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

FORM 10-Q

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

For the quarterly period ended June 30, 2023

OR

o **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 001-12019

QUAKER CHEMICAL CORPORATION

(Exact name of registrant as specified in its charter)

Pennsylvania	**23-0993790**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
901 E. Hector Street, **Conshohocken, Pennsylvania**	**19428 – 2380**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: 610-832-4000

Not Applicable

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

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, $1 par value	KWR	New York Stock Exchange

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

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 x No o

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	x	Accelerated filer	o
Non-accelerated filer	o	Smaller reporting company	o
		Emerging growth company	o

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Number of Shares of Common Stock Outstanding on July 15, 2023	**17,997,040**

Quaker Chemical Corporation
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PART I

FINANCIAL INFORMATION

Item 1. Financial Statements (Unaudited).

Quaker Chemical Corporation
Condensed Consolidated Statements of Operations
(Unaudited; Dollars in thousands, except per share data)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	**2022**	**2023**	**2022**
Net sales	$ 495,444	$ 492,388	$ 995,592	$ 966,559
Cost of goods sold (excluding amortization expense - See Note 13)	317,753	342,824	644,451	670,924
Gross profit	177,691	149,564	351,141	295,635
Selling, general and administrative expenses	119,853	115,830	239,402	227,625
Restructuring and related charges (credits), net	1,043	(1)	5,015	819
Combination, integration and other acquisition-related expenses	—	1,832	—	5,885
Operating income	56,795	31,903	106,724	61,306
Other expense, net	(3,606)	(8,399)	(5,845)	(10,605)
Interest expense, net	(12,721)	(6,494)	(25,963)	(11,839)
Income before taxes and equity in net income of associated companies	40,468	17,010	74,916	38,862
Taxes on income before equity in net income of associated companies	13,830	1,374	23,363	4,240
Income before equity in net income of associated companies	26,638	15,636	51,553	34,622
Equity in net income (loss) of associated companies	2,755	(1,265)	7,381	(430)
Net income	29,393	14,371	58,934	34,192
Less: Net income attributable to noncontrolling interest	47	28	54	33
Net income attributable to Quaker Chemical Corporation	$ 29,346	$ 14,343	$ 58,880	$ 34,159
Per share data:				
Net income attributable to Quaker Chemical Corporation common shareholders – basic	$ 1.63	$ 0.80	$ 3.28	$ 1.91
Net income attributable to Quaker Chemical Corporation common shareholders – diluted	$ 1.63	$ 0.80	$ 3.27	$ 1.91
Dividends declared	$ 0.435	$ 0.415	$ 0.870	$ 0.830

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Quaker Chemical Corporation
Condensed Consolidated Statements of Comprehensive Income
(Unaudited; Dollars in thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	**2022**	**2023**	**2022**
Net income	$ 29,393	$ 14,371	$ 58,934	$ 34,192
Other comprehensive (loss) income, net of tax				
Currency translation adjustments	(13,080)	(76,433)	1,388	(83,299)
Defined benefit retirement plans	697	1,407	571	1,903
Current period change in fair value of derivatives	4,173	575	4,563	1,675
Unrealized gain (loss) on available-for-sale securities	1,241	(567)	1,575	(1,567)
Other comprehensive (loss) income	(6,969)	(75,018)	8,097	(81,288)
Comprehensive income (loss)	22,424	(60,647)	67,031	(47,096)
Less: Comprehensive (loss) income attributable to noncontrolling interest	(9)	5	(19)	(1)
Comprehensive income (loss) attributable to Quaker Chemical Corporation	$ 22,415	$ (60,642)	$ 67,012	$ (47,097)

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Quaker Chemical Corporation
Condensed Consolidated Balance Sheets
(Unaudited; Dollars in thousands, except par value)

	June 30, 2023	December 31, 2022
ASSETS		
Current assets		
Cash and cash equivalents	$ 189,405	$ 180,963
Accounts receivable, net	454,230	472,888
Inventories		
Raw materials and supplies	137,914	151,105
Work-in-process and finished goods	137,026	133,743
Prepaid expenses and other current assets	65,426	55,438
Total current assets	984,001	994,137
Property, plant and equipment, at cost	441,963	428,190
Less: Accumulated depreciation	(237,231)	(229,595)
Property, plant and equipment, net	204,732	198,595
Right of use lease assets	40,983	43,766
Goodwill	507,370	515,008
Other intangible assets, net	918,143	942,925
Investments in associated companies	91,960	88,234
Deferred tax assets	10,033	11,218
Other non-current assets	33,019	27,739
Total assets	$ 2,790,241	$ 2,821,622
LIABILITIES AND EQUITY		
Current liabilities		
Short-term borrowings and current portion of long-term debt	$ 19,369	$ 19,245
Accounts payable	193,790	193,983
Dividends payable	7,830	7,808
Accrued compensation	35,129	39,834
Accrued restructuring	5,160	5,483
Accrued pension and postretirement benefits	1,579	1,560
Other accrued liabilities	83,681	86,873
Total current liabilities	346,538	354,786
Long-term debt	863,934	933,561
Long-term lease liabilities	24,218	26,967
Deferred tax liabilities	156,247	160,294
Non-current accrued pension and postretirement benefits	29,174	28,765
Other non-current liabilities	33,464	38,664
Total liabilities	1,453,575	1,543,037
Commitments and contingencies (Note 18)		
Equity		
Common stock $1 par value; authorized 30,000,000 shares; issued and outstanding June 30, 2023 – 17,999,223 shares; December 31, 2022 – 17,950,264 shares	17,999	17,950
Capital in excess of par value	934,941	928,288
Retained earnings	513,148	469,920
Accumulated other comprehensive loss	(130,108)	(138,240)
Total Quaker shareholders’ equity	1,335,980	1,277,918
Noncontrolling interest	686	667
Total equity	1,336,666	1,278,585
Total liabilities and equity	$ 2,790,241	$ 2,821,622

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Quaker Chemical Corporation
Condensed Consolidated Statements of Cash Flows
(Unaudited; Dollars in thousands)

	Six Months Ended June 30,	
	2023	2022
Cash flows from operating activities		
Net income	$ 58,934	$ 34,192
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Amortization of debt issuance costs	706	2,236
Depreciation and amortization	40,824	41,036
Equity in undistributed earnings of associated companies, net of dividends	(4,207)	3,400
Deferred compensation, deferred taxes and other, net	154	(10,208)
Share-based compensation	7,414	5,433
Loss on extinguishment of debt	—	5,246
Combination and other acquisition-related expenses, net of payments	—	(3,880)
Restructuring and related charges	5,015	819
Pension and other postretirement benefits	(308)	(2,269)
Increase (decrease) in cash from changes in current assets and current liabilities, net of acquisitions:		
Accounts receivable	22,017	(51,944)
Inventories	11,750	(58,427)
Prepaid expenses and other current assets	(8,925)	(5,558)
Change in restructuring liabilities	(5,410)	(797)
Accounts payable and accrued liabilities	(11,912)	32,298
Net cash provided by (used in) operating activities	116,052	(8,423)
Cash flows from investing activities		
Investments in property, plant and equipment	(17,040)	(15,138)
Payments related to acquisitions, net of cash acquired	—	(9,383)
Proceeds from disposition of assets	—	85
Net cash used in investing activities	(17,040)	(24,436)
Cash flows from financing activities		
Payments of long-term debt	(9,439)	(668,500)
Proceeds from long-term debt	—	750,000
(Payments) borrowings on revolving credit facilities, net	(62,778)	16,703
Payments on other debt, net	(456)	(155)
Financing-related debt issuance costs	—	(3,734)
Dividends paid	(15,631)	(14,862)
Other stock related activity	(712)	(821)
Net cash (used in) provided by financing activities	(89,016)	78,631
Effect of foreign exchange rate changes on cash	(1,554)	(8,600)
Net increase in cash and cash equivalents	8,442	37,172
Cash and cash equivalents at the beginning of the period	180,963	165,176
Cash and cash equivalents at the end of the period	$ 189,405	$ 202,348

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Quaker Chemical Corporation
Condensed Consolidated Statements of Changes in Equity
(Unaudited; Dollars in thousands, except per share amounts)

	Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Loss	Noncontrolling Interest	Total
Balance as of December 31, 2021	$ 17,897	$ 917,053	$ 516,334	$ (63,990)	$ 628	$ 1,387,922
Net income	—	—	19,816	—	5	19,821
Amounts reported in other comprehensive (loss) income	—	—	—	(6,271)	1	(6,270)
Dividends ($0.415 per share)	—	—	(7,434)	—	—	(7,434)
Share issuance and equity-based compensation plans	15	1,646	—	—	—	1,661
Balance as of March 31, 2022	$ 17,912	$ 918,699	$ 528,716	$ (70,261)	$ 634	$ 1,395,700
Net income	—	—	14,343	—	28	14,371
Amounts reported in other comprehensive loss	—	—	—	(74,985)	(33)	(75,018)
Dividends ($0.415 per share)	—	—	(7,438)	—	—	(7,438)
Share issuance and equity-based compensation plans	8	2,943	—	—	—	2,951
Balance as of June 30, 2022	$ 17,920	$ 921,642	$ 535,621	$ (145,246)	$ 629	$ 1,330,566
Balance as of December 31, 2022	$ 17,950	$ 928,288	$ 469,920	$ (138,240)	$ 667	$ 1,278,585
Net income	—	—	29,534	—	7	29,541
Amounts reported in other comprehensive income	—	—	—	15,063	3	15,066
Dividends ($0.435 per share)	—	—	(7,822)	—	—	(7,822)
Share issuance and equity-based compensation plans	32	1,386	—	—	—	1,418
Balance as of March 31, 2023	$ 17,982	$ 929,674	$ 491,632	$ (123,177)	$ 677	$ 1,316,788
Net income	—	—	29,346	—	47	29,393
Amounts reported in other comprehensive loss	—	—	—	(6,931)	(38)	(6,969)
Dividends ($0.435 per share)	—	—	(7,830)	—	—	(7,830)
Share issuance and equity-based compensation plans	17	5,267	—	—	—	5,284
Balance as of June 30, 2023	$ 17,999	$ 934,941	$ 513,148	$ (130,108)	$ 686	$ 1,336,666

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Note 1 – Basis of Presentation and Description of Business

As used in these Notes to Condensed Consolidated Financial Statements of this Quarterly Report on Form 10-Q for the period ended June 30, 2023 (the "Report"), the terms "Quaker Houghton," the "Company," "we," and "our" refer to Quaker Chemical Corporation (doing business as Quaker Houghton), its subsidiaries, and associated companies, unless the context otherwise requires. The "Combination" refers to the legacy Quaker combination with Houghton International, Inc. ("Houghton").

Basis of Presentation

The condensed consolidated financial statements included herein are unaudited and have been prepared in accordance with generally accepted accounting principles in the United States ("U.S. GAAP") for interim financial reporting and the United States Securities and Exchange Commission ("SEC") regulations. Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted pursuant to such rules and regulations. In the opinion of management, the financial statements reflect all adjustments consisting only of normal recurring adjustments, which are necessary for a fair statement of the financial position, results of operations and cash flows for the interim periods. The results for the six months ended June 30, 2023 are not necessarily indicative of the results to be expected for the full year. These financial statements should be read in conjunction with the Company's Annual Report filed on Form 10-K for the year ended December 31, 2022 (the "2022 Form 10-K").

During the first quarter of 2023, the Company reorganized its executive management team to align with its new business structure. The Company's new structure includes three reportable segments: (i) Americas; (ii) Europe, Middle East and Africa ("EMEA"); and (iii) Asia/Pacific. Prior to the Company's reorganization, the Company's historical reportable segments were: (i) Americas; (ii) EMEA; (iii) Asia/Pacific; and (iv) Global Specialty Businesses. Prior period information has been recast to align with the Company's business structure as of January 1, 2023, including reportable segments, customer industry disaggregation. As a result of the Company's new organizational structure effective January 1, 2023, the Company reallocated goodwill previously held by the former Global Specialty Businesses segment to the remaining business segments as of January 1, 2023. However, the Company did not recast the carrying amount of goodwill for the year ended December 31, 2022. See Notes 4, 5, and 13 of Notes to Condensed Consolidated Financial Statements.

Description of Business

The Company was organized in 1918 and incorporated as a Pennsylvania business corporation in 1930. Quaker Houghton is the global leader in industrial process fluids. With a presence around the world, including operations in over 25 countries, the Company's customers include thousands of the world's most advanced and specialized steel, aluminum, automotive, aerospace, offshore, container, mining, and metalworking companies. Quaker Houghton develops, produces, and markets a broad range of formulated chemical specialty products and offers chemical management services, which the Company refers to as "Fluidcare™", for various heavy industrial and manufacturing applications.

Hyper-inflationary economies

Argentina's and Türkiye's economies were considered hyper-inflationary under U.S. GAAP effective July 1, 2018 and April 1, 2022, respectively. As of, and for the three and six months ended June 30, 2023, the Company's Argentine and Turkish subsidiaries represented a combined 1% and 2% of the Company's consolidated total assets and net sales, respectively. During the three and six months ended June 30, 2023, the Company recorded $1.1 million and $1.6 million of remeasurement losses associated with the applicable currency conversions, respectively. Comparatively, during the three and six months ended June 30, 2022, the Company recorded less than $0.1 million and $0.2 million of remeasurement losses associated with the applicable currency conversions, respectively. These losses were recorded within foreign exchange losses, net, which is a component of Other expense, net, in the Company's Condensed Consolidated Statements of Operations.

Note 2 – Business Acquisitions

Previous Acquisitions

In October 2022, the Company acquired a business that provides pickling and rinsing products and services, which is part of the EMEA reportable segment, for approximately 3.5 million EUR or approximately $3.5 million. This acquisition, along with the Company's January 2022 acquisition in the Americas (described below), which had similar specializations and product offerings in pickling inhibitor technologies, strengthens Quaker Houghton's position in pickling inhibitors and additives, enabling the Company to better support and optimize production processes for customers across the Metals industry. As of June 30, 2023, the allocation of the purchase of this acquisition in October 2022 has not been finalized and the one-year measurement period has not ended. Further adjustments may be necessary as a result of the Company's ongoing assessment of additional information related to the fair value of assets acquired and liabilities assumed.

In January 2022, the Company acquired a business that provides pickling inhibitor technologies, drawing lubricants and stamping oil, and various other lubrication, rust preventative, and cleaner applications, which is part of the Americas reportable segment for approximately $8.0 million. This business broadens the Company’s product offerings within its existing metals and metalworking business in the Americas region. During the third quarter of 2022 the Company finalized post-closing adjustments that resulted in the Company paying less than $0.1 million of additional purchase consideration. Also in January 2022, the Company acquired a business related to the sealing and impregnation of metal castings for the automotive sector, as well as impregnation resin and impregnation systems for metal parts, which is part of the EMEA reportable segment for approximately 1.2 million EUR or approximately $1.4 million. This business broadens its product offerings and service capabilities within its existing impregnation business. The allocation of the purchase prices of both of these January 2022 acquisitions have been finalized.

In November 2021, the Company acquired Baron Industries, a privately held company that provides vacuum impregnation services of castings, powder metals and electrical components for its Americas reportable segment for $11.0 million, including an initial cash payment of $7.1 million, subject to post-closing adjustments, as well as certain earn-out provisions that are payable at various times from 2022 through 2025. The earn-out provisions could total a maximum of $4.5 million. As of June 30, 2023, the Company has remaining earn-out liabilities recorded on its Condensed Consolidated Balance Sheet of $1.3 million. Additionally, during the third quarter of 2022 the Company finalized post-closing adjustments that resulted in the Company receiving a payment of less than $0.1 million.

In December 2020, the Company acquired Coral Chemical Company, LLC (“Coral”), a privately held U.S.-based provider of metal finishing fluid solutions. Subsequent to the acquisition, the Company and the sellers of Coral (the “Sellers”) have worked to finalize certain post-closing adjustments. During the second quarter of 2022, after failing to reach resolution, the Sellers filed suit asserting certain amounts owed related to tax attributes of the acquisition. During the first six months of 2023, there have been no material changes to the facts and circumstances of the claim asserted by the Sellers, and the Company continues to believe the potential range of exposure for this claim is $0 to $1.5 million.

Note 3 – Recently Issued Accounting Standards

There have been no recently issued accounting standards that will have a material impact on the Company’s condensed consolidated financial statements and related footnote disclosures.

Note 4 – Business Segments

The Company has three reportable segments: (i) Americas; (ii) EMEA; and (iii) Asia/Pacific. The three segments are composed of the net sales and operations in each respective region. All prior period information has been recast to reflect the Company’s new reportable segments. See Note 1 of Notes to Condensed Consolidated Financial Statements.

Segment operating earnings for each of the Company’s reportable segments are comprised of the segment’s net sales less directly related Cost of goods sold (“COGS”) and Selling, general and administrative expenses (“SG&A”). Operating expenses not directly attributable to the net sales of each respective segment, such as certain corporate and administrative costs, Combination, integration and other acquisition-related expenses, and Restructuring and related charges (credits), net, are not included in segment operating earnings. Other items not specifically identified with the Company’s reportable segments include Interest expense, net and Other expense, net.

(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

The following table presents information about the performance of the Company's reportable segments:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Net sales				
Americas	$ 253,219	$ 235,809	$ 504,632	$ 447,900
EMEA	143,533	145,535	295,982	292,354
Asia/Pacific	98,692	111,044	194,978	226,305
Total net sales	$ 495,444	$ 492,388	$ 995,592	$ 966,559
Segment operating earnings				
Americas	$ 69,007	$ 52,137	$ 135,132	$ 97,316
EMEA	25,583	20,076	53,154	43,324
Asia/Pacific	27,989	24,922	55,641	49,423
Total segment operating earnings	122,579	97,135	243,927	190,063
Combination, integration and other acquisition-related expenses	—	(1,832)	—	(5,885)
Restructuring and related (charges) credits, net	(1,043)	1	(5,015)	(819)
Non-operating and administrative expenses	(49,950)	(48,579)	(101,721)	(92,042)
Depreciation of corporate assets and amortization	(14,791)	(14,822)	(30,467)	(30,011)
Operating income	56,795	31,903	106,724	61,306
Other expense, net	(3,606)	(8,399)	(5,845)	(10,605)
Interest expense, net	(12,721)	(6,494)	(25,963)	(11,839)
Income before taxes and equity in net income of associated companies	$ 40,468	$ 17,010	$ 74,916	$ 38,862

The following table summarizes inter-segment revenues. All inter-segment transactions have been eliminated from each reportable segment's net sales and earnings for all periods presented in the above tables.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Americas	2,179	3,441	5,006	6,497
EMEA	7,463	15,634	13,556	27,810
Asia/Pacific	476	115	536	412

Note 5 – Net Sales and Revenue Recognition

Arrangements Resulting in Net Reporting

As part of the Company's Fluidcare^{TM} business, certain third-party product sales to customers are managed by the Company. The Company transferred third-party products under arrangements recognized on a net reporting basis of $21.0 million and $41.7 million for the three and six months ended June 30, 2023, respectively, and $20.5 million and $40.3 million for the three and six months ended June 30, 2022, respectively.

