

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended May 31, 2023

or

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

For the transition period from _____ to _____

Commission File Number: 001-11038

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

41-0857886

(I.R.S. Employer Identification No.)

4201 Woodland Road

P.O. Box 69

Circle Pines, Minnesota 55014

(Address of principal executive offices) (Zip Code)

(763) 225-6600

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value \$0.02 per share	NTIC	Nasdaq Global Market

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer

Non-accelerated filer

Accelerated filer

Smaller reporting company

Emerging growth company

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

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

As of July 13, 2023, there were 9,369,923 shares of common stock of the registrant outstanding.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION
FORM 10-Q
May 31, 2023

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This quarterly report on Form 10-Q contains certain forward-looking statements that are within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and are subject to the safe harbor created by those sections. For more information, see “Part I. Financial Information – Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Forward-Looking Statements.”

As used in this report, references to “NTIC,” the “Company,” “we,” “our” or “us,” unless the context otherwise requires, refer to Northern Technologies International Corporation and its wholly-owned and majority-owned subsidiaries, all of which are consolidated on NTIC’s consolidated financial statements.

As used in this report, references to: (1) “NTIC China” refer to NTIC’s wholly-owned subsidiary in China, NTIC (Shanghai) Co., Ltd.; (2) “NTI Europe” refer to NTIC’s wholly-owned subsidiary in Germany, NTIC Europe GmbH; (3) “Zerust Mexico” refer to NTIC’s wholly-owned subsidiary in Mexico, ZERUST-EXCOR MEXICO, S. de R.L. de C.V.; (4) “Zerust India” refer to NTIC’s wholly-owned subsidiary in India effective as of September 1, 2021, HNTI Limited (formerly Harita-NTI Limited); and (5) “NTI Asean” refer to NTIC’s majority-owned holding company subsidiary, NTI Asean LLC, which holds investments in certain entities that operate in the Association of Southeast Asian Nations (ASEAN) region.

NTIC’s consolidated financial statements do not include the accounts of any of its joint ventures. Except as otherwise indicated, references in this report to NTIC’s joint ventures do not include any of NTIC’s wholly-owned or majority-owned subsidiaries.

As used in this report, references to “EXCOR” refer to NTIC’s joint venture in Germany, Excor Korrosionsschutz – Technologien und Produkte GmbH.

All trademarks, trade names or service marks referred to in this report are the property of their respective owners.

PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS AS OF MAY 31, 2023 (UNAUDITED)
AND AUGUST 31, 2022 (AUDITED)

	May 31, 2023	August 31, 2022
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 6,195,194	\$ 5,333,890
Available for sale securities	—	5,590
Receivables:		
Trade, excluding joint ventures, less allowance for doubtful accounts of \$439,000 as of May 31, 2023 and August 31, 2022	15,311,650	14,136,930
Trade, joint ventures	668,847	697,861
Fees for services provided to joint ventures	1,226,010	1,765,117
Income taxes	155,828	—
Inventories	13,900,812	16,341,729
Prepaid expenses	1,831,566	1,953,764
Total current assets	\$ 39,289,907	\$ 40,234,881
PROPERTY AND EQUIPMENT, NET	\$ 13,810,930	\$ 12,170,493
OTHER ASSETS:		
Investments in joint ventures	22,855,448	21,814,754
Intangible asset, net	6,281,625	6,633,878
Goodwill	4,782,376	4,782,376
Operating lease right of use asset	293,137	557,571
Total other assets	34,212,586	33,788,579
Total assets	\$ 87,313,423	\$ 86,193,953
LIABILITIES AND EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$ 4,687,675	\$ 7,796,494
Term loan	2,812,504	—
Line of credit	5,200,000	5,900,000
Income taxes payable	—	30,742
Accrued liabilities:		
Payroll and related benefits	2,035,785	2,297,543
Other	734,414	667,292
Current portion of operating leases	80,183	373,330
Total current liabilities	\$ 15,550,561	\$ 17,065,401
LONG-TERM LIABILITIES:		
Deferred income tax, net	1,618,960	1,700,015
Operating leases, less current portion	212,954	184,241
Total long-term liabilities	\$ 1,831,914	\$ 1,884,256
COMMITMENTS AND CONTINGENCIES (Note 12)		
EQUITY:		
Preferred stock, no par value; authorized 10,000 shares; none issued and outstanding	—	—
Common stock, \$0.02 par value per share; authorized 15,000,000 shares as of May 31, 2023 and August 31, 2022; issued and outstanding 9,369,923 and 9,232,483, respectively	187,398	184,650
Additional paid-in capital	21,426,721	19,939,131
Retained earnings	51,662,515	50,716,613
Accumulated other comprehensive loss	(6,879,447)	(7,245,132)
Stockholders' equity	66,397,187	63,595,262
Non-controlling interests	3,533,761	3,649,034
Total equity	69,930,948	67,244,296
Total liabilities and equity	\$ 87,313,423	\$ 86,193,953

See notes to consolidated financial statements.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)
FOR THE THREE AND NINE MONTHS ENDED MAY 31, 2023 AND 2022

	Three Months Ended May 31,		Nine Months Ended May 31,	
	2023	2022	2023	2022
NET SALES:				
Net sales	\$ 20,969,726	\$ 18,964,921	\$ 59,193,317	\$ 53,906,973
Cost of goods sold	13,280,584	12,722,833	38,747,865	36,977,620
Gross profit	7,689,142	6,242,088	20,445,452	16,929,353
JOINT VENTURE OPERATIONS:				
Equity in income from joint ventures	1,346,658	1,364,597	3,664,793	3,662,178
Fees for services provided to joint ventures	1,361,311	1,329,988	3,795,862	3,835,755
Total joint venture operations	2,707,969	2,694,585	7,460,655	7,497,933
OPERATING EXPENSES:				
Selling expenses	3,723,165	3,450,308	10,649,316	9,659,457
General and administrative expenses	3,150,643	2,560,487	9,365,431	7,675,622
Research and development expenses	1,150,711	1,102,942	3,401,885	3,557,437
Total operating expenses	8,024,519	7,113,737	23,416,632	20,892,516
OPERATING INCOME	2,372,592	1,822,936	4,489,475	3,534,770
REMEASUREMENT GAIN ON ACQUISITION OF EQUITY METHOD				
INVESTEE	—	—	—	3,951,550
INTEREST INCOME	8,876	15,925	18,495	36,777
INTEREST EXPENSE	(136,168)	(23,784)	(342,643)	(34,079)
INCOME BEFORE INCOME TAX EXPENSE	2,245,300	1,815,077	4,165,327	7,489,018
INCOME TAX EXPENSE	542,295	604,314	834,823	1,260,437
NET INCOME	1,703,005	1,210,763	3,330,504	6,228,581
NET INCOME ATTRIBUTABLE TO NON-CONTROLLING INTERESTS	177,409	210,596	417,418	551,808
NET INCOME ATTRIBUTABLE TO NTIC	\$ 1,525,596	\$ 1,000,167	\$ 2,913,086	\$ 5,676,773
NET INCOME ATTRIBUTABLE TO NTIC PER COMMON SHARE:				
Basic	\$ 0.16	\$ 0.11	\$ 0.31	\$ 0.62
Diluted	\$ 0.16	\$ 0.11	\$ 0.30	\$ 0.59
WEIGHTED AVERAGE COMMON SHARES ASSUMED OUTSTANDING:				
Basic	9,369,923	9,227,912	9,355,776	9,216,216
Diluted	9,628,069	9,578,797	9,702,610	9,682,646
CASH DIVIDENDS DECLARED PER COMMON SHARE	\$ 0.07	\$ 0.07	\$ 0.21	\$ 0.21

See notes to consolidated financial statements.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED)
FOR THE THREE AND NINE MONTHS ENDED MAY 31, 2023 AND 2022

	Three Months Ended May 31,		Nine Months Ended May 31,	
	2023	2022	2023	2022
NET INCOME	\$ 1,703,005	\$ 1,210,763	\$ 3,330,504	\$ 6,228,581
OTHER COMPREHENSIVE INCOME (LOSS) – FOREIGN CURRENCY TRANSLATION ADJUSTMENT	(92,228)	(1,554,024)	388,568	(1,936,793)
COMPREHENSIVE INCOME (LOSS)	1,610,777	(343,261)	3,719,072	4,291,788
COMPREHENSIVE LOSS ATTRIBUTABLE TO NON-CONTROLLING INTERESTS	(190,118)	(181,283)	(440,301)	(473,385)
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO NTIC	\$ 1,800,895	\$ (161,978)	\$ 4,159,373	\$ 4,765,173

See notes to consolidated financial statements.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY (UNAUDITED)
FOR THE THREE AND NINE MONTHS ENDED MAY 31, 2023 AND 2022

STOCKHOLDERS' EQUITY – THREE MONTHS ENDED MAY 31, 2023 AND 2022

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Non- Controlling Interests	Total Equity
	Shares	Amount					
BALANCE AT FEBRUARY 28, 2023	9,366,357	\$ 187,327	\$ 21,058,721	\$ 50,792,813	\$ (6,774,510)	\$ 3,443,643	\$ 68,707,994
Stock issued for employee stock purchase plan	3,566	71	36,697	—	—	—	36,768
Stock option expense	—	—	331,303	—	—	—	331,303
Dividends paid to stockholders	—	—	—	(655,894)	—	—	(655,894)
Dividend received by non-controlling interest	—	—	—	—	—	(100,000)	(100,000)
Net income	—	—	—	1,525,596	—	177,409	1,703,005
Other comprehensive income (loss)	—	—	—	—	(104,937)	12,709	(92,228)
BALANCE AT MAY 31, 2023	9,369,923	\$ 187,398	\$ 21,426,721	\$ 51,662,515	\$ (6,879,447)	\$ 3,533,761	\$ 69,930,948
BALANCE AT FEBRUARY 28, 2022	9,221,517	\$ 184,430	\$ 19,379,032	\$ 50,361,068	\$ (3,858,689)	\$ 3,371,928	\$ 69,437,767
Stock issued for employee stock purchase plan	2,966	59	35,054	—	—	—	35,113
Stock options exercised	8,000	161	59,279	—	—	—	59,440
Stock option expense	—	—	232,883	—	—	—	232,883
Dividends paid to stockholders	—	—	—	(646,274)	—	—	(646,274)
Dividend received by non-controlling interest	—	—	—	—	—	(100,000)	(100,000)
Net income	—	—	—	1,000,167	—	210,594	1,210,763
Other comprehensive loss	—	—	—	—	(1,524,711)	(29,311)	(1,554,022)
BALANCE AT MAY 31, 2022	9,232,483	\$ 184,650	\$ 19,706,248	\$ 50,714,961	\$ (5,383,400)	\$ 3,453,211	\$ 68,675,670

STOCKHOLDERS' EQUITY – NINE MONTHS ENDED MAY 31, 2023 AND 2022

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Non- Controlling Interests	Total Equity
	Shares	Amount					
BALANCE AT AUGUST 31, 2022	9,232,483	\$ 184,650	\$ 19,939,131	\$ 50,716,613	\$ (7,245,132)	\$ 3,649,034	\$ 67,244,296
Stock issued for employee stock purchase plan	7,186	143	75,321	—	—	—	75,464
Stock options exercised	130,254	2,605	413,958	—	—	—	416,563
Stock option expense	—	—	998,311	—	—	—	998,311
Dividends paid to stockholders	—	—	—	(1,967,184)	—	—	(1,967,184)
Dividend received by non-controlling interest	—	—	—	—	—	(555,574)	(555,574)
Net income	—	—	—	2,913,086	—	417,418	3,330,504
Other comprehensive income	—	—	—	—	365,685	22,883	388,568
BALANCE AT MAY 31, 2023	9,369,923	\$ 187,398	\$ 21,426,721	\$ 51,662,515	\$ (6,879,447)	\$ 3,533,761	\$ 69,930,948
BALANCE AT AUGUST 31, 2021	9,184,811	\$ 183,696	\$ 18,736,268	\$ 46,973,092	\$ (3,525,030)	\$ 3,382,553	\$ 65,750,581
Stock issued for employee stock purchase plan	5,601	112	73,533	—	—	—	73,645
Stock options exercised	42,071	842	197,798	—	—	—	198,640
Stock option expense	—	—	698,649	—	—	—	698,649
Dividends paid to stockholders	—	—	—	(1,934,906)	—	—	(1,934,906)
Dividend received by non-controlling interest	—	—	—	—	—	(402,729)	(402,729)
Net income	—	—	—	5,676,775	—	551,808	6,228,581
Other comprehensive loss	—	—	—	—	(1,858,370)	(78,421)	(1,936,791)
BALANCE AT MAY 31, 2022	9,232,483	\$ 184,650	\$ 19,706,248	\$ 50,714,961	\$ (5,383,400)	\$ 3,453,211	\$ 68,675,670

