actual effective tax rate. If the effective tax rate is significantly different from our forecasted effective tax rate due to adjustments or discrete tax impacts, we apply a tax rate that excludes those items. For material adjustments, we apply a tax rate specific to the adjustment. In 2020, we amended our calculation of adjusted net loss to adjust for the impact of COVID-19 related expenses, loss on disposal of business and net gain on disposal of investment in MOPCO.

Why we use the measure and why it is useful to investors: Focuses on the performance of our day-to-day operations excluding the effects of non-operating items.

	2020			2019		
(millions of US dollars, except as otherwise noted)	Increases (Decreases)	Post-Tax	Per Diluted Share	Increases (Decreases)	Post-Tax	Per Diluted Share
Net earnings		459	0.81		992	1.70
Adjustments:						
Merger and related costs	–	–	–	82	62	0.10
Acquisition and integration related costs	60	44	0.08	16	12	0.02
Share-based compensation expense	69	50	0.09	104	79	0.14
Impairment of assets	824	657	1.15	120	91	0.16
COVID-19 related expenses	67	49	0.09	–	–	–
Foreign exchange loss, net of related derivatives	19	14	0.02	42	32	0.05
Loss on disposal of business	6	4	–	–	–	–
Net gain on disposal of investment in MOPCO	(250)	(250)	(0.44)	–	–	–
Adjusted net earnings		1,027	1.80		1,268	2.17

FREE CASH FLOW AND FREE CASH FLOW INCLUDING CHANGES IN NON-CASH OPERATING WORKING CAPITAL

Most directly comparable IFRS financial measure: Cash from operations before working capital changes.

Definition: Cash from operations before working capital changes less sustaining capital expenditures. We also calculate a similar measure that includes changes in non-cash operating working capital.

Why we use the measure and why it is useful to investors: For evaluation of liquidity and financial strength. These are also useful as indicators of our ability to service debt, meet other payment obligations and make strategic investments. These do not represent residual cash flow available for discretionary expenditures.

(millions of US dollars)	2020	2019
Cash from operations before working capital changes	2,749	3,175
Sustaining capital expenditures	(919)	(1,018)
Free cash flow	1,830	2,157
Changes in non-cash operating working capital	574	490
Free cash flow including changes in non-cash operating working capital	2,404	2,647

GROSS MARGIN EXCLUDING DEPRECIATION AND AMORTIZATION PER TONNE – MANUFACTURED

Most directly comparable IFRS financial measure: Gross margin.

Definition: Gross margin per tonne from manufactured products less depreciation and amortization per tonne. Reconciliations are provided in the "Operating Segment Performance & Outlook" section.

Why we use the measure and why it is useful to investors: Focuses on the performance of our day-to-day operations, which excludes the effects of items that primarily reflect the impact of long-term investment and financing decisions.

POTASH CASH COST OF PRODUCT MANUFACTURED ("COPM")

Most directly comparable IFRS financial measure: Cost of goods sold ("COGS") for the Potash segment.

Definition: Potash COGS for the period excluding depreciation and amortization expense and inventory and other adjustments divided by the production tonnes for the period.

Why we use the measure and why it is useful to investors: To assess operational performance. Potash cash COPM excludes the effects of production from other periods and long-term investment decisions, supporting a focus on the performance of our day-to-day operations.

(millions of US dollars, except as otherwise noted)	2020	2019
Total COGS – Potash	1,183	1,103
Change in inventory	(10)	10
Other adjustments	(12)	(16)
COPM	1,161	1,097
Depreciation and amortization included in COPM	(424)	(355)
Cash COPM	737	742
Production tonnes (tonnes – thousands)	12,595	11,700
Potash cash COPM per tonne	59	63

AMMONIA CONTROLLABLE CASH COPM

Most directly comparable IFRS financial measure: COGS for the Nitrogen segment.

Definition: The total of COGS for the Nitrogen segment excluding depreciation and amortization expense included in COGS, cash COGS for products other than ammonia, other adjustments, and natural gas and steam costs, divided by net ammonia production tonnes.

Why we use the measure and why it is useful to investors: To assess operational performance. Ammonia controllable cash COPM excludes the effects of production from other periods, the costs of natural gas and steam, and long-term investment decisions, supporting a focus on the performance of our day-to-day operations.

(millions of US dollars, except as otherwise noted)	2020	2019
Total COGS – Nitrogen	2,265	2,148
Depreciation and amortization in COGS	(522)	(462)
Cash COGS for products other than ammonia	(1,342)	(1,226)
Ammonia		
Total cash COGS before other adjustments	401	460
Other adjustments [1]	(52)	(57)
Total cash COPM	349	403
Natural gas and steam costs	(235)	(273)
Controllable cash COPM	114	130
Production tonnes (net tonnes [2] – thousands)	2,649	2,887
Ammonia controllable cash COPM per tonne	43	45

1 Includes changes in inventory balances and other adjustments.
2 Ammonia tonnes available for sale, as not upgraded to other Nitrogen products.

NUTRIEN FINANCIAL NET INTEREST MARGIN

Most directly comparable IFRS financial measure: Nutrien Financial gross margin divided by average Nutrien Financial receivables.

Definition: Nutrien Financial revenue less deemed interest expense divided by average Nutrien Financial receivables outstanding for the last four rolling quarters.

Why we use the measure and why it is useful to investors: Used by credit rating agencies and other users to evaluate financial performance of Nutrien Financial.

	Rolling four quarters ended December 31, 2020				
(millions of US dollars, except as otherwise noted)	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Total/Average
Nutrien Financial revenue	16	40	36	37	
Deemed interest expense [1]	(5)	(15)	(15)	(14)	
Net interest	11	25	21	23	80
Average Nutrien Financial receivables	795	2,108	1,711	1,392	1,502
Nutrien Financial net interest margin (%)					5.3

1 Average borrowing rate applied to the notional debt required to fund the portfolio of receivables from customers monitored and serviced by Nutrien Financial.

SUSTAINING CAPITAL EXPENDITURES AND INVESTING CAPITAL EXPENDITURES

Most directly comparable IFRS financial measure: Cash additions to property, plant and equipment and intangible assets.

Definition: Sustaining capital expenditures are required to sustain operations at existing levels and include major repairs and maintenance and plant turnarounds. Investing capital expenditures are for significant expansions of current operations or to create cost savings (synergies), including capitalized interest. Investing capital excludes capital outlays for business acquisitions and equity-accounted investees.

Why we use the measure and why it is useful to investors: Sustaining capital expenditures show the capital investment required to sustain our existing operations, and are the first priority in our capital allocation policy. Investing capital expenditures are an important component in understanding how much we have invested to grow our business excluding business acquisitions and investments in equity-accounted investees.

(millions of US dollars, except as otherwise noted)	2020	2019
Additions to property, plant and equipment	1,423	1,728
Additions to intangible assets	126	163
	1,549	1,891
Consists of:		
Sustaining capital expenditures	919	1,018
Investing capital expenditures	511	772
Other capital expenditures	119	101
	1,549	1,891

RETAIL ADJUSTED AVERAGE WORKING CAPITAL TO SALES AND RETAIL ADJUSTED AVERAGE WORKING CAPITAL TO SALES EXCLUDING NUTRIEN FINANCIAL

Most directly comparable IFRS financial measure: (Current assets minus current liabilities for Retail) divided by Retail sales.

Definition: Retail adjusted average working capital divided by Retail adjusted sales for the last four rolling quarters. We exclude in our calculations the working capital and sales of certain acquisitions (such as Ruralco) during the first year following the acquisition. We have amended our calculation to adjust for the sales of certain recently acquired businesses. We also look at this metric excluding the sales and working capital of Nutrien Financial.

Why we use the measure and why it is useful to investors: To evaluate operational efficiency. A lower or higher percentage represents increased or decreased efficiency, respectively. The metric excluding Nutrien Financial shows the impact that the working capital of Nutrien Financial has on the ratio.

(millions of US dollars, except as otherwise noted)	2020	2019
Average working capital	2,173	3,097
Average working capital from certain recent acquisitions	(11)	(53)
Adjusted average working capital	2,162	3,044
Average Nutrien Financial working capital	(1,502)	n/a[1]
Adjusted average working capital excluding Nutrien Financial	660	n/a[1]
Sales [2]	14,785	13,282
Sales from certain recent acquisitions	(686)	(249)
Adjusted sales	14,099	13,033
Nutrien Financial revenue [2]	(129)	n/a[1]
Adjusted sales excluding Nutrien Financial	13,970	n/a[1]
Adjusted average working capital to sales (%)	15	23
Adjusted average working capital to sales excluding Nutrien Financial (%)	5	n/a [1]

1 We did not calculate this metric excluding Nutrien Financial in 2019 as it was in its first year of operations.
2 Certain immaterial figures have been reclassified for 2019.

RETAIL CASH OPERATING COVERAGE RATIO

Most directly comparable IFRS financial measure: Retail operating expenses[1] as a percentage of Retail gross margin.

Definition: Retail operating expenses, excluding depreciation and amortization expense, divided by Retail gross margin excluding depreciation and amortization expense in cost of goods sold, for the last four rolling quarters.

Why we use the measure and why it is useful to investors: To understand the costs and underlying economics of our Retail operations and to assess our Retail operating performance and ability to generate free cash flow.

(millions of US dollars, except as otherwise noted)	2020	2019
Operating expenses [1,2]	2,974	2,665
Depreciation and amortization in operating expenses	(658)	(585)
Operating expenses excluding depreciation and amortization	2,316	2,080
Gross margin [2]	3,736	3,301
Depreciation and amortization in cost of goods sold	10	7
Gross margin excluding depreciation and amortization	3,746	3,308
Cash operating coverage ratio (%)	61.8	62.9
Cash operating coverage ratio before reclassification (%) [3]	61.1	62.2

1 Includes Retail expenses below gross margin including selling expenses, general and administrative expenses and other (income) expenses.
2 Certain immaterial figures have been reclassified for 2019.
3 Adjusted to reflect what the metric would have been prior to a reclassification of certain immaterial figures.

RETAIL ADJUSTED EBITDA PER US SELLING LOCATION

Most directly comparable IFRS financial measure: Retail US adjusted EBITDA.

Definition: Total Retail US adjusted EBITDA for the last four rolling quarters, adjusted for acquisitions in those quarters, divided by the number of US locations that have generated sales in the last four rolling quarters, adjusted for acquired locations.

Why we use the measure and why it is useful to investors: To assess our US Retail operating performance. This measure includes locations we have owned for more than 12 months. In the third quarter of 2020, we revised this measure from US EBITDA to US adjusted EBITDA to align with how we evaluate Retail results. There were no changes to this measure as a result of the change.

(millions of US dollars, except as otherwise noted)	2020	2019
Adjusted US EBITDA	985	899
Adjustments for acquisitions	(5)	(27)
Adjusted US EBITDA adjusted for acquisitions	980	872
Number of US selling locations adjusted for acquisitions	912	902
Adjusted EBITDA per US selling location (thousands of US dollars)	1,075	967

RETAIL NORMALIZED COMPARABLE STORE SALES

Most directly comparable IFRS financial measure: Retail sales from comparable base as a component of total Retail sales.

Definition: Prior year comparable store sales adjusted for published potash, nitrogen and phosphate benchmark prices and foreign exchange rates used in the current year. We retain sales of closed locations in the comparable base if the closed location is in close proximity to an existing location, unless we plan to exit the market area or are unable to economically or logistically serve it. We do not adjust for temporary closures, expansions or renovations of stores.

Why we use the measure and why it is useful to investors: To evaluate sales growth by adjusting for fluctuations in commodity prices and foreign exchange rates. Includes locations we have owned for more than 12 months.

(millions of US dollars, except as otherwise noted)	2020	2019
Sales from comparable base		
Current period	13,546	12,568
Prior period [1]	13,282	12,520
Comparable store sales (%)	2	0
Prior period normalized for benchmark prices and foreign exchange rates [1]	12,784	12,636
Normalized comparable store sales (%)	6	(1)

1 Certain immaterial figures have been reclassified in 2020

TERMS & DEFINITIONS

Terms

AECO	Alberta Energy Company, Canada
Argus	Argus Media group, UK
Bloomberg	Bloomberg Finance L.P., USA
CDP Climate	CDP Worldwide, England
CRU	CRU International limited, UK
ESG	Environmental, social and governance
FTSE Russell	FTSE International Limited, England
ISS Quality Scores	Institutional Shareholder Services Inc., USA
Moody's	Moody's Corporation (NYSE: MCO), USA
MSCI ESG Rating	MSCI Inc., USA
NYMEX	New York Mercantile Exchange, USA
NYSE	New York Stock Exchange, USA
S&P/S&P Global CSA	S&P Global Inc., USA
Sustainalytics ESG Risk	Sustainalytics, a Morningstar, Inc. company, Netherlands
TSX	Toronto Stock Exchange, Canada
USDA	United States Department of Agriculture, USA
CAD	Canadian dollar
USD	United States dollar
AUD	Australian dollar

Scientific Terms

Potash	KCl	potassium chloride, 60-63.2% K_2O (solid)
Nitrogen	NH_3	ammonia (anhydrous), 82.2% N (liquid)
	UAN	nitrogen solutions, 28-32% N (liquid)
	CO_2e	carbon dioxide equivalent
Phosphate	MGA	merchant grade acid, 54% P_2O_5 (liquid)
	DAP	diammonium phosphate, 46% P_2O_5 (solid)
	MAP	monoammonium phosphate, 52% P_2O_5 (solid)
	SPA	superphosphoric acid, 70% P_2O_5 (liquid)
	AS	ammonium sulfate (solid)

Product Measures

K_2O tonne	Measures the potassium content of products having different chemical analyses
N tonne	Measures the nitrogen content of products having different chemical analyses
P_2O_5 tonne	Measures the phosphorus content of products having different chemical analyses
Product tonne	Standard measure of the weights of all types of potash, nitrogen and phosphate products

Definitions

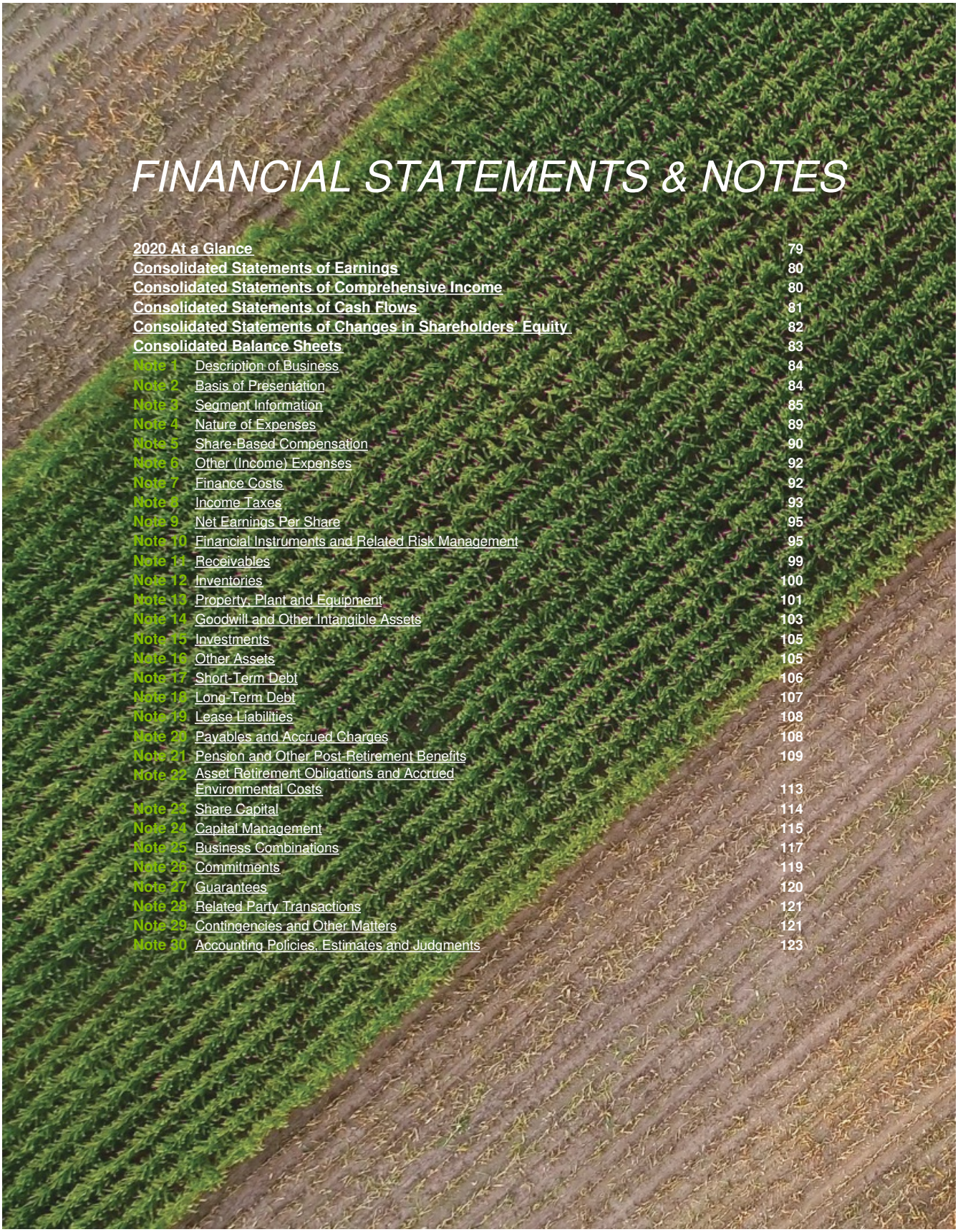
Blue/low carbon ammonia	Ammonia produced primarily utilizing carbon capture utilization & storage ("CCUS") or other low-emission production technologies to significantly reduce the carbon intensity of resultant production.
Brownfield	New project expanding or developing an existing facility or operation.
Capital deployment	Cash outlays for property, plant and equipment, intangible assets, business acquisitions (net of cash acquired), investments, dividends and repurchase of common shares.
Community investment	Represents cash disbursements, matching of employee gifts andin-kind contributions of equipment, goods and services and employee volunteerism (on corporate time).
Compound Annual Growth Rate	Represents the rate of return that would be required for an investment to grow from its beginning balance to its ending balance assuming the profits were reinvested at the end of each year of the investment's lifespan.
Environmental Incidents	Number of incidents includes release quantities that exceed the US Comprehensive Environmental Response, Compensation, and Liability Act limits; in potash facilities any release that exceeds Saskatchewan release limits (based on the Saskatchewan Environmental Code); non-compliance incidents that exceed $10,000 in costs to reach compliance; or enforcement actions with fines exceeding $1,000.
Total Employee Turnover Rate	The number of permanent employees who left the Company due to voluntary and involuntary terminations, including retirements and deaths, as a percentage of average permanent employees for the year.
Greenfield capacity	New operation built on an undeveloped site.
Latin America	South America, Central America, Caribbean and Mexico.
Lost-Time Injury Frequency	Total lost-time injuries for every 200,000 hours worked for all Nutrien employees, contractors and others on site. Calculated as the total lost-time injuries multiplied by 200,000 hours worked divided by the actual number of hours worked.
Merger	The merger of equals transaction between PotashCorp and Agrium completed effective January 1, 2018, pursuant to which PotashCorp and Agrium combined their businesses pursuant to a statutory plan of arrangement under the Canada Business Corporations Act and became wholly owned subsidiaries of Nutrien Ltd.
Mmt	Million metric tonnes
North America	Canada and the US.
Offshore	All markets except Canada and the US.
Taxes and royalties	Includes tax and royalty amounts on an accrual basis calculated as: current income tax expense from continuing and discontinued operations minus investment tax credits and realized excess tax benefit related to share-based compensation plus potash production tax, resource surcharge, royalties, municipal taxes and other miscellaneous taxes.
Total Recordable Injury Frequency	Total recordable injuries for every 200,000 hours worked for all Nutrien employees, contractors and others on site. Calculated as the total recordable injuries multiplied by 200,000 hours worked divided by the actual number of hours worked.
Total Shareholder Return	Return on investment in Nutrien shares from the time the investment is made based on two components: (1) growth in share price and (2) return from reinvested dividend income on the shares.
Voluntary Employee Turnover	The number of permanent employees who left the Company due to voluntary terminations as a percentage of average permanent employees for the year. Includes voluntary retirements and resignations.
Working capital ratio	Current assets divided by current liabilities.