Customer Concentration

A significant portion of the Company's revenues are realized from the sale of process fluids and services to manufacturers of steel, aluminum, automobiles, aerospace, industrial and agricultural equipment, and durable goods. As previously disclosed in the Company's 2022 Form 10-K, for the year ended December 31, 2022, the Company's five largest customers combined (each composed of multiple subsidiaries or divisions with semiautonomous purchasing authority) accounted for approximately 11% of consolidated net sales, with its largest customer accounting for approximately 3% of consolidated net sales.

(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

Contract Assets and Liabilities

The Company had no material contract assets recorded on its Condensed Consolidated Balance Sheets as of June 30, 2023 or December 31, 2022.

The Company had approximately $3.1 million and $5.7 million of deferred revenue as of June 30, 2023 and December 31, 2022, respectively. For the six months ended June 30, 2023, the Company satisfied all of the associated performance obligations and recognized into revenue the advance payments received and recorded as of December 31, 2022.

Disaggregated Revenue

The Company sells its various industrial process fluids, its specialty chemicals and its technical expertise as a global product portfolio. The Company generally manages and evaluates its performance by reportable segment first, and then by customer industries. Net sales of each of the Company's major product lines are generally spread throughout all three of the Company's geographic regions, and in most cases, are approximately proportionate to the level of total sales in each region.

The following tables disaggregate the Company's net sales by geographic region, customer industries, and timing of revenue recognized. Prior period information has been recast to reflect the Company's current period customer industry disaggregation. See Note 1 of Notes to Condensed Consolidated Financial Statements.

	Three Months Ended June 30, 2023			
	Americas	EMEA	Asia/Pacific	Consolidated Total
Customer Industries				
Metals	$ 68,743	$ 32,643	$ 48,129	$ 149,515
Metalworking and other	184,476	110,890	50,563	345,929
	$ 253,219	$ 143,533	$ 98,692	$ 495,444
Timing of Revenue Recognized				
Product sales at a point in time	$ 242,497	$ 132,416	$ 95,512	$ 470,425
Services transferred over time	10,722	11,117	3,180	25,019
	$ 253,219	$ 143,533	$ 98,692	$ 495,444

	Six Months Ended June 30, 2023			
	Americas	EMEA	Asia/Pacific	Consolidated Total
Customer Industries				
Metals	$ 136,877	$ 71,746	$ 94,789	$ 303,412
Metalworking and other	367,755	224,236	100,189	692,180
	$ 504,632	$ 295,982	$ 194,978	$ 995,592
Timing of Revenue Recognized				
Product sales at a point in time	$ 482,978	$ 273,922	$ 189,435	$ 946,335
Services transferred over time	21,654	22,060	5,543	49,257
	$ 504,632	$ 295,982	$ 194,978	$ 995,592

Quaker Chemical Corporation
Notes to Condensed Consolidated Financial Statements - Continued
(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

	Three Months Ended June 30, 2022			
	Americas	EMEA	Asia/Pacific	Consolidated Total
Customer Industries				
Metals	$ 62,633	$ 37,622	$ 56,217	$ 156,472
Metalworking and other	173,176	107,913	54,827	335,916
	$ 235,809	$ 145,535	$ 111,044	$ 492,388
Timing of Revenue Recognized				
Product sales at a point in time	$ 224,469	$ 135,576	$ 108,555	$ 468,600
Services transferred over time	11,340	9,959	2,489	23,788
	$ 235,809	$ 145,535	$ 111,044	$ 492,388

	Six Months Ended June 30, 2022			
	Americas	EMEA	Asia/Pacific	Consolidated Total
Customer Industries				
Metals	$ 117,950	$ 74,415	$ 111,899	$ 304,264
Metalworking and other	329,950	217,939	114,406	662,295
	$ 447,900	$ 292,354	$ 226,305	$ 966,559
Timing of Revenue Recognized				
Product sales at a point in time	$ 426,244	$ 272,379	$ 221,103	$ 919,726
Services transferred over time	21,656	19,975	5,202	46,833
	$ 447,900	$ 292,354	$ 226,305	$ 966,559

Note 6 - Leases

The Company has operating leases for certain facilities, vehicles and machinery and equipment with remaining lease terms up to 9 years. Operating lease expense is recognized on a straight-line basis over the lease term. In addition, the Company has certain land use leases with remaining lease terms up to 92 years.

The Company had no material variable lease costs, sublease income, or finance leases for the three and six months ended June 30, 2023 and 2022. The components of the Company's lease expense are as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Operating lease expense	$ 3,710	$ 3,519	$ 7,646	$ 6,928
Short-term lease expense	183	205	394	424

(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

Supplemental cash flow information related to the Company's leases is as follows:

	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash flows from operating leases	$ 3,773	$ 3,442	$ 7,630	$ 6,807
Non-cash lease liabilities activity:				
Leased assets obtained in exchange for new operating lease liabilities	823	3,385	3,656	8,074

Supplemental balance sheet information related to the Company's leases is as follows:

	June 30, 2023	December 31, 2022
Right of use lease assets	$ 40,983	$ 43,766
Other current liabilities	12,423	12,024
Long-term lease liabilities	24,218	26,967
Total operating lease liabilities	$ 36,641	$ 38,991
Weighted average remaining lease term (years)	4.92	5.10
Weighted average discount rate	4.54 %	4.36 %

Maturities of operating lease liabilities were as follows:

	June 30, 2023
For the remainder of 2023	$ 7,214
For the year ended December 31, 2024	12,050
For the year ended December 31, 2025	7,902
For the year ended December 31, 2026	5,725
For the year ended December 31, 2027	2,674
For the year ended December 31, 2028 and beyond	5,618
Total lease payments	41,183
Less: imputed interest	(4,542)
Present value of lease liabilities	$ 36,641

Note 7 – Restructuring and Related Activities

In the third quarter of 2019, the Company's management approved a global restructuring plan (the "QH Program") as part of its initial plan to realize certain cost synergies associated with the Combination. As of December 31, 2022, the Company substantially completed all of the initiatives under the QH Program with only an immaterial amount of remaining severance still to be paid, which is expected to be completed during 2023.

In the fourth quarter of 2022, the Company's management initiated a global cost and optimization program to improve its cost structure and drive a more profitable and productive organization. As of June 30, 2023, the program included restructuring and associated severance costs to reduce headcount by approximately 80 positions globally. These headcount reductions began in the fourth quarter of 2022 and are expected to continue throughout 2023. The exact timing to complete all actions and final costs associated will depend on a number of factors that are subject to change.

(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

Employee separation benefits vary depending on local regulations within certain foreign countries and include severance and other benefits. Restructuring costs include severance costs to reduce headcount, including customary and routine adjustments to initial estimates for employee separation costs, as well as costs to close certain facilities under the QH Program. These costs are recorded in Restructuring and related charges in the Company's Consolidated Statements of Operations. As described in Note 4 of Notes to Consolidated Financial Statements, Restructuring and related charges are not included in the Company's calculation of reportable segments' measure of operating earnings and therefore these costs are not reviewed by or recorded to reportable segments.

Changes in the Company's accruals for its restructuring programs are as follows:

	Restructuring Programs
Accrued restructuring as of December 31, 2022	$ 5,483
Restructuring and related charges, net	5,015
Cash payments	(5,410)
Currency translation adjustments	72
Accrued restructuring as of June 30, 2023	$ 5,160

Note 8 – Share-Based Compensation

The Company recognized the following share-based compensation expense in its Condensed Consolidated Statements of Operations:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Stock options	$ 203	$ 469	$ 634	$ 736
Non-vested stock awards and restricted stock units	2,592	1,667	4,763	3,215
Director stock ownership plan	16	20	26	44
Performance stock units	1,076	815	1,991	1,438
Total share-based compensation expense	$ 3,887	$ 2,971	$ 7,414	$ 5,433

Share-based compensation expense is recorded in SG&A, except for $0.1 million and $0.2 million for the three and six months ended June 30, 2022, respectively, recorded within Combination, integration and other acquisition-related expenses.

Stock Options

As of June 30, 2023, unrecognized compensation expense related to unvested stock options was $0.7 million, to be recognized over a weighted average remaining period of 1.1 years.

Restricted Stock Awards and Restricted Stock Units

During the six months ended June 30, 2023, the Company granted 37,052 non-vested restricted shares and 6,675 non-vested restricted stock units under its long-term incentive plan ("LTIP"), which are subject to time-based vesting, generally over one to three years. The fair value of these grants is based on the last sale price of the Company's common stock on the date of grant. As of June 30, 2023, unrecognized compensation expense related to the non-vested restricted shares was $9.6 million, to be recognized over a weighted average remaining period of 1.5 years, and unrecognized compensation expense related to non-vested restricted stock units was $2.1 million, to be recognized over a weighted average remaining period of 1.7 years.

Performance Stock Units

As a component of its LTIP, the Company grants performance-based stock unit awards ("PSUs"), which will be settled in a certain number of shares subject to market-based or performance-based and time-based vesting conditions. The number of fully vested shares that may ultimately be issued as settlement for each award may range from 0% up to 200% of the target award, subject to the achievement of the Company's market-based total shareholder return ("TSR") metric relative to the performance of the Company's peer group, the S&P Midcap 400 Materials group, and separately the achievement of a performance-based return on invested capital ("ROIC") measure. The service period required for the PSUs is generally three years and the measurement period of the market-based and performance objectives is generally from January 1 of the year of grant through December 31 of the year prior to issuance of the shares.

(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

Compensation expense for PSUs is measured based on the grant date fair value and is recognized on a straight-line vesting method basis over the applicable vesting period. The fair value of PSUs granted with a ROIC condition is based on the trading price of the Company's common stock on the date of grant. PSUs granted with a relative TSR condition are valued using a Monte Carlo simulation on the date of grant. The grant-date fair value of the PSUs valued using a Monte Carlo simulation, which included the following assumptions set forth in the table below:

	2023 Grants
Number of PSUs granted	15,895
Risk-free interest rate	3.85%
Dividend yield	0.96%
Expected term (years)	3.0

Based on the conditions of the PSUs and performance to date for each of the outstanding PSU awards as of June 30, 2023, the Company estimates that it will issue 56,272 fully vested shares as of the applicable settlement date for such outstanding PSUs awards. As of June 30, 2023, there was approximately $8.8 million of total unrecognized compensation cost related to PSUs, which the Company expects to recognize over a weighted-average period of 2.4 years.

Note 9 – Pension and Other Postretirement Benefits

The components of net periodic benefit (income) cost are as follows:

	Three Months Ended June 30,				Six Months Ended June 30,			
	Pension Benefits		Other Postretirement Benefits		Pension Benefits		Other Postretirement Benefits	
	2023	2022	2023	2022	2023	2022	2023	2022
Service cost	$ 107	$ 174	$ —	$ 8	$ 211	$ 354	$ —	$ —
Interest cost	2,511	1,317	19	2	4,973	2,677	38	11
Expected return on plan assets	(2,026)	(2,012)	—	—	(4,023)	(4,097)	—	—
Actuarial loss (gain) amortization	103	248	(30)	(23)	205	505	(60)	(47)
Prior service cost (income) amortization	—	2	(4)	(9)	—	5	(8)	(8)
Net periodic benefit cost (income)	$ 695	$ (271)	$ (15)	$ (22)	$ 1,366	$ (556)	$ (30)	$ (44)

In July 2023, one of the Company's pension plans in the U.K. liquidated approximately $50 million of its invested assets and subsequently funded and entered into an insurance annuity contract, which will provide for the pension plan's defined benefit obligations to participants.

Employer Contributions

As of June 30, 2023, $1.3 million and less than $0.1 million of contributions have been made to the Company's U.S. and foreign pension plans and its other postretirement benefit plans, respectively. Taking into consideration current minimum cash contribution requirements, the Company currently expects to make full year cash contributions of approximately $5.2 million to its U.S. and foreign pension plans and approximately $0.2 million to its other postretirement benefit plans in 2023.

(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

Note 10 – Other expense, net

The components of Other expense, net are as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Income from third party license fees	$ 321	$ 249	$ 646	$ 653
Foreign exchange losses, net	(4,225)	(2,026)	(7,551)	(3,931)
Non-income tax refunds and other related credits (expense)	888	(417)	1,248	(1,739)
Pension and postretirement benefit (costs) income, non-service components	(573)	475	(1,125)	954
Facility remediation recovery, net	187	—	1,014	—
Loss on extinguishment of debt	—	(6,763)	—	(6,763)
Other non-operating income, net	(204)	83	(77)	221
Total other expense, net	$ (3,606)	$ (8,399)	$ (5,845)	$ (10,605)

Non-income tax refunds and other related credits (expense) during both the three and six months ended June 30, 2023 and 2022, include adjustments to a Combination-related indemnification asset associated with the settlement of certain income tax audits for tax periods prior to August 1, 2019. See Note 11 of Notes to Condensed Consolidated Financial Statements.

Facility remediation recovery, net, during the three and six months ended June 30, 2023, reflects gains recorded on the payments received from insurers related to previously incurred costs from the remediation and restoration of property damage. See Note 18 of Notes to the Condensed Consolidated Financial Statements.

Loss on extinguishment of debt during the three and six months ended June 30, 2022, represents a write-off of certain previously unamortized deferred financing costs as well as a portion of third party and creditor debt issuance costs incurred to execute an amendment to the Company's primary credit facility. See Note 14 of Notes to Condensed Consolidated Financial Statements.

Note 11 – Income Taxes and Uncertain Income Tax Positions

The Company's effective tax rates for the three and six months ended June 30, 2023 were 34.2% and 31.2%, respectively, compared to 8.1% and 10.9% for the three and six months ended June 30, 2022, respectively. The Company's effective tax rate for the three months ended June 30, 2023 was primarily impacted by changes to the valuation allowance for and the usage of foreign tax credits due to an enacted law change in Brazil and the effects of lower pre-tax earnings and the mix of such earnings. The effective tax rate for the first six months of 2023 was further impacted by various other items including foreign tax inclusions, withholding taxes, and net tax expense related to share-based compensation, partially offset with changes in uncertain tax positions and favorable return to provision adjustments. Comparatively, the prior year effective tax rates were largely impacted by state tax benefits, changes in the foreign tax credit valuation allowance, the impact of audit settlements, a deferred tax benefit associated with an intercompany asset transfer, a reduction in reserves for uncertain tax positions relating to management fees, withholding taxes, and the effects of lower pre-tax earnings and the mix of such earnings. In addition, the Company's effective tax rates for three and six months ended June 30, 2022 were impacted by the Company recording earnings at a statutory tax rate of 25% while the recertification of its concessionary 15% tax rate was pending receipt.

As previously reported, Houghton Italia, S.r.l was involved in a corporate income tax audit with the Italian tax authorities covering tax years 2014 through 2018. The Company settled all years 2014 through 2018 for $3.7 million and, accordingly, released all reserves relating to this audit for the settled tax years during the first quarter of 2022. The settlement is to be paid via installments through 2026 and, through June 30, 2023, the Company paid $1.3 million of such installments. The Company has an indemnification receivable of $4.4 million in connection with its claim against the former owners of Houghton for any pre-Combination tax liabilities arising from this matter, as well as other audit settlements and tax matters.

In the first quarter of 2023, the Company was notified by the Spanish tax authorities of audits to commence for several of its legal entities operating in Spain and spanning tax years 2018 through 2021. In addition, in July 2023, the Company was notified by the Italian tax authorities of an audit to commence for one of the Company's Italian subsidiaries for tax year 2019. Both of these audit proceedings are ongoing and the Company has been providing documentation in response to all of their inquiries. The Company has not established any reserves for these matters at this time.

(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

Note 12 – Earnings Per Share

The following table summarizes earnings per share calculations:

	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Basic earnings per common share				
Net income attributable to Quaker Chemical Corporation	$ 29,346	$ 14,343	$ 58,880	$ 34,159
Less: income allocated to participating securities	(154)	(58)	(299)	(136)
Net income available to common shareholders	$ 29,192	$ 14,285	$ 58,581	$ 34,023
Basic weighted average common shares outstanding	17,892,444	17,834,329	17,879,629	17,830,218
Basic earnings per common share	$ 1.63	$ 0.80	$ 3.28	$ 1.91
Diluted earnings per common share				
Net income attributable to Quaker Chemical Corporation	$ 29,346	$ 14,343	$ 58,880	$ 34,159
Less: income allocated to participating securities	(154)	(58)	(299)	(136)
Net income available to common shareholders	$ 29,192	$ 14,285	$ 58,581	$ 34,023
Basic weighted average common shares outstanding	17,892,444	17,834,329	17,879,629	17,830,218
Effect of dilutive securities	28,970	7,048	30,277	17,186
Diluted weighted average common shares outstanding	17,921,414	17,841,377	17,909,906	17,847,404
Diluted earnings per common share	$ 1.63	$ 0.80	$ 3.27	$ 1.91

Certain stock options, restricted stock units, and PSUs are not included in the diluted earnings per share calculation when the effect would have been anti-dilutive. The calculated amount of anti-diluted shares not included were 8,232 and 10,940 for the three and six months ended June 30, 2023, respectively, and 33,039 and 24,731 for the three and six months ended June 30, 2022, respectively.

Note 13 – Goodwill and Other Intangible Assets

The Company completes its annual goodwill and indefinite-lived intangible asset impairment test during the fourth quarter of each year, or more frequently if triggering events indicate a possible impairment. The Company continually evaluates financial performance, economic conditions and other recent developments, including rising interest rates and the cost of capital among other factors, in assessing if a triggering event indicates that the carrying values of goodwill, indefinite-lived, or long-lived assets are impaired. The Company concluded that during the second quarter the ongoing financial, economic or geopolitical conditions did not represent a triggering event.

In connection with the Company’s reorganization and the associated change in reportable segments and reporting units during the first quarter of 2023, the Company performed the required impairment assessments directly before and immediately after the change in reporting units and concluded that it was not more likely than not that the fair values of any of the Company’s previous or new reporting units were less than their respective carrying amounts.

Changes in the carrying amount of goodwill were as follows. Prior period information has been recast to reflect the Company’s current period reportable segments. See Note 1 of Notes to Condensed Consolidated Financial Statements.