See notes to consolidated financial statements.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)
FOR THE NINE MONTHS ENDED MAY 31, 2023 AND 2022

	Nine Months Ended May 31,	
	2023	2022
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	\$ 3,330,504	\$ 6,228,581
Adjustments to reconcile net income to net cash provided by operating activities:		
Stock-based compensation	998,311	698,649
Depreciation expense	766,091	722,443
Amortization expense	441,603	474,121
Loss on disposal of assets	(8,534)	—
Remeasurement gain on acquisition of equity method investee	—	(3,951,550)
Equity in income from joint ventures	(3,664,793)	(3,662,178)
Dividends received from joint ventures	3,510,716	5,723,176
Deferred income taxes	(76,114)	152,372
Changes in current assets and liabilities:		
Receivables:		
Trade, excluding joint ventures	(1,502,567)	(1,348,254)
Trade, joint ventures	29,014	(232,364)
Fees for services provided to joint ventures	539,107	261,913
Income taxes	(155,828)	(134,942)
Inventories	2,254,758	(2,093,668)
Prepaid expenses and other	184,516	(635,478)
Accounts payable	(2,902,121)	908,605
Income tax payable	(29,401)	(420,529)
Accrued liabilities	(209,459)	(912,803)
Net cash provided by operating activities	<u>3,505,803</u>	<u>1,778,094</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Acquisition of Zerust India business, net of cash acquired	—	(5,062,003)
Purchase of available for sale securities	—	(941)
Proceeds from the sale of available for sale securities	5,590	—
Investment in joint venture	—	(341,392)
Purchases of property and equipment	(2,607,988)	(961,704)
Proceeds from the sale of property and equipment	13,000	—
Investments in patents	(89,350)	(164,994)
Net cash used in investing activities	<u>(2,678,748)</u>	<u>(6,531,034)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:		
Dividend received by non-controlling interest	(555,574)	(402,729)
Repayments on the line of credit	(700,000)	—
Proceeds from line of credit	—	4,700,000
Proceeds from term loan	2,812,504	—
Dividends paid on NTIC common stock	(1,967,184)	(1,934,906)
Proceeds from the exercise of stock options	416,563	198,640
Proceeds from employee stock purchase plan	75,464	73,645
Net cash provided by financing activities	<u>81,773</u>	<u>2,634,650</u>
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	<u>(47,524)</u>	<u>560,918</u>
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	861,304	(1,557,372)
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	<u>5,333,890</u>	<u>7,680,641</u>
CASH AND CASH EQUIVALENTS AT END OF PERIOD	<u>\$ 6,195,194</u>	<u>\$ 6,123,269</u>

See notes to consolidated financial statements.

1. INTERIM FINANCIAL INFORMATION

In the opinion of management, the accompanying unaudited consolidated financial statements contain all necessary adjustments, which are of a normal recurring nature, and present fairly the consolidated financial position of Northern Technologies International Corporation and its subsidiaries (the Company) as of May 31, 2023 and August 31, 2022, the results of the Company's operations and other comprehensive income for the three and nine months ended May 31, 2023 and 2022, the changes in stockholders' equity for the three and nine months ended May 31, 2023 and 2022, and the Company's cash flows for the nine months ended May 31, 2023 and 2022, in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP).

These consolidated financial statements should be read in conjunction with the consolidated financial statements and related notes contained in the Company's annual report on Form 10-K for the fiscal year ended August 31, 2022. These consolidated financial statements also should be read in conjunction with the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section appearing in this report.

Operating results for the three and nine months ended May 31, 2023 are not necessarily indicative of the results that may be expected for the full fiscal year ending August 31, 2023.

The Company evaluates events occurring after the date of the consolidated financial statements requiring recording or disclosure in the consolidated financial statements.

2. ACCOUNTING PRONOUNCEMENTS

In June 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016-13, *Measurement of Credit Losses on Financial Instruments*, which revises guidance for the accounting for credit losses on financial instruments within its scope, and in November 2018, issued ASU No. 2018-19 and in April 2019, issued ASU No. 2019-04 and in May 2019, issued ASU No. 2019-05, and in November 2019, issued ASU No. 2019-11, which amended the standard. The new standard introduces an approach, based on expected losses, to estimate credit losses on certain types of financial instruments and modifies the impairment model for available-for-sale debt securities. The new approach to estimating credit losses (referred to as the current expected credit losses model) applies to most financial assets measured at amortized cost and certain other instruments, including trade and other receivables, loans, held-to-maturity debt securities, net investments in leases and off-balance-sheet credit exposures. This ASU is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, with early adoption permitted. Entities are required to apply the standard's provisions as a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. The Company is still evaluating the impact of this ASU.

3. INVENTORIES

Inventories consisted of the following:

	May 31, 2023	August 31, 2022
Production materials	\$ 4,723,520	\$ 6,496,656
Finished goods	9,177,292	9,845,073
	<u>\$ 13,900,812</u>	<u>\$ 16,341,729</u>

4. PROPERTY AND EQUIPMENT, NET

Property and equipment, net consisted of the following:

	May 31, 2023	August 31, 2022
Land	\$ 496,965	\$ 310,365
Buildings and improvements	16,733,247	14,778,759
Machinery and equipment	5,960,024	5,643,320
	23,190,236	20,732,444
Less accumulated depreciation	(9,379,306)	(8,561,951)
	<u>\$ 13,810,930</u>	<u>\$ 12,170,493</u>

On February 28, 2023, the Company purchased the property immediately adjacent to NTIC's headquarters in Circle Pines, Minnesota, which includes a 26,000 square foot industrial building, for \$1,200,000. The building will be used primarily for warehousing space and light industrial production.

Depreciation expense was \$277,253 and \$766,091 for the three and nine months ended May 31, 2023, respectively, compared to \$291,452 and \$722,443 for the three and nine months ended May 31, 2022, respectively.

5. INTANGIBLE ASSETS, NET

Intangible assets, net consisted of the following:

	As of May 31, 2023		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents and trademarks	\$ 3,315,005	\$ (2,639,897)	\$ 675,108
Customer relationships	6,347,000	(740,483)	5,606,517
Total intangible assets, net	<u>\$ 9,662,005</u>	<u>\$ (3,380,380)</u>	<u>\$ 6,281,625</u>

	As of August 31, 2022		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents and trademarks	\$ 3,225,655	\$ (2,515,644)	\$ 710,011
Customer relationships	6,347,000	(423,133)	5,923,867
Total intangible assets, net	<u>\$ 9,572,655</u>	<u>\$ (2,938,777)</u>	<u>\$ 6,633,878</u>

Amortization expense related to intangible assets was \$146,730 and \$441,603 for the three and nine months ended May 31, 2023, respectively, compared to \$158,490 and \$474,121 for the three and nine months ended May 31, 2022, respectively.

As of May 31, 2023, future amortization expense related to intangible assets for each of the next five fiscal years and thereafter is estimated as follows:

Remainder of fiscal 2023	\$ 167,471
Fiscal 2024	589,746
Fiscal 2025	589,746
Fiscal 2026	589,746
Fiscal 2027	589,746
Thereafter	3,755,170
Total	<u>\$ 6,281,625</u>

6. INVESTMENTS IN JOINT VENTURES

The consolidated financial statements of the Company's foreign joint ventures are initially prepared using the accounting principles accepted in the respective joint ventures' countries of domicile. Amounts related to foreign joint ventures reported in the below tables and the accompanying consolidated financial statements have subsequently been adjusted to conform with U.S. GAAP in all material respects. All material profits on sales recorded that remain on the consolidated balance sheet from the Company to its joint ventures and from joint ventures to other joint ventures have been eliminated for financial reporting purposes.

Financial information from the audited and unaudited financial statements of the Company's joint venture in Germany, Excor Korrosionsschutz – Technologien und Produkte GmbH (EXCOR), and all the Company's other joint ventures are summarized as follows:

	As of May 31, 2023		
	Total	EXCOR	All Other
Current assets	\$ 55,424,661	\$ 26,845,344	\$ 28,579,317
Total assets	59,769,982	28,974,034	30,795,948
Current liabilities	13,229,032	3,008,256	10,220,776
Noncurrent liabilities	300,142	-	300,142
Joint ventures' equity	46,240,808	25,965,777	20,275,031
Northern Technologies International Corporation's share of joint ventures' equity	22,855,448	12,982,891	9,872,553
Northern Technologies International Corporation's share of joint ventures' undistributed earnings	20,493,861	12,075,524	8,418,337

	Three Months Ended May 31, 2023		
	Total	EXCOR	All Other
Net sales	\$ 26,312,548	\$ 10,735,862	\$ 15,576,686
Gross profit	10,494,244	5,085,837	5,408,407
Net income	2,692,444	1,654,151	1,038,293
Northern Technologies International Corporation's share of equity in income from joint ventures	1,346,658	828,631	518,027
Northern Technologies International Corporation's dividends received from joint ventures	45,977	—	45,977

	Nine Months Ended May 31, 2023		
	Total	EXCOR	All Other
Net sales	\$ 76,525,427	\$ 30,590,265	\$ 45,935,162
Gross profit	30,223,623	14,539,314	15,684,309
Net income	7,308,398	4,761,608	2,546,790
Northern Technologies International Corporation's share of equity in income from joint ventures	3,664,793	2,376,575	1,288,218
Northern Technologies International Corporation's dividends received from joint ventures	3,510,716	2,459,500	1,051,216

	As of August 31, 2022		
	Total	EXCOR	All Other
Current assets	\$ 52,428,831	\$ 26,047,914	\$ 26,380,917
Total assets	55,854,457	27,932,532	27,921,925
Current liabilities	10,981,833	2,943,895	8,037,938
Noncurrent liabilities	1,138,980	—	1,138,980
Joint ventures' equity	43,733,644	24,988,637	18,745,007
Northern Technologies International Corporation's share of joint ventures' equity	21,814,754	12,494,320	9,320,434
Northern Technologies International Corporation's share of joint ventures' undistributed earnings	21,256,923	12,463,415	8,793,508

	Three Months Ended May 31, 2022		
	Total	EXCOR	All Other
Net sales	\$ 26,594,077	\$ 10,397,916	\$ 16,196,160
Gross profit	10,626,570	4,990,697	5,635,873
Net income	2,714,979	1,654,389	1,060,590
Northern Technologies International Corporation's share of equity in income from joint ventures	1,364,597	824,784	539,813
Northern Technologies International Corporation's dividends received from joint ventures	252,000	—	252,000

	Nine Months Ended May 31, 2022		
	Total	EXCOR	All Other
Net sales	\$ 78,218,839	\$ 31,010,578	\$ 47,208,261
Gross profit	31,504,531	15,118,133	16,386,398
Net income	7,344,175	4,646,123	2,698,052
Northern Technologies International Corporation's share of equity in income from joint ventures	3,662,178	2,324,605	1,337,572
Northern Technologies International Corporation's dividends received from joint ventures	5,723,176	4,255,200	1,467,976

7. CORPORATE DEBT

On January 6, 2023, the Company entered into a Credit Agreement (the "Credit Agreement") with JPMorgan Chase Bank, N.A. ("JPM"), which provides the Company with a senior secured revolving line of credit (the "Credit Facility") of up to \$10.0 million, which includes a \$5.0 million sublimit for standby letters of credit. Borrowings of \$5,200,000 under the new Credit Agreement were outstanding May 31, 2023. Borrowings of \$5,900,000 were outstanding as of August 31, 2022 under the previous credit agreement.