Exhibit 99.3

2020 ANNUAL AUDITED FINANCIAL STATEMENTS

Nutrien





FINANCIAL STATEMENTS & NOTES

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MANAGEMENT'S RESPONSIBILITY

Management's Responsibility for Financial Reporting

MANAGEMENT'S REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

The accompanying consolidated financial statements and related financial information are the responsibility of the management of Nutrien Ltd. (the "Company"). They have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board and include amounts based on estimates and judgments. Financial information included elsewhere in this report is consistent with the consolidated financial statements.

The consolidated financial statements are approved by the Board of Directors on the recommendation of the audit committee. The audit committee appointed by the Board of Directors is composed entirely of independent directors. The audit committee discusses and analyzes the Company's interim condensed consolidated financial statements and Management's Discussion and Analysis ("MD&A") with management before such information is approved by the committee and submitted to securities commissions or other regulatory authorities. The audit committee and management also analyze the annual consolidated financial statements and MD&A prior to their approval by the Board of Directors.

The audit committee's duties also include reviewing critical accounting policies and significant estimates and judgments underlying the consolidated financial statements as presented by management and approving the fees of our independent registered public accounting firm.

Our independent registered public accounting firm, KPMG LLP, performs an audit of the consolidated financial statements, the results of which are reflected in their Report of Independent Registered Public Accounting Firm for 2020. KPMG LLP has full and independent access to the audit committee to discuss their audit and related matters.

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Securities Exchange Act, as amended, and National Instrument 52-109 – Certification of Disclosure in Issuers' Annual and Interim Filings. Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and preparation of financial statements for external purposes in accordance with IFRS.

Under our supervision and with the participation of management, the Company conducted an evaluation of the design and effectiveness of our internal control over financial reporting as of the end of the fiscal year covered by this report, based on the framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control – Integrated Framework (2013). Based on this evaluation, management concluded that, as of December 31, 2020, the Company did maintain effective internal control over financial reporting.

The effectiveness of the Company's internal control over financial reporting as at December 31, 2020 has been audited by KPMG LLP, as reflected in their Report of Independent Registered Public Accounting Firm for 2020.



Chuck Magro
President and Chief Executive Officer
February 18, 2021



Pedro Farah
Executive Vice President and Chief Financial Officer
February 18, 2021

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Nutrien Ltd.

OPINION ON INTERNAL CONTROL OVER FINANCIAL REPORTING

We have audited Nutrien Ltd. and subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company as of December 31, 2020 and 2019, the related consolidated statements of earnings, comprehensive income, cash flows, and changes in shareholders' equity for the years then ended, and the related notes (collectively, the "consolidated financial statements"), and our report dated February 18, 2021 expressed an unqualified opinion on those consolidated financial statements.

BASIS FOR OPINION

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the US federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

DEFINITION AND LIMITATIONS OF INTERNAL CONTROL OVER FINANCIAL REPORTING

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

KPMG LLP

Chartered Professional Accountants

Calgary, Canada
February 18, 2021

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Nutrien Ltd.

OPINION ON THE CONSOLIDATED FINANCIAL STATEMENTS

We have audited the accompanying consolidated balance sheets of Nutrien Ltd. and subsidiaries (the "Company") as of December 31, 2020 and 2019, the related consolidated statements of earnings, comprehensive income, cash flows, and changes in shareholders' equity for the years then ended, and the related notes (collectively, the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and its financial performance and its cash flows for the years then ended, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 18, 2021 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

BASIS FOR OPINION

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the US federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

CRITICAL AUDIT MATTERS

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

GOODWILL IMPAIRMENT ASSESSMENT OF THE RETAIL NORTH AMERICA GROUP OF CASH GENERATING UNITS

As discussed in Note 14 to the consolidated financial statements, the carrying amount of goodwill as of December 31, 2020 was $12,198 million, of which $6,869 million of goodwill has been allocated to the Retail North America group of cash generating units ("Retail North America CGU"). The Retail North America CGU is tested for impairment annually, and whenever events or changes in circumstances may indicate the carrying amount, including goodwill, exceeds its estimated recoverable amount. The calculation of the recoverable amount of the Retail North America CGU involved estimates including forecasted earnings before tax, interest, depreciation and amortization ("EBITDA"), terminal growth rate and the discount rate.

Report of Independent Registered Public Accounting Firm Continued

We identified the calculation of the recoverable amount of goodwill for the Retail North America CGU as a critical audit matter. A high degree of auditor judgment was required to evaluate the Company's forecasted EBITDA, terminal growth rate and discount rate used to calculate the recoverable amount of the Retail North America CGU. Minor changes to these assumptions could have had a significant effect on the Company's calculation of the recoverable amount of the Retail North America CGU. Additionally, the audit effort associated with this estimate required specialized skills and knowledge.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the calculation of the recoverable amount of goodwill for the Retail North America CGU. This included controls related to the determination of forecasted EBITDA, terminal growth rate and the discount rate. We evaluated the Company's forecasted EBITDA for the Retail North America CGU by comparing to historical results and forecasted planted acreage in the United States. We evaluated the terminal growth rate by comparing to the historical growth of the Retail North America CGU and to market information, including forecasted inflation and forecasted gross domestic product in the United States. We evaluated the Company's historical forecasts of EBITDA by comparing to actual results to assess the Company's ability to accurately forecast. In addition, we involved valuation professionals with specialized skills and knowledge, who assisted in:

- evaluating the Company's determination of the discount rate by comparing the inputs to the discount rate to publicly available market data for comparable entities and assessing the resulting discount rate, and
- evaluating the Company's estimate of the recoverable amount of the Retail North America cash generating unit by comparing the results of the Company's estimate to publicly available market data and valuation metrics for comparable entities.

IMPAIRMENT OF THE AURORA CASH GENERATING UNIT

As discussed in Note 13 to the consolidated financial statements, the Company recorded an impairment of assets for the Aurora cash generating unit ("Aurora CGU") of $545 million during the year ended December 31, 2020. The Company is required to assess each cash generating unit for an indicator of impairment at each reporting date, and whenever events or changes in circumstances may indicate the carrying amount of a cash generating unit exceeds its recoverable amount. An indicator of impairment was identified for the Aurora CGU at September 30, 2020, due to negative revisions to long-term forecasted global phosphate prices, which resulted in the Company performing an impairment test to calculate the recoverable amount. The calculation of the recoverable amount of the Aurora CGU involved estimates including the forecasted product net selling price, discount rate and the useful life of the mine. The useful life of the mine is derived from the most recent mineral reserves estimate, which requires the expertise of independent reserve engineering specialists.

We identified the calculation of the recoverable amount of the Aurora CGU as a critical audit matter. A high degree of auditor judgment was required to evaluate the Company's estimate of the forecasted product net selling prices and discount rate used to calculate the recoverable amount of the Aurora CGU. Minor changes to these assumptions could have had a significant effect on the Company's calculation of the recoverable amount and the resultant impairment loss. Auditor judgment was also required to assess the mineral reserves estimate which forms the basis of the useful life of the mine. Additionally, the audit effort associated with this estimate required specialized skills and knowledge.

Report of Independent Registered Public Accounting Firm Continued

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the calculation of the recoverable amount of the Aurora CGU. This included controls related to the determination of forecasted product net selling prices, the discount rate, as well as the mineral reserves and useful life of the mine. We evaluated certain forecasted product net selling prices of the Company by comparing to external forecasts. We evaluated the current year product net selling prices by comparing to those assumptions used in the prior year forecast to assess the Company's ability to accurately forecast. We assessed the methodology used by the Company to estimate the mineral reserves and resources for consistency with industry and regulatory standards. We evaluated the Company's estimate of mineral reserves and resources by comparing the Company's historical estimates to actual results. We assessed the competence, capabilities and objectivity of the Company's personnel and third-party engineers who prepared the mineral reserve estimate. We involved valuation professionals with specialized skills and knowledge who assisted in evaluating the Company's determination of the discount rate by comparing the inputs to the discount rate to publicly available market data and assessing the resulting discount rate.

IMPAIRMENT ASSESSMENT OF THE TRINIDAD CASH GENERATING UNIT

As discussed in Note 13 to the consolidated financial statements, the Company is required to assess each cash generating unit for an indicator of impairment at each reporting date, and whenever events or changes in circumstances may indicate the carrying amount of a cash generating unit exceeds its recoverable amount. An indicator of impairment was identified for the Trinidad cash generating unit ("Trinidad CGU") at September 30, 2020, due to the indefinite closure of an ammonia plant in response to market conditions and lower long-term forecasted global ammonia prices, which resulted in the Company performing an impairment test to calculate the recoverable amount. The calculation of the recoverable amount of the Trinidad CGU involved estimates including forecasted production volumes, forecasted ammonia net selling price and the discount rate.

We identified the calculation of the recoverable amount of the Trinidad CGU as a critical audit matter. A high degree of auditor judgment was required to evaluate the Company's estimate of the forecasted production volumes, ammonia net selling price and discount rate used to calculate the recoverable amount of the Trinidad CGU. Minor changes to these assumptions could have had a significant effect on the Company's calculation of the recoverable amount of the Trinidad CGU. Additionally, the audit effort associated with this estimate required specialized skills and knowledge.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the calculation of the recoverable amount of the Trinidad CGU. This included controls related to the determination of forecasted production volumes, ammonia net selling prices and the discount rate. We evaluated forecasted ammonia net selling prices by comparing to external forecasts. We evaluated forecasted production volumes by comparing to recent actual production, adjusted for the plant closure. We evaluated the current year actual ammonia net selling prices and production volumes by comparing to those assumptions used in the prior year forecast to assess the Company's ability to accurately forecast. We involved valuation professionals with specialized skills and knowledge, who assisted in evaluating the Company's determination of the discount rate by comparing the inputs to the discount rate to publicly available market data and assessing the resulting discount rate.

KPMG LLP

Chartered Professional Accountants

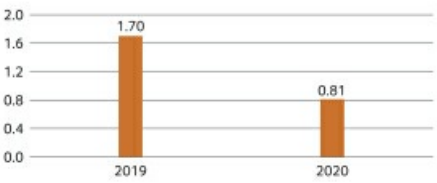
We have served as the Company's auditor since 2018.

Calgary, Canada
February 18, 2021

2020 AT A GLANCE

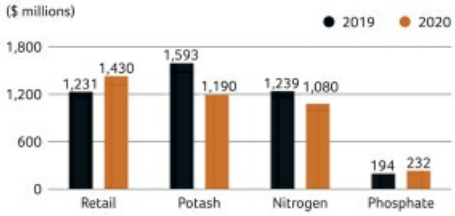
DILUTED NET EARNINGS PER SHARE

($ per share)



ADJUSTED EBITDA BY OPERATING SEGMENT

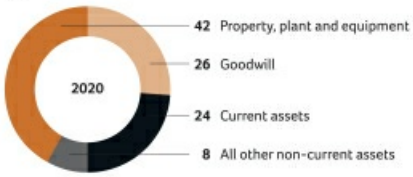
($ millions)



TOTAL ASSETS

As at December 31

(%)



TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY

As at December 31

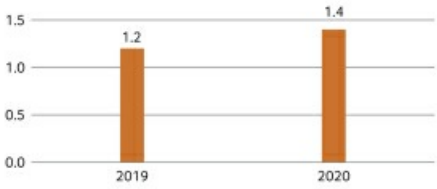
(%)



WORKING CAPITAL RATIO

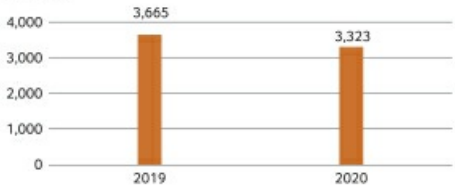
As at December 31

(ratio)



CASH PROVIDED BY OPERATING ACTIVITIES

($ millions)



FIND OUT MORE AT NUTRIEN.COM

CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED STATEMENTS OF EARNINGS

For the years ended December 31	NOTE	2020	2019 Note 2
Sales	3	20,908	20,084
Freight, transportation and distribution	4	855	768
Cost of goods sold	4	14,814	13,814
Gross margin		5,239	5,502
Selling expenses	4	2,813	2,505
General and administrative expenses	4	429	404
Provincial mining and other taxes	4	204	292
Share-based compensation	5	69	104
Impairment of assets	13, 14	824	120
Other (income) expenses	6	(2)	215
Earnings before finance costs and income taxes		902	1,862
Finance costs	7	520	554
Earnings before income taxes		382	1,308
Income tax (recovery) expense	8	(77)	316
Net earnings		459	992
Net earnings per share ("EPS")	9		
Basic		0.81	1.70
Diluted		0.81	1.70
Weighted average shares outstanding for basic EPS	9	569,657,000	582,269,000
Weighted average shares outstanding for diluted EPS	9	569,686,000	583,102,000

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the years ended December 31 (net of related income taxes)	2020	2019
Net earnings	459	992
Other comprehensive income		
Items that will not be reclassified to net earnings:		
Net actuarial gain on defined benefit plans	75	7
Net fair value loss on investments	(7)	(25)
Items that have been or may be subsequently reclassified to net earnings:		
Gain on currency translation of foreign operations	142	47
Other	(16)	7
Other comprehensive income	194	36
Comprehensive income	653	1,028

(See Notes to the Consolidated Financial Statements)

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ended December 31	NOTE	2020	2019
Operating activities			
Net earnings		459	992
Adjustments for:			
Depreciation and amortization		1,989	1,799
Share-based compensation	5	69	104
Impairment of assets	13, 14	824	120
Net gain on disposal of investment in Misr Fertilizers Production Company S.A.E. ("MOPCO")	15	(250)	–
(Recovery of) provision for deferred income tax		(9)	177
Other long-term assets, liabilities and miscellaneous	16	(333)	(17)
Cash from operations before working capital changes		2,749	3,175
Changes in non-cash operating working capital:			
Receivables		145	(64)
Inventories		85	190
Prepaid expenses and other current assets		(10)	(238)
Payables and accrued charges		354	602
Cash provided by operating activities		3,323	3,665
Investing activities			
Additions to property, plant and equipment	13	(1,423)	(1,728)
Additions to intangible assets	14	(126)	(163)
Business acquisitions, net of cash acquired	25	(233)	(911)
Proceeds from disposal of investment in MOPCO	15	540	–
Proceeds from disposal of discontinued operations, net of tax		–	55
Purchase of investments		(102)	(198)
Other		140	147
Cash used in investing activities		(1,204)	(2,798)
Financing activities			
Transaction costs on long-term debt		(15)	(29)
(Repayment of) proceeds from short-term debt, net	17	(892)	216
Proceeds from long-term debt	18	1,541	1,510
Repayment of long-term debt	18	(509)	(1,010)
Repayment of principal portion of lease liabilities	18, 19	(274)	(234)
Dividends paid	23	(1,030)	(1,022)
Repurchase of common shares	23	(160)	(1,930)
Issuance of common shares	23	–	20
Cash used in financing activities		(1,339)	(2,479)
Effect of exchange rate changes on cash and cash equivalents		3	(31)
Increase (decrease) in cash and cash equivalents		783	(1,643)
Cash and cash equivalents – beginning of year		671	2,314
Cash and cash equivalents – end of year		1,454	671
Cash and cash equivalents comprised of:			
Cash		1,375	532
Short-term investments		79	139
		1,454	671
Supplemental cash flows information			
Interest paid		498	505
Income taxes paid		156	29
Total cash outflow for leases		345	345

(See Notes to the Consolidated Financial Statements)

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

				Accumulated Other Comprehensive (Loss) Income ("AOCI")						
	Number of Common Shares	**Share Capital**	**Contributed Surplus**	**Net Fair Value Loss on Investments**	**Net Actuarial Gain on Defined Benefit Plans [1]**	**Loss on Currency Translation of Foreign Operations**	**Other**	**Total AOCI**	**Retained Earnings**	**Total Equity [2]**
Balance – December 31, 2018	608,535,477	16,740	231	(7)	–	(251)	(33)	(291)	7,745	24,425
Net earnings	–	–	–	–	–	–	–	–	992	992
Other comprehensive (loss) income	–	–	–	(25)	7	47	7	36	–	36
Shares repurchased (Note 23)	(36,067,323)	(992)	–	–	–	–	–	–	(886)	(1,878)
Dividends declared	–	–	–	–	–	–	–	–	(754)	(754)
Effect of share-based compensation including issuance of common shares	474,655	23	17	–	–	–	–	–	–	40
Transfer of net actuarial gain on defined benefit plans	–	–	–	–	(7)	–	–	(7)	7	–
Transfer of net loss on sale of investment	–	–	–	3	–	–	–	3	(3)	–
Transfer of net loss on cash flow hedges	–	–	–	–	–	–	8	8	–	8
Balance – December 31, 2019	572,942,809	15,771	248	(29)	–	(204)	(18)	(251)	7,101	22,869
Net earnings	–	–	–	–	–	–	–	–	459	459
Other comprehensive (loss) income	–	–	–	(7)	75	142	(16)	194	–	194
Shares repurchased (Note 23)	(3,832,580)	(105)	(55)	–	–	–	–	–	–	(160)
Dividends declared	–	–	–	–	–	–	–	–	(1,029)	(1,029)
Effect of share-based compensation including issuance of common shares	150,177	7	12	–	–	–	–	–	–	19
Transfer of net actuarial gain on defined benefit plans	–	–	–	–	(75)	–	–	(75)	75	–
Transfer of net loss on cash flow hedges	–	–	–	–	–	–	13	13	–	13
Balance – December 31, 2020	569,260,406	15,673	205	(36)	–	(62)	(21)	(119)	6,606	22,365

1 Any amounts incurred during a period were closed out to retained earnings at each period-end. Therefore, no balance exists at the beginning or end of period.
2 All equity transactions were attributable to common shareholders.

(See Notes to the Consolidated Financial Statements)

CONSOLIDATED BALANCE SHEETS

As at December 31	NOTE	2020	2019
Assets			
Current assets			
Cash and cash equivalents		1,454	671
Receivables	11	3,581	3,542
Inventories	12	4,930	4,975
Prepaid expenses and other current assets		1,505	1,477
		11,470	10,665
Non-current assets			
Property, plant and equipment	13	19,660	20,335
Goodwill	14	12,198	11,986
Other intangible assets	14	2,388	2,428
Investments	15	562	821
Other assets	16	914	564
TOTAL ASSETS		47,192	46,799
Liabilities			
Current liabilities			
Short-term debt	17	159	976
Current portion of long-term debt	18	14	502
Current portion of lease liabilities	19	249	214
Payables and accrued charges	20	8,058	7,437
		8,480	9,129
Non-current liabilities			
Long-term debt	18	10,047	8,553
Lease liabilities	19	891	859
Deferred income tax liabilities	8	3,149	3,145
Pension and other post-retirement benefit liabilities	21	454	433
Asset retirement obligations and accrued environmental costs	22	1,597	1,650
Other non-current liabilities		209	161
TOTAL LIABILITIES		24,827	23,930
Shareholders' Equity			
Share capital	23	15,673	15,771
Contributed surplus		205	248
Accumulated other comprehensive loss		(119)	(251)
Retained earnings		6,606	7,101
TOTAL SHAREHOLDERS' EQUITY		22,365	22,869
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		47,192	46,799

(See Notes to the Consolidated Financial Statements)

Approved by the Board of Directors,



Director



Director

NOTE 1 / Description of Business

Nutrien Ltd. (collectively with its subsidiaries, "Nutrien", "we", "us", "our" or "the Company") is the world's largest provider of crop inputs and services. Nutrien plays a critical role in helping growers around the globe increase food production in a sustainable manner.