	Americas	EMEA	Asia/Pacific	Global Specialty Businesses	Total
Balance as of December 31, 2022	$ 215,899	$ 34,567	$ 150,375	$ 114,167	$ 515,008
Reallocation of reporting units	63,697	31,711	18,759	(114,167)	—
Balance as of January 1, 2023	279,596	66,278	169,134	—	515,008
Currency translation adjustments	3,493	(920)	(10,211)	—	(7,638)
Balance as of June 30, 2023	$ 283,089	$ 65,358	$ 158,923	$ —	$ 507,370

Quaker Chemical Corporation
Notes to Condensed Consolidated Financial Statements - Continued
(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

Gross carrying amounts and accumulated amortization for definite-lived intangible assets were as follows:

	Gross Carrying Amount		Accumulated Amortization		Net Book Value	
	June 30, 2023	December 31, 2022	June 30, 2023	December 31, 2022	June 30, 2023	December 31, 2022
Customer lists and rights to sell	$ 834,707	$ 831,600	$ 217,124	$ 191,286	$ 617,583	$ 640,314
Trademarks, formulations and product technology	160,190	158,564	51,096	46,281	109,094	112,283
Other	5,885	7,576	5,760	6,390	125	1,186
Total definite-lived intangible assets	$ 1,000,782	$ 997,740	$ 273,980	$ 243,957	$ 726,802	$ 753,783

The Company amortizes definite-lived intangible assets on a straight-line basis over their useful lives. The Company recorded amortization expense as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Amortization expense	$ 14,692	$ 14,688	$ 29,205	$ 29,241

Estimated annual aggregate amortization expense for the current year and subsequent five years and beyond is as follows:

For the remainder of 2023	$ 28,739
For the year ended December 31, 2024	57,381
For the year ended December 31, 2025	56,571
For the year ended December 31, 2026	56,354
For the year ended December 31, 2027	56,056

As of June 30, 2023 and December 31, 2022, the Company had indefinite-lived intangible assets for trademarks and tradenames totaling $191.3 million and $189.1 million, respectively.

(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

Note 14 – Debt

The following table sets forth the components of the Company's debt:

	As of June 30, 2023		As of December 31, 2022	
	Interest Rate	**Outstanding Balance**	**Interest Rate**	**Outstanding Balance**
Credit Facilities:				
Revolver	6.1%	$ 132,895	5.2%	$ 195,673
U.S. Term Loan	6.7%	588,750	5.7%	596,250
Euro Term Loan	4.9%	152,208	3.1%	151,572
Industrial development bonds	5.3%	10,000	5.3%	10,000
Bank lines of credit and other debt obligations	Various	1,219	Various	1,303
Total debt		$ 885,072		$ 954,798
Less: debt issuance costs		(1,769)		(1,992)
Less: short-term and current portion of long-term debts		(19,369)		(19,245)
Total long-term debt		$ 863,934		$ 933,561

Credit facilities

During June 2022, the Company, and its wholly owned subsidiary, Quaker Houghton B.V., as borrowers, Bank of America, N.A., as administrative agent, U.S. Dollar swing line lender and letter of credit issuer, Bank of America Europe Designated Active Company, as Euro Swing Line Lender, certain guarantors and other lenders entered into an amendment to its primary credit facility. The amended credit facility (the "Credit Facility") established (A) a $150.0 million Euro equivalent senior secured term loan (the "Euro Term Loan"), (B) a $600.0 million senior secured term loan (the "U.S. Term Loan"), and (C) a $500.0 million senior secured revolving credit facility (the "Revolver"), each maturing in June 2027. The Company has the right to increase the amount of the Credit Facility by an aggregate amount not to exceed the greater of $300.0 million or 100% of Consolidated EBITDA, subject to certain conditions including the agreement to provide financing by any lender providing such increase.

As of June 30, 2023, the Company was in compliance with all of the Credit Facility covenants. See Note 20 of Notes to Consolidated Financial Statements in the Company's 2022 Form 10-K.

The weighted average variable interest rates incurred on the outstanding borrowings under the Credit Facility during the three and six months ended June 30, 2023 were approximately 6.2% and 6.0%, respectively. As of June 30, 2023, the interest rate on the outstanding borrowings under the Credit Facility was approximately 6.3%. As part of the Credit Facility, in addition to paying interest on outstanding principal, the Company is also required to pay an annual commitment fee ranging from 0.150% to 0.275% related to unutilized commitments under the Revolver, depending on the Company's consolidated net leverage ratio. The Company had unused capacity under the Revolver of approximately $364 million, which is net of bank letters of credit of approximately $3 million, as of June 30, 2023.

In order to manage the Company's exposure to variable interest rate risk associated with the Credit Facility, in the first quarter of 2023, the Company entered into $300.0 million notional amounts of three year interest rate swaps to convert a portion of the Company's variable rate borrowings to an average fixed rate of 3.64% plus an applicable margin as provided in the Credit Facility based on the Company's consolidated net leverage ratio. As of June 30, 2023, the aggregate interest rate on the swaps, including the fixed base rate plus the applicable margin, was 5.2%. See Note 17 of Notes to Condensed Consolidated Financial Statements.

In connection with executing the original credit facility in 2019 and the amended Credit Facility during the second quarter of 2022, the Company capitalized an aggregate of $2.2 million of certain third-party and creditor debt issuance costs. Approximately $0.7 million of the capitalized costs were attributed to the Euro Term Loan and U.S. Term Loan. These costs were recorded as a direct reduction of Long-term debt on the Condensed Consolidated Balance Sheet. Approximately $1.5 million of the capitalized costs were attributed to the Revolver and recorded within Other assets on the Condensed Consolidated Balance Sheet. These capitalized costs will collectively be amortized into Interest expense over the five year term of the Credit Facility. As of June 30, 2023, the Company had $1.8 million of debt issuance costs recorded as a reduction of Long-term debt on the Condensed Consolidated Balance Sheet and $3.8 million of debt issuance costs recorded within Other assets on the Condensed Consolidated Balance Sheet. Comparatively, as of December 31, 2022, the Company had $2.0 million of debt issuance costs recorded as a reduction of Long-term debt on the Condensed Consolidated Balance Sheet and $4.3 million of debt issuance costs recorded within Other assets on the Condensed Consolidated Balance Sheet.

(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

Industrial development bonds

As of June 30, 2023 and December 31, 2022, the Company had fixed rate, industrial development authority bonds totaling $10.0 million in principal amount due in 2028. These bonds have similar covenants to the Credit Facility noted above.

Bank lines of credit and other debt obligations

The Company has certain unsecured bank lines of credit and discounting facilities in certain foreign subsidiaries, which are not collateralized. The Company's other debt obligations primarily consist of certain domestic and foreign low interest rate or interest-free municipality-related loans, local credit facilities of certain foreign subsidiaries, and capital lease obligations. Total unused capacity under these arrangements as of June 30, 2023 was approximately $34 million.

In addition to the bank letters of credit described in the "Credit facilities" subsection above, the Company's other off-balance sheet arrangements include certain financial and other guarantees. The Company's total bank letters of credit and guarantees outstanding as of June 30, 2023 were approximately $5 million.

Interest expense, net

The Company incurred the following debt related expenses included within Interest expense, net, in the Condensed Consolidated Statements of Operations:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	**2022**	**2023**	**2022**
Interest expense	$ 14,389	$ 6,134	$ 28,265	$ 10,880
Amortization of debt issuance costs	353	1,049	706	2,236
Total	$ 14,742	$ 7,183	$ 28,971	$ 13,116

Based on the variable interest rates associated with the Credit Facility, as of June 30, 2023 and as of December 31, 2022, the amounts at which the Company's total debt were recorded are not materially different from their fair market value.

Note 15 – Accumulated Other Comprehensive Income

The following tables show the reclassifications from and resulting balances of accumulated other comprehensive income ("AOCI"):

	Currency Translation Adjustments	Defined Benefit Pension Plans	Unrealized (Loss) Gain in Available-for-Sale Securities	Derivative Instruments	Total
Balance at March 31, 2023	$ (117,696)	$ (4,721)	$ (1,150)	$ 390	$ (123,177)
Other comprehensive (loss) income before Reclassifications	(13,042)	854	979	5,420	(5,789)
Amounts reclassified from AOCI	—	78	591	—	669
Related tax amounts	—	(235)	(329)	(1,247)	(1,811)
Balance at June 30, 2023	$ (130,738)	$ (4,024)	$ 91	$ 4,563	$ (130,108)
Balance at March 31, 2022	$ (56,710)	$ (12,676)	$ (603)	$ (272)	$ (70,261)
Other comprehensive (loss) income before Reclassifications	(76,400)	1,650	(1,043)	747	(75,046)
Amounts reclassified from AOCI	—	218	325	—	543
Related tax amounts	—	(461)	151	(172)	(482)
Balance at June 30, 2022	$ (133,110)	$ (11,269)	$ (1,170)	$ 303	$ (145,246)

Quaker Chemical Corporation
Notes to Condensed Consolidated Financial Statements - Continued
(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

	Currency Translation Adjustments	Defined Benefit Pension Plans	Unrealized (Loss) Gain in Available-for-Sale Securities	Derivative Instruments	Total
Balance as of December 31, 2022	$ (132,161)	$ (4,595)	$ (1,484)	$ —	$ (138,240)
Other comprehensive income (loss) before reclassifications	1,423	611	1,442	5,926	9,402
Amounts reclassified from AOCI	—	154	551	—	705
Related tax amounts	—	(194)	(418)	(1,363)	(1,975)
Balance as of June 30, 2023	$ (130,738)	$ (4,024)	$ 91	$ 4,563	$ (130,108)
Balance as of December 31, 2021	$ (49,843)	$ (13,172)	$ 397	$ (1,372)	$ (63,990)
Other comprehensive (loss) income before reclassifications	(83,267)	2,082	(2,320)	2,175	(81,330)
Amounts reclassified from AOCI	—	447	336	—	783
Related tax amounts	—	(626)	417	(500)	(709)
Balance as of June 30, 2022	$ (133,110)	$ (11,269)	$ (1,170)	$ 303	$ (145,246)

All reclassifications related to unrealized (loss) gain in available-for-sale securities relate to the Company's equity interest in a captive insurance company and are recorded in equity in net income of associated companies. The amounts reported in other comprehensive income for noncontrolling interest are related to currency translation adjustments.

Note 16 – Fair Value Measurements

The Company has valued its company-owned life insurance policies at fair value. During June 2023, the Company surrendered and liquidated $1.9 million of these life insurance policies. The fair values of Company-owned life insurance assets are based on quotes for like instruments with similar credit ratings and terms. These assets are subject to fair value measurement as follows:

		Fair Value Measurements as of June 30, 2023 Using Fair Value Hierarchy		
Assets	Total Fair Value	Level 1	Level 2	Level 3
Company-owned life insurance	$ 276	$ —	$ 276	$ —
Total	$ 276	$ —	$ 276	$ —

		Fair Value Measurements as of December 31, 2022 Using Fair Value Hierarchy		
Assets	Total Fair Value	Level 1	Level 2	Level 3
Company-owned life insurance	$ 2,114	$ —	$ 2,114	$ —
Total	$ 2,114	$ —	$ 2,114	$ —

Note 17 – Hedging Activities

The Company's ongoing business operations expose it to various risks, including fluctuating foreign exchange rates and interest rate risk. To manage these risks, the Company periodically enters into derivative financial instruments, such as foreign exchange forward contracts and interest rate swap agreements. The Company does not hold or enter into financial instruments for trading or speculative purposes.

(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

Foreign Exchange Forward Contracts

A significant portion of the Company's revenues and earnings are generated by its foreign operations. These foreign operations also represent a significant portion of the Company's assets and liabilities. Generally, all of these foreign operations use the local currency as their functional currency and many have operations in currencies other than their functional currency, which creates foreign exchange risk. The Company uses foreign exchange forward contracts to economically hedge the impact of the variability in exchange rates on certain assets and/or liabilities denominated in certain foreign currencies. These forward contracts are marked-to-market at each reporting date. Changes in the fair value of the underlying instrument and settlements are recognized in earnings in Other expense, net. The fair value of the forward contract is determined from sources independent of the Company, including the financial institutions which are party to the derivative instruments.

All open foreign exchange forward contracts as of June 30, 2023 were entered into as hedges against the U.S. Dollar. As of June 30, 2023, the Company had open foreign exchange forward contracts with a notional U.S. dollar value of the following:

Currency	June 30, 2023
Mexican Peso	$ 23,600
Japanese Yen	4,250
	$ 27,850

Open foreign exchange forward contracts as of June 30, 2023 had maturities occurring over a period of one month.

Interest Rate Swaps

In order to manage the Company's exposure to variable interest rate risk associated with the Credit Facility, such as the Secured Overnight Financing Rate ("SOFR"), in the first quarter of 2023, the Company entered into $300.0 million notional amounts of three year interest rate swaps to convert a portion of the Company's variable rate borrowings into a fixed rate obligation. See Note 14 of Notes to Condensed Consolidated Financial Statements.

These interest rate swaps are designated as cash flow hedges and, as such, the contracts are marked-to-market at each reporting date and any unrealized gains or losses are included in AOCI to the extent effective and reclassified to interest expense in the period during which the transaction affects earnings or it becomes probable that the forecasted transaction will not occur. Interest rate swaps are entered into with a limited number of counterparties within several tranches, each of which allows for net settlement of all contracts through a single payment to participating counterparties in a single currency in the event of a default on or termination of any one contract. As such, in accordance with the Company's accounting policy, these derivative instruments are recorded on a net basis within the Condensed Consolidated Balance Sheets.

The balance sheet classification and fair values of the Company's derivative instruments, which are Level 2 measurements, are as follows:

		Fair Value	
	Condensed Consolidated Balance Sheet Location	June 30, 2023	December 31, 2022
Derivatives designated as cash flow hedges:			
Interest rate swaps	Other non-current Assets	$ 5,926	$ —
		$ 5,926	$ —

The following table presents the net unrealized (gain) loss deferred to AOCI:

		June 30, 2023	December 31, 2022
Derivatives designated as cash flow hedges:			
Interest rate swaps	AOCI	$ 4,563	$ —

(Unaudited; Dollars in thousands, except per share amounts, unless otherwise stated)

The following table presents the net gain (loss) reclassified from AOCI to earnings:

		Location and Amount of Gain (Loss) Recognized in Statements of Operations			
		Three Months Ended June 30,		Six Months Ended June 30,	
		2023	2022	2023	2022
Interest rate swaps	Interest expense, net	$ 1,061	$ (378)	$ 1,061	$ (1,015)
Foreign exchange forward contracts	Other expense, net	1,843	—	2,135	—
		$ 2,904	$ (378)	$ 3,196	$ (1,015)

Note 18 – Commitments and Contingencies

The Company previously disclosed in its 2022 Form 10-K that two of the Company's locations suffered property damage as a result of flooding and electrical fire, respectively. The Company maintains property and flood insurance for all of its locations globally. During the three and six months ended June 30, 2023, there have been no significant changes to the facts or circumstances of this previously disclosed matter, other than ongoing work with the Company's insurance adjuster and insurance carrier regarding the insurance claims submitted. Through June 30, 2023, the Company has received cumulative payments from its insurers of $5.9 million associated with these events. During the three and six months ended June 30, 2023, the Company recognized a gain on insurance recoveries of $0.2 million and $1.0 million, respectively. See Note 10 of Notes to the Condensed Consolidated Financial Statements.

As previously disclosed in its 2022 Form 10-K, the Company is party to certain environmental matters and other litigation. See Note 26 of Notes to Consolidated Financial Statements in the Company's 2022 Form 10-K. During the three and six months ended June 30, 2023, there have been no significant changes to the facts or circumstances of any of the previously disclosed matters. In addition, during the three and six months ended June 30, 2023, there are no new environmental matters or litigation that the Company believes will have a material adverse effect on the Company's results of operations, cash flows, or financial condition. Although there can be no assurance regarding the outcome of any of the ongoing environmental matters or litigation the Company is party to, the Company believes that it has made adequate accruals for costs and liabilities associated with environmental matters or provisions for ongoing litigation for which it is aware. The Company has accrued approximately $6 million as of both June 30, 2023 and December 31, 2022, respectively, for these ongoing matters.

Item 2. ***Management's Discussion and Analysis of Financial Condition and Results of Operations*****.**

As used in this Report, the terms "Quaker Houghton," the "Company," "we" and "our" refer to Quaker Chemical Corporation (doing business as Quaker Houghton), its subsidiaries, and associated companies, unless the context otherwise requires. The term the "Combination" refers to the legacy Quaker combination with Houghton International, Inc. ("Houghton") on August 1, 2019.

Executive Summary

Quaker Houghton is the global leader in industrial process fluids. With a presence around the world, including operations in over 25 countries, our customers include thousands of the world's most advanced and specialized steel, aluminum, automotive, aerospace, offshore, container, mining, and metalworking companies. Our high-performing, innovative and sustainable solutions are backed by best-in-class technology, deep process knowledge, and customized services. Quaker Houghton is headquartered in Conshohocken, Pennsylvania, located near Philadelphia in the U.S.

Despite a continued challenging economic environment, the Company delivered solid results in the second quarter of 2023. Net sales in the second quarter of 2023 were $495.4 million, an increase of 1% compared to $492.4 million in the second quarter of 2022. This was primarily driven by an increase in selling price and product mix of approximately 11%, partially offset by a decline in sales volumes of 10%. The increase in selling price and product mix was primarily the result of value-based pricing initiatives implemented throughout 2022 to offset ongoing inflationary pressures. The decline in sales volumes was primarily attributable to softer end market conditions across all regions, the Company's value-based pricing initiatives and customer order patterns, as well as the impact of the ongoing war in Ukraine in the EMEA segment, and the wind-down of the tolling agreement for products previously divested related to the Combination, partially offset by new business wins.

The Company generated net income in the second quarter of 2023 of $29.3 million, or $1.63 per diluted share, compared to net income of $14.3 million, or $0.80 per diluted share in the second quarter of 2022. Excluding non-recurring and non-core items in each period, the Company's second quarter of 2023 non-GAAP earnings per diluted share were $1.93 compared to $1.32 in the prior year quarter and the Company's current quarter adjusted EBITDA was $80.2 million compared to $58.5 million in the second quarter of 2022. These strong current quarter results were primarily driven by a recovery in gross margins compared to the prior year quarter, partially offset by higher selling, general and administrative expenses ("SG&A") as a result of year-over-year inflationary pressures and higher labor-related costs. See the Non-GAAP Measures section of this Item below, as well as other items discussed in the Company's Consolidated Operations Review in the Operations section of this Item, below.