Unless terminated earlier, the Credit Facility will mature on January 6, 2024, and the principal amount thereunder, together with all accrued unpaid interest and other amounts owing thereunder, if any, will be payable in full on such date. Borrowings under the Credit Agreement bear interest at a floating rate, at the option of the Company, equal to either the CB Floating Rate or the Adjusted SOFR Rate. The term "CB Floating Rate" means the greater of the Prime Rate in the United States or 2.50%. The term "Adjusted SOFR Rate" means the term secured overnight financing rate for either one, three or six months (depending on the interest period selected by the Company) plus 0.10% per annum. With respect to any borrowings using an Adjusted SOFR Rate, there is an applicable margin of 2.15% applied per annum. There is no applicable margin with respect to borrowings using a CB Floating Rate.

To secure the Credit Agreement, the Company assigned to JPM a continuing security interest in all of its right, title and interested in collateral made up for the assets of the Company.

The Credit Agreement contains customary affirmative and negative covenants, including, among other matters, limitations on the Company's ability to incur additional debt, grant liens, engage in certain business operations and transactions, make certain investments, modify its organizational documents or form any new subsidiaries, subject to certain exceptions. Further, the Credit Agreement contains a negative covenant that restricts the ability of the Company to redeem or repurchase its common stock or pay dividends if the result of which would cause an event of default under the Credit Agreement. The Credit Agreement also requires the Company to maintain a Fixed Charge Coverage Ratio of at least 1.25 to 1.00. The term "Fixed Charge Coverage Ratio" means the ratio, computed for the Company on a consolidated basis, of net income plus income tax expense, plus amortization expense, plus depreciation expense, plus interest expense, and plus dividends received from joint ventures, minus unfinanced capital expenditures and equity in income from joint ventures, all computed for the twelve month period then ending, to scheduled principal payments made, plus scheduled finance lease payments made, plus interest expense paid, plus income tax expense paid, and plus cash distributions and dividends paid, all computed for the same twelve month period then ending.

The Credit Agreement also contains customary events of default, including, without limitation, payment defaults, material inaccuracy of representations and warranties, covenant defaults, bankruptcy and insolvency proceedings, cross-defaults to certain other agreements, breach of any financial covenant and change of control. Upon the occurrence and during the continuance of any event of default, JPM may accelerate the payment of the obligations thereunder and exercise various other customary default remedies.

In connection with the execution of the Credit Agreement described above, on January 6, 2023, the Amended and Restated Loan Agreement dated August 31, 2021 between Northern Technologies International Corporation and PNC Bank, National Association was terminated.

In accordance with ASC Topic No. 470, "Debt – Modifications and Extinguishments" (Topic 470), the transactions noted above were determined to be a modification of the existing debt.

On each of April 10, 2023 and May 30, 2023, the Company's wholly-owned subsidiary in China, NTIC China, entered into a loan agreement with China Construction Bank Corporation. Each term loan provided NTIC China with a RMB 10,000,000 (USD \$1.45 million). Each of the term loans matures after one year with the principal due at that time, after which an extension of the loan agreement is required. Both term loans have an annual interest rate of 3.25% with interest due monthly. Both term loans are secured by an office building owned by NTIC China and the loan agreements contain certain financial and other covenants. The Company was in compliance with the covenants as of May 31, 2023. The current outstanding balance as of May 31, 2023 for both term loans was USD \$2,812,504.

8. STOCKHOLDERS' EQUITY

During the nine months ended May 31, 2023, the Company's Board of Directors declared cash dividends on the following dates in the following amounts to holders of record of the Company's common stock as of the following record dates:

Declaration Date	Amount	Record Date	Payable Date
October 20, 2022	\$0.07	November 3, 2022	November 16, 2022
January 20, 2023	\$0.07	February 1, 2023	February 15, 2023
April 21, 2023	\$0.07	May 3, 2023	May 17, 2023

During the nine months ended May 31, 2022, the Company's Board of Directors declared cash dividends on the following dates in the following amounts to holders of record of the Company's common stock as of the following record dates:

Declaration Date	Amount	Record Date	Payable Date
October 20, 2021	\$0.07	November 3, 2021	November 17, 2021
January 21, 2022	\$0.07	February 2, 2022	February 16, 2022
April 22, 2022	\$0.07	May 4, 2022	May 18, 2022

During the nine months ended May 31, 2023 and 2022, the Company repurchased no shares of its common stock.

The Company issued 3,620 and 2,636 shares of common stock on September 1, 2022 and 2021, respectively, under the Northern Technologies International Corporation Employee Stock Purchase Plan (ESPP). The Company issued 3,566 and 2,966 shares of common stock on March 1, 2023 and 2022, respectively, under the ESPP. The ESPP is compensatory for financial reporting purposes. As of May 31, 2023, 62,034 shares of common stock remained available for sale under the ESPP.

9. NET INCOME PER COMMON SHARE

Basic net income per common share is computed by dividing net income by the weighted average number of common shares outstanding. Diluted net income per share assumes the exercise of stock options using the treasury stock method, if dilutive.

The following is a reconciliation of the net income per share computation for the three and nine months ended May 31, 2023 and 2022:

	Three Months Ended May 31,		Nine Months Ended May 31,	
	2023	2022	2023	2022
Numerator:				
Net income attributable to NTIC	\$ 1,525,596	\$ 1,000,167	\$ 2,913,086	\$ 5,676,773
Denominator:				
Basic – weighted shares outstanding	9,369,923	9,227,912	9,355,776	9,216,216
Weighted shares assumed upon exercise of stock options	258,146	350,885	346,834	466,430
Diluted – weighted shares outstanding	9,628,069	9,578,797	9,702,610	9,682,646
Basic net income per share:	\$ 0.16	\$ 0.11	\$ 0.31	\$ 0.62
Diluted net income per share:	\$ 0.16	\$ 0.11	\$ 0.30	\$ 0.59

The dilutive impact summarized above relates to the periods when the average market price of the Company's common stock exceeded the exercise price of the potentially dilutive option securities granted. Net income per common share was based on the weighted average number of common shares outstanding during the periods when computing basic net income per share. When dilutive, stock options are included as equivalents using the treasury stock market method when computing the diluted net income per share. Excluded from the computation of diluted net income per share for the three and nine months ended May 31, 2023 were options outstanding to purchase 322,246 shares of common stock. Excluded from the computation of diluted net income per share for the three and nine months ended May 31, 2022 were options outstanding to purchase 327,793 shares of common stock.

10. STOCK-BASED COMPENSATION

A summary of stock option activities under the Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan (the 2019 Plan) and the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan (the 2007 Plan) is as follows:

	Number of Options Outstanding	Weighted Average Exercise Price
Outstanding as of August 31, 2022	1,544,727	\$ 10.23
Granted	277,613	\$ 11.41
Exercised	(178,331)	\$ 6.03
Outstanding as of May 31, 2023	1,644,009	\$ 10.88
Exercisable as of May 31, 2023	1,166,772	\$ 10.51

The weighted average per share fair value of options granted during the nine months ended May 31, 2023 and 2022 was \$4.87 and \$7.29, respectively. The weighted average remaining contractual life of the options outstanding as of May 31, 2023 and 2022 was 6.16 years and 6.02 years, respectively.

The Company recognized compensation expense of \$339,423 and \$998,311 and \$232,883 and \$698,649 during the three and nine months ended May 31, 2023 and 2022, respectively. As of May 31, 2023, there was \$1,366,860 of unrecognized compensation expense. The amount is expected to be recognized over a period of 2.5 years

11. SEGMENT AND GEOGRAPHIC INFORMATION

Segment Information

The Company's chief operating decision maker is its Chief Executive Officer. The Company's business is organized into two reportable segments: ZERUST® and Natur-Tec®. The Company has been selling its proprietary ZERUST® rust and corrosion inhibiting products and services to the automotive, electronics, electrical, mechanical, military and retail consumer markets for almost 50 years and, more recently, has targeted and expanded into the oil and gas industry. The Company also sells a portfolio of bio-based and compostable (fully biodegradable) polymer resins and finished products under the Natur-Tec® brand.

The following table sets forth the Company's net sales for the three and nine months ended May 31, 2023 and 2022 by segment:

	Three Months Ended May 31,		Nine Months Ended May 31,	
	2023	2022	2023	2022
ZERUST® net sales	\$ 16,100,674	\$ 14,446,832	\$ 45,929,422	\$ 41,988,394
Natur-Tec® net sales	4,869,052	4,518,089	13,263,895	11,918,579
Total net sales	\$ 20,969,726	\$ 18,964,921	\$ 59,193,317	\$ 53,906,973

The following table sets forth the Company's cost of goods sold for the three and nine months ended May 31, 2023 and 2022 by segment:

	Three Months Ended May 31,				Nine Months Ended May 31,			
	2023	% of Product Sales*	2022	% of Product Sales*	2023	% of Product Sales*	2022	% of Product Sales*
Direct cost of goods sold								
ZERUST®	\$ 9,116,091	56.6%	\$ 8,409,392	58.2%	\$ 26,410,796	57.5%	\$ 25,267,333	60.2%
Natur-Tec®	3,576,676	73.5%	3,432,152	76.0%	10,078,385	76.0%	9,129,686	76.6%
Indirect cost of goods sold	587,817	—	881,289	—	2,258,684	—	2,580,601	—
Total net cost of goods sold	<u>\$ 13,280,584</u>		<u>\$ 12,722,833</u>		<u>\$ 38,747,865</u>		<u>\$ 36,977,620</u>	

* The percent of segment sales is calculated by dividing the direct cost of goods sold for each individual segment category by the net sales for each segment category.

The Company utilizes product net sales and direct and indirect cost of goods sold for each product in reviewing the financial performance of a product type. Further allocation of Company expenses or assets, aside from amounts presented in the tables above, is not utilized in evaluating product performance, nor does such allocation occur for internal financial reporting.

Geographic Information

Net sales by geographic location for the three and nine months ended May 31, 2023 and 2022 were as follows:

	Three Months Ended May 31,		Nine Months Ended May 31,	
	2023	2022	2023	2022
Inside the U.S.A. to unaffiliated customers	\$ 7,729,820	\$ 6,884,726	\$ 21,958,978	\$ 18,157,010
Outside the U.S.A. to:				
Joint ventures in which the Company is a shareholder directly and indirectly	732,437	528,665	2,895,665	2,252,618
Unaffiliated customers	12,507,469	11,551,530	34,338,674	33,497,345
	<u>\$ 20,969,726</u>	<u>\$ 18,964,921</u>	<u>\$ 59,193,317</u>	<u>\$ 53,906,973</u>

Net sales by geographic location are based on the location of the customer.