The Company is a corporation organized under the laws of Canada with its registered head office located at Suite 500, 122 – 1st Avenue South, Saskatoon, Saskatchewan, Canada. As at December 31, 2020, the Company had assets as follows:

NUTRIEN AG SOLUTIONS ("RETAIL")

- various retail facilities across the US, Canada, Australia and South America
- private label and proprietary crop protection products and nutritionals
- an innovative integrated digital platform for growers and crop consultants

POTASH

- six operations in the province of Saskatchewan

NITROGEN

- eight production facilities in North America: four in Alberta and one each in Georgia, Louisiana, Ohio and Texas
- one large-scale operation in Trinidad
- six upgrade facilities in North America: three in Alberta and one each in Georgia, Missouri, and Washington
- 50 percent investment in Profertil S.A. ("Profertil"), a nitrogen producer based in Argentina

PHOSPHATE

- two mines and processing plants: one in Florida and one in North Carolina
- phosphate feed plants in Illinois, Missouri and Nebraska
- an industrial phosphoric acid plant in Ohio

CORPORATE AND OTHERS

- investment in Canpotex Limited ("Canpotex"), a Canadian potash export, sales and marketing company owned in equal shares by Nutrien and another potash producer
- 22 percent investment in Sinofert Holdings Limited ("Sinofert"), a fertilizer supplier and distributor in China

NOTE 2 / Basis of Presentation

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). We have consistently applied the same accounting policies throughout all periods presented, as if these policies had always been in effect, with the exception of the accounting standards adopted effective January 1, 2020, as disclosed in Note 30.

Certain immaterial 2019 figures have been reclassified in the consolidated statements of earnings, segment information, nature of expenses and other (income) expenses.

These consolidated financial statements were authorized for issue by the Board of Directors on February 18, 2021.

Sensitivity analyses included throughout the notes should be used with caution as the changes are hypothetical and not reflective of future performance. The sensitivities have been calculated independently of changes in other key variables. Changes in one factor may result in changes in another, which could increase or reduce certain sensitivities. These consolidated financial statements were prepared under the historical cost basis, except for items that IFRS requires to be measured at fair value. Details of our accounting policies are primarily disclosed in Note 30.

NOTE 2 *Basis of Presentation Continued*

On March 11, 2020, the World Health Organization declared the spread of the novel strain of coronavirus ("COVID-19") a global pandemic. We have assessed our accounting estimates and other matters that require the use of forecasted financial information for the impact of the COVID-19 pandemic. The assessment included estimates of the unknown future impacts of the pandemic using information that is reasonably available at this time. Accounting estimates and other matters assessed include the allowance for expected credit losses of receivables from customers, valuation of inventory, goodwill and other long-lived assets, financial assets, tax assets, pension obligations and assets, and revenue recognition. Based on the current assessment, there was not a material impact to these consolidated financial statements. As a result of the pandemic, we incurred directly attributable and incremental COVID-19 related expenses in other (income) expenses (Note 6). As additional information becomes available, the future assessment of these estimates, including expectations about the severity, duration and scope of the pandemic, could differ materially in future reporting periods.

NOTE 3 Segment Information

The Company has four reportable operating segments: Nutrien Ag Solutions ("Retail"), Potash, Nitrogen and Phosphate. The Retail segment distributes crop nutrients, crop protection products, seed and merchandise, and it provides services directly to growers through a network of farm centers in North America, South America and Australia. The Potash, Nitrogen and Phosphate segments are differentiated by the chemical nutrient contained in the products that each produce.

The Executive Leadership Team ("ELT"), comprised of officers at the Executive Vice President level and above, is the Chief Operating Decision Maker ("CODM"). In 2020, the CODM changed the measure used to evaluate the performance of our operating segments from net earnings (loss) before finance costs, income taxes, and depreciation and amortization ("EBITDA") to adjusted EBITDA. The CODM considers adjusted EBITDA to be a more meaningful measure because it is not impacted by long-term investment and financing decisions, but rather focuses on the performance of our day-to-day operations. In addition, it provides a better indication of the segment's performance compared to EBITDA as it excludes the impact of impairments and other costs that are centrally managed by our corporate function. Due to the change in the measurement of the segments, we have presented adjusted EBITDA for the comparative period.

We determine the composition of the reportable segments based on factors including risks and returns, internal organization, and internal reports reviewed by the CODM. We allocate certain expenses across segments based on reasonable considerations such as production capacities or historical trends.

NOTE 3 *Segment Information Continued*

Financial information on each of these segments is summarized in the following tables:

2020	Retail	Potash	Nitrogen	Phosphate	Corporate and Others	Eliminations	Consolidated
Sales – third party	14,748	2,265	2,572	1,241	82	–	20,908
– intersegment	37	248	628	202	–	(1,115)	–
Sales – total	14,785	2,513	3,200	1,443	82	(1,115)	20,908
Freight, transportation and distribution	–	367	460	241	–	(213)	855
Net sales	14,785	2,146	2,740	1,202	82	(902)	20,053
Cost of goods sold	11,049	1,183	2,265	1,166	74	(923)	14,814
Gross margin	3,736	963	475	36	8	21	5,239
Selling expenses	2,795	9	27	6	(24)	–	2,813
General and administrative expenses	135	7	8	10	269	–	429
Provincial mining and other taxes	–	201	1	–	2	–	204
Share-based compensation expense	–	–	–	–	69	–	69
Impairment of assets (Note 13)	–	23	27	769	5	–	824
Other expenses (income)	44	8	(288)	6	228	–	(2)
Earnings (loss) before finance costs and income taxes	762	715	700	(755)	(541)	21	902
Depreciation and amortization	668	452	599	218	52	–	1,989
EBITDA	1,430	1,167	1,299	(537)	(489)	21	2,891
Acquisition and integration related costs	–	–	4	–	56	–	60
Share-based compensation expense	–	–	–	–	69	–	69
Impairment of assets (Note 13)	–	23	27	769	5	–	824
COVID-19 related expenses	–	–	–	–	48	–	48
Foreign exchange loss, net of related derivatives	–	–	–	–	19	–	19
Loss on disposal of business	–	–	–	–	6	–	6
Net gain on disposal of investment in MOPCO (Note 15)	–	–	(250)	–	–	–	(250)
Adjusted EBITDA	1,430	1,190	1,080	232	(286)	21	3,667
Assets	20,526	12,032	10,612	1,462	2,983	(423)	47,192

In millions of US dollars unless otherwise noted

NOTE 3 *Segment Information Continued*

2019	Retail	Potash	Nitrogen	Phosphate	Corporate and Others	Eliminations	Consolidated
Sales – third party	13,244	2,702	2,608	1,397	133	–	20,084
– intersegment	38	207	612	203	–	(1,060)	–
Sales – total	13,282	2,909	3,220	1,600	133	(1,060)	20,084
Freight, transportation and distribution	–	305	372	232	–	(141)	768
Net sales	13,282	2,604	2,848	1,368	133	(919)	19,316
Cost of goods sold	9,981	1,103	2,148	1,373	133	(924)	13,814
Gross margin	3,301	1,501	700	(5)	–	5	5,502
Selling expenses	2,484	9	25	5	(18)	–	2,505
General and administrative expenses	112	6	15	7	264	–	404
Provincial mining and other taxes	–	287	2	1	2	–	292
Share-based compensation expense	–	–	–	–	104	–	104
Impairment of assets (Note 13 and 14)	–	–	–	–	120	–	120
Other expenses (income)	69	(4)	(46)	25	171	–	215
Earnings (loss) before finance costs and income taxes	636	1,203	704	(43)	(643)	5	1,862
Depreciation and amortization	595	390	535	237	42	–	1,799
EBITDA	1,231	1,593	1,239	194	(601)	5	3,661
Merger and related costs	–	–	–	–	82	–	82
Acquisition and integration related costs	–	–	–	–	16	–	16
Share-based compensation expense	–	–	–	–	104	–	104
Impairment of assets (Note 13 and 14)	–	–	–	–	120	–	120
Foreign exchange loss, net of related derivatives	–	–	–	–	42	–	42
Adjusted EBITDA	1,231	1,593	1,239	194	(237)	5	4,025
Assets	19,990	11,696	10,991	2,198	2,129	(205)	46,799

Our Retail segment primarily generates revenue from sales of the following:

Crop nutrients	Dry and liquid macronutrient products including potash, nitrogen and phosphate, proprietary liquid micronutrient products and nutrient application services.
Crop protection products	Various third-party supplier and proprietary products designed to maintain crop quality and manage plant diseases, weeds, and other pests.
Seed	Various third-party supplier seed brands and proprietary seed product lines.
Merchandise	Fencing, feed supplements, livestock-related animal health products, storage and irrigation equipment, and other products.
Nutrien Financial	Financing solutions provided to Retail branches and customers in support of Nutrien's agricultural product and service sales.
Services and other revenues	Product application, soil and leaf testing, crop scouting and precision agriculture services, water services and livestock marketing.

NOTE 3 *Segment Information Continued*

Our Potash, Nitrogen and Phosphate segments generate revenue from sales of the following products:

	Products	Sales prices impacted by
Potash	• North American – primarily granular • Offshore (international) – primarily granular and standard	• North American prices referenced at delivered prices (including transportation and distribution costs) • International prices pursuant to term and spot contract prices (excluding transportation and distribution costs)
Nitrogen	• Ammonia, urea, urea ammonium nitrate, industrial grade ammonium nitrate and ammonium sulfate	• Global energy costs and supply
Phosphate	• Solid fertilizer, liquid fertilizer, industrial products and feed products	• Global prices and supplies of ammonia and sulfur

Revenue reported under our Corporate and Others segment primarily relates to oumon-core Canadian business, which was sold in 2020.

Presented below is revenue from contracts with customers disaggregated by product line or geographic location for each reportable segment.

	2020	2019
Retail sales by product line		
Crop nutrients	5,200	4,989
Crop protection products	5,602	4,983
Seed	1,790	1,712
Merchandise	943	598
Nutrien Financial	129	–
Services and other	1,241	1,000
Nutrien Financial elimination [1]	(120)	–
	14,785	13,282
Potash sales by geography		
Manufactured product		
North America	1,275	1,283
Offshore [2]	1,238	1,625
Other potash and purchased products	–	1
	2,513	2,909
Nitrogen sales by product line		
Manufactured product		
Ammonia	779	884
Urea	1,040	1,019
Solutions, nitrates and sulfates	816	812
Other nitrogen and purchased products	565	505
	3,200	3,220
Phosphate sales by product line		
Manufactured product		
Fertilizer	838	944
Industrial and feed	454	475
Other phosphate and purchased products	151	181
	1,443	1,600

1 Represents elimination for the interest and service fees charged by Nutrien Financial to Retail branches.
2 Relates to Canpotex (Note 28).

NOTE 3 *Segment Information Continued*

Financial information by geographic area is summarized in the following tables:

	Sales – Third Party		Non-Current Assets [1]	
	2020	2019	2020	2019
United States	12,373	12,561	15,268	15,685
Canada	2,565	2,504	17,435	17,503
Australia	3,231	1,961	1,305	1,172
Canpotex (Note 28)	1,238	1,625	–	–
Trinidad	101	113	644	691
Other	1,400 [2]	1,320 [2]	564	639
	20,908	20,084	35,216	35,690

1 Excludes financial instruments (other than equity-accounted investees), deferred tax assets and post-employment benefit assets.
2 Other third-party sales primarily relate to Argentina of $372 (2019 – $404), Brazil of $284 (2019 – $109), Europe of $183 (2019 – $210), and Others of $561 (2019 – $597).

Canpotex sales volumes by geographical area were as follows:

Canpotex Sales by market (%)	2020	2019
Latin America	32	31
China	22	22
India	14	10
Other Asian markets	25	27
Other markets	7	10

NOTE 4 Nature of Expenses

	2020	2019
Purchased and produced raw materials and product for resale[1]	12,110	11,335
Depreciation and amortization	1,989	1,799
Employee costs [2]	2,450	2,205
Freight	963	845
Impairment of assets (Note 13 and 14)	824	120
Provincial mining and other taxes [3]	204	292
Offsite warehouse costs	60	51
Merger and related costs	–	82
Acquisition and integration related costs	60	16
Contract services	617	567
Lease expense [4]	60	66
Fleet fuel, repairs and maintenance	222	202
COVID-19 related expenses	48	–
Net gain on disposal of investment in MOPCO (Note 15)	(250)	–
Other	649	642
Total cost of goods sold and expenses	20,006	18,222

1 Significant expenses include: supplies, energy, fuel, purchases of raw material (natural gas – feedstock, sulfur, ammonia and reagents) and product for resale (crop nutrients and protection products, and seed).
2 Includes employee benefits and share-based compensation.
3 Includes Saskatchewan potash production tax, and Saskatchewan resource surcharge and other of $86 and $118 (2019 – $190 and $102), respectively, as required under Saskatchewan provincial legislation.
4 Includes lease expense relating to short-term leases, leases of low value and variable lease payments.

NOTE 5 / Share-based Compensation

We have share-based compensation plans (including those assumed from Potash Corporation of Saskatchewan Inc. ("PotashCorp") and Agrium Inc. ("Agrium")) for eligible employees and directors as part of their remuneration package, including Stock Options, Performance Share Units ("PSUs"), Restricted Share Units ("RSUs") and Deferred Share Units ("DSUs").

The following summarizes the Nutrien share-based compensation plans, under which we have awards available to be granted, and the assumed legacy plans of PotashCorp and Agrium, under which no awards will be granted:

Plans	Eligibility	Granted	Vesting Period	Maximum Term	Settlement
Stock Options	Officers and eligible employees	Annually	25% per year over four years	10 years	Shares
PSUs	Officers and eligible employees	Annually	On third anniversary of grant date based on total shareholder return over a three-year performance cycle, compared to average total shareholder return of a peer group of companies over the same period	Not applicable	Cash
RSUs	Eligible employees	Annually	On third anniversary of grant date and are not subject to performance conditions	Not applicable	Cash
DSUs	Non-executive directors	At the discretion of the Board of Directors	Fully vest upon grant	Not applicable	Cash [1]
SARs/TSARs [2]	Awards no longer granted; legacy awards only	Awards no longer granted; legacy awards only	25% per year over four years	10 years	Cash

1 Directors can redeem their DSUs for cash only when they leave the Board of Directors for an amount equal to the market value of the common shares at the time of redemption or as mandated by the Nutrien DSU Plan.
2 Under the assumed legacy Agrium stock appreciation rights ("SARs") plan, holders of tandem stock appreciation rights ("TSARs") have the ability to choose between (a) receiving in cash the price of our shares on the date of exercise in excess of the exercise price of the right or (b) receiving common shares by paying the exercise price of the right. Our past experience and future expectation is that substantially all TSAR holders will elect to choose the first option.

The weighted average fair value of stock options granted was estimated as of the date of the grant using the Black-Scholes-Merton option-pricing model. The weighted average grant date fair value of stock options per unit granted in 2020 was $7.18 (2019 – $11.27). The weighted average assumptions by year of grant that impacted current year results are as follows:

		Year of Grant	
Assumptions	**Based On**	**2020**	**2019**
Exercise price per option	Quoted market closing price [1]	42.23	53.54
Expected annual dividend yield (%)	Annualized dividend rate [2]	4.36	3.22
Expected volatility (%)	Historical volatility [3]	29	27
Risk-free interest rate (%)	Zero-coupon government issues [4]	1.51	2.55
Average expected life of options (years)	Historical experience	8.5	7.5

1 Of common shares on the last trading day immediately preceding the date of the grant.
2 As of the date of the grant.
3 Of the Company's share over a period commensurate with the expected life of the option.
4 Implied yield available on equivalent remaining term at the time of the grant.

NOTE 5 *Share-based Compensation Continued*

The following table summarizes the activity related to our stock option plans:

	Number of Shares Subject to Option		Weighted Average Exercise Price	
	2020	**2019**	**2020**	**2019**
Outstanding – beginning of year	9,191,480	9,044,237	56.88	58.41
Granted	2,293,802	1,376,533	42.23	53.54
Exercised	(123,403)	(451,574)	42.24	42.73
Forfeited or cancelled	(34,506)	(502,016)	57.45	86.53
Expired	(329,481)	(275,700)	75.92	76.59
Outstanding – end of year	10,997,892	9,191,480	53.59	56.88

The aggregate grant-date fair value of all stock options granted in 2020 was $16. The average share price in 2020 was $38.87 per share.

The following table summarizes information about our stock options outstanding as at December 31, 2020, with expiry dates ranging from May 2021 to February 2030:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	**Number**	**Weighted Average Remaining Life in Years**	**Weighted Average Exercise Price**	**Number**	**Weighted Average Exercise Price**
$37.84 to $41.60	1,647,297	5	38.71	1,647,297	38.71
$41.61 to $43.36	2,293,802	9	42.23	– [1]	–
$43.37 to $45.40	1,492,667	7	44.50	988,275	44.50
$45.41 to $52.75	2,239,358	5	48.74	2,098,294	48.91
$52.76 to $78.86	1,645,867	7	57.60	821,067	61.68
$78.87 to $130.78	1,678,901	2	94.31	1,678,901	94.31
	10,997,892	6	53.59	7,233,834	57.97

1 Options granted in this range of exercise prices have not yet met the vesting period.

Information for all employee and director share-based compensation plans is summarized below:

	Units Granted in 2020	**Units Outstanding as at December 31, 2020**	Compensation Expense	
			2020	**2019**
Stock Options	2,293,802	10,997,892	14	19
PSUs	794,017	1,879,160	31	65
RSUs	486,194	1,304,858	22	18
DSUs	49,424	369,267	2	2
SARs/TSARs	–	1,576,172	–	–
			69	104

NOTE 6 / Other (Income) Expenses

	2020	2019
Merger and related costs	–	82
Acquisition and integration related costs	60	16
Foreign exchange loss, net of related derivatives	18	42
Earnings of equity-accounted investees	(73)	(66)
Bad debt expense	6	24
COVID-19 related expenses	48	–
Loss on disposal of business	6	–
Net gain on disposal of investment in MOPCO (Note 15)	(250)	–
Other expenses	183	117
	(2)	215

NOTE 7 / Finance Costs

	2020	2019
Interest expense		
Short-term debt	50	87
Long-term debt	392	387
Lease liabilities (Note 19)	34	34
COVID-19 related	19	–
Unwinding of discount on asset retirement obligations (Note 22)	33	54
Interest on net defined benefit pension and other post-retirement plan obligations (Note 21)	13	15
Borrowing costs capitalized to property, plant and equipment	(20)	(18)
Interest income	(1)	(5)
	520	554

Borrowing costs capitalized to property, plant and equipment in 2020 were calculated by applying an average capitalization rate of 3.9 percent (2019 – 4.6 percent) to expenditures on qualifying assets.