During the first quarter of 2023, the Company reorganized its executive management team to align with its new business structure. The Company's new structure includes three reportable segments: (i) Americas; (ii) Europe, Middle East and Africa ("EMEA"); and (iii) Asia/Pacific. The Company's second quarter of 2023 operating performance in each of its three reportable segments reflect similar drivers to that of its consolidated performance. Operating earnings for all segments increased compared to the prior year quarter, driven by an improvement in margins in all three segments. Additional details of each segment's operating performance are further discussed in the Company's Reportable Segments Review, in the Operations section of this Item, below.

Net cash flows provided by operating activities were $116.1 million in the first six months of 2023 compared to net cash flows used in operating activities of $8.4 million in the first six months of 2022. The net operating cash inflow year-over-year reflects higher operating performance in 2023 compared to 2022 as well as a favorable shift from working capital investment in the prior year to positive cash flow from working capital in the first six months of 2023. The key drivers of the Company's operating cash flow and working capital are further discussed in the Company's Liquidity and Capital Resources section of this Item, below.

Overall, the Company delivered a solid results in the second quarter of 2023 including an increase in net sales and an improvement in gross profit and gross margins. These factors contributed to the Company's current quarter earnings growth despite ongoing inflationary pressures, macroeconomic and geopolitical challenges and other disruptions that have impacted the Company's customers and end markets. Looking at the remainder of 2023, the Company remains focused on executing on items within its control as it manages through a continued uneven and uncertain macroeconomic and end market environment. The Company is encouraged by its continued execution and the positive momentum of the first half of 2023 and continues to expect to deliver higher earnings and cash flow in 2023 as compared to 2022.

Critical Accounting Policies and Estimates

Our significant accounting policies are described in "Management's Discussion and Analysis" and "Note 1 – Significant Accounting Policies" to the Consolidated Financial Statements in our 2022 Form 10-K. There have been no material changes to the critical accounting policies and estimates previously disclosed in its 2022 Form 10-K remain materially consistent.

Recently Issued Accounting Standards

See Note 3 of Notes to Condensed Consolidated Financial Statements, in Part I, Item 1, of this Report for a discussion regarding recently issued accounting standards.

Liquidity and Capital Resources

As of June 30, 2023, we had cash and cash equivalents of $189.4 million. Total cash and cash equivalents was $181.0 million as of December 31, 2022. The $8.4 million increase in cash and cash equivalents was the net result of $116.1 million of cash provided by operating activities partially offset by $89.0 million of cash used in financing activities, $17.0 million of cash used in investing activities and a negative impact due to the effect of foreign currency translation of approximately $1.6 million.

Net cash flows provided by operating activities were $116.1 million in the first six months of 2023 compared to net cash flows used in operating activities of $8.4 million in the first six months of 2022. The increase in net operating cash flow year-over-year reflects higher year-over-year operating performance as well as a cash inflow from working capital, notably accounts receivable and inventory, in the current year, demonstrating the Company’s ongoing focus on cash conversion. Comparatively, during the first six months of 2022, operating cash flow was negatively impacted by a significant working capital investment due to significant inflation impacts on inventory and related pricing impacts on accounts receivable.

Net cash flows used in investing activities were $17.0 million in the first six months of 2023 compared to $24.4 million in the first six months of 2022. The lower level of cash used in investing activities year-over-year is the result of slightly higher capital expenditures in the current year more than offset by the absence of current year payments related to acquisitions which the Company had in the prior year. See Note 2 of Notes to Condensed Consolidated Financial Statements in Item 1 of this Report.

Net cash flows used in financing activities were $89.0 million in the first six months of 2023 compared to net cash flows provided by financing activities of $78.6 million in the first six months of 2022. The increase in net cash outflows was primarily related to net repayments of borrowings in the first six months of 2023, primarily under the Company’s Credit Facility, described further below, as compared to net borrowings in the first six months of 2022, which included the impact of new borrowings, net of repayments of old borrowings and debt issuance costs, related to the June 2022 credit facility amendment, described further below. In addition, the Company paid $15.6 million of cash dividends during the first six months of 2023, a $0.8 million, or 5% increase, in cash dividends compared to the prior year quarter.

During June 2022, the Company, and its wholly owned subsidiary, Quaker Houghton B.V., as borrowers, Bank of America, N.A., as administrative agent, U.S. Dollar swing line lender and letter of credit issuer, Bank of America Europe Designated Active Company, as Euro Swing Line Lender, certain guarantors and other lenders entered into an amendment to its primary credit facility. The amended credit facility (the “Credit Facility”) established (A) a $150.0 million Euro equivalent senior secured term loan (the “Euro Term Loan”), (B) a $600.0 million senior secured term loan (the “U.S. Term Loan”), and (C) a $500.0 million senior secured revolving credit facility (the “Revolver”), each maturing in June 2027. The Company has the right to increase the amount of the Credit Facility by an aggregate amount not to exceed the greater of $300.0 million or 100% of Consolidated EBITDA, subject to certain conditions including the agreement to provide financing by any lender providing such increase.

As of June 30, 2023, the Company had Credit Facility borrowings outstanding of $873.9 million. As of December 31, 2022, the Company had Credit Facility borrowings outstanding of $943.5 million. The Company’s other debt obligations are primarily industrial development bonds, bank lines of credit and municipality-related loans, which totaled $11.2 million as of June 30, 2023 and $11.3 million as of December 31, 2022. Total unused capacity under these arrangements as of June 30, 2023 was approximately $34 million. The Company’s total net debt as of June 30, 2023, which consists of total borrowings of $885.1 million less cash and cash equivalents of $189.4 million, was $695.7 million. The Credit Facility contains affirmative and negative covenants, financial covenants and events of default. Financial covenants contained in the Credit Facility include a consolidated interest coverage ratio test and a consolidated net leverage ratio test. As of June 30, 2023, the Company was in compliance with all of the Credit Facility covenants. Refer to the description of the Company’s primary Credit Facility in Note 20 of Notes to Consolidated Financial Statements in its 2022 Form 10-K and in Note 14 of Notes to Condensed Consolidated Financial Statements in Item 1 of this Report for more information about the covenants and events of default.

The weighted average variable interest rate incurred on the outstanding borrowings under the Credit Facility during the three and six months ended June 30, 2023 was approximately 6.2% and 6.0%, respectively. As of June 30, 2023, the interest rate on the outstanding borrowings under the Credit Facility was approximately 6.3%. As part of the Credit Facility, in addition to paying interest on the outstanding principal, the Company is also required to pay an annual commitment fee ranging from 0.150% to 0.275% related to unutilized commitments under the Revolver, depending on the Company’s consolidated net leverage ratio. The Company had unused capacity under the Revolver of approximately $364 million, which is net of bank letters of credit of approximately $3 million, as of June 30, 2023.

In order to manage the Company's exposure to variable interest rate risk associated with the Credit Facility, such as SOFR, in the first quarter of 2023, the Company entered into $300.0 million notional amounts of three-year interest rate swaps to convert a portion of the Company's variable rate borrowings into an average fixed rate obligation of 3.64% plus an applicable margin as provided in the Credit Facility based on the Company's consolidated net leverage ratio. As of June 30, 2023, the aggregate interest rate on the swaps, including the fixed base rate plus the applicable margin, was 5.2%. See Note 17 of Notes to Condensed Consolidated Financial Statements.

In connection with executing the original credit facility in 2019 and the amended Credit Facility during the second quarter of 2022, the Company capitalized certain third-party and creditor debt issuance costs. Costs attributed to the Euro Term Loan and U.S. Term Loan were recorded as a direct reduction of Long-term debt on the Condensed Consolidated Balance Sheet. Costs attributed to the Revolver were recorded within Other assets on the Condensed Consolidated Balance Sheet. These capitalized costs will collectively be amortized into Interest expense over the five-year term of the Credit Facility. As of June 30, 2023, the Company had $1.8 million of debt issuance costs recorded as a reduction of Long-term debt on the Condensed Consolidated Balance Sheet and $3.8 million of debt issuance costs recorded within Other assets on the Condensed Consolidated Balance Sheet. Comparatively, as of December 31, 2022, the Company had $2.0 million of debt issuance costs recorded as a reduction of Long-term debt on the Condensed Consolidated Balance Sheet and $4.3 million of debt issuance costs recorded within Other assets on the Condensed Consolidated Balance Sheet.

The Company uses foreign exchange forward contracts to economically hedge the impact of the variability in exchange rates on certain assets and/or liabilities denominated in certain foreign currencies. During the first six months ended 2023, the Company entered into and settled forward contracts resulting in cash proceeds of $2.1 million. See Note 17 of Notes to Condensed Consolidated Financial Statements.

In the first six months of 2022, the Company incurred $5.9 million of total Combination, integration and other acquisition-related expenses, described in the Non-GAAP Measures section of this Item below. The Company had net cash outflows related to the Combination, integration and other acquisition-related expenses during the first six months of 2022 of $3.9 million. The Company had no Combination, integration and other acquisition-related expenses in the first six months of 2023, except for $0.5 million in other income related to changes for an indemnification asset related to the Combination.

During the first six months of 2023, the Company incurred $2.7 million of strategic planning expenses as compared to $3.1 million during the first six months of June 30, 2022. The Company expects to incur additional operating costs and associated cash flows, as well as higher capital expenditures related to strategic planning, process optimization and the next phase of the Company's long-term integration to further optimize its footprint, processes and other functions in 2023 and thereafter.

The Company's management approved, and the Company initiated, a global restructuring plan (the "QH Program") in 2019 as part of its planned cost synergies associated with the Combination. As of December 31, 2022, the Company has substantially completed all of the initiatives under the QH Program with only an immaterial amount of remaining severance still to be paid, which is expected to continue through 2023. In the fourth quarter of 2022, the Company's management initiated a global cost and optimization program to improve its cost structure and drive a more profitable and productive organization. The exact timing to complete all actions and final costs associated will depend on a number of factors and are subject to change. The Company is continuing to evaluate and expects to implement further actions under this program, and as a result, additional headcount reductions and restructuring costs may be incurred in the future. The Company expects to generate full run-rate cost savings from the global cost and optimization program of approximately $20 million by the end of 2024. The Company expects total cash costs of this program to be approximately 1 to 1.5 times savings. The Company recognized Restructuring and related charges of $5.0 million and $0.8 million for the six months ended June 30, 2023, and 2022, respectively, as a result of these programs. The Company made cash payments related to the settlement of restructuring liabilities under the restructuring programs during the first six months of 2023 of approximately $5.4 million compared to $0.4 million in the first six months of 2022. The Company has remaining restructuring accruals, as of June 30, 2023, for these programs of $5.2 million, which the Company expects to settle over the next twelve months. See Note 7 of Notes to Condensed Consolidated Financial Statements in Item 1 of this Report.

As of June 30, 2023, the Company's gross liability for uncertain tax positions, including interest and penalties, was $20.3 million. The Company cannot determine a reliable estimate of the timing of cash flows by period related to its uncertain tax position liability. However, should the entire liability be paid, the amount of the payment may be reduced by up to $6.5 million as a result of offsetting benefits in other tax jurisdictions.

The Company previously disclosed in its 2022 Form 10-K that two of the Company's locations suffered property damage as a result of flooding and electrical fire, respectively. The Company maintains property and flood insurance for all of its locations globally. During the three and six months ended June 30, 2023, there have been no significant changes to the facts or circumstances of this previously disclosed matter, other than ongoing work with the Company's insurance adjuster and insurance carrier regarding the insurance claims submitted. Through June 30, 2023, the Company has received cumulative payments from its insurers of $5.9 million associated with these events. During the three and six months ended June 30, 2023, the Company recognized a gain on insurance recoveries of $0.2 million and $1.0 million, respectively. See Notes 10 and 18 of Notes to the Condensed Consolidated Financial Statements, in Item 1 of this report.

The Company believes that its existing cash, anticipated cash flows from operations and available liquidity will be sufficient to support its operating requirements and fund its business objectives for at least the next twelve months, including but not limited to, payments of dividends to shareholders, capital expenditures, other growth opportunities (including potential acquisitions), pension plan contributions, implementing actions to achieve the Company's sustainability goals and other potential known or anticipated contingencies. The Company believes it has sufficient additional liquidity to support its operating requirements and to fund its business obligations for the period beyond the next twelve months as well, including the aforementioned items which are expected to recur annually, as well as future principal and interest payments on the Company's Credit Facility, tax obligations and other long-term liabilities. The Company's liquidity is affected by many factors, some based on normal operations of our business and others related to the impact of the pandemic and other global events on our business and on global economic conditions as well as industry uncertainties, which we cannot predict. We also cannot predict economic conditions and industry downturns or the timing, strength or duration of recoveries. We may seek, as we believe appropriate, additional debt or equity financing which would provide capital for corporate purposes, working capital funding, additional liquidity needs or to fund future growth opportunities, including possible acquisitions and organic investments. The timing and amount of potential capital requirements cannot be determined at this time and will depend on a number of factors, including the actual and projected demand for our products, specialty chemical industry conditions, competitive factors, and the condition of financial markets, among others.

Non-GAAP Measures

The information in this Form 10-Q includes non-GAAP (unaudited) financial information that includes EBITDA, adjusted EBITDA, adjusted EBITDA margin, non-GAAP operating income, non-GAAP operating margin, non-GAAP net income and non-GAAP earnings per diluted share. The Company believes these non-GAAP financial measures provide meaningful supplemental information as they enhance a reader's understanding of the financial performance of the Company, are indicative of future operating performance of the Company, and facilitate a comparison among fiscal periods, as the non-GAAP financial measures exclude items that are not considered indicative of future operating performance or not considered core to the Company's operations. Non-GAAP results are presented for supplemental informational purposes only and should not be considered a substitute for the financial information presented in accordance with GAAP. In addition, our definitions of EBITDA, adjusted EBITDA, adjusted EBITDA margin, non-GAAP operating income, non-GAAP operating margin, non-GAAP net income and non-GAAP earnings per diluted share, as discussed and reconciled below to the most comparable respective GAAP measures, may not be comparable to similarly named measures reported by other companies.

The Company presents EBITDA which is calculated as net income attributable to the Company before depreciation and amortization, interest expense, net, and taxes on income before equity in net income of associated companies. The Company also presents adjusted EBITDA which is calculated as EBITDA plus or minus certain items that are not considered indicative of future operating performance or not considered core to the Company's operations. In addition, the Company presents non-GAAP operating income, which is calculated as operating income plus or minus certain items that are not considered indicative of future operating performance or not considered core to the Company's operations. Adjusted EBITDA margin and non-GAAP operating margin are calculated as the percentage of adjusted EBITDA and non-GAAP operating income to consolidated net sales, respectively. The Company believes these non-GAAP measures provide transparent and useful information and are widely used by investors, analysts, and peers in our industry as well as by management in assessing the operating performance of the Company on a consistent basis.

Additionally, the Company presents non-GAAP net income and non-GAAP earnings per diluted share as additional performance measures. Non-GAAP net income is calculated as adjusted EBITDA, defined above, less depreciation and amortization, interest expense, net, and taxes on income before equity in net income of associated companies, in each case adjusted, as applicable, for any depreciation, amortization, interest or tax impacts resulting from the non-core items identified in the reconciliation of net income attributable to the Company to adjusted EBITDA. Non-GAAP earnings per diluted share is calculated as non-GAAP net income per diluted share as accounted for under the "two-class share method." The Company believes that non-GAAP net income and non-GAAP earnings per diluted share provide transparent and useful information and are widely used by investors, analysts, and peers in our industry as well as by management in assessing the operating performance of the Company on a consistent basis.

Certain of the prior period non-GAAP financial measures presented in the following tables have been adjusted to conform with current period presentation. The following tables reconcile the Company's non-GAAP financial measures (unaudited) to their most directly comparable GAAP (unaudited) financial measures (dollars in thousands unless otherwise noted, except per share amounts):

Non-GAAP Operating Income and Margin Reconciliations	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Operating income	$ 56,795	$ 31,903	$ 106,724	$ 61,306
Combination, integration and other acquisition-related expenses (a)	—	1,831	—	5,885
Restructuring and related charges, net (b)	1,043	(1)	5,015	819
Strategic planning expenses (c)	579	3,112	2,666	6,200
Russia-Ukraine conflict related expenses (d)	—	929	—	2,095
Other charges (e)	344	1,031	649	1,660
Non-GAAP operating income	$ 58,761	$ 38,805	$ 115,054	$ 77,965
Non-GAAP operating margin (%) (k)	11.9 %	7.9 %	11.6 %	8.1 %

EBITDA, Adjusted EBITDA, Adjusted EBITDA Margin and Non-GAAP Net Income Reconciliations	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Net income attributable to Quaker Chemical Corporation	$ 29,346	$ 14,343	$ 58,880	$ 34,159
Depreciation and amortization (j)	20,834	20,856	41,344	41,583
Interest expense, net	12,721	6,494	25,963	11,839
Taxes on income before equity in net income of associated companies (k)	13,830	1,374	23,363	4,240
EBITDA	76,731	43,067	149,550	91,821
Equity loss in a captive insurance company (f)	430	1,781	8	2,025
Combination, integration and other acquisition-related (credits) expenses (a)	(475)	2,248	(475)	8,281
Restructuring and related charges, net (b)	1,043	(1)	5,015	819
Strategic planning expenses (c)	579	3,112	2,666	6,200
Russia-Ukraine conflict related expenses (d)	—	929	—	2,095
Currency conversion impacts of hyper-inflationary economies (g)	1,184	36	1,640	224
Loss on extinguishment of debt (i)	—	6,763	—	6,763
Other charges (e)	750	556	629	707
Adjusted EBITDA	$ 80,242	$ 58,491	$ 159,033	$ 118,935
Adjusted EBITDA margin (%) (l)	16.2 %	11.9 %	16.0 %	12.3 %
Adjusted EBITDA	$ 80,242	$ 58,491	$ 159,033	$ 118,935
Less: Depreciation and amortization (j)	20,834	20,856	41,344	41,583
Less: Interest expense, net	12,721	6,494	25,963	11,839
Less: Taxes on income before equity in net income of associated companies - adjusted (a)(k)	11,913	7,466	22,960	16,368
Non-GAAP net income	$ 34,774	$ 23,675	$ 68,766	$ 49,145

Non-GAAP Earnings per Diluted Share Reconciliations	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
GAAP earnings per diluted share attributable to Quaker Chemical Corporation common shareholders	$ 1.63	$ 0.80	$ 3.27	$ 1.91
Equity loss in a captive insurance company per diluted share (f)	0.02	0.10	0.00	0.11
Combination, integration and other acquisition-related (credits) expenses per diluted share (a)	(0.03)	0.13	(0.03)	0.38
Restructuring and related charges, net per diluted share (b)	0.04	(0.00)	0.21	0.03
Strategic planning expenses per diluted share (c)	0.03	0.13	0.13	0.27
Russia-Ukraine conflict related expenses per diluted share (d)	—	0.04	—	0.10
Currency conversion impacts of hyper-inflationary economies per diluted share (g)	0.06	0.00	0.09	0.01
Loss on extinguishment of debt per diluted share (i)	—	0.29	—	0.29
Other charges per diluted share (e)	0.04	0.03	0.02	0.03
Impact of certain discrete tax items per diluted share (h)	0.14	(0.20)	0.13	(0.39)
Non-GAAP earnings per diluted share (m)	$ 1.93	$ 1.32	$ 3.82	$ 2.74

(a) Combination, integration and other acquisition-related (credits) expenses in 2022 included certain legal, financial, and other advisory and consultant costs incurred in connection with the Combination integration activities and similar expenses associated with the Company's other recent acquisitions. These costs are not indicative of the future operating performance of the Company. Approximately $0.1 million and $0.2 million for the three and six months ended June 30, 2022 of these pre-tax costs were considered non-deductible for the purpose of determining the Company’s effective tax rate, and, therefore, taxes on income before equity in net income of associated companies - adjusted reflects the impact of these items. During both the three and six months ended June 30, 2023, the Company recorded $0.5 million of other income due to changes in an indemnification asset related to the Combination. Similarly, during the three and six months ended June 30, 2022, the Company recorded $0.4 million and $2.4 million, respectively, of other expense due to changes in a Combination-related indemnification asset. The amounts recorded that are related to the changes in indemnification assets are included in the caption “Combination, integration and other acquisition-related (credits) expenses” in the reconciliation of GAAP earnings per diluted share attributed to Quaker Chemical Corporation common shareholders to Non-GAAP earnings per diluted share as well as the reconciliation of net income attributable to Quaker Chemical Corporation to Adjusted EBITDA and Non-GAAP net income. See Notes 2, 10, and 11 of Notes to Condensed Consolidated Financial Statements, which appear in Item 1 of this Report.