Fees for services provided to joint ventures by geographic location as a percentage of total fees for services provided to joint ventures during the three and nine months ended May 31, 2023 and 2022 were as follows:

	Three Months Ended May 31,			
	2023	% of Total Fees for Services Provided to Joint Ventures	2022	% of Total Fees for Services Provided to Joint Ventures
Poland	\$ 224,288	16.5%	\$ 171,181	12.9%
Germany	209,398	15.4%	204,316	15.4%
Japan	152,593	11.2%	168,075	12.6%
Sweden	144,981	10.7%	130,681	9.8%
France	128,149	9.4%	123,869	9.3%
Finland	103,879	7.6%	92,036	6.9%
Czech Republic	99,090	7.3%	84,797	6.4%
Thailand	82,725	6.1%	95,574	7.2%
United Kingdom	83,586	6.1%	89,363	6.7%
South Korea	61,669	4.5%	78,542	5.9%
Other	70,953	5.2%	91,554	6.9%
	<u>\$ 1,361,311</u>	<u>100.0%</u>	<u>\$ 1,329,988</u>	<u>100.0%</u>

	Nine Months Ended May 31,			
	% of Total Fees for Services Provided to		% of Total Fees for Services Provided to	
	2023	Joint Ventures	2022	Joint Ventures
Poland	\$ 610,911	16.1%	\$ 520,807	13.6%
Germany	606,189	16.0%	639,738	16.7%
Japan	454,308	12.0%	486,815	12.7%
Sweden	358,032	9.4%	337,929	8.8%
France	356,444	9.4%	355,827	9.3%
Finland	285,931	7.5%	257,635	6.7%
Czech Republic	270,422	7.1%	224,280	5.8%
Thailand	257,282	6.8%	271,046	7.1%
United Kingdom	206,925	5.5%	271,027	7.1%
South Korea	190,866	5.0%	205,342	5.4%
Other	198,552	5.2%	265,309	6.8%
	\$ 3,795,862	100.0%	\$ 3,835,755	100.0%

The geographical distribution of total property and equipment and net sales is as follows:

	At May 31, 2023	At August 31, 2022
China	\$ 5,805,738	\$ 5,826,898
Other	770,863	565,022
United States	7,234,329	5,778,573
Total property and equipment, net	\$ 13,810,930	\$ 12,170,493

	Three Months Ended May 31,		Nine Months Ended May 31,	
	2023	2022	2023	2022
China	\$ 3,318,373	\$ 3,624,396	\$ 9,936,808	\$ 11,845,989
Brazil	1,488,510	1,554,364	4,062,718	3,786,670
India	5,145,423	4,824,004	14,356,708	13,369,769
Other	3,287,600	2,077,431	8,878,105	6,747,535
United States	7,729,820	6,884,726	21,958,978	18,157,010
Total net sales	\$ 20,969,726	\$ 18,964,921	\$ 59,193,317	\$ 53,906,973

Long-lived assets consist of property and equipment. These assets are periodically reviewed to assure the net realizable value from the estimated future production based on forecasted sales exceeds the carrying value of the assets.

Sales to the Company's joint ventures are included in the foregoing segment and geographic information; however, sales by the Company's joint ventures to other parties are not included. The foregoing segment and geographic information represents only sales recognized directly by the Company and sold in that geographic territory.

All joint venture operations, including equity in income, fees for services and related dividends, are primarily related to ZERUST® products and services.

12. COMMITMENTS AND CONTINGENCIES

Concentrations

Two joint ventures (consisting of the Company's joint ventures in South Korea and Thailand) accounted for 65.1% of the Company's trade joint venture receivables as of May 31, 2023, and three joint ventures (consisting of the Company's joint ventures in South Korea, Japan and Thailand) accounted for 62.3% of the Company's trade joint venture receivables as of May 31, 2022

Legal Matters

From time to time, the Company is subject to various other claims and legal actions in the ordinary course of its business. The Company records a liability in its consolidated financial statements for costs related to claims, including future legal costs, settlements and judgments, where the Company has assessed that a loss is probable and an amount could be reasonably estimated. If the reasonable estimate of a probable loss is a range, the Company records the most probable estimate of the loss or the minimum amount when no amount within the range is a better estimate than any other amount. The Company discloses a contingent liability even if the liability is not probable or the amount is not estimable, or both, if there is a reasonable possibility that material loss may have been incurred. In the opinion of management, as of May 31, 2023, the amount of liability, if any, with respect to these matters, individually or in the aggregate, will not materially affect the Company's consolidated results of operations, financial position or cash flows.

13. FAIR VALUE MEASUREMENTS

Assets and liabilities that are measured at fair value on a recurring basis primarily relate to marketable equity securities. These items are marked-to-market at each reporting period, and the Company estimates that market value approximates costs.

The following tables provide information by level for assets and liabilities that are measured at fair value on a recurring basis:

	Fair value as of May 31, 2023	Fair Value Measurements Using Inputs Considered as		
		Level 1	Level 2	Level 3
Available for sale securities	\$ —	\$ —	\$ —	\$ —

	Fair value as of August 31, 2022	Fair Value Measurements Using Inputs Considered as		
		Level 1	Level 2	Level 3
Available for sale securities	\$ 5,590	\$ 5,590	\$ —	\$ —

There were no transfers between Level 1, Level 2, or Level 3 during the three and nine months ended May 31, 2023 or 2022.

14. SUPPLEMENTAL CASH FLOW INFORMATION

Supplemental disclosures of cash flow information consisted of:

	<u>Three Months Ended May 31,</u>		<u>Nine Months Ended May 31,</u>	
	<u>2023</u>	<u>2022</u>	<u>2023</u>	<u>2022</u>
Cash paid for interest	\$ 136,168	\$ 23,784	\$ 342,643	\$ 34,079

15. INCOME TAXES

Income tax expense for the three and nine months ended May 31, 2023 was \$542,295 and \$834,823, respectively, compared to \$604,314 and \$1,260,437, respectively, for the three and nine months ended May 31, 2022. The expense was largely due to foreign operations. The Company has federal and state tax credit carry forwards, net operating loss carry forwards and foreign tax carry forwards. The Company has recorded a full valuation allowance against the U.S. deferred tax assets as of May 31, 2023 and August 31, 2022.

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

This Management's Discussion and Analysis provides material historical and prospective disclosures intended to enable investors and other users to assess NTIC's financial condition and results of operations. Statements that are not historical are forward-looking and involve risks and uncertainties discussed under the heading "*Part I. Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations—Forward-Looking Statements*" in this report and under "*Part 1. Item 1A. Risk Factors*" in our annual report on Form 10-K for the fiscal year ended August 31, 2022. The following discussion of the results of the operations and financial condition of NTIC should be read in conjunction with NTIC's consolidated financial statements and the related notes thereto included under the heading "*Part I. Item 1. Financial Statements.*"

Business Overview

NTIC develops and markets proprietary, environmentally-beneficial products and services in over 65 countries either directly or via a network of subsidiaries, joint ventures, independent distributors, and agents. NTIC's primary business is corrosion prevention marketed mainly under the ZERUST® brand. NTIC has been selling its proprietary ZERUST® products and services to the automotive, electronics, electrical, mechanical, military, and retail consumer markets for almost 50 years and, more recently, has also expanded into the oil and gas industry. Additionally, NTIC markets and sells a portfolio of proprietary bio-based and certified compostable (fully biodegradable) polymer resin compounds and finished products under the Natur-Tec® brand. These products are intended to reduce NTIC's customers' carbon footprint and provide environmentally sound waste disposal options.

NTIC's ZERUST® rust and corrosion inhibiting products include plastic and paper packaging, liquids, coatings, rust removers, cleaners, and diffusers as well as engineered solutions designed specifically for the oil and gas industry. NTIC also offers worldwide, on-site, technical consulting for rust and corrosion prevention issues. NTIC's technical service consultants work directly with the end users of NTIC's ZERUST® rust and corrosion inhibiting products to analyze their specific needs and develop systems to meet their performance requirements. In North America, NTIC sells its ZERUST® corrosion prevention solutions through a network of independent distributors and agents supported by a direct sales force.

Internationally, NTIC sells its ZERUST® corrosion prevention solutions through its wholly-owned subsidiary in China, NTIC (Shanghai) Co., Ltd. (NTIC China), starting September 1, 2021 its wholly-owned subsidiary in India, HNTI Ltd. (Zerust India), its majority-owned joint venture holding company for NTIC's joint venture investments in the Association of Southeast Asian Nations (ASEAN) region, NTI Asean LLC (NTI Asean), certain majority-owned and wholly-owned subsidiaries, and joint venture arrangements in North America, Europe, and Asia. NTIC also sells products directly to its European joint venture partners through its wholly-owned subsidiary in Germany, NTIC Europe GmbH (NTI Europe).

One of NTIC's strategic initiatives is to expand into and penetrate other markets for its ZERUST® corrosion prevention technologies. Consequently, for the past several years, NTIC has focused significant sales and marketing efforts on the oil and gas industry, as the infrastructure that supports that industry is typically constructed using metals that are highly susceptible to corrosion. NTIC believes that its ZERUST® corrosion prevention solutions will minimize maintenance downtime on critical oil and gas industry infrastructure, extend the life of such infrastructure, and reduce the risk of environmental pollution due to leaks caused by corrosion.

NTIC markets and sells its ZERUST® rust and corrosion prevention solutions to customers in the oil and gas industry in a continuously increasing number of countries either directly, through its subsidiaries, or through its joint venture partners and other strategic partners. The sale of ZERUST® corrosion prevention solutions to customers in the oil and gas industry typically involves long sales cycles, often including multi-year trial periods with each customer and a slow integration process thereafter.

Natur-Tec® bio-based and compostable plastics are manufactured using NTIC's patented and/or proprietary technologies and are intended to replace conventional petroleum-based plastics. The Natur-Tec® biopolymer resin compound portfolio includes formulations that have been optimized for a variety of applications, including blown-film extrusion, extrusion coating, injection molding, and engineered plastics. These resin compounds are certified to be fully biodegradable in a composting environment and are currently being used to produce finished products, including can liners, shopping and grocery bags, lawn and leaf bags, branded apparel packaging bags and accessories, and various foodservice items, such as disposable cutlery, drinking straws, food-handling gloves, and coated paper products. In North America, NTIC markets its Natur-Tec® resin compounds and finished products primarily through a network of regional and national distributors as well as independent agents. NTIC continues to see significant opportunities for finished bioplastic products and, therefore, continues to strengthen and expand its North American distribution network for finished Natur-Tec® bioplastic products.

Internationally, NTIC sells its Natur-Tec® resin compounds and finished products both directly and through its wholly-owned subsidiary in China and majority-owned subsidiaries in India and Sri Lanka and through distributors and certain joint ventures.

Impact of COVID-19

As a result of the novel coronavirus (COVID-19) and related government mandated restrictions on NTIC's business, as well as the businesses of its joint ventures, customers and suppliers, disruption to the Company's business and the manufacture and sale of its products and services continued to occur during the first nine months of fiscal 2023, including in particular in China, and may continue during the remainder of fiscal 2023. While demand in China improved during the third quarter of fiscal 2023 as a result of government restrictions that were lifted, NTIC continued to experience softened demand for its products in China during the first nine months of fiscal 2023.

Worldwide Supply Chain Disruptions

Worldwide supply chain disruptions, which were initially brought about by the impact of COVID-19, have persisted despite the recovery in the global economy and financial markets. These issues continued during the first nine months of fiscal 2023 and, although these issues have shown some improvement, are expected to continue to some degree throughout the remainder of fiscal 2023. NTIC has experienced longer lead times for raw materials, has been forced to find new suppliers of certain raw materials, and has experienced raw material cost increases compared to prior fiscal quarters. These and other issues resulting from worldwide supply chain disruptions have improved but are expected to continue to some degree throughout the remainder of fiscal 2023 and could continue to have a material adverse effect on NTIC's business, operating results and financial condition. The precise financial impact and duration, however, cannot be reasonably estimated at this time.

Financial Overview

NTIC's management, including its chief executive officer, who is NTIC's chief operating decision maker, reports and manages NTIC's operations in two reportable business segments based on products sold, customer base and distribution center: ZERUST® products and services and Natur-Tec® products.