NOTE 8 / Income Taxes

Income Taxes Included in Net Earnings

We operate in a specialized industry and in several tax jurisdictions; as a result, our earnings are subject to various rates of taxation. The provision for income taxes differs from the amount that would have resulted from applying the Canadian statutory income tax rates to earnings (loss) before income taxes as follows:

	2020	2019
Earnings (loss) before income taxes		
Canada	525	765
United States	(506)	315
Australia	83	27
Trinidad	(44)	(28)
Other	324	229
	382	1,308
Canadian federal and provincial statutory income tax rate (%)	27	27
Income tax at statutory rates	103	353
Adjusted for the effect of:		
Recovery of prior year taxes due to US legislative changes	(94)	–
Non-taxable income	(59)	(19)
Change in recognition of tax losses and deductible temporary differences	(20)	–
Impact of foreign tax rates	(18)	(45)
Production-related deductions	(12)	(17)
Impact of tax rate changes	(3)	16
Non-deductible expenses	13	15
Foreign accrual property income	7	18
Other	6	(5)
Income tax (recovery) expense included in net earnings	(77)	316

Total income tax (recovery) expense, included in net earnings, was comprised of the following:

	2020	2019
Current income tax		
Tax (recovery) expense for current year	(38)	161
Adjustments in respect of prior years	(30)	(22)
Total current income tax (recovery) expense	(68)	139
Deferred income tax		
Origination and reversal of temporary differences	72	152
Adjustments in respect of prior years	(58)	9
Change in recognition of tax losses and deductible temporary differences	(20)	–
Impact of tax rate changes	(3)	16
Total deferred income tax (recovery) expense	(9)	177
Income tax (recovery) expense included in net earnings	(77)	316

NOTE 8 *Income Taxes Continued*

Deferred Income Taxes

In respect of each type of temporary difference, unused tax loss and unused tax credit, the amounts of deferred tax assets and liabilities recognized in the consolidated balance sheets as at December 31 and the amount of the deferred tax (recovery) expense recognized in net earnings were:

	Deferred Income Tax (Assets) Liabilities		Deferred Income Tax (Recovery) Expense Recognized in Net Earnings	
	2020	**2019**	**2020**	**2019**
Deferred income tax assets				
Asset retirement obligations and accrued environmental costs	(376)	(387)	20	25
Tax loss and other carryforwards	(370)	(270)	(98)	(9)
Lease liabilities	(201)	(227)	26	55
Pension and other post-retirement benefit liabilities	(161)	(168)	(12)	(14)
Long-term debt	(102)	(107)	3	3
Receivables	(50)	(51)	2	7
Inventories	(37)	(59)	20	(5)
Payables and accrued charges	–	(25)	25	(5)
Other assets	(12)	(22)	17	14
Deferred income tax liabilities				
Property, plant and equipment	3,637	3,647	(12)	147
Goodwill and other intangible assets	471	523	(67)	(58)
Payables and accrued charges	72	–	72	–
Other liabilities	36	42	(5)	17
	2,907	2,896	(9)	177

Reconciliation of net deferred income tax liabilities:

	2020	**2019**
Balance – beginning of year	2,896	2,691
Business acquisitions (Note 25)	–	29
Income tax (recovery) expense recognized in net earnings	(9)	177
Income tax charge recognized in other comprehensive income ("OCI")	17	2
Other	3	(3)
Balance – end of year	2,907	2,896

Amounts and expiry dates of unused tax losses and unused tax credits as at December 31, 2020, were:

	Amount	**Expiry Date**
Unused federal operating losses	1,425	2021 – Indefinite
Unused federal capital losses	583	Indefinite
Unused investment tax credits	23	2021 – 2040

The unused tax losses and credits with no expiry dates can be carried forward indefinitely.

As at December 31, 2020, we had $735 of federal tax losses for which we did not recognize deferred tax assets.

We have determined that it is probable that all recognized deferred tax assets will be realized through a combination of future reversals of temporary differences and taxable income.

We did not recognize deferred tax liabilities related to temporary differences associated with investments in subsidiaries and equity-accounted investees amounting to $8,911 as at December 31, 2020 (2019 – $9,183).

In 2020, previously unrecognized capital losses were utilized primarily as a result of the net gain on disposal of investment in MOPCO. In addition, as a result of the non-cash impairment of assets relating to our property, plant and equipment at White Springs, management revised its estimate of future taxable profits and derecognized deferred tax assets related to Florida tax losses and deductible temporary differences. In aggregate, the net decrease in unrecognized deferred tax assets was $20.

NOTE 9 / Net Earnings Per Share

	2020	2019
Weighted average number of common shares	569,657,000	582,269,000
Dilutive effect of stock options	29,000	777,000
Dilutive effect of share-settled PSUs	–	56,000
Weighted average number of diluted common shares	569,686,000	583,102,000

Options excluded from the calculation of diluted net earnings per share due to the option exercise prices being greater than the average market price of common shares were as follows:

	2020	2019
Number of options excluded	9,875,797	4,539,529
Performance option plan years fully excluded	2011 – 2017	2010 – 2015
Stock option plan years fully excluded	2015, 2017 – 2020	2015, 2019

NOTE 10 / Financial Instruments and Related Risk Management

Our ELT, along with the Board of Directors (including Board of Directors Committees), is responsible for monitoring our risk exposures and managing our policies to address these risks. Our strategic and risk management processes are integrated to ensure we understand the benefit from the relationship between strategy, risk and value creation. Outlined below are our risk management strategies we have developed to mitigate the financial market risks which we are exposed to.

Credit Risk	Risk Management Strategies

Receivables from customers	• establish credit approval policies and procedures for new and existing customers
	• extend credit to qualified customers through:
	  • review of credit agency reports, financial statements and/or credit references, as available
	  • review of existing customer accounts every 12 – 24 months based on the credit limit amounts
	  • evaluation of customer and country risk for international customers
	• establish credit period:
	  • 15 and 30 days for wholesale fertilizer customers
	  • 30 days for industrial and feed customers
	  • 30 – 360 days for Retail, including Nutrien Financial, customers
	  • up to 180 days for select export sales customers, including Canpotex
	• transact on a cash basis with certain customers who may not meet specified benchmark creditworthiness or cannot provide other evidence of ability to pay
	• execute an agency arrangement with a financial institution with which we have only a limited recourse involvement
	• sell receivables to financial institutions which substantially transfer the risks and rewards
	• set eligibility requirements for Nutrien Financial to limit the risk of the receivables
	• may require security over certain crop or livestock inventories
	• set up provision using the lifetime expected credit loss method considering all possible default events over the expected life of a financial instrument. Receivables are grouped based on days past due and/or customer credit risk profile. Estimated losses on receivables are based on known troubled accounts and historical experience of losses incurred. Receivables are considered to be in default and are written off against the allowance when it is probable that all remaining contractual payments due will not be collected in accordance with the terms of the agreement

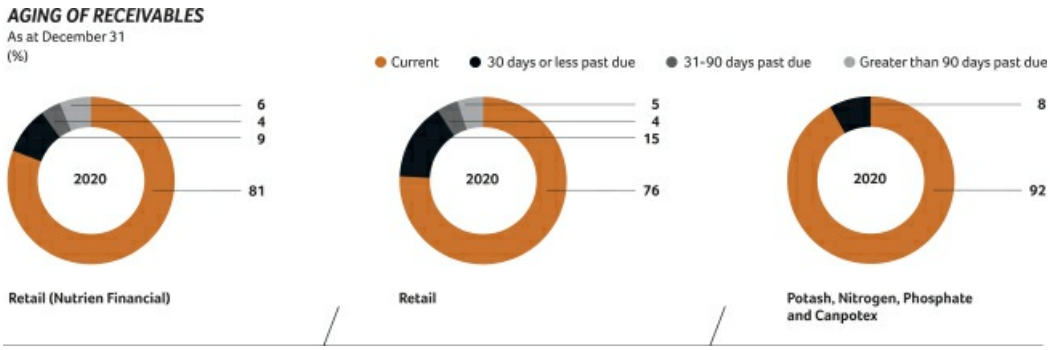
Cash and cash equivalents and derivative assets	• require acceptable minimum counterparty credit ratings • limit counterparty or credit exposure • select counterparties with investment-grade quality

NOTE 10 *Financial Instruments and Related Risk Management Continued*

Maximum exposure to credit risk as at December 31:

	2020	2019
Cash and cash equivalents	1,454	671
Receivables [1]	3,498	3,438
Other current assets – derivatives	45	5
	4,997	4,114

1 Excluding income tax receivable.



Risk	Risk Management Strategies
Liquidity	• establish an external borrowing policy to maintain sufficient liquid financial resources to fund our operations and meet our commitments and obligations in a cost-effective manner • maintain an optimal capital structure • maintain investment-grade credit ratings that provide ease of access to the debt capital and commercial paper markets • maintain sufficient short-term credit availability • uphold long-term relationships with a sufficient number of high-quality and diverse lenders Refer to Note 17 for our available credit facilities.

The following maturity analysis of our financial liabilities and gross settled derivative contracts (for which the cash flows are settled simultaneously) is based on the expected undiscounted contractual cash flows from the date of the consolidated balance sheets to the contractual maturity date.

2020	Carrying Amount of Liability as at December 31	Contractual Cash Flows	Within 1 Year	1 to 3 Years	3 to 5 Years	Over 5 Years
Short-term debt [1]	159	159	159	–	–	–
Payables and accrued charges [2]	5,781	5,781	5,781	–	–	–
Long-term debt, including current portion [1]	10,061	15,795	434	2,378	2,498	10,485
Lease liabilities, including current portion [1]	1,140	1,305	281	408	233	383
Derivatives	48	48	39	9	–	–
	17,189	23,088	6,694	2,795	2,731	10,868

1 Contractual cash flows include contractual interest payments related to debt obligations and lease liabilities. Interest rates on variable rate debt are based on prevailing rates as at December 31, 2020.

2 Excludes non-financial liabilities and includes trade payables of approximately $1.5 billion that are related to our prepaid inventory to secure product discounts. We consider these amounts to be part of our working capital. For these payables, we participated in arrangements where the vendors sold their right to receive payment to financial institutions without extending the original payment terms. These payables were paid in January and February 2021.

NOTE 10 *Financial Instruments and Related Risk Management Continued*

Foreign Exchange Risk	Risk Management Strategies
Foreign currency denominated accounts	• execute foreign currency derivative contracts within certain prescribed limits for both forecast operating and capital expenditures to manage the earnings impact, including those related to our equity-accounted investees, that could occur from a reasonably possible strengthening or weakening of the US dollar

The fair value of our net foreign exchange currency derivative assets (liabilities) at December 31, 2020 was $14 (2019 – $2). The following table presents the significant foreign currency derivatives that existed at December 31:

	2020			2019		
Sell/buy	**Notional**	**Maturities**	**Average contract rate**	**Notional**	**Maturities**	**Average contract rate**
Derivatives not designated as hedges						
Forwards						
USD/CAD [1]	514	2021	1.2796	337	2020	1.3096
CAD/USD	126	2021	1.2804	120	2020	1.3138
USD/AUD [2]	28	2021	1.3661	78	2020	1.4593
AUD/USD	92	2021	1.3640	47	2020	1.4563
Options						
USD/CAD – buy USD puts	70	2021	1.3147	–	–	–
USD/CAD – sell USD calls	55	2021	1.3665	–	–	–
AUD/USD – buy USD calls	61	2021	1.3216	–	–	–
Derivatives designated as hedges						
Forwards						
USD/CAD	254	2021	1.3190	–	–	–

1 Canadian Dollar
2 Australian Dollar

Market Risks	Type	Risk Management Strategies	
Interest rate	Short-term and long-term debt	• use a portfolio of fixed and floating rate instruments • align current and long-term assets with demand andfixed-term debt • monitor the effects of market changes in interest rates • use interest rate swaps, if desired	We do not believe we have material exposure to interest or price risk on our financial instruments as at December 31, 2020 and 2019.
Price	Natural gas derivative instruments	• diversify our forecast gas volume requirements, including a portion of annual requirements purchased at spot market prices, a portion at fixed prices (up to 10 years) and a portion indexed to the market price of ammonia • acquire a reliable supply of natural gas feedstock and fuel on a location-adjusted, cost-competitive basis	
Price	Investment at fair value	• ensure the security of principal amounts invested • provide for an adequate degree of liquidity • achieve a satisfactory return	

In 2020, we entered into cash flow hedges on our interest rate derivative contracts which matured in the same year and had a total notional amount of $680.

NOTE 10 *Financial Instruments and Related Risk Management Continued*

Natural gas derivatives outstanding:

	2020				2019			
	Notional [1]	Maturities	Average Contract Price [2]	Fair Value of Assets (Liabilities)	Notional [1]	Maturities	Average Contract Price [2]	Fair Value of Assets (Liabilities)
NYMEX swaps	14	2021 – 2022	3.89	(18)	16	2020 – 2022	4.26	(30)

1 In millions of Metric Million British Thermal Units ("MMBtu").
2 US dollars per MMBtu.

	2020			2019		
Financial assets (liabilities)	Gross	Offset	Net Amounts Presented	Gross	Offset	Net Amounts Presented
Derivative instrument liabilities						
Natural gas derivatives [1]	(18)	–	(18)	(30)	–	(30)
Other long-term debt instruments [2]	(150)	150	–	(150)	150	–
	(168)	150	(18)	(180)	150	(30)

1 Cash margin deposits of $9 (2019 – $17) were placed with counterparties related to legally enforceable master netting arrangements.
2 Back-to-back loan arrangements that are not subject to any financial test covenants but are subject to certain customary covenants and events of default. We were in compliance with these covenants as at December 31, 2020.

Fair Value

Financial instruments included in the consolidated balance sheets are measured either at fair value or amortized cost. The following tables explain the valuation methods used to determine the fair value of each financial instrument and its associated level in the fair value hierarchy.

Financial Instruments at Fair Value	Fair Value Method
Cash and cash equivalents	Carrying amount (approximation to fair value assumed due to short-term nature)
Equity securities	Closing bid price of the common shares as at the balance sheet date
Debt securities	Closing bid price of the debt or other instruments with similar terms and credit risk (Level 2) as at the balance sheet date
Foreign currency derivatives not traded in an active market	Quoted forward exchange rates (Level 2) as at the balance sheet date
Foreign exchange forward contracts, swaps and options and natural gas swaps not traded in an active market	Based on a discounted cash flow model. Inputs included contractual cash flows based on prices for natural gas futures contracts, fixed prices and notional volumes specified by the swap contracts, the time value of money, liquidity risk, our own credit risk (related to instruments in a liability position) and counterparty credit risk (related to instruments in an asset position). Futures contract prices used as inputs in the model were supported by prices quoted in an active market and therefore categorized in Level 2.

Financial Instruments at Amortized Cost	Fair Value Method
Receivables, short-term debt and payables and accrued charges	Carrying amount (approximation to fair value assumed due to short-term nature)
Long-term debt	Quoted market prices (Level 1 or 2 depending on the market liquidity of the debt)
Other long-term debt instruments	Carrying amount

In millions of US dollars unless otherwise noted

NOTE 10 *Financial Instruments and Related Risk Management Continued*

The following table presents our fair value hierarchy for financial instruments carried at fair value on a recurring basis or measured at amortized cost:

	2020			2019		
Financial assets (liabilities) measured at	Carrying Amount	Level 1 [1]	Level 2 [1]	Carrying Amount	Level 1 [1]	Level 2 [1]
Fair value on a recurring basis						
Cash and cash equivalents	1,454	–	1,454	671	–	671
Derivative instrument assets	45	–	45	5	–	5
Other current financial assets – marketable securities [2]	161	24	137	193	27	166
Investment at fair value through other comprehensive income ("FVTOCI") (Note 15)	153	153	–	161	161	–
Derivative instrument liabilities	(48)	–	(48)	(33)	–	(33)
Amortized cost						
Current portion of long-term debt						
Notes and debentures	–	–	–	(494)	–	(503)
Fixed and floating rate debt	(14)	–	(14)	(8)	–	(8)
Long-term debt						
Notes and debentures	(9,994)	(3,801)	(7,955)	(8,528)	(1,726)	(7,440)
Fixed and floating rate debt	(53)	–	(53)	(25)	–	(25)

1 During 2020 and 2019, there were no transfers between Level 1 and Level 2 for financial instruments measured at fair value on a recurring basis. Our policy is to recognize transfers at the end of the reporting period.
2 Marketable securities consist of equity and fixed income securities.

NOTE 11 Receivables

	Segment	2020	2019
Receivables from customers			
Third parties	Retail (Nutrien Financial) [1]	1,417	826
	Retail	1,158	1,682
	Potash, Nitrogen, Phosphate	391	428
Related party – Canpotex	Potash (Note 28)	122	194
Less allowance for expected credit losses of receivables from customers		(69)	(83)
		3,019	3,047
Rebates		256	190
Income taxes (Note 8)		83	104
Other receivables		223	201
		3,581	3,542

1 Includes $1,147 of very low risk of default and $270 of low risk of default (2019 – $762 of very low risk of default and $64 of low risk of default).

NOTE 11 *Receivables Continued*

Qualifying receivables from customers financed by Nutrien Financial represents high-quality receivables from customers that have been rated very low to low risk of default among Retail's receivables from customers.

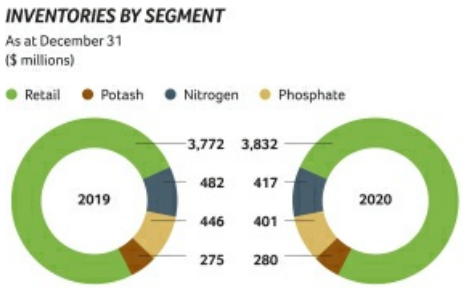
Customer credit with a financial institution of $444 at December 31, 2020, related to our agency agreement, is not recognized in our consolidated balance sheets. Through the agency agreement, we only have a limited recourse involvement to the extent of an indemnification of the financial institution to a maximum of 5 percent (2019 – 5 percent) of the qualified customer loans. Historical indemnification losses on this arrangement have been negligible, and the average aging of the customer loans with the financial institution is current.

NOTE 12 Inventories

	2020	2019
Product purchased for resale [1]	3,655	3,592
Finished products	384	524
Intermediate products	227	244
Raw materials	215	205
Materials and supplies	449	410
	4,930	4,975

1 Includes biological assets of $7 (December 31, 2019 – $33) measured at fair value less costs of disposal ("FVLCD").

Inventories expensed to cost of goods sold during the year were $14,347 (2019 – $13,465).



NOTE 13 / Property, Plant and Equipment

The majority of our tangible assets are buildings, machinery and equipment used to produce or distribute our products and render our services. Right-of-use ("ROU") assets primarily include railcars, marine vessels, real estate and mobile equipment.

	Land and Improvements	Buildings and Improvements	Machinery and Equipment	Mine Development Costs	Assets Under Construction	Total
Useful life range (years)	2 – 80	1 – 60	1 – 80	2 – 60	n/a	
Carrying amount – December 31, 2019	1,160	6,409	10,641	747	1,378	20,335
Acquisitions (Note 25)	8	27	42	–	–	77
Additions	25	91	224	1	1,077	1,418
Additions – ROU assets	–	24	299	–	–	323
Disposals	(5)	(9)	(34)	–	–	(48)
Transfers	46	58	923	164	(1,191)	–
Foreign currency translation and other	(15)	–	30	30	(10)	35
Depreciation	(39)	(198)	(1,060)	(82)	–	(1,379)
Depreciation – ROU assets	(2)	(55)	(222)	–	–	(279)
Impairment	(88)	(42)	(507)	(137)	(48)	(822)
Carrying amount – December 31, 2020	1,090	6,305	10,336	723	1,206	19,660
Balance – December 31, 2020 comprised of:						
Cost	1,530	8,377	19,730	2,279	1,206	33,122
Accumulated depreciation and impairments	(440)	(2,072)	(9,394)	(1,556)	–	(13,462)
Carrying amount – December 31, 2020	1,090	6,305	10,336	723	1,206	19,660
Balance – December 31, 2020 comprised of:						
Owned property, plant and equipment	1,061	5,986	9,665	723	1,206	18,641
ROU assets	29	319	671	–	–	1,019
Carrying amount – December 31, 2020	1,090	6,305	10,336	723	1,206	19,660
Carrying amount – December 31, 2018	1,018	6,044	9,882	709	1,143	18,796
ROU assets recognized on adoption of IFRS 16, "Leases" ("IFRS 16")	48	307	704	–	–	1,059
Acquisitions (Note 25)	17	136	61	–	37	251
Additions	14	30	225	–	1,487	1,756
Additions – ROU assets	–	22	177	–	–	199
Disposals	(3)	(5)	(84)	–	–	(92)
Transfers	108	145	932	110	(1,295)	–
Foreign currency translation and other	(4)	(37)	(14)	5	6	(44)
Depreciation	(36)	(187)	(1,004)	(77)		(1,304)
Depreciation – ROU assets	(2)	(46)	(186)	–	–	(234)
Impairment	–	–	(52)	–	–	(52)
Carrying amount – December 31, 2019	1,160	6,409	10,641	747	1,378	20,335
Balance – December 31, 2019 comprised of:						
Cost	1,474	8,207	18,548	2,068	1,378	31,675
Accumulated depreciation and impairments	(314)	(1,798)	(7,907)	(1,321)	–	(11,340)
Carrying amount – December 31, 2019	1,160	6,409	10,641	747	1,378	20,335
Balance – December 31, 2019 comprised of:						
Owned property, plant and equipment	1,117	6,065	9,973	747	1,378	19,280
ROU assets	43	344	668	–	–	1,055
Carrying amount – December 31, 2019	1,160	6,409	10,641	747	1,378	20,335

n/a = not applicable

NOTE 13 *Property, Plant and Equipment Continued*

Depreciation of property, plant and equipment was included in the following:

	2020	2019
Freight, transportation and distribution	138	137
Cost of goods sold	1,111	1,008
Selling expenses	393	344
General and administrative expenses	56	40
	1,698	1,529
Depreciation recorded in inventory	132	161
	1,830	1,690

PROPERTY, PLANT AND EQUIPMENT

As at December 31
(%)



Impairment

In 2020, we recorded the following impairments:

Cash-generating units ("CGUs")	Aurora	White Springs
Segment	Phosphate	
Impairment indicator	Lower long-term forecasted global phosphate prices	
Pre-tax impairment loss ($)	545	215
Recoverable amount ($)	995 (post-tax)	160 (pre-tax)
Valuation technique	FVLCD a Level 3 measurement	Value in use ("VIU")
Key assumptions		
End of mine life (proven and probable reserves) (year)	2050	2029
Post-tax discount rate (%)	10.5	12.0 (pre-tax – 16.0)

For our Aurora CGU, the recoverable amount was based onafter-tax discounted cash flows (using a five-year projection and a terminal year thereafter to the expected mine life), which incorporated assumptions an independent market participant would apply. For our White Springs CGU, the recoverable amount was based on pre-tax discounted cash flows until the end of the mine life.