(b) Restructuring and related charges, net represent the costs incurred by the Company associated with the Company’s restructuring programs. These costs are not indicative of the future operating performance of the Company. See Note 7 of Notes to Condensed Consolidated Financial Statements, which appear in Item 1 of this Report.

(c) Strategic planning expenses include certain consultant and advisory expenses for the Company’s strategic planning phase of its long-term process optimization and integration projects to further optimize its footprint, processes and other functions. These planning phase costs are one-time in nature and not indicative of the future operating performance of the Company.

(d) Russia-Ukraine conflict related expenses represent the direct costs associated with the Company’s exit of operations in Russia during 2022, including costs for employee separation benefits, as well as costs associated with establishing specific reserves or changes to existing reserves for trade accounts receivable within the Company’s EMEA reportable segment for certain customers who filed for bankruptcy protection and were directly impacted by the conflict between Russia and Ukraine. These expenses are not indicative of the future operating performance of the Company.

(e) Other charges include executive transition costs, facility remediation insurance recoveries, net, charges incurred by an inactive subsidiary of the Company as a result of the termination of restrictions on insurance settlement reserves and non-service components of the Company’s pension and postretirement net periodic benefit income and expense. See Notes 9 and 18 of Notes to Condensed Consolidated Financial Statements, which appear in Item 1 of this Report.

(f) Equity loss in a captive insurance company represents the after-tax income attributable to the Company’s interest in Primex, Ltd. (“Primex”), a captive insurance company. The Company holds a 32% investment in and has significant influence over Primex, and therefore accounts for this interest under the equity method of accounting. The income attributable to Primex is not indicative of the future operating performance of the Company and is not considered core to the Company’s operations.

(g) Currency conversion impacts of hyper-inflationary economies represents the foreign currency remeasurement impacts associated with the Company’s affiliates whose local economies are designated as hyper-inflationary under U.S. GAAP. During both the three and six months ended June 30, 2023 and 2022, the Company incurred non-deductible, pre-tax charges related to the Company’s Argentina and Türkiye affiliates. The charges incurred related to the immediate recognition of foreign currency remeasurement in the Consolidated Statements of Income associated with these entities are not indicative of the future operating performance of the Company. See Note 1 of Notes to Condensed Consolidated Financial Statements, which appears in Item 1 of this Report.

(h) The impacts of certain discrete tax items include changes in valuation allowances recorded on certain Brazilian branch foreign tax credits and the related deferred taxes. These discrete items relate to tax law changes occurring in 2022 and 2023, both in the United States and Brazil which impacted the creditability of Brazilian foreign taxes in the U.S. Additionally, the Company has discrete items related to the remeasurement of deferred taxes on the transfer of intellectual property and the release of the reserves for uncertain tax positions. See Note 11 of Notes to Condensed Consolidated Financial Statements, which appears in Item 1 of this Report.

(i) In connection with executing the Amended Credit Facility, the Company recorded a loss on extinguishment of debt of approximately $6.8 million during the period ended June 30, 2022 which includes the write-off of certain previously unamortized deferred financing costs as well as a portion of the third-party and creditor debt issuance costs incurred to execute the Amended Credit Facility. These expenses are not indicative of the future operating performance of the Company. See Note 14 of Notes to Condensed Consolidated Financial Statements, which appears in Item 1 of this Report.

(j) Depreciation and amortization for both the three and six months ended June 30, 2023, and the same period of 2022 includes approximately $0.2 million and $0.5 million, respectively, of amortization expense recorded within equity in net income of associated companies in the Company’s Condensed Consolidated Statements of Operations, which is attributable to the amortization of the fair value step up for the Company’s 50% interest in a joint venture in Korea as a result of required purchase accounting.

(k) Taxes on income before equity in net income of associated companies – adjusted presents the impact of any current and deferred income tax expense (benefit), as applicable, of the reconciling items presented in the reconciliation of net income attributable to Quaker Chemical Corporation to adjusted EBITDA, and was determined utilizing the applicable rates in the taxing jurisdictions in which these adjustments occurred, subject to deductibility. Combination, integration and other acquisition-related (credits) expenses described in (a) resulted in a tax benefit of less than $0.1 million and incremental taxes of $1.4 million for the three and six months ended June 30, 2022. Restructuring and related charges, net described in (b) above resulted in incremental taxes of $0.2 million and $1.2 million for the three and six months ended June 30, 2023, respectively, compared to an incremental benefit of less than $0.1 million and incremental taxes of $0.2 million for the three and six months ended June 30, 2022, respectively. Strategic planning expenses described in (c) above resulted in incremental taxes of $0.1 million and $0.6 million for the three and six months ended June 30, 2023, respectively, compared to incremental taxes of $0.7 million and $1.4 million for the three and six months ended June 30, 2022, respectively. Russia-Ukraine conflict related expenses described in (d) resulted in incremental taxes of $0.2 million and $0.5 million for the three and six months ended June 30, 2022, respectively. Other charges described in (e) resulted in incremental taxes of $0.2 million for both the three and six months ended June 30, 2023, compared to incremental taxes of $0.2 million for both the three and six months ended June 30, 2022. The impact of certain discrete items described in (g) resulted in a tax benefit of $2.5 million and $2.4 million for the three and six months ended June 30, 2023, respectively, compared to incremental taxes of $3.5 million and $6.9 million for the three and six months ended June 30, 2022, respectively. Loss on extinguishment of debt described in (h) resulted in incremental taxes of $1.6 million during the three and six months ended June 30, 2022.

(l) The Company calculates adjusted EBITDA margin and non-GAAP operating margin as the percentage of adjusted EBITDA and non-GAAP operating income to consolidated net sales.

(m) The Company calculates non-GAAP earnings per diluted share as non-GAAP net income attributable to the Company per weighted average diluted shares outstanding using the “two-class share method” to calculate such in each given period.

Off-Balance Sheet Arrangements

The Company had no material off-balance sheet commitments or obligations as of June 30, 2023. The Company’s off-balance sheet items outstanding as of June 30, 2023 includes approximately $5 million of total bank letters of credit and guarantees. The bank letters of credit and guarantees are not significant to the Company’s liquidity or capital resources. See Note 14 of Notes to Condensed Consolidated Financial Statements in Item 1 of this Report.

Operations

Consolidated Operations Review – Comparison of the Second Quarter of 2023 with the Second Quarter of 2022

Net sales were $495.4 million in the second quarter of 2023 compared to $492.4 million in the second quarter of 2022. The net sales increase of $3.0 million or 1% quarter-over-quarter reflects an increase in selling price and product mix of 11% partially offset by a decline in sales volumes of approximately 10%. The increase in selling price and product mix was primarily driven by year-over-year impact of our value-based pricing initiatives implemented to offset the significant increases in raw material and other input costs. The decline in sales volumes was primarily attributable to softer end market conditions, the Company's value-based pricing initiatives and customer order patterns, as well as the impacts of the ongoing war in Ukraine in the EMEA segment and the wind-down of the tolling agreement for products previously divested related to the Combination, partially offset by new business wins.

COGS were $317.8 million in the second quarter of 2023 compared to $342.8 million in the second quarter of 2022, a decrease of $25.1 million. The decrease in COGS reflects lower spend on the decline in current year sales volumes, which more than offset higher costs due to inflationary pressures in the Company's global raw material, manufacturing and supply chain and logistics costs compared to the prior year.

Gross profit was $177.7 million in the second quarter of 2023 compared to $149.6 million in the second quarter of 2022, an increase of $28.1 million or 19%. The Company's reported gross margin in the second quarter of 2023 was 35.9% compared to 30.4% in the second quarter of 2022 primarily driven by the year-over-year impact of our value-based pricing initiatives implemented throughout 2022 which offset significant increases in raw material and other input costs.

SG&A was $119.9 million in the second quarter of 2023 compared to $115.8 million in the second quarter of 2022, an increase of $4.0 million or 3%, driven by higher labor-related costs including year-over-year inflationary increases and higher levels of incentive compensation due to improved Company performance.

The Company incurred $1.8 million of Combination, integration and other acquisition-related operating expenses in the second quarter of 2022, primarily due to various professional fees related to legal, financial and other advisory and consultant expenses for Combination integration activities. There were no similar expenses incurred in the second quarter of 2023. See the Non-GAAP Measures section of this Item, above.

The Company incurred Restructuring and related charges of $1.0 million and a credit of less than $0.1 million during the second quarters of 2023 and 2022, respectively, related to reductions in headcount and site closures under the Company's restructuring programs. See the Non-GAAP Measures section of this Item, above.

Operating income in the second quarter of 2023 was $56.8 million compared to $31.9 million in the second quarter of 2022. Excluding non-recurring and non-core expenses that are not indicative of the future operating performance of the Company described in the Non-GAAP Measures section of this Item, above, the Company's non-GAAP operating income increased to $58.8 million in the second quarter of 2023 as compared to $38.8 million in the second quarter of 2022 primarily due to higher gross profit partially offset by higher SG&A, described above.

The Company had Other expense, net of $3.6 million in the second quarter of 2023 as compared to $8.4 million in the second quarter of 2022. Both the second quarter of 2023 and 2022 included foreign exchange transaction losses, which were higher in the current year. The second quarter of 2022 included a $6.8 million of loss on extinguishment of debt related to the Company's refinancing the Original Credit Facility. See the Non-GAAP Measures section of this Item, above.

Interest expense, net, was $12.7 million in the second quarter of 2023 compared to $6.5 million in the second quarter of 2022, an increase of $6.2 million as a result of an increase in interest rates quarter-over-quarter.

The Company's effective tax rates for the second quarters of 2023 and 2022 were 34.2% and 8.1%, respectively. The Company's effective tax rate for the second quarter of 2023 was primarily impacted by changes to the valuation allowance for and the usage of foreign tax credits due to an enacted law change in Brazil and the effects of lower pre-tax earnings and the mix of such earnings. Comparatively, the prior year effective tax rate was largely driven by state tax benefits, favorable audit settlements, a deferred tax benefit associated with an intercompany asset transfer, withholding taxes, and the effects of lower pre-tax earnings and the mix of such earnings. In addition, the effective tax rate for the second quarter of 2022 was impacted by the Company recording earnings at a statutory tax rate of 25% while the recertification of its concessionary 15% tax rate was pending receipt. Excluding the impact of non-core items in each quarter, described in the Non-GAAP Measures section of this Item, above, the Company estimates that its effective tax rates for the second quarters of 2023 and 2022 would have been approximately 27% and 24%, respectively. The Company expects continued volatility in its effective tax rates due to several factors, including the timing and scope of tax audits and the expiration of applicable statutes of limitations as they relate to uncertain tax positions, the unpredictability of the timing and amount of certain incentives in various tax jurisdictions, the treatment of certain acquisition-related costs and the timing and amount of certain share-based compensation-related tax benefits, among other factors.

Equity in net income of associated companies was $2.8 million in the second quarter of 2023 compared to a net loss of $1.3 million in the second quarter of 2022, an increase of $4.0 million, primarily due to higher current year income from the Company's interest in a captive insurance company as well as from the Company's 50% interest in a joint venture in Korea. See the Non-GAAP Measures section of this Item, above.

Net income attributable to noncontrolling interest was less than $0.1 million in both the second quarter of 2023 and 2022.

Foreign exchange negatively impacted the Company's second quarter of 2023 results by approximately 4% compared to the second quarter of 2022 driven by the impact from foreign currency translation on earnings as well as higher foreign exchange transaction losses in the current quarter as compared to the prior year second quarter.

Consolidated Operations Review – Comparison of the First Six Months of 2023 with the First Six Months of 2022

Net sales were $995.6 million in the first six months of 2023 compared to $966.6 million in the first six months of 2022. The net sales increase of $29.0 million or 3% year-over-year reflects increases in selling price and product mix of approximately 15.0%, partially offset by a decline in sales volumes of approximately 11.0% and the unfavorable impact from foreign currency translation of 1.0%. The increase in selling price and product mix was primarily driven by year-over-year impact of our value-based pricing initiatives implemented to offset the significant increases in raw material and other input costs. The decline in sales volumes was primarily attributable to softer end market conditions across all regions, the Company's value-based pricing initiatives and customer order patterns, as well as the impacts of the ongoing war in Ukraine in the EMEA segment, and the wind-down of the tolling agreement for products previously divested related to the Combination, partially offset by new business wins, as mentioned above.

COGS were $644.5 million in the first six months of 2023 compared to $670.9 million in the first six months of 2022. The decrease in COGS of $26.5 million or 4% reflects lower spend on the decline in current year sales volumes, which more than offset higher costs due to inflationary pressures in the Company's global raw material, manufacturing and supply chain and logistics costs compared to the prior year.

Gross profit in the first six months of 2023 increased $55.5 million or 19% from the first six months of 2022. The Company's reported gross margin in the first six months of 2023 was 35.3% compared to 30.6% in the first six months of 2022. The Company's current year improvement in gross margin was primarily driven by the year-over-year impact of our value-based pricing initiatives implemented throughout 2022 to offset the significant increases in raw material and other input costs.

SG&A in the first six months of 2023 increased $11.8 million or 5% compared to the first six months of 2022 driven by higher labor-related costs including year-over-year inflationary increases and higher levels of incentive compensation on improved Company performance, partially offset by lower SG&A due to foreign currency translation compared to the prior year.

The Company incurred $5.9 million of Combination, integration and other acquisition related operating expenses in the first six months of 2022, primarily due to various professional fees related to legal, financial and other advisory and consultant expenses for integration activities including internal control remediation. There were no similar costs in the first six months of 2023. See the Non-GAAP Measures section of this Item, above.

The Company incurred Restructuring and related charges of $5.0 million and $0.8 million during the first six months of 2023 and 2022, respectively, related to reductions in headcount and site closures under the Company's previous and current restructuring programs. See the Non-GAAP Measures section of this Item, above.

Operating income in the first six months of 2023 was $106.7 million compared to $61.3 million in the first six months of 2022. Excluding non-recurring and non-core expenses that are not indicative of the future operating performance of the Company described in the Non-GAAP Measures section of this Item, above, the Company's current year non-GAAP operating income increased to $115.1 million for the first six months of 2023 compared to $78.0 million in the prior year's first six months primarily due to higher gross profit partially offset by higher SG&A, described above.

The Company had Other expense, net, of $5.8 million in the first six months of 2023 compared to $10.6 million in the first six months of 2022. The first six months of 2023's results include $1.0 million of facility remediation recoveries in the current year, while the prior year's first six months of 2022 Other expense, net includes a $6.8 million of loss on extinguishment of debt related to the Company's refinancing the Original Credit Facility. See the Non-GAAP Measures section of this Item, above. Also, there was higher foreign currency transaction losses year-over-year.

Interest expense, net, increased $14.1 million in the first six months of 2023 compared to the first six months of 2022, due to an increase in interest rates in the current year as compared to the prior year.

The Company's effective tax rates for the first six months of 2023 and 2022 were 31.2% and 10.9%, respectively. The Company's effective tax rate for the six months ended June 30, 2023 was primarily impacted by changes to the valuation allowance for and the usage of foreign tax credits due to an enacted law change in Brazil, the effects of lower pre-tax earnings and the mix of such earnings, foreign tax inclusions, withholding taxes, and net tax expense related to share-based compensation, partially offset with changes in uncertain tax positions and favorable return to provision adjustments. Comparatively, the prior year six-month effective tax rate was impacted by changes in the valuation allowance for foreign tax credits, favorable audit settlements, state tax benefits, a reduction in reserves for uncertain tax positions, a deferred tax benefit associated with an intercompany asset transfer, withholding taxes, and the effects of lower pre-tax earnings and the mix of such earnings. In addition, the effective tax rate during the six months ended June 30, 2022 was impacted by the Company recording earnings at a statutory tax rate of 25% while the recertification of its concessionary 15% tax rate was pending receipt. Excluding the impact of non-core items in each period, described in the Non-GAAP Measures section of this Item, above, the Company estimates that its effective tax rates for the first six months of 2023 and 2022 would have been approximately 27% and 26%, respectively.

Equity in net income (loss) of associated companies increased $7.8 million in the first six months of 2023 compared to the first six months of 2022, primarily due to higher current year income from the Company's interest in a captive insurance company due to (see the Non-GAAP Measures section of this Item, above), as well as higher current year income from the Company's 50% interest in a joint venture in Korea.

Net income attributable to noncontrolling interest was less than $0.1 million in both the first six months of 2023 and 2022.