Highlights of NTIC's financial results for the three and nine months ended May 31, 2023 include the following, with increases or decreases in each case as compared to the respective prior fiscal year period:

- NTIC's consolidated net sales increased 10.6% and 9.8% during the three and nine months ended May 31, 2023, respectively, compared to the three and nine months ended May 31, 2022 primarily as a result of an increase in sales of and demand for both ZERUST® and Natur-Tec® products, as well as targeted price increases on certain products. During the nine months ended May 31, 2023, 77.6% of NTIC's consolidated net sales were derived from sales of ZERUST® products and services, which increased 9.4% over the prior fiscal year period, and 22.4% of NTIC's consolidated net sales were derived from sales of Natur-Tec®

- Cost of goods sold as a percentage of net sales decreased to 63.3% and 65.5% during the three and nine months ended May 31, 2023, respectively, compared to 67.1% and 68.6% during the three and nine months ended May 31, 2022, respectively, primarily as a result of lower raw material prices overall and increased sales made to customers in the oil and gas industry, which products carry higher margins than ZERUST® industrial products and Natur-Tec® products.
- NTIC's equity in income from joint ventures decreased 1.3% and increased 0.1% during the three and nine months ended May 31, 2023, respectively, to \$1,346,658 and \$3,664,793, respectively, compared to \$1,364,597 and \$3,662,178 during the three and nine months ended May 31, 2022, respectively. These immaterial changes were reflective of the immaterial change in sales at the joint ventures. Net sales at the joint ventures decreased 1.1% and 2.2% to \$26,312,548 and \$76,525,427 during the three and nine months ended May 31, 2023, respectively, compared to \$26,594,077 and \$78,218,839 during the three and nine months ended May 31, 2022, respectively.
- NTIC's total operating expenses increased 12.8% and 12.1% to \$8,024,519 and \$23,416,632 during the three and nine months ended May 31, 2023, respectively, compared to \$7,113,737 and \$20,892,516 for the three and nine months ended May 31, 2022, respectively. These increases were primarily due to increased personnel expenses, including new hires, benefits and travel, and expenses incurred during the current fiscal year periods in connection with the startup of a new indirect, majority owned subsidiary formed to assume the operations of a former joint venture in Taiwan, partially offset by payroll tax credits.
- NTIC incurred net income attributable to NTIC of \$1,525,596, or \$0.16 per diluted common share, for the three months ended May 31, 2023, compared to \$1,000,167, or \$0.11 per diluted common share, for the three months ended May 31, 2022. NTIC incurred net income attributable to NTIC of \$2,913,086, or \$0.30 per diluted common share, for the nine months ended May 31, 2023, compared to \$5,676,773, or \$0.59 per diluted common share, for the nine months ended May 31, 2022. Of the net income attributable to NTIC incurred in the nine months ended May 31, 2022, \$3,951,550 or \$0.41 per diluted common share was due to the gain from the Zerust India acquisition.

Results of Operations

The following table sets forth NTIC's results of operations for the three and nine months ended May 31, 2023 and 2022.

	Three Months Ended May 31,					
	2023	% of Net Sales	2022	% of Net Sales	\$ Change	% Change
Net sales	\$ 20,969,726	100.0%	\$ 18,964,921	100.0%	\$ 2,004,805	10.6%
Cost of goods sold	13,280,584	63.3%	12,722,833	67.1%	557,751	4.4%
Equity in income from joint ventures	1,346,658	6.4%	1,364,597	7.2%	(17,939)	-1.3%
Fees for services provided to joint ventures	1,361,311	6.5%	1,329,988	7.0%	31,323	2.4%
Selling expenses	3,723,165	17.8%	3,450,308	18.2%	272,857	7.9%
General and administrative expenses	3,150,643	15.0%	2,560,487	13.5%	590,156	23.0%
Research and development expenses	1,150,711	5.5%	1,102,942	5.8%	47,769	4.3%

	Nine Months Ended May 31,					
	2023	% of Net Sales	2022	% of Net Sales	\$ Change	% Change
Net sales	\$ 59,193,317	100.0%	\$ 53,906,973	95.8%	\$ 5,286,344	9.8%
Cost of goods sold	38,747,865	65.5%	36,977,620	68.6%	1,770,245	4.8%
Equity in income from joint ventures	3,664,793	6.2%	3,662,178	6.8%	2,615	0.1%
Fees for services provided to joint ventures	3,795,862	6.4%	3,835,755	7.1%	(39,893)	-1.0%
Selling expenses	10,649,316	18.0%	9,659,457	17.9%	989,859	10.2%
General and administrative expenses	9,365,431	15.8%	7,675,622	14.2%	1,689,809	22.0%
Research and development expenses	3,401,885	5.7%	3,557,437	6.6%	(155,552)	-4.4%

Net Sales. NTIC's consolidated net sales increased 10.6% and 9.8% to \$20,969,726 and \$59,193,317 during the three and nine months ended May 31, 2023, respectively, compared to the three and nine months ended May 31, 2022. These increases were primarily a result of increased demand across all market segments, including oil and gas, as well as targeted price increases on certain products.

The following table sets forth NTIC's net sales by product segment for the three and nine months ended May 31, 2023 and 2022:

	Three Months Ended May 31,		Nine Months Ended May 31,	
	2023	2022	2023	2022
Total ZERUST® sales	16,100,674	14,446,832	45,929,422	41,988,394
Total Natur-Tec® sales	4,869,052	4,518,089	13,263,895	11,918,579
Total net sales	\$ 20,969,726	\$ 18,964,921	\$ 59,193,317	\$ 53,906,973

During the three and nine months ended May 31, 2023, 76.8% and 77.6% of NTIC's consolidated net sales, respectively, were derived from sales of ZERUST® products and services, which increased 11.4% and 9.4% to \$16,100,674 and \$45,929,422, respectively, compared to \$14,446,832 and \$41,988,394 during the three and nine months ended May 31, 2022, respectively. These increases were primarily a result of increased demand in North America, as well as targeted price increases on certain products.

The following table sets forth NTIC's net sales of ZERUST® products for the three and nine months ended May 31, 2023 and 2022:

	Three Months Ended May 31,			
	2023	2022	\$ Change	% Change
ZERUST® industrial net sales	\$ 14,103,292	\$ 12,941,651	\$ 1,161,641	9.0%
ZERUST® oil & gas net sales	1,997,382	1,505,181	492,201	32.7%
Total ZERUST® net sales	\$ 16,100,674	\$ 14,446,832	\$ 1,653,842	11.4%

	Nine Months Ended May 31,			
	2023	2022	\$ Change	% Change
ZERUST® industrial net sales	\$ 40,504,908	\$ 38,933,476	\$ 1,571,432	4.0%
ZERUST® oil & gas net sales	5,424,514	3,054,918	2,369,596	77.6%
Total ZERUST® net sales	\$ 45,929,422	\$ 41,988,394	\$ 3,941,028	9.4%

NTIC's total ZERUST® net sales increased during the three and nine months ended May 31, 2023, compared to the prior fiscal year periods, primarily due to increased demand in North American ZERUST industrial business and sales to new and existing oil and gas customers. Overall, demand for ZERUST® products and services depends heavily on the overall health of the markets in which NTIC sells its products, including the automotive, oil and gas, agriculture, and mining markets in particular.

ZERUST® oil and gas net sales increased 32.7% and 77.6% during the three and nine months ended May 31, 2023 compared to the prior fiscal year periods primarily as a result of new opportunities with new and existing customers. NTIC anticipates that its sales of ZERUST® products and services into the oil and gas industry will continue to remain subject to significant volatility from quarter to quarter as sales are recognized, specifically due to the volatility of oil prices. Demand for oil and gas products around the world depends primarily on market acceptance and the reach of NTIC's distribution network. Because of the typical size of individual orders and overall size of NTIC's net sales derived from sales of oil and gas products, the timing of one or more orders can materially affect NTIC's quarterly sales compared to prior fiscal year quarters.

During the three and nine months ended May 31, 2023, 23.2% and 22.4% of NTIC's consolidated net sales, respectively, were derived from sales of Natur-Tec® products, compared to 23.8% and 22.1% during the three and nine months ended May 31, 2022, respectively. Sales of Natur-Tec® products increased 7.8% and 11.3% to \$4,869,052 and \$13,263,895 during the three and nine months ended May 31, 2023, respectively, compared to \$4,518,089 and \$11,918,579 during the three and nine months ended May 31, 2022, respectively, as a result of increased global demand. The demand for Natur-Tec® products in most markets have returned to pre-pandemic levels, however, there are lingering effects in the apparel industry as well as corporate office complexes.

Cost of Goods Sold. Cost of goods sold increased 4.4% and 4.8% for the three and nine months ended May 31, 2023, respectively, compared to the three and nine months ended May 31, 2022 primarily as a result of the increase in net sales, as described above. Cost of goods sold as a percentage of net sales decreased to 63.3% and 65.5% during the three and nine months ended May 31, 2023, compared to 67.1% and 68.6% during the three and nine months ended May 31, 2022 primarily as a result of lower raw material prices and increased sales made to customers in the oil and gas industry, which products carry higher margins than our ZERUST® industrial products. NTIC has taken certain actions to address inflationary pressures and pass on related cost increases to its customers and some improvements from these actions, as well as some improvements in gross margin, were realized during the nine months ended May 31, 2023.

Equity in Income from Joint Ventures. NTIC's equity in income from joint ventures decreased 1.3% and increased 0.1% during the three and nine months ended May 31, 2023, respectively, to \$1,346,658 and \$3,664,793, respectively, compared to \$1,364,597 and \$3,662,178 during the three and nine months ended May 31, 2022, respectively. These immaterial changes were reflective of the immaterial changes in sales at the joint ventures for the same comparison periods. NTIC's equity in income from joint ventures fluctuates based on net sales and profitability of the joint ventures during the respective periods. Of the total equity in income from joint ventures, NTIC had equity in income from joint ventures of \$2,376,575 attributable to EXCOR during the nine months ended May 31, 2023, compared to \$2,324,605 attributable to EXCOR during the nine months ended May 31, 2022. NTIC had equity in income from all other joint ventures of \$1,288,218 during the nine months ended May 31, 2023, compared to \$1,337,572 during the nine months ended May 31, 2022.

Fees for Services Provided to Joint Ventures. NTIC recognized fee income for services provided to joint ventures of \$1,361,311 and \$3,795,862 during the three and nine months ended May 31, 2023, respectively, compared to \$1,329,988 and \$3,835,755 during the three and nine months ended May 31, 2022, respectively, representing an increase of 2.4% and a decrease of 1.0%, respectively. Fee income for services provided to joint ventures is traditionally a function of the sales made by NTIC's joint ventures; however, at various joint ventures, the fee income for services is a fixed amount that does not fluctuate with the change in sales experienced by certain joint ventures. Net sales at the joint ventures decreased 1.1% and 2.2% to \$26,312,548 and \$76,525,427 during the three and nine months ended May 31, 2023, respectively, compared to \$26,594,077 and \$78,218,839 during the three and nine months ended May 31, 2022, respectively. Net sales of NTIC's joint ventures are not included in NTIC's product sales and are not included in NTIC's consolidated financial statements. Of the total fee income for services provided to joint ventures, fees of \$606,189 were attributable to EXCOR during the nine months ended May 31, 2023, compared to \$639,738 attributable to EXCOR during the nine months ended May 31, 2022.

Selling Expenses. NTIC's selling expenses increased 7.9% and 10.2% for the three and nine months ended May 31, 2023, respectively, compared to the same respective periods in fiscal 2022 primarily due to an increase in personnel expense during the current fiscal year period compared to the prior fiscal year period, and expenses incurred during the current fiscal year periods in connection with the startup of a new indirect, majority owned subsidiary formed to assume the operations of a former joint venture in Taiwan, partially offset by payroll tax credits. Selling expenses as a percentage of net sales decreased to 17.8% and increased to 18.0% for the three and nine months ended May 31, 2023, respectively, from 18.2% and 17.9% for the three and nine months ended May 31, 2022, respectively, primarily due to the increased selling expenses, as noted above.