The recoverable amount is most sensitive to the following key assumptions: our internal sales price forecasts, which consider projections from independent third-party data sources, discount rates, and expected mine life. We used key assumptions that were based on historical data and estimates of future results from internal sources, external price benchmarks, and mineral reserve technical reports, as well as industry and market trends.

The following table highlights sensitivities to the recoverable amount which could result in additional impairment losses or reversals of previously recorded losses:

	Aurora	
Key Assumptions	**Change in Assumption**	**Increase (Decrease) to Recoverable Amount ($)**
Net selling price	± 10 per tonne	± 150
Discount rate	± 1.0 percentage point	± 120

NOTE 13 *Property, Plant and Equipment Continued*

For our White Springs CGU, there were no reasonably possible changes in the key assumptions that would result in a substantial change in the recoverable amount.

We also performed impairment testing on the Trinidad CGU, part of our Nitrogen segment, due to the indefinite closure of an ammonia plant in response to market conditions and lower long-term forecasted global ammonia prices. No impairment resulted from comparing the carrying amount of the Trinidad CGU to its recoverable amount determined on a FVLCD methodology. FVLCD was based on after-tax discounted cash flows (using a five-year projection and a 2.0% terminal growth rate) discounted at a post-tax rate of 12.6%.

The following table indicates the percentages by which key assumptions would need to change individually for the estimated Trinidad CGU recoverable amount to be equal to the carrying amount:

Key Assumptions	Change Required for Carrying Amount to Equal Recoverable Amount
Net selling price (5-year average)	4 percent decrease
Production volumes (5-year average)	5 percent decrease
Discount rate (post-tax)	0.9 percentage point increase

In 2020, we also recorded $64 of impairment losses relating to other non-current assets (2019 – $52).

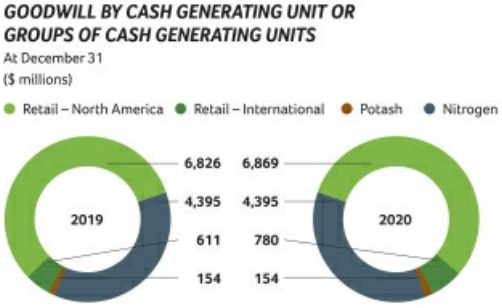
NOTE 14 Goodwill and Other Intangible Assets

		Other Intangibles				
	Goodwill	Customer Relationships [2]	Technology	Trade Names	Other	Total
Useful life range (years)	n/a	3 – 15	3 – 30	1 – 20 [3]	1 – 20	
Carrying amount – December 31, 2019	11,986	1,584	351	62	431	2,428
Acquisitions (Note 25)	167	74	2	8	6	90
Additions – internally developed	–	–	106	–	16	122
Foreign currency translation and other	45	22	20	14	(22)	34
Disposals	–	–	(3)	–	–	(3)
Amortization [1]	–	(165)	(39)	(9)	(70)	(283)
Carrying amount – December 31, 2020	12,198	1,515	437	75	361	2,388
Balance – December 31, 2020 comprised of:						
Cost	12,205	1,971	544	111	597	3,223
Accumulated amortization and impairment	(7)	(456)	(107)	(36)	(236)	(835)
Carrying amount – December 31, 2020	12,198	1,515	437	75	361	2,388
Carrying amount – December 31, 2018	11,431	1,554	117	90	449	2,210
Acquisitions (Note 25)	543	173	43	13	115	344
Additions – internally developed	–	–	197	–	2	199
Foreign currency translation and other	12	2	9	18	(25)	4
Impairment	–	–	–	(35)	(33)	(68)
Amortization [1]	–	(145)	(15)	(24)	(77)	(261)
Carrying amount – December 31, 2019	11,986	1,584	351	62	431	2,428
Balance – December 31, 2019 comprised of:						
Cost	11,993	1,906	429	92	597	3,024
Accumulated amortization and impairment	(7)	(322)	(78)	(30)	(166)	(596)
Carrying amount – December 31, 2019	11,986	1,584	351	62	431	2,428

1 Amortization of $254 was included in selling expenses during the year ended December 31, 2020 (2019 – $234).
2 The average remaining amortization period of customer relationships at December 31, 2020, was approximately 6 years.
3 Certain trade names have indefinite useful lives as there are no regulatory, legal, contractual, cooperative, economic or other factors that limit their useful lives.

NOTE 14 *Goodwill and Other Intangible Assets Continued*

Goodwill Impairment Testing



We performed our annual impairment test on goodwill and did not identify any impairment; however, the recoverable amount for Retail – North America did not substantially exceed its carrying amount. In testing for impairment of goodwill, we calculate the recoverable amount for a CGU or groups of CGUs containing goodwill. We used the FVLCD methodology based on after-tax discounted cash flows (five-year projections and a terminal year thereafter) and incorporated assumptions an independent market participant would apply. We adjusted discount rates for each CGU or group of CGUs for the risk associated with achieving our forecasts (five-year projections) and for the country risk premium in which we expect to generate cash flows. FVLCD is a Level 3 measurement. We use our market capitalization and comparative market multiples to corroborate discounted cash flow results.

The key assumptions with the greatest influence on the calculation of the recoverable amounts are the discount rates, terminal growth rates and cash flow forecasts. The key forecast assumptions were based on historical data and estimates of future results from internal sources as well as industry and market trends.

For each CGU or group of CGUs, terminal growth rates and discount rates used were as follows:

	Terminal Growth Rate (%)		Discount Rate (%)	
	2020	**2019**	**2020**	**2019**
Retail – North America	2.5	2.5	7.5	7.0
Retail – International [1]	2.0	2.0	7.8 – 16.0	7.5 – 15.0
Potash	2.5	2.5	8.0	8.0
Nitrogen	2.0	2.0	8.0	9.0

1 The discount rates reflect the country risk premium and size for our international groups of CGUs.

The Retail – North America group of CGUs recoverable amount exceeds its carrying amount by $1.7 billion, which is 13% of the carrying amount. Most of our goodwill arose from the merger between PotashCorp and Agrium in 2018 (the "Merger"), representing fair values at the merger date. Goodwill is more susceptible to impairment risk if business operating results or economic conditions deteriorate and we do not meet our forecasts. A reduction in the terminal growth rate, an increase in the discount rate or a decrease in forecasted EBITDA could cause impairment in the future. The following table indicates the percentage by which key assumptions would need to change individually for the estimated recoverable amount to be equal to the carrying amount:

Key Assumptions	**Change Required for Carrying Amount to Equal Recoverable Amount**	**Value Used in Impairment Model**
Terminal growth rate	0.8 percentage point decrease	2.5%
Forecasted EBITDA over forecast period	9.1 percent decrease	$ 6 billion
Discount rate	0.7 percentage point increase	7.5%

NOTE 15 / Investments

Equity-accounted investees and investments at FVTOCI as at December 31 were comprised of:

Name	Principal Activity	Principal Place of Business and Incorporation	Proportion of Ownership Interest and Voting Rights Held (%)		Carrying Amount	
			2020	2019	2020	2019
Equity-accounted investees						
MOPCO	Nitrogen Producer	Egypt	–	26	–	270
Profertil	Nitrogen Producer	Argentina	50	50	233	212
Canpotex	Marketing and Logistics	Canada	50	50	–	–
Other associates and joint ventures					176	178
Total equity-accounted investees					409	660
Investments at FVTOCI						
Sinofert	Fertilizer Supplier and Distributor	China/Bermuda	22	22	153	161
Total investments at FVTOCI					153	161

In 2020, as a result of our strategic decision to dispose of our investment in MOPCO, we received cash consideration of $540 for the disposal of the investment and settlement of legal claims. This resulted in a pre-tax gain of $250 recorded in other (income) expenses.

We continuously assess our ability to exercise significant influence or joint control over our investments. Our 22 percent ownership in Sinofert does not constitute significant influence as we do not have any representation on the Board of Directors of Sinofert. We elected to account for our investment in Sinofert as FVTOCI as it is held for strategic purposes.

Future conditions related to Profertil may be affected by political, economic and social instability. We are exposed to foreign exchange risk related to fluctuations in the Argentine peso against the US dollar. This may also restrict our ability to obtain dividends from Profertil.

NOTE 16 / Other Assets

Other assets as at December 31 were comprised of:

	2020	2019
Deferred income tax assets (Note 8)	242	249
Ammonia catalysts – net of accumulated amortization of $76 (2019 – $71)	89	89
Long-term income tax receivable (Note 8)	305	36
Accrued pension benefit assets (Note 21)	109	25
Other – net of accumulated amortization of $44 (2019 – $41)	169	165
	914	564

NOTE 17 / Short-Term Debt

We use our $4.5 billion commercial paper program for our short-term cash requirements. The commercial paper program is backstopped by the $4.5 billion unsecured revolving term credit facility ("Nutrien Credit Facility"). Short-term facilities are renegotiated periodically.

Short-term debt as at December 31 was comprised of:

	Rate of Interest (%)	Total Facility Limit as at December 31, 2020	2020	2019
Credit facilities				
Unsecured revolving term credit facility [1]	Nil	4,500	–	–
Uncommitted revolving demand facility	Nil	500	–	–
Other credit facilities [2]	0.8 – 36.0	740	159	326
Commercial paper	Nil		–	650
			159	976

1 Matures April 10, 2023, subject to extension at the request of Nutrien provided that the resulting maturity date shall not exceed five years from the date of request.
2 Credit facilities are unsecured and consist of South American facilities with debt of $109 (2019 – $149) and interest rates ranging from 1.7 percent to 36.0 percent, Australian facilities with debt of $19 (2019 – $157) and an interest rate of 0.8 percent, and other facilities with debt of $31 (2019 – $20) and an interest rate of 1.0 percent.

The amount available under the commercial paper program is limited to the availability of backup funds under the Nutrien Credit Facility and excess cash invested in highly liquid securities. As at December 31, 2020, we were authorized to issue commercial paper up to $4,500 (2019 – $4,500). Principal covenants and events of default under the Nutrien Credit Facility include a debt to capital ratio (refer to Note 24) and other customary events of default and covenant provisions. Non-compliance with such covenants could result in accelerated repayment and/or termination of the credit facility. We were in compliance with all covenants as at December 31, 2020.

In 2020, we entered into new committed revolving credit facilities totaling approximately $1,500, all with the same principal covenants and events of default as our existing credit facilities. We closed these credit facilities after the issuance of the new notes as described in Note 18.

NOTE 18 / Long-Term Debt

We source our borrowings for funding purposes primarily through notes, debentures and long-term credit facilities. We have access to the capital markets through our base shelf prospectus.

Long-term debt as at December 31 was comprised of:

	Rate of Interest (%)	Maturity	2020	2019
Notes [1]				
	4.875	March 30, 2020	–	500
	3.150	October 1, 2022	500	500
	1.900	May 13, 2023	500	–
	3.500	June 1, 2023	500	500
	3.625	March 15, 2024	750	750
	3.375	March 15, 2025	550	550
	3.000	April 1, 2025	500	500
	4.000	December 15, 2026	500	500
	4.200	April 1, 2029	750	750
	2.950	May 13, 2030	500	–
	4.125	March 15, 2035	450	450
	7.125	May 23, 2036	300	300
	5.875	December 1, 2036	500	500
	5.625	December 1, 2040	500	500
	6.125	January 15, 2041	500	500
	4.900	June 1, 2043	500	500
	5.250	January 15, 2045	500	500
	5.000	April 1, 2049	750	750
	3.950	May 13, 2050	500	–
Debentures [1]	7.800	February 1, 2027	125	125
Other			67	33
			9,742	8,708
Add net unamortized fair value adjustments			404	424
Less net unamortized debt issue costs			(85)	(77)
			10,061	9,055
Less current maturities			(14)	(508)
Add current portion of net unamortized debt issue costs			–	6
			(14)	(502)
			10,047	8,553

1 Each series of notes and debentures is unsecured and has no sinking fund requirements prior to maturity. Each series is redeemable and has various provisions that allow redemption prior to maturity, at our option, at specified prices.

We are subject to certain customary covenants including limitation on liens, merger and change of control covenants, and customary events of default. As calculated in Note 24, we were in compliance with these covenants as at December 31, 2020.

NOTE 18 *Long-Term Debt Continued*

The following is a summary of changes in liabilities arising from financing activities:

	Short-Term Debt and Current Portion of Long-Term Debt	Current Portion of Lease Liabilities	Long-Term Debt	Lease Liabilities	Total
Balance – December 31, 2019	1,478	214	8,553	859	11,104
Cash flows [1]	(1,401)	(274)	1,526	–	(149)
Additions and other adjustments to ROU assets	–	107	–	213	320
Reclassifications	11	194	(11)	(194)	–
Foreign currency translation and other non-cash changes	85	8	(21)	13	85
Balance – December 31, 2020	173	249	10,047	891	11,360
Balance – December 31, 2018	1,624	8	7,579	12	9,223
Adoption of IFRS 16 (Note 13)	–	196	–	863	1,059
Cash flows [1]	(794)	(234)	1,481	–	453
Additions and other adjustments to ROU assets	–	50	–	75	125
Reclassifications	500	178	(500)	(178)	–
Foreign currency translation and other non-cash changes	148	16	(7)	87	244
Balance – December 31, 2019	1,478	214	8,553	859	11,104

1 Cash inflows and cash outflows are presented on a net basis.

NOTE 19 Lease Liabilities

	Average Rate of Interest (%)	2020	2019
Lease liabilities – non-current	3.0	891	859
Current portion of lease liabilities	2.7	249	214
Total		1,140	1,073

NOTE 20 Payables and Accrued Charges

Payables and accrued charges consist primarily of amounts we owe to suppliers and prepayments made by customers planning to purchase our products for the upcoming growing season.

Payables and accrued charges as at December 31 were comprised of:

	2020	2019
Trade and other payables	4,415	4,016
Customer prepayments	1,800	1,693
Dividends	256	258
Accrued compensation	513	434
Current portion of asset retirement obligations and accrued environmental costs (Note 22)	162	148
Accrued interest	99	103
Current portion of share-based compensation (Note 5)	95	118
Current portion of derivatives	39	13
Income taxes (Note 8)	48	43
Current portion of pension and other post-retirement benefits (Note 21)	15	15
Other accrued charges and others	616	596
	8,058	7,437

NOTE 21 / Pension and Other Post-Retirement Benefits

We offer the following pension and other post-retirement benefits to qualified employees: defined benefit pension plans; defined contribution pension plans; and health, disability, dental and life insurance (referred to as other defined benefit) plans. Substantially all our employees participate in at least one of these plans.

Description of Defined Benefit Pension Plans

We sponsor defined benefit pension plans as follows:

	Plan Type	Contributions
United States	• non-contributory, • guaranteed annual pension payments for life,	• made to meet or exceed minimum funding requirements of the Employee Retirement Income Security Act of 1974 and associated Internal Revenue Service regulations and procedures.
Canada	• benefits generally depend on years of service and compensation level in the final years leading up to age 65, • benefits available starting at age 55 at a reduced rate, and • plans provide for maximum pensionable salary and maximum annual benefit limits.	• made to meet or exceed minimum funding requirements based on provincial statutory requirements and associated federal taxation rules.
Supplemental Plans in US and Canada for Senior Management	• non-contributory, • unfunded, and • supplementary pension benefits.	• provided for by charges to earnings sufficient to meet the projected benefit obligations, and • payments to plans are made as plan payments to retirees occur.

Our defined benefit pension plans are funded with separate funds that are legally separated from the Company and administered through an employee benefits or management committee in each country, which is composed of our employees. The employee benefits or management committee is required by law to act in the best interests of the plan participants and, in the US and Canada, is responsible for the governance of the plans, including setting certain policies (e.g., investment and contribution) of the funds. The current investment policy for each country's plans generally does not include any asset/liability matching strategies or currency hedging strategies. Plan assets held in trusts are governed by local regulations and practices in each country, as is the nature of the relationship between the Company and the trustees and their composition.

Description of Other Post-Retirement Plans

We provide health care plans for certain eligible retired employees in the US, Canada and Trinidad. Eligibility for these benefits is generally based on a combination of age and years of service at retirement. Certain terms of the plans include:

- coordination with government-provided medical insurance in each country;
- certain unfunded cost-sharing features such asco-insurance, deductibles and co-payments – benefits subject to change;
- for certain plans, maximum lifetime benefits;
- at retirement, the employee's spouse and certain dependent children may be eligible for coverage;
- benefits are self-insured and are administered through third-party providers; and
- generally, retirees contribute toward annual cost of the plans.

We provide non-contributory life insurance plans for certain retired employees who meet specific age and service eligibility requirements.

NOTE 21 *Pension and Other Post-Retirement Benefits Continued*

Risks

The defined benefit pension and other post-retirement plans expose us to broadly similar actuarial risks. The most significant risks include investment risk and interest rate risk as discussed below. Other risks include longevity risk and salary risk.

Investment Risk	A deficit will be created if plan assets underperform the discount rate used in the defined benefit obligation valuation. To mitigate investment risk, we employ: • a total return on investment approach whereby a diversified mix of equities and fixed income investments is used to maximize long-term return for a prudent level of risk; and • risk tolerance established through careful consideration of plan liabilities, plan funded status and corporate financial condition. Other assets such as private equity and hedge funds are not used at this time. Our policy is not to invest in commodities, precious metals, mineral rights, bullions or collectibles. Investment risk is measured and monitored on an ongoing basis through quarterly investment portfolio reviews, annual liability measurements and periodic asset/liability studies.
Interest Rate Risk	A decrease in bond interest rates will increase the pension liability; however, this is generally expected to be partially offset by an increase in the return on the plan's debt investments.