Foreign exchange unfavorably impacted the Company's first six months of 2023 results by approximately 5% driven by the impact from foreign currency translation on earnings as well as higher foreign exchange transaction losses in the current year as compared to the prior year's first six months.

Reportable Segments Review - Comparison of the Second Quarter of 2023 with the Second Quarter of 2022

The Company's reportable segments reflect the structure of the Company's internal organization, the method by which the Company's resources are allocated and the manner by which the chief operating decision maker of the Company assesses its performance. During the first quarter of 2023, the Company reorganized its executive management team to align with its new business structure. The Company's new structure includes three reportable segments: (i) Americas; (ii) EMEA; and (iii) Asia/Pacific.

The three segments are comprised of the assets and operations in each respective region, including assets and operations formerly included in the Global Specialty Businesses segment. Prior to the Company's reorganization, the Company's historical reportable segments were: (i) Americas; (ii) EMEA; (iii) Asia/Pacific; and (iv) Global Specialty Businesses. All prior period information has been recast to reflect the Company's new reportable segments.

Segment operating earnings for the Company's reportable segments are comprised of net sales less COGS and SG&A directly related to the respective segment's product sales. Operating expenses not directly attributable to the net sales of each respective segment, such as certain corporate and administrative costs, Combination, integration and other acquisition-related expenses and Restructuring and related charges. Other items not specifically identified with the Company's reportable segments include interest expense, net, and other expense, net.

Americas

Americas represented approximately 50% of the Company's consolidated net sales in the second quarter of 2023. The segment's net sales were $253.2 million, an increase of $17.4 million or 7%, compared to the second quarter of 2022. The increase in net sales was due to higher selling price and product mix of 13% and a favorable impact of foreign currency translation of 1%, partially offset by a decrease in sales volumes of approximately 7%. The increase in selling price and product mix was primarily driven by the year-over-year impact of price increases implemented to offset the significant increases in raw material and other input costs. The favorable foreign exchange impact was primarily due to the weakening of the U.S. dollar against the Mexican peso as this exchange rate averaged 17.68 Mexican peso per U.S. dollar in the second quarter of 2023 compared to 20.02 Mexican peso per U.S. dollar in the second quarter of 2022. The current quarter decline in sales volumes compared to the prior year was primarily driven by softer market conditions, the Company's value-based pricing initiatives, customer order patterns, and the wind-down of the tolling agreement for products previously divested related to the Combination, partially offset by new business wins. This segment's operating earnings were $69.0 million, an increase of $16.9 million or 32%, compared to the second quarter of 2022 primarily driven by higher net sales coupled with an improvement in operating margins.

EMEA

EMEA represented approximately 30% of the Company’s consolidated net sales in the second quarter of 2023. The segment’s net sales were $143.5 million, a decrease of $2.0 million or 1%, compared to the second quarter of 2022. This was driven by a decrease in sales volumes of 15%, partially offset by higher selling price and product mix of 11%, a favorable impact of foreign currency translation of 2% and an increase in net sales from acquisitions of 1%. The decline in sales volumes was primarily driven by softer market conditions, the Company’s value-based pricing initiatives, customer order patterns, the impacts of the ongoing war in Ukraine, and the wind-down of the tolling agreement for products previously divested related to the Combination, partially offset by new business wins. The favorable foreign currency translation impact was primarily due to the weakening of the U.S. dollar against the euro as this exchange rate averaged 1.09 U.S. dollars per euro in the second quarter of 2023 compared to 1.07 U.S. dollars per euro in the second quarter of 2022. The increase in selling price and product mix was primarily driven by the year-over-year impact of price increases implemented to offset the significant increases in raw material and other input costs. This segment’s operating earnings were $25.6 million, an increase of $5.5 million or 27%, compared to the second quarter of 2022. The increase in segment operating earnings was primarily driven by an improvement in operating margins.

Asia/Pacific

Asia/Pacific represented approximately 20% of the Company’s consolidated net sales in the second quarter of 2023. The segment’s net sales were $98.7 million, a decrease of $12.4 million or 11%, compared to the second quarter of 2022. The decrease in net sales was driven by lower sales volumes of 11% and an unfavorable impact from foreign currency translation of 5%, partially offset by higher selling price and product mix of 5%. The decline in sales volumes was primarily driven by softer market conditions, the Company’s value-based pricing initiatives and customer order patterns, partially offset by new business wins. The unfavorable foreign exchange impact was primarily due to the strengthening of the U.S. dollar against the Chinese renminbi as this exchange rate averaged 7.01 Chinese renminbi per U.S. dollar in the second quarter of 2023 compared to 6.60 Chinese renminbi per U.S. dollar in the second quarter of 2022. The increase in selling price and product mix was primarily driven by year-over-year impact of price increases implemented throughout 2022 to offset the significant increases in raw material and other input costs. This segment’s operating earnings were $28.0 million, an increase of $3.1 million or 12% compared to the second quarter of 2022. The increase in segment operating earnings was primarily driven by an improvement in operating margins as well as slightly lower levels of SG&A, which more than offset the decline in net sales.

Reportable Segments Review -Comparison of the First Six Months of 2023 with the First Six Months of 2022

Americas

Americas represented approximately 51% of the Company’s consolidated net sales in the first six months of 2023. The segment’s net sales were $504.6 million, an increase of $56.7 million or 13% compared to the first six months of 2022. The increase in net sales was due to higher selling price and product mix of 17% and a favorable impact of foreign currency translation of 1%, partially offset by a decrease in sales volumes of 5%. The increase in selling price and product mix was primarily driven by the year-over-year impact of price increases implemented to offset the significant increases in raw material and other input costs. The favorable foreign currency impact was primarily due to the weakening of the U.S. dollar against the Mexican peso as this exchange rate averaged 18.16 Mexican peso per U.S. dollar in the first six months of 2023 compared to 20.26 Mexican peso per U.S. dollar in the first six months of 2022. The decline in sales volumes compared to the prior year was primarily driven by softer market conditions, the Company’s value-based pricing initiatives, customer order patterns, and the wind-down of the tolling agreement for products previously divested related to the Combination, partially offset by new business wins, as mentioned above. This segment’s operating earnings were $135.1 million, an increase of $37.8 million or 39% compared to the first six months of 2022. The increase in segment operating earnings was primarily driven by higher net sales coupled with an improvement in operating margins, as mentioned above.

EMEA

EMEA represented approximately 30% of the Company's consolidated net sales in the first six months of 2023. The segment's net sales were $296.0 million, an increase of $3.6 million or 1% compared to the first six months of 2022. The increase in net sales was a result of higher selling price and product mix of 15%, more than offset by the unfavorable impact of foreign currency translation of 1% and a decrease in sales volumes of 13%. The net sales impact from acquisitions was favorable by less than 1% year-over-year. The increase in selling price and product mix was primarily driven by the year-over-year impact of price increases implemented to offset the significant increases in raw material and other input costs. The unfavorable foreign currency impact was primarily due to the strengthening of the U.S. dollar against the euro as this exchange rate averaged 1.08 U.S. dollars per euro in the first six months of 2023 compared to 1.09 U.S. dollars per euro in the first six months of 2022. The decline in sales volumes was primarily driven by softer market conditions, the Company's value-based pricing initiatives, customer order patterns, the impacts of the ongoing war in Ukraine and the wind-down of the tolling agreement for products previously divested related to the Combination, partially offset by new business wins. This segment's operating earnings were $53.2 million, an increase of $9.8 million or 23% compared to the first six months of 2022. The increase in segment operating earnings was primarily driven by higher net sales coupled with an improvement in operating margins, as mentioned above.

Asia/Pacific

Asia/Pacific represented approximately 19% of the Company's consolidated net sales in the first six months of 2023. The segment's net sales were $195.0 million, a decrease of $31.3 million or 14% compared to the first six months of 2022. The decrease in net sales was driven by lower sales volumes of 17% and an unfavorable impact of foreign currency translation of 5%, partially offset by higher selling price and product mix of 8%. The decline in sales volumes was primarily driven by softer market conditions, customer order patterns, including the impact of COVID-19 lockdown measures, primarily in China, and the Company's value-based pricing initiatives, partially offset by new business wins. The unfavorable foreign exchange impact was primarily due to the strengthening of the U.S. dollar against the Chinese renminbi as this exchange rate averaged 6.92 Chinese renminbi per U.S. dollar in the first six months of 2023 compared to 6.47 Chinese renminbi per U.S. dollar in the first six months of 2022. The increase in selling price and product mix was primarily driven by year-over-year impact of price increases implemented throughout 2022 to offset the significant increases in raw material and other input costs, as mentioned above. This segment's operating earnings were $55.6 million, an increase of $6.2 million or 13% compared to the first six months of 2022. The increase in segment operating earnings was primarily driven by a recovery in operating margins reflecting the Company's ongoing initiatives aimed at offsetting the significant inflationary pressures as well as slightly lower levels of SG&A, which more than offset the decline in net sales, as mentioned above.

Factors That May Affect Our Future Results

(Cautionary Statements Under the Private Securities Litigation Reform Act of 1995)

Certain information included in this Report and other materials filed or to be filed by us with the SEC, as well as information included in oral statements or other written statements made or to be made by us, contain or may contain 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 statements can be identified by the fact that they do not relate strictly to historical or current facts. We have based these forward-looking statements on our current expectations about future events, including statements regarding the potential effects of the COVID-19 pandemic, the Russia and Ukraine conflict, inflation, bank failures, higher interest rate environment, global supply chain constraints on the Company's business, results of operations, and financial condition, our expectation that we will maintain sufficient liquidity, remain in compliance with the terms of the Company's credit facility, expectations about future demand and raw material costs and statements regarding the impact of increased raw material costs and pricing initiatives.

These forward-looking statements include statements with respect to our beliefs, plans, objectives, goals, expectations, anticipations, intentions, financial condition, results of operations, future performance, and business, including:

- the impacts on our business as a result of the COVID-19 pandemic;
- the timing and extent of the projected impacts on our business as a result of the Ukrainian and Russian conflict and actions taken by various governments and governmental organizations in response;
- inflationary pressures, cost increases and the impacts of constraints and disruptions in the global supply chain;
- the potential benefits of acquisitions
- the potential for a variety of macroeconomic events, including the possibility of global or regional recessions, inflation generally, continued or accelerated cost increases in prices of raw materials such as oil and increasing interest rates, to impact the value of our assets or result in asset impairments or otherwise adversely affect our business;
- our current and future results and plans including our sustainability goals; and

- statements that include the words "may," "could," "should," "would," "believe," "expect," "anticipate," "estimate," "intend," "plan" or similar expressions.

Such statements include information relating to current and future business activities, operational matters, capital spending, and financing sources. From time to time, forward-looking statements are also included in the Company's other periodic reports on Forms 10-K, 10-Q and 8-K, press releases, and other materials released to, or statements made to, the public.

Any or all of the forward-looking statements in this Report, in the Company's 2022 Form 10-K and in any other public statements we make may turn out to be wrong. This can occur as a result of inaccurate assumptions or as a consequence of known or unknown risks and uncertainties. Many factors discussed in this Report will be important in determining our future performance. Consequently, actual results may differ materially from those that might be anticipated from our forward-looking statements.

We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. However, any further disclosures made on related subjects in the Company's subsequent reports on Forms 10-K, 10-Q, 8-K and other related filings should be consulted. A major risk is that demand for the Company's products and services is largely derived from the demand for our customers' products, which subjects the Company to uncertainties related to downturns in a customer's business and unanticipated customer production slowdowns and shutdowns, including as is currently being experienced by many automotive industry companies as a result of supply chain disruptions.

Other major risks and uncertainties include, but are not limited to, the primary and secondary impacts of the COVID-19 pandemic, as well as inflationary pressures, including the potential for continued significant increases in raw material costs, supply chain disruptions, customer financial instability, rising interest rates and the possibility of economic recession, worldwide economic and political disruptions including the impacts of the military conflict between Russia and Ukraine, the economic and other sanctions imposed by other nations on Russia, suspensions of activities in Russia by many multinational companies and the potential expansion of military activity, foreign currency fluctuations, significant changes in applicable tax rates and regulations, future terrorist attacks and other acts of violence.

Furthermore, the Company is subject to the same business cycles as those experienced by our customers in the steel, automobile, aircraft, industrial equipment, and durable goods industries. Other factors could also adversely affect us, including those related to acquisitions and the integration of acquired businesses.

Therefore, we caution you not to place undue reliance on our forward-looking statements. For more information regarding these risks and uncertainties as well as certain additional risks that we face, refer to the Risk Factors section, which appears in Item 1A in our 2022 Form 10-K and in our quarterly and other reports filed from time to time with the SEC. This discussion is provided as permitted by the Private Securities Litigation Reform Act of 1995.

Quaker Houghton on the Internet

Financial results, news and other information about Quaker Houghton can be accessed from the Company's website at https://www.quakerhoughton.com. This site includes important information on the Company's locations, products and services, financial reports, news releases and career opportunities. The Company's periodic and current reports on Forms 10-K, 10-Q, 8-K, and other filings, including exhibits and supplemental schedules filed therewith, and amendments to those reports, filed with the SEC are available on the Company's website, free of charge, as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. Information contained on, or that may be accessed through, the Company's website is not incorporated by reference in this Report and, accordingly, you should not consider that information part of this Report.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We have evaluated the information required under this Item that was disclosed in Part II, Item 7A, of our Annual Report on Form 10-K for the year ended December 31, 2022, and we believe there has been no material change to that information, except the interest rate risk noted below.

Interest Rate Risk.

During June 2022, the Company entered into an amendment to its primary credit facility (the “Original Credit Facility”, or as amended, the “Credit Facility”). See Note 20 of Notes to Consolidated Financial Statements included in Item 8 of our 2022 Form 10-K and Note 14 of Notes to Condensed Consolidated Financial Statements, which appears in Item 1 of this Report. As of December 31, 2022, borrowings under the Credit Facility bear interest at either term Secured Overnight Financing Rate (“SOFR”) or a base rate, in each case, plus an applicable margin based upon the Company’s consolidated net leverage ratio, and, in the case of term SOFR, a spread adjustment equal to 0.10% per annum. As a result of the variable interest rates applicable under the Credit Facility, if interest rates rise significantly, the cost of debt to the Company will increase. This may have an adverse effect on the Company, depending on the extent of the Company’s borrowings outstanding throughout a given year. As of December 31, 2022, and June 30, 2023, the Company had outstanding borrowings under the Credit Facility of approximately $943.5 million and $873.9 million, respectively. The weighted average interest rate applicable on outstanding borrowings under the Credit Facility was approximately 4.9% and 6.3% as of December 31, 2022, and June 30, 2023, respectively. The weighted average interest rate applicable on outstanding borrowings under the Original Credit Facility and the Credit Facility during the year ended December 31, 2022 was approximately 3.0% and the six months ended June 30, 2023 was approximately 6.0%. An interest rate change of 100 basis points would result in an approximate $9.4 million and $8.7 million increase or decrease to interest expense for the year ended December 31, 2022 and the year ended December 31, 2023, respectively.

In order to manage the Company’s exposure to variable interest rate risk associated with the Credit Facility, such as SOFR, in the first quarter of 2023, the Company entered into $300.0 million notional amounts of three year interest rate swaps to convert a portion of the Company’s variable rate borrowings into an average fixed rate obligation of 3.64% plus an applicable margin as provided in the Credit Facility based on the Company’s consolidated net leverage ratio. As of June 30, 2023, the aggregate interest rate on the swaps, including the fixed base rate plus the applicable margin, was 5.2%. These interest rate swaps are designated and qualify as cash flow hedges. The Company has previously used derivative financial instruments primarily for the purpose of hedging exposures to fluctuations in interest rates.

Item 4. Controls and Procedures.

Evaluation of disclosure controls and procedures. As required by Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), our management, including our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of the end of the period covered by this Report. Based on that evaluation, our principal executive officer and our principal financial officer have concluded that, as of June 30, 2023, the end of the period covered by this Report, our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) were effective.

Changes in internal control over financial reporting. As required by Rule 13a-15(d) under the Exchange Act, our management, including our principal executive officer and principal financial officer, has evaluated our internal control over financial reporting to determine whether any changes to our internal control over financial reporting occurred during the quarter ended June 30, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Based on that evaluation, there were no changes that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting during the quarter ended June 30, 2023.

PART II.

OTHER INFORMATION

Items 3 and 4 of Part II are inapplicable and have been omitted.

Item 1. Legal Proceedings.

Incorporated by reference is the information in Note 18 of Notes to the Condensed Consolidated Financial Statements in Part I, Item 1, of this Report.

Item 1A. Risk Factors.

The Company's business, financial condition, results of operations and cash flows are subject to various risks that could cause actual results to vary materially from recent results or from anticipated future results. In addition to the other information set forth in this Report, you should carefully consider the risk factors previously disclosed in Part I, Item 1A of our 2022 Form 10-K. There have been no material changes to the risk factors described therein.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

The following table sets forth information concerning shares of the Company's common stock acquired by the Company during the period covered by this Report:

Period	(a) Total Number of Shares Purchased (1)	(b) Average Price Paid Per Share (2)	(c) Total Number of Shares Purchased as part of Publicly Announced Plans or Programs	(d) Approximate Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs (3)
April 1 - April 30	140	$ 188.22	—	$ 86,865,026
May 1 - May 31	3	$ 201.82	—	$ 86,865,026
June 1 - June 30	—	$ —	—	$ 86,865,026
Total	143	$ 188.51	—	$ 86,865,026

(1) All of these shares were acquired from employees related to the surrender of Quaker Chemical Corporation shares in payment of the exercise price of employee stock options exercised or for the payment of taxes upon exercise of employee stock options or the vesting of restricted stock awards or units.

(2) The price paid for shares acquired from employees pursuant to employee benefit and share-based compensation plans is based on the closing price of the Company's common stock on the date of exercise or vesting as specified by the plan pursuant to which the applicable option, restricted stock award, or restricted stock unit was granted.

(3) On May 6, 2015, the Board of Directors of the Company approved, and the Company announced, a share repurchase program, pursuant to which the Company is authorized to repurchase up to $100,000,000 of Quaker Chemical Corporation common stock (the "2015 Share Repurchase Program"), and it has no expiration date. There were no shares acquired by the Company pursuant to the 2015 Share Repurchase Program during the quarter ended June 30, 2023.

Limitation on the Payment of Dividends

The Credit Facility has certain limitations on the payment of dividends and other so-called restricted payment covenants. See Note 14 of Notes to Condensed Consolidated Financial Statements, in Part I, Item 1, of this Report.

Item 5. Other Information.