General and Administrative Expenses. NTIC's general and administrative expenses increased 23.0% and 22.0% for the three and nine months ended May 31, 2023, respectively, compared to the same respective periods in fiscal 2022 primarily due to increased professional services and travel and personnel expenses during the current fiscal year periods compared to the prior fiscal year periods, as well as expenses incurred during the current fiscal year periods in connection with the startup of a new indirect, majority owned subsidiary formed to assume the operations of a former joint venture in Taiwan, partially offset by payroll tax credits. As a percentage of net sales, general and administrative expenses increased to 15.0% and 15.8% for the three and nine months ended May 31, 2023, respectively, from 13.5% and 14.2% for the same respective periods in fiscal 2022 primarily due to the increase in general and administrative expenses, as noted above.

Research and Development Expenses. NTIC's research and development expenses increased 4.3% and decreased 4.4% for the three and nine months ended May 31, 2023, respectively, compared to the same respective periods in fiscal 2022 primarily due to the timing of expenses incurred for both comparisons and a decrease in expenses associated with development efforts for the nine-month comparison.

Interest Income. NTIC's interest income decreased to \$8,876 and \$18,495 during the three and nine months ended May 31, 2023, respectively, compared to \$15,925 and \$36,777 during the three and nine months ended May 31, 2022, respectively, primarily due to changes in the invested cash balances.

Interest Expense. NTIC's interest expense increased to \$136,168 and \$342,643 during the three and nine months ended May 31, 2023, respectively compared \$23,784 and \$34,079 during the three and nine months ended May 31, 2022 primarily due to increased outstanding borrowings under the line of credit, new term loans incurred by NTIC's subsidiary in China and increased interest rates, in each case during the current fiscal year periods compared to the prior fiscal year periods.

Remeasurement Gain on Acquisition of Equity Method Investee. Authoritative guidance on accounting for business combinations requires that an acquirer re-measure its previously held equity interest in the acquisition at its acquisition date fair value and recognize the resulting gain or loss in earnings. As such, since NTIC acquired the remaining 50% ownership interest of Zerust India effective September 1, 2021, NTIC recognized a gain of \$3,951,550 during the nine months ended May 31, 2022. This gain is included in "Remeasurement gain on acquisition of equity method investee" on NTIC's consolidated statements of operations for the nine months ended May 31, 2022. There was no comparable gain during the current fiscal year period.

Income Before Income Tax Expense. NTIC had income before income tax expense of \$2,245,300 and \$4,165,327 for the three and nine months ended May 31, 2023, respectively, compared to \$1,815,077 and \$7,489,018 for the three and nine months ended May 31, 2022, respectively.

Income Tax Expense. Income tax expense was \$542,295 and \$834,823 for the three and nine months ended May 31, 2023, respectively, compared to \$604,314 and \$1,260,437 during the three and nine months ended May 31, 2022, respectively. Income tax expense was calculated based on management's estimate of NTIC's annual effective income tax rate.

NTIC considers the earnings of certain foreign joint ventures to be indefinitely invested outside the United States on the basis of estimates that NTIC's future domestic cash generation will be sufficient to meet future domestic cash needs. As a result, U.S. income and foreign withholding taxes have not been recognized on the cumulative undistributed earnings of \$20,493,861 and \$21,256,923 as of May 31, 2023 and August 31, 2022, respectively. To the extent undistributed earnings of NTIC's joint ventures are distributed in the future, they are not expected to result in any material additional income tax liability after the application of foreign tax credits.

Net Income Attributable to NTIC. Net income attributable to NTIC increased to \$1,525,596, or \$0.16 per diluted common share, for the three months ended May 31, 2023, compared to \$1,000,167, or \$0.11 per diluted common share, for the three months ended May 31, 2022. This increase was a result of the increase in gross profit and joint venture income contribution, partially offset by the increase in operating expenses and interest expense. Net income attributable to NTIC decreased to \$2,913,086, or \$0.30 per diluted common share, for the nine months ended May 31, 2023, compared to \$5,676,773, or \$0.59 per diluted common share, for the nine months ended May 31, 2022. This decrease was primarily due to the \$3,951,550 remeasurement gain on acquisition of equity method investee recognized during the prior fiscal year periods, which did not repeat this fiscal year, and to a lesser extent, the increase in operating expenses, partially offset by the increase in gross profit.

NTIC anticipates that its earnings will continue to be adversely affected to some extent by COVID-19, inflation and worldwide supply chain disruptions, among other factors. Additionally, NTIC anticipates that its quarterly net income will continue to remain subject to significant volatility primarily due to the financial performance of its subsidiaries and joint ventures, sales of its ZERUST® products and services into the oil and gas industry, and sales of its Natur-Tec® bioplastics products, which sales fluctuate more on a quarterly basis than the traditional ZERUST® business.

Other Comprehensive Income - Foreign Currency Translations Adjustment. The changes in the foreign currency translations adjustment were due to the fluctuation of the U.S. dollar compared to the Euro and other foreign currencies during the three and nine months ended May 31, 2023 compared to the same periods in fiscal 2022.

Liquidity and Capital Resources

Sources of Cash and Working Capital. NTIC's working capital, defined as current assets less current liabilities, was \$23,739,346 as of May 31, 2023, including \$6,195,194 in cash and cash equivalents, compared to \$23,169,480 as of August 31, 2022, including \$5,333,890 in cash and cash equivalents and \$5,590 in available for sale securities.

On January 6, 2023, NTIC entered into a Credit Agreement (the "Credit Agreement") with JPMorgan Chase Bank, N.A. ("JPM"), which provides NTIC with a senior secured revolving line of credit (the "Credit Facility") of up to \$10.0 million. The Credit Facility includes a \$5.0 million sublimit for standby letters of credit. Borrowings of \$5,200,000 were outstanding under the Credit Facility as of May 31, 2023.

Unless terminated earlier, the Credit Facility will mature on January 6, 2024, and the principal amount thereunder, together with all accrued unpaid interest and other amounts owing thereunder, if any, will be payable in full on such date. Borrowings under the Credit Agreement bear interest at a floating rate, at the option of NTIC, equal to either the CB Floating Rate or the Adjusted SOFR Rate. The term "CB Floating Rate" means the greater of the Prime Rate in the United States or 2.50%. The term "Adjusted SOFR Rate" means the term secured overnight financing rate for either one, three or six months (depending on the interest period selected by NTIC) plus 0.10% per annum. With respect to any borrowings using an Adjusted SOFR Rate, there is an applicable margin of 2.15% applied per annum. There is no applicable margin with respect to borrowings using a CB Floating Rate.

To secure the Credit Agreement, the Company assigned to JPM a continuing security interest in all of its right, title and interest in collateral made up for the assets of the Company.

The Credit Agreement contains customary affirmative and negative covenants, including, among other matters, limitations on NTIC's ability to incur additional debt, grant liens, engage in certain business operations and transactions, make certain investments, modify its organizational documents or form any new subsidiaries, subject to certain exceptions. Further, the Credit Agreement contains a negative covenant that restricts the ability of NTIC to redeem or repurchase its common stock or pay dividends if the result of which would cause an event of default under the Credit Agreement. The Credit Agreement also requires the Company to maintain a Fixed Charge Coverage Ratio of at least 1.25 to 1.00. The term "Fixed Charge Coverage Ratio" means the ratio, computed for the NTIC on a consolidated basis, of net income plus income tax expense, plus amortization expense, plus depreciation expense, plus interest expense, and plus dividends received from joint ventures, minus unfinanced capital expenditures and equity in income from joint ventures, all computed for the twelve month period then ending, to scheduled principal payments made, plus scheduled finance lease payments made, plus interest expense paid, plus income tax expense paid, and plus cash distributions and dividends paid, all computed for the same twelve month period then ending.

The Credit Agreement also contains customary events of default, including, without limitation, payment defaults, material inaccuracy of representations and warranties, covenant defaults, bankruptcy and insolvency proceedings, cross-defaults to certain other agreements, breach of any financial covenant and change of control. Upon the occurrence and during the continuance of any event of default, JPM may accelerate the payment of the obligations thereunder and exercise various other customary default remedies. As of May 31, 2023, NTIC was in compliance with all debt covenants under the Credit Agreement.

In connection with the execution of the Credit Agreement described above, on January 6, 2023, the Amended and Restated Loan Agreement dated August 31, 2021 between Northern Technologies International Corporation and PNC Bank, National Association was terminated.

On each of April 10, 2023 and May 30, 2023, the Company's wholly-owned subsidiary in China, NTIC China, entered into a loan agreement with China Construction Bank Corporation. Each term loan provided NTIC China with a RMB 10,000,000 (USD \$1.45 million). Each of the term loans matures after one year with the principal due at that time, after which an extension of the loan agreement is required. Both term loans have an annual interest rate of 3.25% with interest due monthly. Both term loans are secured by an office building owned by NTIC China and the loan agreements contain certain financial and other covenants. The Company was in compliance with the covenants as of May 31, 2023. The current outstanding balance as of May 31, 2023 for both term loans is USD \$2,812,504.

NTIC believes that a combination of its existing cash and cash equivalents, available for sale securities, forecasted cash flows from future operations, anticipated distributions of earnings, anticipated fees to NTIC for services provided to its joint ventures, and funds available through existing or anticipated financing arrangements will be adequate to fund its existing operations, investments in new or existing joint ventures or subsidiaries, capital expenditures, debt repayments, cash dividends, and any stock repurchases for at least the next 12 months. During the remainder of fiscal 2023, NTIC expects to continue to invest directly and through its use of working capital in Zerust India, NTIC China, Zerust Mexico, NTI Europe, its joint ventures, research and development, marketing efforts, resources for the application of its corrosion prevention technology in the oil and gas industry, and its Natur-Tec® bio-plastics business, although the amounts of these various investments are not known at this time.

NTIC also expects to use some of its capital resources to continue to transition some of its joint ventures as needed or appropriate, which may include additional acquisitions by NTIC of the remaining ownership interests of joint ventures not owned by NTIC, the formation of one or more new subsidiaries to assume the operations of a joint venture, and dissolutions or liquidations of one or more of its joint ventures. Some of these joint venture transitions may materially impact NTIC's results of operations for a particular reporting period. For example, the formation of a new indirect, majority owned subsidiary of NTIC to assume the operations of a former joint venture increased NTIC's operating expenses during the nine months ended May 31, 2023.

NTIC traditionally has used the cash generated from its operations, distributions of earnings from joint ventures and fees for services provided to its joint ventures to fund NTIC's new technology investments and capital contributions to new and existing subsidiaries and joint ventures. NTIC's joint ventures traditionally have operated with little or no debt and have been self-financed with minimal initial capital investment and minimal additional capital investment from their respective owners. Therefore, NTIC believes there is limited exposure by NTIC's joint ventures that could materially impact their respective operations and/or liquidity.

In order to take advantage of new product and market opportunities to expand its business and increase its revenues and assist with joint venture transitions, NTIC may decide to finance such opportunities by additional borrowing under its revolving line of credit or raising additional financing through the issuance of debt or equity securities. There is no assurance that any financing transaction will be available on terms acceptable to NTIC or at all or that any financing transaction will not be dilutive to NTIC's current stockholders.

Uses of Cash and Cash Flows. Net cash provided by operating activities during the nine months ended May 31, 2023 was \$3,505,803, which resulted principally from NTIC's net income, dividends received from joint ventures, depreciation and amortization expense and stock-based compensation, partially offset by equity in income from joint ventures. Net cash provided by operating activities during the nine months ended May 31, 2022 was \$1,778,094, which resulted principally from NTIC's net income, dividends received from joint ventures, depreciation and amortization expense, stock-based compensation and deferred income tax, partially offset by the remeasurement gain on acquisition of equity method investee and equity in income from joint ventures.