NOTE 21 *Pension and Other Post-Retirement Benefits Continued*

Financial Information

Movements in the pension and other post-retirement benefit assets (liabilities) were as follows:

	2020			2019		
	Obligation	Plan Assets	Net	Obligation	Plan Assets	Net
Balance – beginning of year	(2,044)	1,621	(423)	(1,797)	1,416	(381)
Components of defined benefit expense recognized in earnings						
Current service cost for benefits earned during the year	(36)	–	(36)	(40)	–	(40)
Interest (expense) income	(66)	53	(13)	(74)	59	(15)
Past service cost, including curtailment gains and settlements[1]	133	(132)	1	–	–	–
Foreign exchange rate changes and other	(3)	(1)	(4)	(29)	13	(16)
Subtotal of components of defined benefit expense (recovery) recognized in earnings	28	(80)	(52)	(143)	72	(71)
Remeasurements of the net defined benefit liability recognized in OCI during the year						
Actuarial gain arising from:						
Changes in financial assumptions	(153)	–	(153)	(199)	–	(199)
Changes in demographic assumptions	12	–	12	14	–	14
Gain on plan assets (excluding amounts included in net interest)	–	230	230	–	193	193
Subtotal of remeasurements	(141)	230	89	(185)	193	8
Cash flows						
Contributions by plan participants	(5)	5	–	(5)	5	–
Employer contributions	–	26	26	–	21	21
Benefits paid	96	(96)	–	86	(86)	–
Subtotal of cash flows	91	(65)	26	81	(60)	21
Balance – end of year[2]	(2,066)	1,706	(360)	(2,044)	1,621	(423)
Balance comprised of:						
Non-current assets						
Other assets (Note 16)			109			25
Current liabilities						
Payables and accrued charges (Note 20)			(15)			(15)
Non-current liabilities						
Pension and other post-retirement benefit liabilities			(454)			(433)

1 During 2020, we transferred certain pension plan obligations to an insurance company.
2 Obligations arising from funded and unfunded pension plans are $(1,690) and $(376), respectively (2019 – $(1,652) and $(392)). Other post-retirement benefit plans have no plan assets and are unfunded.

NOTE 21 *Pension and Other Post-Retirement Benefits Continued*

Plan Assets

As at December 31, the fair value of plan assets of our defined benefit pension plans, by asset category, were as follows:

	2020			2019		
	Quoted Prices in Active Markets for Identical Assets	Other [1]	Total	Quoted Prices in Active Markets for Identical Assets	Other [1]	Total
Cash and cash equivalents	9	33	42	8	112	120
Equity securities and equity funds						
US	19	879	898	1	571	572
International	158	–	158	35	62	97
Debt securities [2]	–	571	571	–	698	698
International balanced fund	–	–	–	–	112	112
Other	–	37	37	–	22	22
Total pension plan assets	186	1,520	1,706	44	1,577	1,621

1 Approximately 76 percent (2019 – 60 percent) of the Other plan assets are held in funds whose fair values are estimated using their net asset value per share. For the majority of these funds, the redemption frequency is immediate. The Plan Committee manages the asset allocation based upon our current liquidity and income needs.
2 Debt securities included US securities of 60 percent (2019 – 82 percent) and International securities of 40 percent (2019 – 18 percent).

We use letters of credit or surety bonds to secure certain Canadian unfunded defined benefit plan liabilities as at December 31, 2020.

We expect to contribute approximately $125 to all pension and post-retirement plans in 2021. Total contributions recognized as expense under all defined contribution plans for 2020 was $116 (2019 – $88).

The significant assumptions used to determine the benefit obligations and expense for our significant plans as at and for the year ended December 31 were as follows:

	Pension		Other	
	2020	2019	2020	2019
Assumptions used to determine the benefit obligations [1] :				
Discount rate (%)	2.83	3.35	2.66	3.20
Rate of increase in compensation levels (%)	4.57	4.66	n/a	n/a
Medical cost trend rate – assumed (%)	n/a	n/a	4.50 – 5.80 [2]	4.50 – 6.10 [2]
Medical cost trend rate – year reaches ultimate trend rate	n/a	n/a	2037	2037
Mortality assumptions [3] (years)				
Life expectancy at 65 for a male member currently at age 65	20.6	20.5	20.2	20.3
Life expectancy at 65 for a female member currently at age 65	22.8	22.7	22.8	22.9
Average duration of the defined benefit obligations [4] (years)	15.4	14.6	15.2	15.8

1 The current year's expense is determined using the assumptions that existed at the end of the previous year.
2 We assumed a graded medical cost trend rate starting at 5.80 percent in 2020, moving to 4.50 percent by 2037 (2019 – starting at 6.10 percent, moving to 4.50 percent by 2037).
3 Based on actuarial advice in accordance with the latest available published tables, adjusted where appropriate to reflect future longevity improvements for each country.
4 Weighted average length of the underlying cash flows.

NOTE 21 *Pension and Other Post-Retirement Benefits Continued*

Of the most significant assumptions, a change in discount rates has the greatest potential impact on our pension and other post-retirement benefit plans, with sensitivity to change as follows:

		2020		2019	
	Change in Assumption	Benefit Obligations	Expense in Earnings Before Income Taxes	Benefit Obligations	Expense in Earnings Before Income Taxes
As reported		2,066	52	2,044	71
Discount rate	1.0 percentage point decrease	360	10	340	10
	1.0 percentage point increase	(280)	(10)	(270)	(10)

NOTE 22 Asset Retirement Obligations and Accrued Environmental Costs

A provision is an estimated liability with uncertainty over the timing or amount that will be paid. The most significant asset retirement and environmental remediation provisions relate to costs to restore potash and phosphate sites to their original, or another specified, condition.

The pre-tax risk-free discount rate, expected cash flow payments and sensitivity to changes in the discount rate on the recorded liability for asset retirement obligations and accrued environmental costs at December 31, 2020, were as follows:

	Cash Flow Payments (years) [1]	Discounted Cash Flows [2,3]	Discount Rate +0.5%	Discount Rate -0.5%
Asset retirement obligations			(70)	90
Retail	1 – 30	25		
Potash	33 – 441	76		
Phosphate	1 – 80	468		
Corporate and other [4, 5]	1 – 482	640		
Accrued environmental costs			(10)	5
Retail	1 – 30	89		
Corporate and other	1 – 20	461		

1 Time frame in which payments are expected to principally occur from December 31, 2020. Adjustments to the years can result from changes to the mine life and/or changes in the rate of tailing volumes.
2 Risk-free discount rates reflect current market assessments of the time value of money and the risks specific to the timing and jurisdiction of the obligation. Risk-free rates range from 1.2 percent to 6.5 percent.
3 Total undiscounted cash flows are $2.8 billion. For the Potash segment, this represents total undiscounted cash flows in the first year of decommissioning. This excludes subsequent years of tailings dissolution, fine tails capping, tailings management area reclamation, post-reclamation activities and monitoring, and final decommissioning, which are estimated to take an additional 92 to 407 years.
4 For nitrogen sites, we have not recorded any asset retirement obligations as no significant asset retirement obligations have been identified or there is no reasonable basis for estimating a date or range of dates of cessation of operations. We considered the historical performance of our facilities as well as our planned maintenance, major upgrades and replacements, which can extend the useful lives of our facilities indefinitely.
5 Includes certain potash and phosphate sites that are non-operating sites, with the majority of phosphate site payments taking place over the next 55 years.

NOTE 22 *Asset Retirement Obligations and Accrued Environmental Costs Continued*

Following is a reconciliation of asset retirement obligations and accrued environmental costs:

	Asset Retirement Obligations	Accrued Environmental Costs	Total
Balance – December 31, 2019	1,254	544	1,798
Acquisitions	12	15	27
Disposals	–	(3)	(3)
Change in estimates	(9)	2	(7)
Recorded in earnings	31	3	34
Settled during the year	(88)	(21)	(109)
Foreign currency translation and other	9	10	19
Balance – December 31, 2020	1,209	550	1,759
Balance – December 31, 2020 comprised of:			
Current liabilities			
Payables and accrued charges (Note 20)	121	41	162
Non-current liabilities			
Asset retirement obligations and accrued environmental costs	1,088	509	1,597

We are subject to numerous environmental requirements under federal, provincial, state and local laws in the countries in which we operate. We have gypsum stack capping, closure and post-closure obligations through our subsidiaries, PCS Phosphate Company, Inc. in White Springs, Florida, and PCS Nitrogen Inc. in Geismar, Louisiana, pursuant to the financial assurance regulatory requirements in those states. The recorded provisions may not necessarily reflect our obligations under these financial assurances.

NOTE 23 Share Capital

Authorized

We are authorized to issue an unlimited number of common shares without par value and an unlimited number of preferred shares. The common shares are not redeemable or convertible. The preferred shares may be issued in one or more series with rights and conditions to be determined by the Board of Directors.

Issued

	Number of Common Shares	Share Capital
Balance – December 31, 2019	572,942,809	15,771
Issued under option plans and share-settled plans	150,177	7
Repurchased	(3,832,580)	(105)
Balance – December 31, 2020	569,260,406	15,673

NOTE 23 *Share Capital Continued*

Share Repurchase Programs

	Commencement Date	Expiry	Maximum Shares for Repurchase
2019 Normal Course Issuer Bid [1]	February 27, 2019	February 26, 2020	42,164,420
2020 Normal Course Issuer Bid [2]	February 27, 2020	February 26, 2021	28,572,458

1 The 2019 normal course issuer bid permitted the repurchase of up to 7 percent of our outstanding common shares for cancellation. As of the expiry date, we had repurchased 33,256,668 of the maximum shares for repurchase.

2 The 2020 normal course issuer bid permits the repurchase of up to 5 percent of our outstanding common shares for cancellation and can expire earlier than the date above if we acquire the maximum number of common shares allowable or otherwise decide not to make any further repurchases. As at February 18, 2021, we had repurchased 710,100 of the maximum shares for repurchase.

On February 17, 2021, our Board of Directors approved a share repurchase program of up to a maximum of 28,468,448 or 5 percent of our outstanding common shares for cancellation. Subject to acceptance by the Toronto Stock Exchange, the 2021 share repurchase program will commence on March 1, 2021, and will expire on the earlier of February 28, 2022, the date on which we have acquired the maximum number of common shares allowable or the date we determine not to make any further repurchases.

Purchases under the normal course issuer bids were, or may be, made through open market purchases at market prices as well as by other means permitted by applicable securities regulatory authorities, including private agreements.

The following table summarizes our share repurchases:

	2020	2019
Number of common shares repurchased for cancellation	3,832,580	36,067,323
Average price per share (US dollars)	41.96	52.07
Total cost	160	1,878

Dividends Declared

Dividends declared for the years ended December 31 were as follows:

2020		2019	
Declared	Per Share	Declared	Per Share
February 19, 2020	0.45	May 10, 2019	0.43
May 6, 2020	0.45	July 30, 2019	0.45
August 10, 2020	0.45	December 13, 2019	0.45
December 10, 2020	0.45		
	1.80		1.33

Subsequent to year-end, our Board of Directors declared a quarterly dividend of $0.46 per share payable on April 15, 2021, to shareholders of record on March 31, 2021. The total estimated dividend to be paid is $262.

NOTE 24 / *Capital Management*

The objective of our capital allocation policy is to balance the return of capital to our shareholders, improvements in the efficiency of our existing assets, and delivery on our growth opportunities, while maintaining a strong balance sheet and flexible capital structure to optimize the cost of capital at an acceptable level of risk. Our goal is to pay a stable and growing dividend with a target payout that represents 40 to 60 percent of free cash flow after sustaining capital through the agricultural cycle.

NOTE 24 *Capital Management Continued*

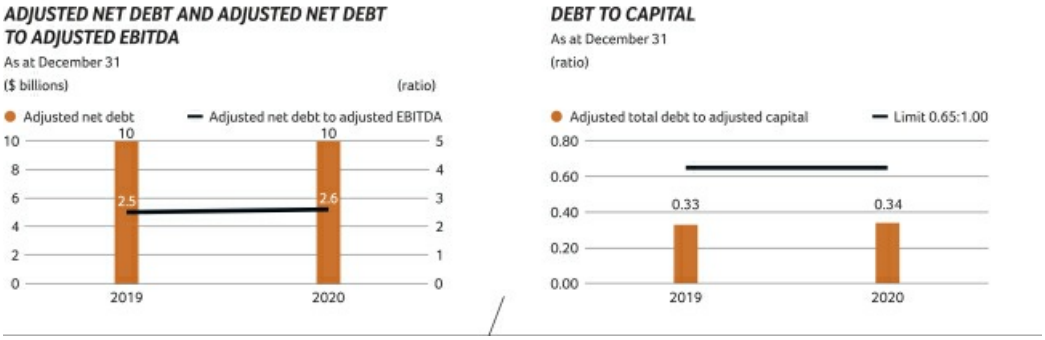
We include total debt, adjusted total debt, adjusted net debt and adjusted shareholders' equity as components of our capital structure. We monitor our capital structure and, based on changes in economic conditions, may adjust the structure by adjusting the amount of dividends paid to shareholders, repurchasing shares, issuing new shares, issuing new debt or retiring existing debt.

We use a combination of short-term and long-term debt to finance our operations. We typically pay floating rates of interest on short-term debt and credit facilities, and fixed rates on notes and debentures.

We monitor the following ratios:

	2020	2019
Adjusted net debt to adjusted EBITDA	2.6	2.5
Debt to capital [1] (Limit: 0.65:1.00)	0.34:1.00	0.33:1:00
Adjusted EBITDA to adjusted finance costs	7.4	8.0

1 Calculated as adjusted total debt to adjusted capital.



Adjusted EBITDA is calculated in Note 3, while the calculation of the remaining components included in the above ratios are set out in the following tables:

	2020	2019
Short-term debt	159	976
Current portion of long-term debt	14	502
Current portion of lease liabilities	249	214
Long-term debt	10,047	8,553
Lease liabilities	891	859
Total debt	11,360	11,104
Letters of credit – financial	150	158
Adjusted total debt	11,510	11,262

	2020	2019
Total debt	11,360	11,104
Cash and cash equivalents	(1,454)	(671)
Unamortized fair value adjustments	(404)	(424)
Adjusted net debt	9,502	10,009

	2020	2019
Total shareholders' equity	22,365	22,869
Accumulated other comprehensive loss	119	251
Adjusted shareholders' equity	22,484	23,120
Adjusted total debt	11,510	11,262
Adjusted capital	33,994	34,382

NOTE 24 *Capital Management Continued*

	2020	2019
Finance costs	520	554
Unwinding of discount on asset retirement obligations	(33)	(54)
Borrowing costs capitalized to property, plant and equipment	20	18
Interest on net defined benefit pension and other post-retirement plan obligations	(13)	(15)
Adjusted finance costs	494	503

In 2020, we filed a universal base shelf prospectus in Canada and the US qualifying the issuance of up to $5.0 billion of common shares, debt securities and other securities during a period of 25 months from March 16, 2020. In 2020, we filed a prospectus supplement to issue $1,500 of notes, as discussed in Note 18.

NOTE 25 Business Combinations

The Company's business combinations include the acquisition of Retail businesses, including Ruralco Holdings Limited ("Ruralco"), and various digital agriculture, proprietary products and agricultural services.

	Ruralco	Other Acquisitions
Acquisition date	September 30, 2019	Various
Purchase price, net of cash and cash equivalents acquired	$330 On the acquisition date, we acquired 100% of the Ruralco stock that was issued and outstanding. Transaction costs are recorded in acquisition and integration related costs in other expenses.	2020 – $233 (2019 – $581, net of $100 previously held equity-accounted interest in Agrichem)
Goodwill and expected benefits of the acquisition	$236 The expected benefits of the acquisitions resulting in goodwill include: • synergies from expected reduction in operating costs • wider distribution channel for selling products of acquired businesses • a larger assembled workforce • potential increase in customer base • enhanced ability to innovate	$133 (2019 – $341)
Description	An agriservices business in Australia with approximately 250 operating locations.	2020 – 43 Retail locations including Tec Agro Group, a leading agriculture retailer in Brazil (2019 – 68 Retail locations including Actagro, LLC, a developer, manufacturer and marketer of environmentally sustainable soil and plant health products and technologies)

NOTE 25 *Business Combinations Continued*

We allocated the following values to the acquired assets and assumed liabilities based upon fair values at their respective acquisition date:

	2020				2019
	Ruralco				
	Preliminary [1]	Adjustments	Final Fair Value [2]	Other Acquisitions [3]	Other Acquisitions [3]
Receivables	289	27	3164	68	68
Inventories	117	(5)	112	63	145
Prepaid expenses and other current assets	8	(1)	7	4	38
Property, plant and equipment	136	4	140	73	115
Goodwill	202	34	236	133	341
Other intangible assets	165	43	208	47	179
Other non-current assets	31	(14)	17	2	2
Total assets	948	88	1,036	390	888
Short-term debt	112	55	167	36	25
Payables and accrued charges	345	(21)	324	108	156
Lease liabilities, including current portion	110	–	110	2	1
Other non-current liabilities	51	54	105	11	25
Total liabilities	618	88	706	157	207
Total consideration	330	–	330	233	681
Previously held equity-accounted interest in Agrichem	–	–	–	–	100
Total consideration, net of cash and cash equivalents acquired	330	–	330	233	581

1 Preliminary value as previously reported in our 2019 annual consolidated financial statements.
2 We have completed our assessment of identifying and measuring all the assets acquired and liabilities assumed. This assessment included a thorough review of all internal and external sources of information available on circumstances that existed at the acquisition date. We engaged independent valuation experts to assist in determining the fair value of certain assets acquired and liabilities assumed. Adjustments recorded to the preliminary fair value primarily related to changes in the preliminary valuation assumptions, including refinement of our intangible assets and liabilities. All measurement adjustments were offset against goodwill.
3 This represents preliminary fair values. For certain acquisitions, we finalized the purchase price with no material change to the fair values disclosed in prior periods.
4 Includes receivables from customers with gross contractual amounts of $260, of which $7 are considered to be uncollectible.

NOTE 25 *Business Combinations Continued*

Assets	Ruralco	Other Acquisitions	Valuation Technique and Judgments Applied
Property, plant and equipment	X	X	Market approach for land and certain types of personal property: sales comparison that measures the value of an asset through an analysis of sales and offerings of comparable assets. Replacement costs for all other depreciable property, plant and equipment: measures the value of an asset by estimating the costs to acquire or construct comparable assets and adjusts for age and condition of the asset.
Other intangible assets	X	X	Income approach – multi-period excess earnings method: measures the value of an asset based on the present value of the incremental after-tax cash flows attributable to the asset after deducting contributory asset charges ("CACs"). Allocation of CACs is a matter of judgment and based on the nature of the acquired businesses' operations and historical trends. We considered several factors in determining the fair value of customer relationships, such as customers' relationships with the acquired company and its employees, the segmentation of customers, historical customer attrition rates, and revenue growth.
Other provisions and contingent liabilities	X	X	Decision-tree approach of future costs and a risk premium to capture the compensation sought by risk-averse market participants for bearing the uncertainty inherent in the cash flows of the liability.

Financial Information Related to the Acquired Operations

2020 Proforma [1]	Other Acquisitions
Sales	350
EBIT	26

1 Estimated annual sales and earnings before finance costs and income taxes ("EBIT") if acquisitions occurred at the beginning of the year.

	2020 Actuals	2019 Actuals	
From date of acquisition	Other Acquisitions	Ruralco	Other Acquisitions
Sales	190	249	312
EBIT	12	(2)	(1)

NOTE 26 Commitments

A commitment is a legally binding and enforceable agreement to purchase goods or services in the future. The amounts below reflect our commitments based on current expected contract prices.

At December 31, 2020, minimum future commitments under our contractual arrangements were as follows:

	Lease Liabilities [1]	Long-Term Debt [1]	Purchase Commitments	Capital Commitments	Other Commitments	Total
Within 1 year	281	434	1,268	87	132	2,202
1 to 3 years	408	2,378	757	16	118	3,677
3 to 5 years	233	2,498	72	6	53	2,862
Over 5 years	383	10,485	142	1	127	11,138
Total	1,305	15,795	2,239	110	430	19,879

1 Includes principal portion and estimated interest.

NOTE 26 *Commitments Continued*

Purchase Commitments

We have a long-term natural gas purchase agreement in Trinidad that expires on December 31, 2023. The contract provides for prices that vary primarily with ammonia market prices and annual escalating floor prices. The commitments included in the foregoing table are based on floor prices and minimum purchase quantities.