None of the directors or officers (as defined in Rule 16a-1(f) promulgated under the Exchange Act) of the Company adopted or terminated any Rule 10b5-1 trading arrangement or any non-Rule 10b5-1 trading arrangement (as such terms are defined in Item 408 of Regulation S-K) during the period covered by this Report.

Item 6. Exhibits.

(a) Exhibits

3.1	–	Amended and Restated Articles of Incorporation (as amended through July 24, 2019). Incorporated by reference to Exhibit 3.1 as filed by the Registrant with its quarterly report on Form 10-Q filed on August 1, 2019.
3.2	–	Amended and Restated By-laws (effective December 19, 2022). Incorporated by reference to Exhibit 3.1 as filed by the Registrant within its current report on Form 8-K on December 20, 2022.
10.1	–	Employment Agreement by and between the Registrant and Anna Ransley dated July 31, 2023, effective July 31,2023.*†
10.2	–	Form of Change of Control Agreement by and between the Registrant and certain executive officers (including Anna Ransley).*†
10.3	–	Quaker Chemical Corporation 2023 Director Stock Ownership Plan (incorporated by reference to Appendix A to the Registrant's definitive proxy statement filed with the Commission on March 31, 2023 on Schedule 14A).†
31.1	–	Certification of Chief Executive Officer of the Company pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934.*
31.2	–	Certification of Chief Financial Officer of the Company pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934.*
32.1	–	Certification of Chief Executive Officer of the Company Pursuant to 18 U.S. C. Section 1350.**
32.2	–	Certification of Chief Financial Officer of the Company Pursuant to 18 U.S. C. Section 1350.**
101.INS	–	Inline XBRL Instance Document*
101.SCH	–	Inline XBRL Taxonomy Schema Document*
101.CAL	–	Inline XBRL Taxonomy Calculation Linkbase Document*
101.DEF	–	Inline XBRL Taxonomy Definition Linkbase Document*
101.LAB	–	Inline XBRL Taxonomy Label Linkbase Document*
101.PRE	–	Inline XBRL Taxonomy Presentation Linkbase Document*
104	–	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101.INS)*

* Filed herewith.

** Furnished herewith.

† Management contract or compensatory plan.

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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.

QUAKER CHEMICAL CORPORATION

(Registrant)

/s/ Shane W. Hostetter

Date: August 1, 2023

Shane W. Hostetter, Senior Vice President, Chief Financial Officer (officer duly authorized on behalf of, and principal financial officer of, the Registrant)

EXHIBIT 10.1

EMPLOYMENT AGREEMENT

NAME: **ANNA RANSLEY** **July 31, 2023**

[REDACTED]

The parties to this Employment Agreement (“Agreement”) are Anna Ransley (“You” or the “Executive”) and Quaker Chemical Corporation, d/b/a Quaker Houghton, a Pennsylvania corporation (“Quaker Houghton” or the “Company”).

You are hereby appointed as the Company’s SVP and Chief Digital Information Officer (“CDIO”).

NOW THEREFORE in consideration of the mutual promises and covenants herein contained and intending to be legally bound hereby the parties hereto agree as follows:

1. Duties

Quaker Houghton agrees to employ you and you agree to serve as Quaker Houghton’s CDIO. You shall perform all duties consistent with such position as well as any other duties that are assigned to you from time to time by Quaker Houghton’s CEO. You agree that during the term of your employment with Quaker Houghton to devote your knowledge, skill, and working time solely and exclusively to the business and interests of Quaker Houghton and its subsidiaries.

2. Compensation

Your base salary will be determined from time to time by the Quaker Houghton Board of Directors. In addition, you will be entitled to participate, to the extent eligible, in any of Quaker Houghton’s annual and long-term incentive plans, retirement savings plan (401k plan), and will be entitled to vacations, paid holidays, and medical, dental, and other benefits as are made available by Quaker Houghton to its executives and full-time U.S. employees. During your employment with Quaker Houghton, your salary will not be reduced by Quaker Houghton without your prior written consent. Your initial compensation and benefits are outlined on Addendum 1, which is attached hereto and made a part hereof.

3. Term of Employment.

Your employment with Quaker may be terminated on ninety (90) days' written notice by either party, with or without cause or reason whatsoever. Within ninety (90) days after termination of your employment, you will be given an accounting of all monies due you. Notwithstanding the foregoing, Quaker has the right to terminate your employment upon less than ninety (90) days’ notice for Cause (as defined below).

4. Covenant Not to Disclose

a. As CDIO, you acknowledge that the identity of Quaker Houghton's (and any of Quaker Houghton's affiliates’) customers, the requirements of such customers, pricing and payment terms quoted and charged to such customers, the identity of Quaker Houghton's suppliers and terms of supply (and the suppliers and related terms of supply of any of Quaker Houghton's customers for which chemical and other management services are being provided), information concerning the method and conduct of Quaker Houghton's (and any affiliate’s) business such as formulae, formulation information, application technology, manufacturing information, marketing information, strategic and marketing plans, financial information, financial statements (audited and unaudited), budgets, corporate practices and procedures, research and development efforts, and laboratory test methods and all of Quaker Houghton's (and its affiliates’) manuals, documents, notes, letters, records, and computer programs are Quaker Houghton's confidential information ("Confidential Information") and are Quaker Houghton’s (and/or any of its affiliates’, as the case may be) sole and exclusive property. You agree that at no time during or following your employment with Quaker Houghton will you appropriate for your own use, divulge, or pass on, directly or through any other individual or entity or to any third party, any Quaker Houghton Confidential Information. Upon termination of your employment with Quaker Houghton and prior to final payment of all monies due to you under Section 2 or at any other time upon Quaker Houghton's request, you agree to surrender immediately to Quaker Houghton all materials in your possession or control which include or contain any Quaker Houghton Confidential Information.

b. You acknowledge that, by this Section 4(b), you have been notified in accordance with the Defend Trade Secrets Act that, notwithstanding the foregoing:

(i) You will not be held criminally or civilly liable under any federal or state trade secret law or this Agreement for the disclosure of Confidential Information that: (A) you make (1) in confidence to a federal, state, or local government official, either directly or indirectly, or to your attorney; and (2) solely for the purpose of reporting or investigating a suspected violation of law; or (B) you make in a complaint or other document that is filed under seal in a lawsuit or other proceeding.

(ii) If you file a lawsuit for retaliation by Quaker Houghton for reporting a suspected violation of law, you may disclose Confidential Information to your attorney and use the Confidential Information in the court proceeding if you: (A) file any document containing Confidential Information under seal and (B) do not disclose Confidential Information, except pursuant to court order.

c. Additionally, Quaker Houghton confirms that nothing in this Agreement is intended to or shall prevent, impede or interfere with your right, without prior notice to Quaker Houghton, to provide information to the government, participate in any government investigations, file a court or administrative complaint, testify in proceedings regarding Quaker Houghton's past or future conduct, or engage in any future activities protected under any statute administered by any government agency.

5. Covenant Not to Compete

In consideration of your position of CDIO for Quaker Houghton and the training and Confidential Information you are to receive from Quaker Houghton, you agree that during your employment with Quaker Houghton and for a period of one (1) year thereafter, regardless of the reason for your termination, you will not:

a. directly or indirectly, together or separately or with any third party, whether as an employee, individual proprietor, partner, stockholder, officer, director, or investor, or in a joint venture or any other capacity whatsoever, actively engage in business or assist anyone or any firm in business as a manufacturer, seller, or distributor of specialty chemical products which are the same, like, similar to, or which compete with Quaker Houghton's (or any of its affiliates') products or services; and

b. directly or indirectly recruit, solicit or encourage any Quaker Houghton (or any of its affiliates') employee or otherwise induce such employee to leave Quaker Houghton's (or any of its affiliates') employ, or to become an employee or otherwise be associated with you or any firm, corporation, business, or other entity with which you are or may become associated; and

c. solicit or induce any of Quaker Houghton's suppliers of products and/or services (or a supplier of products and/or services of a customer who is being provided or solicited for the provision of chemical management or other services by Quaker Houghton) to terminate or alter its contractual relationship with Quaker Houghton (and/or any such customer).

The parties consider these restrictions reasonable, including the period of time during which the restrictions are effective. However, if any restriction or the period of time specified should be found to be unreasonable in any court proceeding, then such restriction shall be modified or the period of time shall be shortened as is found to be reasonable so that the foregoing covenant not to compete may be enforced. You agree that in the event of a breach or threatened breach by you of the provisions of the restrictive covenants contained in Section 4 or in this Section 5, Quaker Houghton will suffer irreparable harm, and monetary damages may not be an adequate remedy. Therefore, if any breach occurs, or is threatened, in addition to all other remedies available to Quaker Houghton, at law or in equity, Quaker Houghton shall be entitled as a matter of right to specific performance of the covenants contained herein by way of temporary or permanent injunctive relief. In the event of any breach of the restrictive covenant contained in this Section 5, the term of the restrictive covenant shall be extended by a period of time equal to that period beginning on the date such violation commenced and ending when the activities constituting such violation cease.

6. Contractual Restrictions

You represent and warrant to Quaker Houghton that: (a) there are no restrictions, agreements, or understandings to which you are a party that would prevent or make unlawful your employment with Quaker Houghton and (b) your employment by Quaker Houghton shall not constitute a breach of any contract, agreement, or understanding, oral or written, to which you are a party or by which you are bound. You further represent that you will not use any trade secret, proprietary or otherwise confidential information belonging to a prior employer or other third party in connection with your employment with Quaker Houghton.

7. Inventions

All improvements, modifications, formulations, processes, discoveries or inventions ("Inventions"), whether or not patentable, which were originated, conceived or developed by you solely or jointly with others (a) during your working hours or at Quaker Houghton's expense or at Quaker Houghton's premises or at a customer's premises or (b) during your employment with Quaker Houghton and additionally for a period of one year thereafter, and which relate to (i) Quaker Houghton's business or (ii) any research, products, processes, devices, or machines under actual or anticipated development or investigation by Quaker Houghton at the earlier of (i) that time or (ii) as the date of termination of employment, shall be Quaker Houghton's sole property. You shall promptly disclose to Quaker Houghton all Inventions that you conceive or become aware of at any time during your employment with Quaker Houghton and shall keep complete, accurate, and authentic notes, data, and records of all Inventions and of all work done by you solely or jointly with others, in the manner directed by Quaker Houghton. You hereby transfer and assign to Quaker Houghton all of your right, title, and interest in and to any and all Inventions which may be conceived or developed by you solely or jointly with others during your employment with Quaker Houghton. You shall assist Quaker Houghton in applying, obtaining, and enforcing any United States Letters Patent and Foreign Letters Patent on any such Inventions and to take such other actions as may be necessary or desirable to protect Quaker Houghton's interests therein. Upon request, you shall execute any and all applications, assignments, or other documents that Quaker Houghton deems necessary and desirable for such purposes. You have attached hereto a list of unpatented inventions that you have made or conceived prior to your employment with Quaker Houghton, and it is agreed that those inventions shall be excluded from the terms of this Agreement.

8. Termination.

(a) Either party may terminate this Agreement per the terms of Section 3 hereof and Quaker Houghton, in its sole discretion, may terminate your employment at any time for Cause (as defined herein). If you incur a Separation from Service (as defined below) by decision and action of Quaker Houghton for any reason other than Cause, death, or Disability (as defined below), Quaker Houghton agrees to:

1. Provide you with reasonable outplacement assistance, either by providing the services in-kind, or by reimbursing reasonable expenses actually incurred by you in connection with your Separation from Service. The outplacement services must be provided during the one-year period following your Separation from Service. If any expenses are to be reimbursed, you must request the reimbursement within eighteen months of your Separation from Service and reimbursement will be made within 30 days of the receipt of your request; and

2. Pay you twelve months' severance in bi-weekly installments commencing on the Payment Date (as defined below) and continuing on Quaker Houghton's normal payroll dates thereafter, each of which is equal to the total of your bi-weekly base salary at the time of your Separation from Service, provided you sign a Release within 45 days of the later of the date you receive the Release or your Separation from Service. Continuation of all medical and dental coverage's will also be available for 18 months at a level equal to the coverage provided before your Separation from Service.

(b) If the Executive dies during the Term of Employment, the Company shall not thereafter be obligated to make any further payments under this Agreement except for amounts accrued as of the date of the Executive's death, and except that the Company shall pay a single-sum cash death benefit to the Executive's Beneficiary equal to 200% of the annual rate of the Executive's base salary as in effect on the day before the Executive's death or be entitled to the death benefit (as a multiple of base salary) to which any other executive officer would be entitled. To that end, the Company currently has a program in which all executive officers in the Company's Executive Leadership Team participate, which entitle each to a death benefit equal to 100% of base salary in the year of death and 50% of base salary in each of the four years thereafter. "Beneficiary" shall mean the person designated by the Executive to receive benefits under this Agreement in a writing filed by the Executive with the Company's human resources department before the Executive's death or, if the Executive fails to designate a beneficiary or the designated beneficiary predeceases the Executive, the Executive's Beneficiary shall be his surviving spouse or, if the Executive has no surviving spouse, his estate.

(c) Disability of Executive. If the Executive is unable to perform his duties hereunder by reason of disability as defined in the Company's Long-Term Disability Plan ("Disability"), then the Board shall have the right to terminate the Executive's employment upon 30 days prior written notice to the Executive at any time during the continuation of such Disability. In the event the Executive is terminated pursuant to this Section 8(c), the Company shall not thereafter be obligated to make any further payments under this Agreement except for amounts accrued as of the date of such termination, and except that the Executive shall receive supplemental disability payments. Such supplemental disability payments shall be paid to the Executive after the Executive's Separation from Service at the same time that disability payments are due to be paid to the Executive under the Company's Long-Term Disability Plan and each such payment shall be equal to the excess of (a) the amount that would be payable under the Company's Long-Term Disability Plan (disregarding any withholding) if the Executive elected a benefit of 50% of applicable pay and such plan did not limit the dollar amount of periodic payments thereunder, over (b) the amount that would be payable under the Company's Long-Term Disability Plan (disregarding any withholding) if the Executive elected a benefit of 50% of applicable pay. The "Company's Long-Term Disability Plan" shall mean the long-term disability plan maintained by the Company for employees generally; provided, however, that if the Company does not maintain such a long-term disability plan at the time of the Executive's termination under this Section 8(c), or terminates such plan after the Executive's termination of employment but before all disability payments have been paid to the Executive under the terms of such plan as in effect prior to its termination, (x) the "Company's Long-Term Disability Plan" shall mean the long-term disability plan most recently maintained by the Company for employees generally, and (y) the amount determined under subsection (b) shall equal zero dollars ($0). Such supplemental disability payments shall be payable from the Company's general assets or, if the Company so elects, from a supplemental disability policy purchased by the Company.

"Separation from Service" means your separation from service with Quaker Houghton and its affiliates within the meaning of Treas. Reg. §1.409A-1(h) or any successor thereto.

"Cause" means your employment with Quaker Houghton has been terminated by reason of (i) your willful and material breach of this Agreement (after having received notice thereof and a reasonable opportunity to cure or correct) or the Company's policies, (ii) dishonesty, fraud, willful malfeasance, gross negligence, or other gross misconduct, in each case relating to the performance of your duties hereunder which is materially injurious to Quaker Houghton, or (iii) conviction of or plea of guilty or nolo contendere to a felony.

"Payment Date" means (x) the 60th day after your Separation from Service or (y) if you are a specified employee (as defined in Treas. Reg. §1.409A-1(i)) as of the date of your Separation from Service, and the severance described in subsection (b) is deferred compensation subject to section 409A of the Code, the first business day of the seventh month following the month in which your Separation from Service occurs. If the Payment Date is described in clause (y), the amount paid on the Payment Date shall include all monthly installments that would have been paid earlier had clause (y) not been applicable, plus interest at the Wall Street Journal Prime Rate published in the Wall Street Journal on the date of your Separation from Service (or the previous business day if such day is not a business day), for the period from the date payment would have been made had clause (y) not been applicable through the date payment is made.

"Release" means a release (in a form satisfactory to Quaker Houghton) of any and all claims against Quaker Houghton and all related parties with respect to all matters arising out of your employment with Quaker Houghton, or the termination thereof (other than for claims for any entitlements under the terms of this Agreement or any plans or programs of Quaker Houghton under which you have accrued a benefit) that Quaker Houghton provides to you no later than ten days after your Separation from Service. If a release is not provided to you within this time period, the severance shall be paid even if you do not sign a release.

9. Indemnification

Quaker Houghton shall defend you and hold you harmless to the fullest extent permitted by applicable law in connection with any claim, action, suit, investigation or proceeding arising out of or relating to performance by you of services for, or actions of you as a director, officer, or employee of Quaker Houghton or any parent, subsidiary or affiliate of Quaker Houghton, or of any other person or enterprise at Quaker Houghton's request. Expenses incurred by you in defending such a claim, action, suit or investigation or criminal proceeding shall be paid by Quaker Houghton in advance of the final disposition thereof upon the receipt by the Company of an undertaking by or on your behalf to repay said amounts unless it shall ultimately be determined that you are entitled to be indemnified hereunder; provided, however, that this shall not apply to a nonderivative action commenced by Quaker Houghton against you.

10. Governing Law.

The provisions of this Agreement shall be construed in accordance with the laws of the Commonwealth of Pennsylvania without reference to principles of conflicts of laws.

11. Miscellaneous

This Agreement and the Change in Control Agreement to which you are a party, constitute the entire integrated agreement concerning the subjects covered herein. In case any provision of this Agreement shall be invalid, illegal, or otherwise unenforceable, the validity, legality, and enforceability of the remaining provisions shall not thereby be affected or impaired. You may not assign any of your rights or obligations under this Agreement without Quaker Houghton's prior written consent. Quaker Houghton may assign this Agreement in its discretion, including to any affiliate or upon a sale of assets or equity, merger, or other corporate transaction; provided that Quaker Houghton obtains the assignee's written commitment to honor the terms and conditions contained herein. This Agreement shall be governed by, and construed in accordance with, the laws of the Commonwealth of Pennsylvania without regard to any conflict of laws. This Agreement shall be binding upon you, your heirs, executors, and administrators and shall inure to the benefit of Quaker Houghton as well as its successors and assigns. In the event of any overlap in the restrictions contained herein, including Sections 4 and/or 5 above, with similar restrictions contained in any other agreement, such restrictions shall be read together so as to provide the broadest restriction possible.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

WITNESS:	QUAKER CHEMICAL CORPORATION DBA QUAKER HOUGHTON
/s/ Robert T. Traub	/s/ Melissa Leneis
Senior Vice President, General Counsel and Corporate Secretary	Senior Vice President, Chief Human Resources Officer
WITNESS:	
/s/ Robert T. Traub	/s/ Anna Ransley
Senior Vice President, General Counsel and Corporate Secretary	Signature

ADDENDUM 1

Base Salary:

Your salary will be payable on a bi-weekly basis at the rate of $17,307.69, which is annualized at $450,000. You will be eligible for your next salary increase review in 2024.