NTIC's cash flows from operations are impacted by significant changes in certain components of NTIC's working capital, including inventory turnover and changes in receivables and payables. NTIC considers internal and external factors when assessing the use of its available working capital, specifically when determining inventory levels and credit terms of customers. Key internal factors include existing inventory levels, stock reorder points, customer forecasts and customer requested payment terms. Key external factors include the availability of primary raw materials and sub-contractor production lead times. NTIC's typical contractual terms for trade receivables, excluding joint ventures, are traditionally 30 days and 90 days for trade receivables from its joint ventures. Before extending unsecured credit to customers, excluding NTIC's joint ventures, NTIC reviews customers' credit histories and will establish an allowance for uncollectible accounts based upon factors surrounding the credit risk of specific customers and other information. Accounts receivable over 30 days are considered past due for most customers. NTIC does not accrue interest on past due accounts receivable. If accounts receivable in excess of the provided allowance are determined uncollectible, they are charged to selling expense in the period that the determination is made. Accounts receivable are deemed uncollectible based on NTIC exhausting reasonable efforts to collect. NTIC's typical contractual terms for receivables for services provided to its joint ventures are 90 days. NTIC records receivables for services provided to its joint ventures on an accrual basis, unless circumstances exist that make the collection of the balance uncertain, in which case the fee income will be recorded on a cash basis until there is consistency in payments. This determination is handled on a case-by-case basis.

NTIC experienced an increase in trade receivables and a decrease in inventory as of May 31, 2023, compared to August 31, 2022. Trade receivables, excluding joint ventures, as of May 31, 2023, increased \$1,174,720, compared to August 31, 2022, primarily related to correlating increases to sales.

Outstanding trade receivables, excluding joint ventures balances, increased an average of 3 days to an average of 70 days from balances outstanding from these customers as of May 31, 2023 from an average of 67 days as of August 31, 2022.

Outstanding trade receivables from joint ventures as of May 31, 2023 decreased \$29,014, compared to August 31, 2022, primarily due to the timing of payments. Outstanding balances from trade receivables from joint ventures decreased an average of 6 days to an average of 84 days from balances outstanding from these customers as of May 31, 2023 from an average of 90 days as of August 31, 2022. The average days outstanding of trade receivables from joint ventures as of May 31, 2023 were primarily due to the receivables balances at NTIC's joint ventures in South Korea and Thailand.

Outstanding receivables for services provided to joint ventures as of May 31, 2023 decreased \$539,107, compared to August 31, 2022, and the average days to pay decreased an average of 1 day to an average of 83 days from an average of 84 days as of August 31, 2022.

Net cash used in investing activities for the nine months ended May 31, 2023 and 2022 was \$2,678,748 and \$6,531,034, respectively, which was primarily the result of the purchase of property and equipment, and investments in patents, and in the case of the prior year period, the purchase of the remaining 50% ownership interest in Zerust India.

Net cash provided by financing activities for the nine months ended May 31, 2023 was \$81,773, which resulted from borrowings under the line of credit and term loan and proceeds from the exercise of stock options and NTIC's employee stock purchase plan, partially offset by dividends paid on NTIC common stock and dividends received by non-controlling interest. Net cash provided by financing activities for the nine months ended May 31, 2022 was \$2,634,650, which resulted from borrowings under the line of credit and proceeds from the exercise of stock options and NTIC's employee stock purchase plan, partially offset by dividends paid on NTIC common stock and dividends received by non-controlling interest.

Share Repurchase Plan. On January 15, 2015, NTIC's Board of Directors authorized the repurchase of up to \$3,000,000 in shares of NTIC common stock through open market purchases or unsolicited or solicited privately negotiated transactions. This program has no expiration date but may be terminated by NTIC's Board of Directors at any time. No repurchases occurred during the nine months ended May 31, 2023. As of May 31, 2023, up to \$2,640,548 in shares of NTIC common stock remained available for repurchase under NTIC's stock repurchase program.

Cash Dividends. During the nine months ended May 31, 2023, the Company's Board of Directors declared cash dividends on the following dates in the following amounts to holders of record of the Company's common stock as of the following record dates:

Declaration Date	Amount	Record Date	Payable Date
October 20, 2022	\$0.07	November 3, 2022	November 16, 2022
January 20, 2023	\$0.07	February 1, 2023	February 15, 2023
April 21, 2023	\$0.07	May 3, 2023	May 17, 2023

During the nine months ended May 31, 2022, the Company's Board of Directors declared cash dividends on the following dates in the following amounts to holders of record of the Company's common stock as of the following record dates:

Declaration Date	Amount	Record Date	Payable Date
October 20, 2021	\$0.07	November 3, 2021	November 17, 2021
January 21, 2022	\$0.07	February 2, 2022	February 16, 2022
April 22, 2022	\$0.07	May 4, 2022	May 18, 2022

The declaration of future dividends is not guaranteed and will be determined by NTIC's Board of Directors in light of conditions then existing, including NTIC's earnings, financial condition, cash requirements, restrictions in financing agreements, business conditions, and other factors, including without limitation the effect of COVID-19 on NTIC's business, operating results and financial condition.

Capital Expenditures and Commitments. NTIC spent \$2,607,988 on capital expenditures during the nine months ended May 31, 2023, which related primarily to a new warehouse facility, equipment and facility improvements, including the purchase of the property immediately adjacent to NTIC's headquarters in Circle Pines, Minnesota, which includes a 26,000 square foot industrial building, and related renovations. The building will be used primarily for warehousing space and light industrial production. NTIC expects to spend an aggregate of approximately \$2,600,000 to \$3,100,000 on capital expenditures during fiscal 2023, which it expects will relate primarily to the purchase of the new warehouse facility, equipment and facility improvements, including approximately \$1,000,000 in renovations on the property and building described above.

Inflation and Seasonality

Although inflation in the United States and abroad historically has had little effect on NTIC, inflationary pressures adversely affected NTIC's gross margins during the first nine months of fiscal 2023 and are expected to persist into at least the fourth quarter of fiscal 2023. NTIC believes there is some seasonality in its business. NTIC's net sales in the second fiscal quarter were adversely affected by the long Chinese New Year, the North American holiday season and overall less corrosion taking place at lower winter temperatures worldwide.

Market Risk

NTIC is exposed to some market risk stemming from changes in foreign currency exchange rates, commodity prices and interest rates.

Because the functional currency of NTIC's foreign operations and investments in its foreign joint ventures is the applicable local currency, NTIC is exposed to foreign currency exchange rate risk arising from transactions in the normal course of business. NTIC's principal exchange rate exposure is with the Euro, the Japanese Yen, the Indian Rupee, the Chinese Renminbi, the South Korean Won, and the English Pound against the U.S. Dollar. NTIC's fees for services provided to joint ventures and dividend distributions from these foreign entities are paid in foreign currencies and, thus, fluctuations in foreign currency exchange rates could result in declines in NTIC's reported net income. Since NTIC's investments in its joint ventures are accounted for using the equity method, any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change NTIC's equity in income from joint ventures reflected in its consolidated statements of operations. NTIC does not hedge against its foreign currency exchange rate risk.

Some raw materials used in NTIC's products are exposed to commodity price changes. The primary commodity price exposures are with a variety of plastic and bioplastic resins.

Any outstanding advances under NTIC's Credit Facility with JPM bear interest at a floating rate, at the option of NTIC, equal to either the CB Floating Rate or the Adjusted SOFR Rate, as defined above. Borrowings of \$5,200,000 were outstanding under the Credit Facility as of May 31, 2023.

Both term loans undertaken by NTIC China with China Construction Bank Corporation have an annual interest rate of 3.25% with interest due monthly. The current outstanding balance as of May 31, 2023 for both term loans is USD \$2,812,504.

Critical Accounting Policies and Estimates

There have been no material changes to NTIC's critical accounting policies and estimates from the information provided in "*Part II. Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates*" included in NTIC's annual report on Form 10-K for the fiscal year ended August 31, 2022.

Accounting Pronouncements

See Note 2 to NTIC's consolidated financial statements for a discussion of accounting pronouncements.

Forward-Looking Statements

This quarterly report on Form 10-Q contains not only historical information, but also forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements are subject to the safe harbor created by those sections. In addition, NTIC or others on NTIC's behalf may make forward-looking statements from time to time in oral presentations, including telephone conferences and/or web casts open to the public, in press releases or reports, on NTIC's Internet web site, or otherwise. All statements other than statements of historical facts included in this report or expressed by NTIC orally from time to time that address activities, events, or developments that NTIC expects, believes, or anticipates will or may occur in the future are forward-looking statements, including, in particular, the statements about NTIC's plans, objectives, strategies, and prospects regarding, among other things, NTIC's financial condition, results of operations and business, the anticipated effect of COVID-19 and its acquisition of Zerust India on NTIC's business, operating results and financial condition, and the outcome of contingencies, such as legal proceedings. NTIC has identified some of these forward-looking statements in this report with words like "believe," "can," "may," "could," "would," "might," "forecast," "possible," "potential," "project," "will," "should," "expect," "intend," "plan," "predict," "anticipate," "estimate," "approximate," or "continue" or the negative of these words or other words and terms of similar meaning. The use of future dates is also an indication of a forward-looking statement. Forward-looking statements may be contained in the notes to NTIC's consolidated financial statements and elsewhere in this report, including under the heading "*Management's Discussion and Analysis of Financial Condition and Results of Operations.*"

Forward-looking statements are based on current expectations about future events affecting NTIC and are subject to uncertainties and factors that affect all businesses operating in a global market as well as matters specific to NTIC. These uncertainties and factors are difficult to predict, and many of them are beyond NTIC's control. The following are some of the uncertainties and factors known to us that could cause NTIC's actual results to differ materially from what NTIC has anticipated in its forward-looking statements:

- The effect of worldwide disruption in supply issues on NTIC's business, operating results and financial condition, which will likely continue through the end of fiscal 2023, regardless of the status of COVID-19;
- The effect of COVID-19 on NTIC's business, operating results and financial condition, including in particular in China, and disruption to our customers, suppliers and subcontractors, as well as the global economy and financial markets;
- The effect of current worldwide economic conditions, inflation, recessionary indicators and any turmoil and disruption in the global credit, financial and banking markets or the perception of adverse conditions on NTIC's business and the business of NTIC's customers, suppliers, vendors and other third parties with whom NTIC conducts business;
- The effect of the ongoing war between Russia and Ukraine, and the effect of the war and the resulting sanctions by U.S. and European governments on commodity price fluctuations, which have decreased our margins and the margins of our joint ventures and resulted in decreased joint venture profitability, which will likely continue through the end of fiscal 2023;
- NTIC's operations in China and the risks associated therewith, including trade or other issues that may result from increasing tensions between the U.S. and China;
- Variability in NTIC's sales of ZERUST® products and services to the oil and gas industry and Natur-Tec® products and NTIC's equity income of joint ventures, which variability in sales and equity in income from joint ventures, in turn, subject NTIC's earnings to quarterly fluctuations;
- Risks associated with NTIC's international operations and exposure to fluctuations in foreign currency exchange rates, import duties, taxes, and tariffs;