Profertil has long-term gas contracts denominated in US dollars that expire in 2021, which account for virtually all of Profertil's gas requirements. YPF S.A., our joint venture partner in Profertil, supplies approximately 70 percent of the gas under these contracts.

The Carseland facility has a power co-generation agreement, expiring on December 31, 2026, which provides 60 megawatt-hours of power per hour. The price for the power is based on a fixed charge adjusted for inflation and a variable charge based on the cost of natural gas provided to the facility for power generation.

Agreements for the purchase of sulfur for use in production of phosphoric acid provide for specified purchase quantities and prices based on market rates at the time of delivery. Commitments included in the foregoing table are based on expected contract prices.

As part of the agreement to sell the Conda Phosphate operations ("CPO"), we entered into long-term strategic supply and offtake agreements which extend to 2023. Under the terms of the supply and offtake agreements, we will supply 100 percent of the ammonia requirements of CPO and purchase 100 percent of the monoammonium phosphate ("MAP") product produced at CPO. The MAP production is estimated at 330,000 tonnes per year.

Other Commitments

Other commitments consist principally of pipeline capacity, technology service contracts, throughput and various rail contracts, the latest of which expires in 2026, and mineral lease commitments, the latest of which expires in 2038.

NOTE 27 / Guarantees

In the normal course of business, we provide indemnification agreements to counterparties in transactions such as purchase and sale contracts, service agreements, director/officer contracts, and leasing transactions. The terms of these indemnification agreements

- may require us to compensate counterparties for costs incurred as a result of various events, including environmental liabilities and changes in (or in the interpretation of) laws and regulations, or as a result of litigation claims or statutory sanctions that may be suffered by a counterparty as a consequence of the transaction;
- will vary based upon the contract, the nature of which prevents us from making a reasonable estimate of the maximum potential amount that it could be required to pay to counterparties; and
- have not historically resulted in any significant payments by Nutrien and, as at December 31, 2020, no amounts have been accrued in the consolidated financial statements (except for accruals relating to certain underlying liabilities).

We directly guarantee our share of certain commitments of Canpotex (such as railcar leases) under certain agreements with third parties. We would be required to perform on these guarantees in the event of default by the investee. No material loss is anticipated by reason of such agreements and guarantees.

NOTE 28 / Related Party Transactions

We transact with a number of related parties, the most significant being with our associates and joint ventures, key management personnel, and post-employment benefit plans.

Sale of Goods

We sell potash outside Canada and the US exclusively through Canpotex. Canpotex sells potash to buyers in export markets pursuant to term and spot contracts at agreed upon prices. Our revenue is recognized at the amount received from Canpotex representing proceeds from their sale of potash, less net costs of Canpotex. Sales to Canpotex are shown in Note 3. The receivable outstanding from Canpotex is shown in Note 11 and arose from sale transactions described above. It is unsecured and bears no interest. There are no provisions held against this receivable.

Key Management Personnel Compensation and Transactions with Post-Employment Benefit Plans

Compensation to key management personnel was comprised of:

	2020	2019
Salaries and other short-term benefits	16	15
Share-based compensation	26	31
Post-employment benefits	2	3
Termination benefits	–	12
	44	61

Disclosures related to our post-employment benefit plans, and associates and joint ventures, are shown in Note 21 and Note 15, respectively.

NOTE 29 / Contingencies and Other Matters

Contingent liabilities, which are not recognized in the consolidated financial statements but may be disclosed, are possible obligations as a result of uncertain future events outside of our control or present obligations not recognized because the amount cannot be sufficiently measured or payment is not probable.

Accounting Estimates and Judgments

The following judgments are required to determine our exposure to possible losses and gains related to environmental matters and other various claims and lawsuits pending:

- prediction of the outcome of uncertain events (i.e., being virtually certain, probable, remote or undeterminable);
- determination of whether recognition or disclosure in the consolidated financial statements is required; and
- estimation of potential financial effects.

Where no amounts are recognized, such amounts are contingent and disclosure may be appropriate. While the amount disclosed in the consolidated financial statements may not be material, the potential for large liabilities exists and, therefore, these estimates could have a material impact on our consolidated financial statements.

Supporting Information

Canpotex
Nutrien is a shareholder in Canpotex, which markets Canadian potash outside of Canada and the US. Should any operating losses or other liabilities be incurred by Canpotex, the shareholders have contractually agreed to reimburse it in proportion to each shareholder's productive capacity. Through December 31, 2020, we are not aware of any operating losses or other liabilities.

NOTE 29 *Contingencies and Other Matters Continued*

Mining Risk

The risk of underground water inflows and other underground risks is insured on a limited basis, subject to insurance market availability. Through December 31, 2020, we are not aware of any material losses or other liabilities that we have not accrued for.

Environmental Remediation, Legal and Other Matters

We are engaged in ongoing site assessment and/or remediation activities at a number of facilities and sites. Anticipated costs associated with these matters are added to accrued environmental costs in the manner described in Note 22.

We have established provisions for environmental site assessment and/or remediation matters to the extent that we consider expenses associated with those matters likely to be incurred. Except for the uncertainties described below, we do not believe that our future obligations with respect to these matters are reasonably likely to have a material adverse effect on our consolidated financial statements.

Legal matters with significant uncertainties include the following:

- The United States Environmental Protection Agency ("US EPA") has an ongoing enforcement initiative directed at the phosphate industry related to the scope of an exemption for mineral processing wastes under the US Resource Conservation and Recovery Act ("RCRA"). This initiative affects the Conda Phosphate plant previously owned by Nu-West Industries, Inc. ("Nu-West"), a wholly owned subsidiary of Agrium, and the Nutrien phosphoric acid facilities in Aurora, North Carolina; Geismar, Louisiana; and White Springs, Florida. All of these facilities received US EPA notices of violation ("NOVs") that remain outstanding for alleged violations of RCRA and various other environmental laws. Notwithstanding the sale of the Conda Phosphate operations in January 2018, Nu-West remains responsible for environmental liabilities attributable to its historic activities and for resolution of the NOVs. All of the facilities have been and continue to be involved in ongoing discussions with the US EPA, the US Department of Justice and the related state agencies to resolve these matters. Due to the nature of the allegations, we are uncertain as to how the matters will be resolved. Based on settlements with other members of the phosphate industry, we expect that a resolution could involve any or all of the following: 1) penalties, which we currently believe will not be material; 2) modification of certain operating practices; 3) capital improvement projects; 4) providing financial assurance for the future closure, maintenance and monitoring costs for the phosphogypsum stack system; and 5) addressing findings resulting from RCRA section 3013 site investigations.
- We operate in countries that are parties to the Paris Agreement adopted in December 2015 pursuant to the United Nations Framework Convention on Climate Change. Each country that is a party to the Paris Agreement submitted an Intended Nationally Determined Contribution ("INDC") toward the control of greenhouse gas emissions. The impacts on our operations of these INDCs and other national and local efforts to limit or tax greenhouse gas emissions cannot be determined with any certainty at this time.

In addition, various other claims and lawsuits are pending against the Company in the ordinary course of business. While it is not possible to determine the ultimate outcome of such actions at this time, and inherent uncertainties exist in predicting such outcomes, we believe that the ultimate resolution of such actions is not reasonably likely to have a material adverse effect on our consolidated financial statements.

The breadth of our operations and the global complexity of tax regulations require assessments of uncertainties and judgments in estimating the taxes we will ultimately pay. The final taxes paid are dependent upon many factors, including negotiations with taxing authorities in various jurisdictions, outcomes of tax litigation, and resolution of disputes arising from federal, provincial, state and local tax audits. The resolution of these uncertainties and the associated final taxes may result in adjustments to our tax assets and tax liabilities.

We own facilities that have been either permanently or indefinitely shut down. We expect to incur nominal annual expenditures for site security and other maintenance costs at some of these facilities. Should the facilities be dismantled, certain other shutdown-related costs may be incurred. Such costs are not expected to have a material adverse effect on our consolidated financial statements and would be recognized and recorded in the period in which they are incurred.

NOTE 30 / Accounting Policies, Estimates and Judgments

The following discusses the significant accounting policies, estimates, judgments and assumptions that we have adopted and applied and how they affect the amounts reported in the consolidated financial statements. Certain of our policies involve accounting estimates and judgments because they require us to make subjective or complex judgments about matters that are inherently uncertain and because of the likelihood that materially different amounts could be reported under different conditions or using different assumptions.

Basis of Consolidation

These consolidated financial statements include the accounts of the Company and entities we control.

- Subsidiaries are fully consolidated from the date on which control is transferred to the Company until the date on which control ceases. They are deconsolidated from the date that control ceases.
- Intercompany balances and transactions are eliminated on consolidation.

Principal (wholly owned) Operating Subsidiaries	Location	Principal Activity
Potash Corporation of Saskatchewan Inc.	Canada	Mining and/or processing of crop nutrients and corporate functions
Agrium Inc.	Canada	Manufacturer and distributor of crop nutrients and corporate functions
Agrium Canada Partnership	Canada	Manufacturer and distributor of crop nutrients
Agrium Potash Ltd.	Canada	
Agrium U.S. Inc.	US	
Cominco Fertilizer Partnership	US	
Loveland Products Inc.	US	
Nutrien Ag Solutions (Canada) Inc.	Canada	Crop input retailer
Nutrien Ag Solutions, Inc.	US	
Nutrien Ag Solutions Limited	Australia	
PCS Nitrogen Fertilizer, LP	US	Production of nitrogen products in the US
PCS Nitrogen Trinidad Limited	Trinidad	Production of nitrogen products in Trinidad
PCS Phosphate Company, Inc.	US	Mining and/or processing of phosphate products
Phosphate Holding Company, Inc.	US	Mining and/or processing of phosphate products and production of nitrogen products in the US
Combined Rural Traders Pty Limited	Australia	Crop input retailer

Foreign Currency Transactions

Items included in our consolidated financial statements and those of our subsidiaries are measured using the currency of the primary economic environment in which the individual entity operates (the "functional currency"). The consolidated financial statements are presented in US dollars, which was determined to be the functional currency of the Company and the majority of our subsidiaries. In determining the functional currency of our operations, we primarily considered the currency that determines the pricing of transactions rather than focusing on the currency in which transactions are denominated.

Foreign exchange gains and losses resulting from the settlement of foreign currency transactions, and from the translation at period-end of monetary assets and liabilities denominated in foreign currencies are recognized and presented in the consolidated statements of earnings within other (income) expenses, as applicable, in the period in which they arise. Non-monetary assets measured at historical cost are translated at the average monthly exchange rate prevailing at the time of the transaction, unless the exchange rate in effect on the date of the transaction is available and it is apparent that such rate is a more suitable measurement.

NOTE 30 *Accounting Policies, Estimates and Judgments Continued*

Restructuring Charges

Plant shutdowns, sales of business units or other corporate restructurings may trigger restructuring charges. Incremental costs for employee termination, contract termination and other exit costs are recognized as a liability and an expense when a detailed formal plan for restructuring has been demonstrably committed to and a reliable estimate can be made.

Revenue

We recognize revenue when we transfer control over a good or service to a customer.

Transfer of Control for Sale of Goods	Transfer of Control for Sale of Services
At the point in time when the product is • purchased at our Retail farm center • delivered and accepted by customers at their premises or • loaded for shipping	Over time as the promised service is rendered

Judgment is used to determine whether we are acting as principal or agent by evaluating who:

- has the primary responsibility for fulfilling the promised good;
- bears the inventory risk; and
- has discretion for establishing the price.

For transactions in which we act as an agent rather than the principal, revenue is recognized net of any commissions earned. The related commissions are recognized as the sales occurred or as unconditional contracts are signed.

We recognize profits on sales to Canpotex when there is a transfer of control, either at the time the product is loaded for shipping or delivered, depending on the terms of the contract.

Our sales revenue relating to our Potash, Nitrogen and Phosphate segments is generally recorded and measured based on the "freight on board" mine, plant, warehouse or terminal price specified in the contract (except for certain vessel sales or specific product sales that are shipped and recorded on a delivered basis), which reflects the consideration we expect to be entitled to in exchange for the goods or services, net of any variable consideration (e.g., any trade discounts or estimated volume rebates). Our customer contracts may provide certain product quality specification guarantees but do not generally provide for refunds or returns. Sales prices are based on North American and International benchmark market prices, which are variable and subject to global supply and demand, and other market factors.

For Retail, we do not provide general warranties; however, our customer contracts may provide certain product quality specification guarantees. Returns and incentives are estimated based on historical and forecasted data, contractual terms, and current conditions. Due to the nature of goods and services sold, any single estimate would have only a negligible impact on revenue.

Transportation costs are generally recovered from the customer through sales pricing. Where customer contracts include volume rebates, we estimate revenue at the earlier of the most likely amount of consideration we expect to receive or when it is highly probable that a significant reversal will not occur.

As the expected period between when control over a promised good or service is transferred and when the customer pays for that good or service is generally less than 12 months, we apply the practical expedient as provided in IFRS 15, "Revenue from Contracts with Customers," and do not adjust the promised amount of consideration for the effects of financing.

Intersegment sales are made under terms that approximate market value.

Seasonality in our business results from increased demand for products during planting season. Crop input sales are generally higher in the spring and fall application seasons. Crop nutrient inventories are normally accumulated leading up to each application season. Our cash collections generally occur after the application season is complete, while customer prepayments made to us are typically concentrated in December and January and inventory prepayments paid to our vendors are typically concentrated in the period from November to January. Feed and industrial sales are more evenly distributed throughout the year.

NOTE 30 *Accounting Policies, Estimates and Judgments Continued*

Share-based Compensation

For awards with performance conditions that determine the number of options or units to which employees are entitled, measurement of compensation cost is based on our best estimate of the outcome of the performance conditions. Changes to vesting assumptions are reflected in earnings immediately for compensation cost already recognized.

For plans settled through the issuance of equity

- fair value for stock options is determined on grant date using the Black-Scholes-Merton option-pricing model, and
- fair value for PSUs is determined on grant date by projecting the outcome of performance conditions.

For plans settled through cash

- a liability is recorded based on the fair value of the awards each period.

Estimation involves determining:

- stock option-pricing model assumptions as described in the weighted average assumptions table in Note 5;
- forfeiture rate for options granted based on past experience and future expectations, and adjusted upon actual vesting;
- projected outcome of performance conditions for PSUs, including the relative ranking of our total shareholder return, including expected dividends, compared with a specified peer group using a Monte Carlo simulation option-pricing model and the outcome of our synergies relative to the target; and
- the number of dividend equivalent units expected to be earned.

Income Taxes

Taxation on earnings (loss) is comprised of current and deferred income tax and requires significant judgment and estimation. Taxation is recognized in the statements of earnings unless it relates to items recognized either in OCI or directly in shareholders' equity.

Current income tax

- is the expected tax payable on the taxable earnings for the year
- is calculated using rates enacted or substantively enacted at the dates of the consolidated balance sheets in the countries where our subsidiaries and equity-accounted investees operate and generate taxable earnings
- includes any adjustments made to income tax payable or recoverable in respect of previous years

Deferred income tax

- is recognized using the liability method
- is based on temporary differences between carrying amounts of assets and liabilities and their respective income tax bases
- is determined using tax rates that have been enacted or substantively enacted by the dates of the consolidated balance sheets and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled

Current and deferred income tax assets and liabilities are offset only if certain criteria are met.

The realized and unrealized excess tax benefits from share-based compensation arrangements are recognized in contributed surplus as current and deferred tax, respectively.

Uncertain income tax positions are accounted for using the standards applicable to current income tax liabilities and assets (i.e., both liabilities and assets are recorded when probable and measured at the amount expected to be paid to (or recovered from) the taxation authorities using our best estimate of the amount).

The final taxes paid, and potential adjustments to tax assets and liabilities, are dependent upon many factors including:

- negotiations with taxation authorities in various jurisdictions;
- outcomes of tax litigation; and
- resolution of disputes arising from federal, provincial, state and local tax audits.

NOTE 30 *Accounting Policies, Estimates and Judgments Continued*

Deferred income tax is not accounted for

- with respect to investments in subsidiaries and equity-accounted investees where we are able to control the reversal of the temporary difference and that difference is not expected to reverse in the foreseeable future; and
- if arising from initial recognition of an asset or liability in a transaction, other than a business combination, that at the time of the transaction affects neither accounting nor taxable profit or loss.

Deferred tax assets are

- recognized to the extent it is probable future taxable profit will be available to use deductible temporary differences and could be reduced if projected earnings are not achieved or increased if earnings previously not projected become probable.
- reviewed at each balance sheet date and amended to the extent that it is no longer probable that the related tax benefit will be realized.

Financial Instruments

Financial assets are measured at amortized cost if the objective of the business model for the instrument or group of instruments is to hold the asset to collect the contractual cash flows and the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest and is not designated as fair value through profit or loss ("FVTPL").

For equity investments not held for trading, we may make an irrevocable election at initial recognition to recognize changes in fair value through OCI rather than profit or loss.

Financial instruments are classified and measured as follows:

Fair Value Classification	FVTPL	FVTOCI	Amortized Cost
Instrument type	Cash and cash equivalents and derivatives	Equity investments not held for trading	Receivables, short-term debt, payables and accrued charges, long-term debt, lease liabilities, other long-term debt instruments
Fair value gains and losses	Profit or loss	OCI	—
Interest and dividends	Profit or loss	Profit or loss	Profit or loss: effective interest rate
Impairment of assets	—	—	Profit or loss
Foreign exchange	Profit or loss	OCI	Profit or loss
Transaction costs	Profit or loss	OCI	Included in cost of instrument

Financial instruments are recognized at trade date when we commit to purchase or sell the asset. Financial assets are derecognized when the rights to receive cash flow from the investments have expired or we have transferred them and all the risks and rewards of ownership have been substantially transferred.

Derivatives are used to lock in commodity prices, interest rates and exchange rates. For designated and qualified cash flow hedges:

- the effective portion of the change in the fair value of the derivative is accumulated in OCI;
- when the hedged forecast transaction occurs, the related gain or loss is removed from AOCI and included in the cost of inventory;
- the hedging gain or loss included in the cost of inventory is recognized in earnings when the product containing the hedged item is sold or becomes impaired; and
- the ineffective portions of hedges are recorded in net earnings in the current period.

We assess whether our derivatives hedging transactions are expected to be or were highly effective, both at the hedge's inception and on an ongoing basis, in offsetting changes in fair values of hedged items. Hedge effectiveness related to our New York Mercantile Exchange ("NYMEX") natural gas hedges is assessed on a prospective and retrospective basis using regression analyses. Potential sources of ineffectiveness are changes in timing of forecast transactions, changes in volume delivered, or changes in our credit risk or the counterparty. Measurement of ineffectiveness relating to our foreign exchange and interest rate hedges is based on a comparison of the cumulative changes in fair value of the hedging instrument and the cumulative change in the fair value of a hypothetical derivative with terms based on the hedged forecast cash flows. Potential sources of ineffectiveness are changes in timing or amounts of forecasted cash flows, embedded optionality, and changes in our credit risk or the credit risk of a counterparty.

NOTE 30 *Accounting Policies, Estimates and Judgments Continued*

Net investment hedges relating to the commitment to purchase a foreign operation:

- are considered a non-financial item and are accounted for similar to a cash flow hedge; and
- the gain or loss from the hedging instrument is deferred in OCI and subsequently recorded as an adjustment to goodwill when the business combination occurs.

Financial assets and financial liabilities are offset, and the net amount is presented in the consolidated balance sheets when we:

- currently have a legally enforceable right to offset the recognized amounts; and
- intend either to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

Fair Value Measurements

Estimated fair values for financial instruments are designed to approximate amounts for which the instruments could be exchanged in a current arm's-length transaction between knowledgeable, willing parties. The valuation policies and procedures for financial reporting purposes are determined by our finance department.

Fair value measurements are categorized into levels based on the degree to which inputs are observable and their significance:

- Level 1 – Unadjusted quoted prices (in active markets accessible at the measurement date for identical assets or liabilities).
- Level 2 – Quoted prices (in markets that are not active or based on inputs that are observable for substantially the full term of the asset or liability).
- Level 3 – Prices or valuation techniques that require inputs that are both unobservable and significant to the overall measurement.

Determination of the level hierarchy is based on our assessment of the lowest level input that is significant to the fair value measurement and is subject to estimation and judgment.

Fair value estimates:

- are at a point in time and may change in subsequent reporting periods due to market conditions or other factors;
- can be determined using multiple methods, which can cause values (or a range of reasonable values) to differ; and
- may require assumptions about costs/prices over time, discount and inflation rates, defaults, and other relevant variables.

Cash and Cash Equivalents

Highly liquid investments with a maturity of three months or less from the date of purchase are considered to be cash equivalents.

Receivables

Receivables from customers are recognized initially at fair value and subsequently measured at amortized cost less allowance for expected credit losses of receivables from customers.

Vendors may offer various incentives to purchase products for resale. Vendor rebates and prepay discounts are accounted for as a reduction of the prices of the suppliers' products. Rebates based on the amount of materials purchased reduce cost of goods sold as inventory is sold. Rebates earned based on sales volumes of products are offset to cost of goods sold.

Rebates that are probable and can be reasonably estimated are accrued. Rebates that are not probable or estimable are accrued when certain milestones are achieved.

Estimation of rebates can be complex in nature as vendor arrangements are diverse. The amount of the accrual is determined by analyzing and reviewing historical trends to apply negotiated rates to estimated and actual purchase volumes. Estimated amounts accrued throughout the year could also be impacted if actual purchase volumes differ from projected volumes.

Inventories

Inventories are valued monthly at the lower of cost and net realizable value. Costs are allocated to inventory using the weighted average cost method.

NOTE 30 *Accounting Policies, Estimates and Judgments Continued*

Net realizable value is based on:

Products and raw materials	Materials and supplies
• selling price of the finished product (in ordinary course of business) less the estimated costs of completion and estimated costs to make the sale	• replacement cost

A writedown is recognized if the carrying amount exceeds net realizable value and may be reversed if the circumstances that caused it no longer exist. Various factors impact our estimates of net realizable value, including inventory levels, forecasted prices of key production inputs, global nutrient capacities and crop price trends.

Property, plant and equipment

	Owned	Right-of-use (leased)
Measurement	• cost, which includes capitalized borrowing costs, less accumulated depreciation and any accumulated impairment losses • cost of major inspections and overhauls is capitalized • maintenance and repair expenditures that do not improve or extend productive life are expensed in the period incurred	• cost less accumulated depreciation and any accumulated impairment losses • lease payments are allocated between finance costs, and a reduction of the liability and discounted using the interest rate implicit in the lease, if available, or an incremental borrowing rate, being a rate that we would have to pay to borrow the funds required to obtain a similar asset, adjusted for term, security, asset value and the borrower's economic environment
Depreciation method	• certain property, plant and equipment directly related to our Potash, Nitrogen and Phosphate segments – units-of-production – based on the shorter of estimates of reserves or service lives • pre-stripping costs – units-of-production – over the ore mined from the mineable acreage stripped • remaining assets – straight-line	• straight-line – over the shorter of the asset's useful life and the lease term
	Estimated useful lives, expected patterns of consumption, depreciation method and residual values are reviewed at least annually.	

NOTE 30 *Accounting Policies, Estimates and Judgments Continued*

	Owned	Right-of-use (leased)
Judgment/practical expedients	Determining: • costs, including income or expenses derived from an asset under construction, that are eligible for capitalization; • timing to cease cost capitalization, generally when the asset is capable of operating in the manner intended by management, but also considering the circumstances and the industry in which the asset is to be operated, normally predetermined by management with reference to such factors as productive capacity; • the appropriate level of componentization (for individual components for which different depreciation methods or rates are appropriate); • repairs and maintenance that qualify as major inspections and overhauls; and • useful life over which such costs should be depreciated. Uncertainties are inherent in estimating reserve quantities, particularly as they relate to assumptions regarding future prices, the geology of our mines, the mining methods used, and the related costs incurred to develop and mine reserves. Changes in these assumptions could result in material adjustments to reserve estimates, which could result in impairments or changes to depreciation expense in future periods.	We have chosen to: • include the use of a single discount rate for a portfolio of leases with reasonably similar characteristics, • exclude initial direct costs in measuring ROU assets at the date of initial application, • not separate non-lease components and instead to account for lease and non-lease components as a single arrangement, and • use exemptions for short-term and low value leases which allow payments to be expensed as incurred. Judgment is required to determine whether a contract or arrangement includes a lease and if it is reasonably certain that an extension option will be exercised. Estimation is used to determine the useful lives of ROU assets, the lease term and the appropriate discount rate applied to the lease payments to calculate the lease liability.

We seek to maximize operational flexibility in managing our leasing activities by including extension options when negotiating new leases. Extension options are exercisable at our option and not by the lessors. In determining if a renewal period should be included in the lease term, we consider all relevant factors that create an economic incentive for us to exercise a renewal, including the location of the asset, the availability of suitable alternatives, the significance of the asset to operations, and our business strategy. Lease agreements do not contain significant covenants; however, leased assets may be used as security for lease liabilities and other borrowings.

NOTE 30 *Accounting Policies, Estimates and Judgments Continued*

Goodwill and Other intangible assets

Goodwill is carried at cost, is not amortized, and represents the excess of the cost of an acquisition over the fair value of the Company's share of the net identifiable assets of the acquired subsidiary at the date of acquisition. Goodwill is allocated to a CGU or group of CGUs for impairment testing based on the level at which it is monitored by management, and not at a level higher than an operating segment. The allocation is made to the CGU or group of CGUs expected to benefit from the business combination in which the goodwill arose.

Other intangible assets are generally measured at cost less accumulated amortization and any accumulated impairment losses. We use judgment to determine which expenditures are eligible for capitalization as intangible assets. Costs incurred internally from researching and developing a product are expensed as incurred until technological feasibility is established, at which time, the costs are capitalized until the product is available for its intended use. Judgment is required in determining when technological feasibility of a product is established. Intangible assets with finite lives are amortized on a straight-line basis over their estimated useful lives. At least annually, the useful lives are reviewed and adjusted if appropriate.

Impairment of long-lived assets

To assess impairment, assets are grouped at the smallest levels for which there are separately identifiable cash inflows that are largely independent of the cash inflows from other assets or groups of assets (this can be at the asset or CGU level).

At the end of each reporting period, we review conditions to determine whether there is any indication that an impairment exists that could potentially impact the carrying amounts of both our long-lived assets to be held and used (including property, plant and equipment, and investments), and our goodwill and other intangible assets. When such indicators exist, impairment testing is performed. Regardless, goodwill is tested at least annually (in the fourth quarter).

We review at each reporting period for possible reversal of the impairment for non-financial assets, other than goodwill.

Estimates and judgment involves:

- identifying the appropriate asset, group of assets or CGU;
- determining the appropriate discount rate for assessing the recoverable amount; and
- making assumptions about future sales, market conditions, terminal growth rates and cash flow forecasts over the long-term life of the assets or CGUs.

We cannot predict if an event that triggers impairment or a reversal of impairment will occur, when it will occur or how it will affect reported asset amounts. Asset impairment amounts previously recorded could be affected if different assumptions were used or if market and other conditions change. Such changes could result in non-cash charges materially affecting our consolidated financial statements.

Equity-Accounted Investments

Investments in which we exercise significant influence (but do not control) or have joint control (as joint ventures) are accounted for using the equity method.

Significant influence is the power to participate in the financial and operating policy decisions of the investee, commonly referred to as an associate.

Pension and Other Post-Retirement Benefits

For employee retirement and other defined benefit plans:

- accrued liabilities are recorded net of plan assets;
- costs, including current and past service costs, gains or losses on curtailments and settlements, and remeasurements are actuarially determined on a regular basis using the projected unit credit method; and
- past service cost is recognized in net earnings at the earlier of (a) when a plan amendment or curtailment occurs; or (b) when related restructuring costs or termination benefits are recognized.

Remeasurements, recognized directly in OCI in the period they occur, are comprised of actuarial gains and losses, return on plan assets (excluding amounts included in net interest) and the effect of the asset ceiling (if applicable).

When a plan amendment occurs before a settlement, we recognize past service cost before any gain or loss on settlement.

Defined contribution plan costs are recognized in net earnings for services rendered by employees during the period.

Estimates and judgments are required to determine discount rates, health care cost trend rates, projected salary increases, retirement age, longevity and termination rates. These assumptions are determined by management and are reviewed annually by our independent actuaries.

NOTE 30 *Accounting Policies, Estimates and Judgments Continued*

Our discount rate assumptions are impacted by:

- the weighted average interest rate at which each pension and other post-retirement plan liability could be effectively settled at the measurement date;
- country specific rates; and
- the use of a yield curve approach based on the respective plans' demographics, expected future pension benefits and medical claims. Payments are measured and discounted to determine the present value of the expected future cash flows. The cash flows are discounted using yields on high-quality AA-rated non-callable bonds with cash flows of similar timing where there is a deep market for such bonds. Where we do not believe there is a deep market for such bonds (such as for terms in excess of 10 years in Canada), the cash flows are discounted using a yield curve derived from yields on provincial bonds rated AA or better to which a spread adjustment is added to reflect the additional risk of corporate bonds.

Asset Retirement Obligations and Accrued Environmental Costs

Provisions are:

- measured at the present value of the cash flows expected to be required to settle the obligation; and
- reviewed at the end of each reporting period for any changes, including the discount rate, foreign exchange rate, and amount or timing of the underlying cash flows, and adjusted against the carrying amount of the provision and any related asset; otherwise, it is recognized in net earnings.

As a result of the Merger, we recognized contingent liabilities, which represent additional environmental costs that are present obligations although cash outflows of resources are not probable. These contingent liabilities are subsequently measured at the higher of the amount initially recognized and the amount that would be recognized if the liability becomes probable.

Asset retirement obligations and accrued environmental costs include:

- reclamation and restoration costs at our potash and phosphate mining operations, including management of materials generated by mining and mineral processing, such as various mine tailings and gypsum;
- land reclamation and revegetation programs;
- decommissioning of underground and surface operating facilities;
- general cleanup activities aimed at returning the areas to an environmentally acceptable condition; and
- post-closure care and maintenance.

Estimates for provisions take into account the following:

- most provisions will not be settled for a number of years;
- environmental laws and regulations and interpretations by regulatory authorities could change or circumstances affecting our operations could change, either of which could result in significant changes to current plans; and
- the nature, extent and timing of current and proposed reclamation and closure techniques in view of present environmental laws and regulations.

It is reasonably possible that the ultimate costs could change in the future and that changes to these estimates could have a material effect on our consolidated financial statements. We use appropriate technical resources, including outside consultants, to develop specific site closure and post-closure plans in accordance with the requirements of the various jurisdictions in which we operate. Other than certain land reclamation programs, settlement of the obligations is typically correlated with mine life estimates.

Business Combinations

- Consideration is measured at the aggregate of the fair values of assets transferred, liabilities incurred or assumed, and equity instruments issued in exchange for control of the acquiree at the acquisition date. Foreign exchange hedge gains or losses which we designated a cash flow hedge are included in the consideration.
- Identifiable assets acquired and liabilities assumed are generally measured at fair value.
- The excess of total consideration for each acquisition plus non-controlling interest in the acquiree, over the fair value of the identifiable net assets acquired, is recorded as goodwill.
- For each business combination, we elect to measure thenon-controlling interest in the acquired entity either at fair value or at the proportionate share of the acquiree's identifiable net assets.

NOTE 30 *Accounting Policies, Estimates and Judgments Continued*

Purchase price allocation involves judgment in identifying assets acquired and liabilities assumed, and estimation of their fair values. To determine fair values, we used quoted market prices or widely accepted valuation techniques. Key assumptions include discount rates and revenue growth rates specific to the acquired assets or liabilities assumed. We performed a thorough review of all internal and external sources of information available on circumstances that existed at the acquisition date. We also engaged independent valuation experts on certain acquisitions to assist in determining the fair value of certain assets acquired and liabilities assumed and related deferred income tax impacts.

Transaction costs are recorded in acquisition and integration related costs in other (income) expenses.

Standards, Amendments and Interpretations Effective and Applied

The IASB and IFRS Interpretations Committee ("IFRIC") have issued certain standards and amendments or interpretations to existing standards that were effective, and we have applied.

We have adopted the following amended standards and interpretations with no material impact on our consolidated financial statements:

- Conceptual Framework for Financial Reporting
- Amendments to IAS 1 and IAS 8, Definition of Material
- Amendments to IFRS 3, "Business Combinations", Definition of a business
- Interest Rate Benchmark Reform – Phase 1 – Amendments to IFRS 9, IAS 39 and IFRS 7

Standards, Amendments and Interpretations Not Yet Effective and Not Applied

The IASB and IFRIC have issued the following standards, amendments or interpretations to existing standards that were not yet effective and not applied as at December 31, 2020. The following amended standards and interpretations are being reviewed to determine the potential impact on our consolidated financial statements:

- Amendments to IAS 1, Classification of liabilities as current or non-current
- Amendment to IAS 16, "Property, plant and equipment"
- Amendment to IAS 37, Onerous contracts
- Annual improvements 2018 – 2020
- Interest Rate Benchmark Reform – Phase 2 – Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16
- IFRS 17, "Insurance contracts"

Exhibit 99.4



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Consent of Independent Registered Public Accounting Firm

The Board of Directors of Nutrien Ltd.

We consent to the use of our reports, each dated February 18, 2021, with respect to the consolidated financial statements and the effectiveness of internal control over financial reporting for Nutrien Ltd. included in this Annual Report on Form 40-F.

We also consent to the incorporation by reference of such reports in the registration statements on Form S-8 of Nutrien Ltd. (File Nos. 333-222384, 333-222385 and 333-226295) and Form F-10 of Nutrien Ltd. (File No. 333-237068).

/s/ KPMG LLP
Chartered Professional Accountants

Calgary, Canada
February 26, 2021

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Exhibit 99.5

CERTIFICATION
REQUIRED BY RULE 13a-14(a) OR RULE 15d-14(a) OF THE
SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Charles V. Magro, certify that:

1. I have reviewed this Annual Report on Form 40-F of Nutrien Ltd.;

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 period covered by the 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 functions):

   (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.

Date: February 26, 2021

By: /s/ Charles V. Magro
Charles V. Magro
President and Chief Executive Officer

Exhibit 99.6

CERTIFICATION
REQUIRED BY RULE 13a-14(a) OR RULE 15d-14(a) OF THE
SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Pedro Farah, certify that:

1. I have reviewed this Annual Report on Form 40-F of Nutrien Ltd.;

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 period covered by the 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 functions):

   (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.

Date: February 26, 2021

By: /s/ Pedro Farah
Pedro Farah
Executive Vice President and Chief Financial Officer

Exhibit 99.7

CERTIFICATIONS

Pursuant to Section 906 of the *Sarbanes-Oxley Act of 2002* (subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, *United States Code*), each of the undersigned officers of Nutrien Ltd. (the "Company"), does hereby certify, to such officer's knowledge, that:

The Annual Report on Form 40-F for the year ended December 31, 2020 (the "Form 40-F"), of the Company fully complies with the requirements of Section 13(a) or 15(d) of the *Securities Exchange Act of 1934* and information contained in the Form 40-F fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 26, 2021

By: /s/ Charles V. Magro
Charles V. Magro
President and Chief Executive Officer

Date: February 26, 2021

By: /s/ Pedro Farah
Pedro Farah
Executive Vice President and Chief Financial Officer

Exhibit 99.8

February 26, 2021

Nutrien Ltd.

Ladies and Gentlemen:

Re: Annual Report on Form 40-F

Reference is made to the Annual Report on Form 40-F (the "Annual Report") filed by Nutrien Ltd. under the Securities Exchange Act of 1934, as amended.

I, Craig Funk, B.Sc., M.Sc., P.Eng., P.Geo., a qualified person, am responsible for preparing or supervising the preparation of (1) the technical report entitled "National Instrument 43-101 Technical Report on Allan Potash Deposit (KL 112R A), Saskatchewan, Canada" dated effective December 31, 2018 (the "Allan Technical Report"); (2) the technical report entitled "National Instrument 43-101 Technical Report on Cory Potash Deposit (KL 103C), Saskatchewan, Canada" dated effective December 31, 2020 (the "Cory Technical Report"); (3) the technical report entitled "National Instrument 43-101 Technical Report on Lanigan Potash Deposit (KLSA 001 C), Saskatchewan, Canada" dated effective December 31, 2018 (the "Lanigan Technical Report"); (4) the technical report entitled "National Instrument 43-101 Technical Report on Rocanville Potash Deposit (KL 305), Saskatchewan, Canada" dated effective December 31, 2018 (the "Rocanville Technical Report); and (5) the technical report entitled "National Instrument 43-101 Technical Report on Vanscoy Potash Deposit (KL 114C) Saskatchewan, Canada" dated effective December 31, 2020 (together with the Allan Technical Report, the Cory Technical Report, the Lanigan Technical Report and the Rocanville Technical Report, the "Technical Reports").

I hereby consent to the inclusion in the Annual Report of references to and information derived from the Technical Reports and to the use of my name therein. I hereby also consent to the incorporation by reference of such information in the registration statements on Form S-8 (File Nos. 333-222384, 333-222385 and 333-226295) and on Form F-10 (File No. 333-237068) of Nutrien Ltd.

Yours truly,

/s/ Craig Funk

Craig Funk, B.Sc., M.Sc., P.Eng., P.Geo.
Director, GeoServices & Land – Engineering,
Technology & Capital
Nutrien Ltd.

Exhibit 99.9

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.

The following table reflects citations, orders and notices issued to us by the United States Mine Safety and Health Administration (the "MSHA") for the year ended December 31, 2020 (the "Reporting Period") and contains certain additional information as required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K, including information regarding mining-related fatalities, proposed assessments from the MSHA and legal actions ("Legal Actions") before the United States Federal Mine Safety and Health Review Commission ("FMSHRC"), an independent adjudicative agency that provides administrative trial and appellate review of legal disputes arising under the United States Federal Mine Safety and Health Act of 1977, as amended by the Mine Improvement and New Emergency Response Act of 2006 (the "Act").

Included below is the information required by Section 1503(a) with respect to our facilities at Aurora, North Carolina (MSHA Identification Number 31-00212) ("Aurora") and White Springs, Florida (MSHA Identification Number 08-00798) ("White Springs") for the Reporting Period(1):

		Aurora	White Springs
(a)	the total number of violations of mandatory health or safety standards that could significantly and substantially contribute to the cause and effect of a coal or other mine safety or health hazard under Section 104 of the Act for which a citation was received from the MSHA	13	16
(b)	the total number of orders issued under Section 104(b) of the Act	0	2
(c)	the total number of citations and orders for unwarrantable failure of the Company to comply with mandatory health or safety standards under Section 104(d) of the Act	0	0
(d)	the total number of flagrant violations under Section 110(b)(2) of the Act	0	0
(e)	the total number of imminent danger orders issued under Section 107(a) of the Act	0	0
(f)	the total dollar value of proposed assessments from the MSHA under the Act	$23,743	$34,668
(g)	the total number of mining-related fatalities	0	0
(h)	received written notice from the MSHA of a pattern of violations under Section 104(e) of the Act	0	0
(i)	received written notice from the MSHA of potential to have a pattern of violations under Section 104(e) of the Act	0	0
(j)	the total number of Legal Actions pending as of the last day of the Reporting Period	0	0
(k)	Legal Actions instituted during the Reporting Period	0	0
(l)	Legal Actions resolved during the Reporting Period	0	0

(1) The number of violations and orders as well as amounts included in the total dollar value of proposed assessments are as posted on the MSHA data retrieval system as of February 18, 2021.