- The effect of the United Kingdom's process to exit the European Union on NTIC's operating results, including, in particular, future net sales of NTIC's European and other joint ventures;
- The effect of the health of the U.S. automotive industry on NTIC's business and the evolution of the automotive industry towards electric vehicles;
- NTIC's dependence on the success of its joint ventures and fees and dividend distributions that NTIC receives from them;
- Risks associated with NTIC's acquisition of the remaining 50% ownership interest in its Indian joint venture, Zerust India;
- NTIC's relationships with its joint ventures and its ability to maintain those relationships, especially in light of anticipated succession planning issues, and risks associated with possible future acquisitions of the remaining ownership interests of certain joint ventures;
- Fluctuations in the cost and availability of raw materials, including resins and other commodities, including supply chain disruptions and weather related impacts;
- The success of and risks associated with NTIC's emerging new businesses and products and services, including in particular NTIC's ability and the ability of NTIC's joint ventures to sell ZERUST® products and services to the oil and gas industry and Natur-Tec® products and the often lengthy and extensive sales process involved in selling such products and services;
- NTIC's ability to introduce new products and services that respond to changing market conditions and customer demand;
- Market acceptance of NTIC's existing and new products, especially in light of existing and new competitive products;
- Maturation of certain existing markets for NTIC's ZERUST® products and services and NTIC's ability to grow market share and succeed in penetrating other existing and new markets;
- Increased competition, especially with respect to NTIC's ZERUST® products and services, and the effect of such competition on NTIC's and its joint ventures' pricing, net sales, and margins;
- NTIC's reliance upon and its relationships with its distributors, independent sales representatives, and joint ventures;
- NTIC's reliance upon suppliers;
- Oil prices, which may affect sales of NTIC's ZERUST® products and services to the oil and gas industry, and which may be impacted by the ongoing war between Russia and Ukraine;
- The costs and effects of complying with laws and regulations and changes in tax, fiscal, government, and other regulatory policies, including rules relating to environmental, health, and safety matters;
- Unforeseen product quality or other problems in the development, production, and usage of new and existing products;
- Unforeseen production expenses incurred in connection with new customers and new products;

- Loss of or changes in executive management or key employees and the need to hire and train local support in a timely manner in order to support customer needs;
- Ability of management to manage around unplanned events;
- Pending and future litigation;
- NTIC's reliance on its intellectual property rights and the absence of infringement of the intellectual property rights of others;
- NTIC's ability to maintain effective internal control over financial reporting, especially in light of its joint venture arrangements;
- Changes in applicable laws or regulations and NTIC's failure to comply with applicable laws, rules, and regulations;
- Changes in generally accepted accounting principles and the effect of new accounting pronouncements;
- Fluctuations in NTIC's effective tax rate;
- The effect of extreme weather conditions on NTIC's operating results; and
- NTIC's reliance upon its management information systems.

For more information regarding these and other uncertainties and factors that could cause NTIC's actual results to differ materially from what NTIC has anticipated in its forward-looking statements or otherwise could materially adversely affect its business, financial condition or operating results, see NTIC's annual report on Form 10-K for the fiscal year ended August 31, 2022 under the heading "*Part I. Item 1A. Risk Factors.*"

All forward-looking statements included in this report are expressly qualified in their entirety by the foregoing cautionary statements. NTIC wishes to caution readers not to place undue reliance on any forward-looking statement that speaks only as of the date made and to recognize that forward-looking statements are predictions of future results, which may not occur as anticipated. Actual results could differ materially from those anticipated in the forward-looking statements and from historical results due to the uncertainties and factors described above and others that NTIC may consider immaterial or does not anticipate at this time. Although NTIC believes that the expectations reflected in its forward-looking statements are reasonable, NTIC does not know whether its expectations will prove correct. NTIC's expectations reflected in its forward-looking statements can be affected by inaccurate assumptions NTIC might make or by known or unknown uncertainties and factors, including those described above. The risks and uncertainties described above are not exclusive, and further information concerning NTIC and its business, including factors that potentially could materially affect its financial results or condition, may emerge from time to time. NTIC assumes no obligation to update, amend, or clarify forward-looking statements to reflect actual results or changes in factors or assumptions affecting such forward-looking statements. NTIC advises you, however, to consult any further disclosures NTIC makes on related subjects in its annual reports on Form 10-K, quarterly reports on Form 10-Q, and current reports on Form 8-K that NTIC files with or furnishes to the Securities and Exchange Commission.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

NTIC is exposed to some market risk stemming from changes in foreign currency exchange rates, commodity prices and interest rates.

Because the functional currency of NTIC's foreign operations and investments in its foreign joint ventures is the applicable local currency, NTIC is exposed to foreign currency exchange rate risk arising from transactions in the normal course of business. NTIC's principal exchange rate exposure is with the Euro, the Japanese Yen, the Indian Rupee, the Chinese Renminbi, the South Korean Won, and the English Pound against the U.S. Dollar. NTIC's fees for services provided to joint ventures and dividend distributions from these foreign entities are paid in foreign currencies, and, thus, fluctuations in foreign currency exchange rates could result in declines in NTIC's reported net income. Since NTIC's investments in its joint ventures are accounted for using the equity method, any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change NTIC's equity in income from joint ventures reflected in its consolidated statements of operations. NTIC does not hedge against its foreign currency exchange rate risk.

Some raw materials used in NTIC's products are exposed to commodity price changes. The primary commodity price exposures are with a variety of plastic resins.

Any outstanding advances under NTIC's Credit Facility with JPM bear interest at a floating rate, at the option of NTIC, equal to either the CB Floating Rate or the Adjusted SOFR Rate, as defined above. Borrowings of \$5,200,000 were outstanding under the Credit Facility as of May 31, 2023.

Both term loans undertaken by NTIC China with China Construction Bank Corporation have an annual interest rate of 3.25% with interest due monthly. The current outstanding balance as of May 31, 2023 for both term loans is USD \$2,812,504.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

NTIC maintains disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) that are designed to provide reasonable assurance that information required to be disclosed by NTIC in the reports it files or submits under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to NTIC's management, including NTIC's principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. NTIC's management evaluated, with the participation of its Chief Executive Officer and its Chief Financial Officer, the effectiveness of the design and operation of NTIC's disclosure controls and procedures as of the end of the period covered in this report. Based on that evaluation, NTIC's Chief Executive Officer and Chief Financial Officer concluded that NTIC's disclosure controls and procedures were effective as of the end of such period to provide reasonable assurance that information required to be disclosed in the reports that NTIC files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to NTIC's management, including NTIC's Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There was no change in NTIC's internal control over financial reporting that occurred during the quarter ended May 31, 2023 that has materially affected or is reasonably likely to materially affect NTIC's internal control over financial reporting, other than changes implemented to continue integrating Zerust India's internal controls with NTIC's internal controls.

PART II - OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

See Note 12 to NTIC's consolidated financial statements in *Part I. Item 1. Financial Statements* of this report.

ITEM 1A. RISK FACTORS

Although Item 1A. is inapplicable to NTIC as a smaller reporting company, NTIC hereby discloses the following revised risk factor described in its annual report on Form 10-K for the fiscal year ended August 31, 2022:

The operations of NTIC China may be adversely affected by China's evolving economic, political, and social conditions as well as increasing tensions between the United States and China.

The results of operations and future prospects of NTIC China may be adversely affected by, among other things, changes in China's political, economic, and social conditions, changes in the relationship between China and its western trade partners, changes in policies of the Chinese government, changes in laws and regulations or in the interpretation of existing laws and regulations, changes in foreign exchange regulations, measures that may be introduced to control inflation, such as interest rate increases, changes in the rates or methods of taxation, and increasing tensions between the United States and China. In addition, changes in demand could result from increased competition with local Chinese manufacturers who have cost advantages or who may be preferred suppliers for Chinese end users. Also, Chinese commercial laws, regulations, and interpretations applicable to non-Chinese owned market participants, such as NTIC China, are continually changing, and such changes may require NTIC China to change how it conducts its business. These laws, regulations, and interpretations could impose restrictions on NTIC's and NTIC China's ownership or operations or NTIC's interests in China and could adversely affect NTIC's business, results of operations, and financial condition.

Local regulations in China related to the electric power shortage that began in 2021 may adversely affect NTIC China's operations or the operations of our suppliers with facilities in China. For example, these regulations could result in partial or complete factory shutdowns due to a lack of continuous supply of electrical power. Additionally, the price of electric power may be increased, and peak-demand periods during which prices are higher may be extended by local governments. Certain of our resin suppliers with facilities in China were adversely impacted by these regulations, which contributed to constrained supply. Although NTIC China's operations have not been significantly impacted by regulations related to electric power shortages to date, such regulations may in the future decrease or shut down production or increase product costs, which could adversely affect NTIC's business, results of operations, and financial condition.

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

Recent Sales of Unregistered Equity Securities

During the three months ended May 31, 2023, NTIC did not issue any shares of its common stock or other equity securities of NTIC that were not registered under the Securities Act of 1933, as amended.

Issuer Purchases of Equity Securities

The following table shows NTIC's third quarter of fiscal 2023 stock repurchase activity.

Period	Total Number of Shares (or Units) Purchased	Average Price Paid Per Share (or Unit)	Total Number of Shares (or Units) Purchased As Part of Publicly Announced Plans or Programs	Maximum Number of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
March 1, 2023 through March 31, 2023	0	\$0	0	(1)
April 1, 2023 through April 30, 2023	0	\$0	0	(1)
May 1, 2023 through May 31, 2023	0	\$0	0	(1)
Total	0	\$0	0	(1)(2)

(1) On January 15, 2015, NTIC's Board of Directors authorized the repurchase of up to \$3,000,000 in shares of NTIC common stock through open market purchases or unsolicited or solicited privately negotiated transactions. This program has no expiration date but may be terminated by NTIC's Board of Directors at any time.

(2) As of May 31, 2023, up to \$2,640,548 in shares of NTIC common stock remained available for repurchase under NTIC's stock repurchase program.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

Not applicable.

ITEM 6. EXHIBITS

The following exhibits are being filed or furnished with this quarterly report on Form 10-Q:

Exhibit No.	Description
<u>31.1</u>	<u>Certification of President and Chief Executive Officer pursuant to SEC Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)</u>
<u>31.2</u>	<u>Certification of Chief Financial Officer pursuant to SEC Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)</u>
<u>32.1</u>	<u>Certification of President and Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith)</u>
<u>32.2</u>	<u>Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith)</u>
101	The following materials from NTIC's Quarterly Report on Form 10-Q for the fiscal quarter ended May 31, 2023, formatted in Inline XBRL (Extensible Business Reporting Language): (i) the unaudited Consolidated Balance Sheets, (ii) the unaudited Consolidated Statements of Operations, (iii) the unaudited Consolidated Statements of Comprehensive Income, (iv) the unaudited Consolidated Statements of Equity, (v) the unaudited Consolidated Statements of Cash Flows, and (vi) Notes to Consolidated Financial Statements (filed herewith)
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

SIGNATURES

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

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION

/s/ Matthew C. Wolsfeld

Matthew C. Wolsfeld, CPA

Chief Financial Officer

(Principal Financial and Accounting Officer and

Duly Authorized to Sign on Behalf of the Registrant)

Date: July 13, 2023

CERTIFICATION PURSUANT TO SECTION 302(a) OF THE SARBANES-OXLEY ACT OF 2002

I, G. Patrick Lynch, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Northern Technologies International Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent 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: July 13, 2023

/s/ G. Patrick Lynch

G. Patrick Lynch
President and Chief Executive Officer
(principal executive officer)

CERTIFICATION PURSUANT TO SECTION 302(a) OF THE SARBANES-OXLEY ACT OF 2002

I, Matthew C. Wolsfeld, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Northern Technologies International Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent 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: July 13, 2023

/s/ Matthew C. Wolsfeld

Matthew C. Wolsfeld, CPA
Chief Financial Officer and Corporate Secretary
(principal financial officer)

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Northern Technologies International Corporation (the "Company") for the period ended May 31, 2023, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, G. Patrick Lynch, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge and belief:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ G. Patrick Lynch

G. Patrick Lynch
President and Chief Executive Officer
(principal executive officer)

Circle Pines, Minnesota
July 13, 2023

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY
ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q of Northern Technologies International Corporation (the "Company") for the period ended May 31, 2023, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Matthew C. Wolsfeld, Chief Financial Officer and Corporate Secretary of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge and belief:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Matthew C. Wolsfeld

Matthew C. Wolsfeld, CPA
Chief Financial Officer and Corporate
Secretary
(principal financial officer)

Circle Pines, Minnesota
July 13, 2023