Annual and Long-Term Bonuses:

For your position, you are eligible to participate in the full year 2023 Annual Incentive Plan ("AIP") with a target award percentage of 55% of your base salary, dependent upon Quaker Houghton's financial results, organizational context, and individual performance.

You will be eligible to participate in the 2023-2025 Long-Term Incentive Plan ("LTIP") for the full year of 2023. Your award for the 2023-2025 performance period includes a mix of time-based restricted stock (RSA's) (40%) and target performance stock units (PSU's) (60%) of the total award. The value at a target level is $450,000.

The PSU's are for a three-year performance period and the RSA'S will vest ratably over a 3-year period.

Annual LTI awards are discretionary and require approval from the Compensation and Human Resources Committee and are granted either on the 15th of the month of hire or on the 15th of the following month.

Special One-time Grant:

An equity sign-on award of $200,000 RSA's which will vest in its entirety on the two (2) year anniversary of the grant date.

Such award is subject to a claw-back and must be repaid to the Company if you voluntarily terminate your employment with Quaker Houghton or are terminated for cause within the three (3) years of your tenure with Quaker Houghton.

LTI awards are discretionary and require approval from the Compensation and Human Resources Committee and are granted either on the 15th of the month of hire or on the 15th of the following month.

Sign-On Cash Bonus

$150,000 will be provided as a total cash sign on payable in two installments as follows:

1. $75,000 as soon as administratively possible after 30 days of employment; and
2. $75,000 as soon as administratively possible after 12 months of employment.

If you voluntarily resign or are terminated for cause prior to completing 18 months of employment with the company, you agree to reimburse Quaker Houghton for the full amount of the payment(s) that were made during the previous 18-month period.

Financial Wellbeing and Financial Planning:

This benefit provides you support for eligible expenses that you incur for financial and tax planning activities. Quaker Houghton partners with Goldman Sachs Ayco to assist you with these services. The cost of the Ayco's Tax and Financial Planning service is up to $15,500 annually and will be fully paid for by Quaker Houghton. You are only responsible for the taxes on any imputed income. The decision to use Goldman Sachs Ayco or another provider is your choice. Should you elect a different provider, you are eligible for a reimbursement on eligible expenses up to $3,500.

Either benefit option is provided on a calendar year basis and is a taxable benefit. You must be employed by Quaker Houghton when the services are provided to receive this reimbursement. Upon separation from service following retirement, company-initiated termination without cause, long-term disability or death of a participating executive, Quaker Houghton will pay for the benefit for the year of the separation from service and one-year post separation from service. In the event of a change in control, Quaker Houghton will pay for the benefit for the year in which the change in control occurs and for one calendar year thereafter.

Executive Medical Benefits:

In partnership with external medical providers, we will provide proactive and preventative healthcare offerings in 3 available options to each of you and your spouse (should you choose): Executive Physical (in partnership with Penn Medicine), Executive Medical Concierge services (in partnership with Penn Medicine OR MDVIP), or Executive Medical reimbursement coverage through a provider of your choice (ex. Mayo Clinic). Quaker Houghton will cover the financial cost of these offerings.

Other Benefits:

Quaker Houghton offers a Flexible Benefits Program that is subject to change. This gives you the opportunity to choose from a variety of options creating a customized benefits package. The following benefits are currently part of the program. In each of these areas, you are offered a range of options so you may choose the ones that make the most sense for your personal situation.

- Medical
- Dental
- Life & AD&D Insurance
- Long-term Disability
- Health Care and Dependent Care Flexible Spending Accounts (FSAs)
- Retirement Savings Plan (401K)

Exhibit 10.2

CHANGE IN CONTROL AGREEMENT

THIS AGREEMENT, dated July 31, 2023 between QUAKER CHEMICAL CORPORATION, d/b/a QUAKER HOUGHTON, a Pennsylvania corporation (the "Company") and ANNA RANSLEY (the "Manager"),

W I T N E S S E T H T H A T

WHEREAS, the Board of Directors of the Company has determined that it is in the best interests of the Company and its shareholders that the Company and its subsidiaries be able to attract, retain, and motivate highly qualified management personnel and, in particular, that they be assured of continuity of management in the event of any actual or threatened change in control of the Company; and

WHEREAS, the Board of Directors of the Company believes that the execution by the Company of change in control agreements with certain management personnel, including the Manager, is an important factor in achieving this desired end;

NOW, THEREFORE, IN CONSIDERATION of the mutual obligations and agreements contained herein and intending to be legally bound hereby, the Manager and the Company agree that the Change in Control Agreement is amended and restated, as follows:

1. Term of Agreement.

This Agreement shall become effective on your start date with the Company (the "Effective Date"), and shall continue in effect through December 31, 2023, provided, however, that the term of this Agreement shall automatically be extended for successive one-year periods thereafter, unless, not later than eighteen (18) months preceding the calendar year for which the term would otherwise automatically extend, the Company shall have given written notice to the Manager of intention not to extend this Agreement for an additional year, in which event this Agreement shall continue in effect until December 31 of the calendar year immediately preceding the calendar year for which the term would have otherwise automatically extended. Notwithstanding any such notice not to extend, if a Change in Control (as defined in Section 2) occurs during the original or extended term of this Agreement, this Agreement shall remain in effect after a Change in Control until all obligations of the parties hereto under this Agreement shall have been satisfied.

2. Change in Control.

As used in this Agreement, a "Change in Control" of the Company shall be deemed to have occurred if:

(a) Any person (a "Person"), as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (other than (i) the Company and/or its wholly owned subsidiaries; (ii) any ESOP or other employee benefit plan of the Company and any trustee or other fiduciary in such capacity holding securities under such plan; (iii) any corporation owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company; or (iv) any other Person who, within the one year prior to the event which would otherwise be a Change in Control, is an executive officer of the Company or any group of Persons of which he voluntarily is a part), is or becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 30% or more of the combined voting power of the Company's then outstanding securities or such lesser percentage of voting power, but not less than 15%, as determined by the members of the Board of Directors of the Company who are independent directors (as defined in the New York Stock Exchange, Inc. Listed Company Manual);

(b) During any two-year period after the Effective Date, Directors of the Company in office at the beginning of such period plus any new Director (other than a Director designated by a Person who has entered into an agreement with the Company to effect a transaction within the purview of subsections (a) or (c)) whose election by the Board of Directors of the Company or whose nomination for election by the Company's shareholders was approved by a vote of at least two-thirds of the Directors then still in office who either were Directors at the beginning of the period or whose election or nomination for election was previously so approved shall cease for any reason to constitute at least a majority of the Board;

(c) The consummation of (i) any consolidation or merger of the Company in which the Company is not the continuing or surviving corporation or pursuant to which the Company's voting common shares (the "Common Shares") would be converted into cash, securities, and/or other property, other than a merger of the Company in which holders of Common Shares immediately prior to the merger have the same proportionate ownership of voting shares of the surviving corporation immediately after the merger as they had in the Common Shares immediately before; or (ii) any sale, lease, exchange, or other transfer (in one transaction or a series of related transactions) of all or substantially all the assets or earning power of the Company; or

(d) The Company's shareholders or the Company's Board of Directors shall approve the liquidation or dissolution of the Company.

3. Entitlement to Change in Control Benefits; Certain Definitions.

The Manager shall be entitled to the benefits provided in this Agreement in the event the Manager has a Separation from Service under the circumstances described in (a) below (a "Covered Termination"), provided the Manager executes and does not revoke a Release (as defined below), if any, provided by the Company.

(a) A Covered Termination shall have occurred in the event the Manager's employment with the Company or its affiliates is terminated within two (2) years following a Change in Control by:

(i) The Company or its affiliates without Cause (as defined below); or

(ii) Resignation of the Manager for Good Reason (as defined below).

The Manager shall have no rights to any payments or benefits under this Agreement in the event the Manager's employment with the Company and its affiliates is terminated (i) as a result of death or Disability (as defined below), or (ii) by the Company or its affiliates for Cause. In the event the Manager's employment is terminated for any reason prior to a Change in Control, the Manager shall have no rights to any payments or benefits under this Agreement and, after any such termination, this Agreement shall be of no further force or effect.

"Cause" shall mean (i) the Manager's willful and material breach of the employment agreement, if any, between the Manager and the Company (after having received notice thereof and a reasonable opportunity to cure or correct), (ii) dishonesty, fraud, willful malfeasance, gross negligence, or other gross misconduct, in each case relating to the performance of the Manager's employment with the Company or its affiliates which is materially injurious to the Company, or (iii) conviction of or plea of guilty to a felony, such Cause to be determined, in each case, by a resolution approved by at least two-thirds of the Directors of the Company after having afforded the Manager a reasonable opportunity to appear before the Board of Directors of the Company and present her position.

"Code" shall mean the Internal Revenue Code of 1986, as amended, together with any applicable regulations thereunder.

"Disability" shall mean covered total and permanent disability as defined in the long-term disability plan maintained by the Company for employees generally or, if the Company does not maintain such a plan, the long-term disability plan most recently maintained by the Company for employees generally.

"Good Reason" shall mean any of the following actions without the Manager's consent, other than due to the Manager's death or Disability: (i) any reduction in the Manager's base salary from that provided immediately before the Covered Termination or, if higher, immediately before the Change in Control; (ii) any reduction in the Manager's bonus opportunity (including cash and noncash incentives) or increase in the goals or standards required to accrue that opportunity, as compared to the opportunity and goals or standards in effect immediately before the Change in Control; (iii) a material adverse change in the nature or scope of the Manager's authorities, powers, functions, or duties from those in effect immediately before the Change in Control; (iv) a reduction in the Manager's benefits from those provided immediately before the Change in Control, disregarding any reduction under a plan or program covering employees generally that applies to all employees covered by the plan or program; or (v) the Manager being required to accept a primary employment location which is more than twenty-five (25) miles from the location at which he primarily was employed during the ninety (90) day period prior to a Change in Control.

"Payment Date" shall mean the 60th day after the Manager's Separation from Service, subject to Section 9.

"Release" shall mean a release (in a form satisfactory to the Company) of any and all claims against the Company and all related parties with respect to all matters arising out of the Manager's employment by the Company and its affiliates, or the termination thereof (other than claims for any entitlements under the terms of this Agreement, under any employment agreement between the Manager and the Company, or under any plans or programs of the Company under which the Manager has accrued a benefit) that the Company provides to the Manager no later than three days after the date of the Manager's Covered Termination. Notwithstanding any provision of this Agreement to the contrary, if the Company provides a Release to the Manager, the Manager shall not be entitled to any payments or benefits under this Agreement unless the Manager executes the Release within 45 days of the later of the date he receives the Release or the date of her Covered Termination, and the Manager does not revoke the Release.

"Separation from Service" shall mean the Manager's separation from service with the Company and its affiliates within the meaning of Treas. Reg. §1.409A-1(h) or any successor thereto.

"Specified Employee" shall mean the Manager if he is a specified employee as defined in Section 409A of the Code as of the date of her Separation from Service.

4. Severance Allowance.

(a) Amount of Severance Allowance. In the event of a Covered Termination, the Company shall pay or cause to be paid to the Manager in cash a severance allowance (the "Severance Allowance") equal to 1.5 (one and one-half) times the sum of the amounts determined in accordance with the following paragraphs (i) and (ii):

(i) An amount equivalent to the highest annualized base salary which the Manager was entitled to receive from the Company and its subsidiaries at any time during her employment prior to the Covered Termination; and

(ii) An amount equal to the average of the aggregate annual amounts paid to the Manager in the Applicable Three-Year Period under all applicable annual incentive compensation plans maintained by the Company and its affiliates (other than compensation relating to relocation expense; the grant, exercise, or settlement of stock options, restricted stock or performance incentive units or the sale or other disposition of shares received upon exercise or settlement of such awards); provided, however, that (x) in determining the average amount paid under the annual incentive plan during the Applicable Three-Year Period there shall be excluded any year in which no amounts were paid to the Manager under that plan; and (y) there shall be excluded from such calculation any amounts paid to the Manager under any such incentive compensation plan as a result of the acceleration of such payments under such plan due to termination of the plan, a Change in Control, or a similar occurrence. The Applicable Three-Year Period shall be (A) if the Manager has received an annual incentive compensation plan payment in the calendar year of her Covered Termination, the calendar year in which such Covered Termination occurs and the two preceding calendar years, or (B) in any other case, the three calendar years preceding the calendar year in which the Manager's Covered Termination occurs; provided, however, that the Applicable Three-Year Period shall be determined by substituting "Change In Control" for "Covered Termination" if such substitution results in a higher amount under this subsection (ii).

In no event shall any retention bonus or change in control or success fee be taken into account when determining the amount of the Severance Allowance hereunder.

(b) Payment of Severance Allowance. The Severance Allowance shall be paid to the Manager in a lump sum on the Payment Date if the applicable Change in Control is also a change in control event as defined in Treas. Reg. §1.409A-3(i)(5) (or any successor thereto). In any other case, the Severance Allowance shall be paid in eighteen monthly installments commencing on the Payment Date, each of which is equal to one eighteenth (1/18th) of the amount of the Severance Allowance determined under Section 4(a), which are treated as a right to a series of separate payments for purposes of Section 409A of the Code.

5. Outplacement and Welfare Benefits.

(a) Outplacement. Subject to Section 6, for a period of one year following a Covered Termination of the Manager, the Company shall make or cause to be made available to the Manager, at its expense, outplacement counseling and other outplacement services comparable to those available for the Company's senior managers prior to the Change in Control.

(b) Welfare Benefits. Subject to Section 6, for a period eighteen months following a Covered Termination of the Manager, the Manager and the Manager's dependents shall be entitled to participate in the Company's life, medical, and dental insurance plans at the Company's expense, in accordance with the terms of such plans at the time of such Covered Termination as if the Manager were still employed by the Company or its affiliates under this Agreement. If, however, life, medical, or dental insurance benefits are not paid or provided under any such plan to the Manager or her dependents because the Manager is no longer an employee of the Company or its subsidiaries, the Company itself shall, to the extent necessary, pay or otherwise provide for such benefits to the Manager and her dependents.

6. Effect of Other Employment.

In the event the Manager becomes employed (as defined below) during the period with respect to which benefits are continuing pursuant to Section 5: (a) the Manager shall notify the Company not later than the day such employment commences; and (b) the benefits provided for in Section 5 shall terminate as of the date of such employment. For the purposes of this Section 6, the Manager shall be deemed to have become "employed" by another entity or person only if the Manager becomes essentially a full-time employee of a person or an entity (not more than 30% of which is owned by the Manager and/or members of her family); and the Manager's "family" shall mean her parents, her siblings and their spouses, her children and their spouses, and the Manager's spouse and her parents and siblings. Nothing herein shall relieve the Company of its obligations for compensation or benefits accrued up to the time of termination provided for herein.

7. Other Payments and Benefits.

On the Payment Date, the Company shall pay or cause to be paid to the Manager the aggregate of: (a) the Manager's earned but unpaid base salary through the Covered Termination at the rate in effect on the date of the Covered Termination, or if higher, at the rate in effect at any time during the 90-day period preceding the Change in Control; (b) any unpaid bonus or annual incentive payable to the Manager in respect of the calendar year ending prior to the Covered Termination; (c) the pro rata portion of any and all unpaid bonuses and annual incentive awards for the calendar year in which the Covered Termination occurs, said pro rata portion to be calculated on the fractional portion (the numerator of said fraction being the number of days between January 1 and the date of the Covered Termination, and the denominator of which is 365) of the target bonuses or annual incentive awards for such calendar year; and (d) the pro rata portion of any and all awards under the Company's long term incentive plan for the performance period(s) in which the Covered Termination occurs, said pro rata portion to be calculated on the fractional portion (the numerator of said fraction being the number of days between the first day of the applicable performance period and the date of the Covered Termination, and the denominator of which is the total number of days in the applicable performance period) of the amount of the award which would have been payable had (i) the Covered Termination not occurred, and (ii) the target level of performance been achieved for the applicable performance period. The Manager shall be entitled to receive any other payments or benefits that the Manager is entitled to pursuant to the express terms of any compensation or benefit plan or arrangement of the Company or any of its affiliates; provided that: (x) the Severance Allowance (i) shall be in lieu of any severance payments to which the Manager might otherwise be entitled under the terms of any severance pay plan, policy, or arrangement maintained by the Company or the employment agreement, if any, between the Manager and the Company, and (ii) shall be credited against any severance payments to which the Manager may be entitled by statute; (y) any annual incentive described in subsection (b) or (c) shall decrease (or shall be decreased by), but not below zero, the amount of the annual incentive payable (or paid) with respect to the same calendar year under the Company's annual incentive plan (currently the 2023 Annual Incentive Plan); and (z) any amount described in subsection (d) shall decrease (or shall be decreased by), but not below zero, the amount of the analogous performance award payable (or paid) with respect to the same performance period(s) under the Company's long term incentive plan(s) (currently the 2016 Long-Term Performance Incentive Plan).

8. Death After Covered Termination.

In the event the Manager dies after a Covered Termination occurs, (a) any payments due to the Manager under Section 4 and the first sentence of Section 7 and not paid prior to the Manager's death shall be made to the person or persons who may be designated by the Manager in writing or, in the event he fails to so designate, to the Manager's personal representatives, and (b) the Manager's spouse and dependents shall be eligible for the welfare benefits described in Section 5(b). Payments pursuant to subsection (a) shall be made on the later of (i) the date payment would have been made to the Manager without regard to Section 9, or (ii) the date of the Manager's death.

9. Certain Section 409A Rules.

(a) Specified Employee. Notwithstanding any provision of this Agreement to the contrary, if the Manager is a Specified Employee, any payment or benefit under this Agreement that constitutes deferred compensation subject to Section 409A of the Code and for which the payment event is Separation from Service shall not be made or provided before the date that is six months after the date of the Manager's Separation from Service. Any payment or benefit that is delayed pursuant to this Section 9 shall be made or provided on the first business day of the seventh month following the month in which the Manager's Separation from Service occurs. With respect to any cash payment delayed pursuant to this Section 9, the first payment shall include interest, at the Wall Street Journal Prime Rate published in the Wall Street Journal on the date of the Manager's Covered Termination (or the previous business day if such date is not a business day), for the period from the date the payment would have been made but for this Section 9 through the date payment is made. The provisions of this Section 9 shall apply only to the extent required to avoid the Manager's incurrence of any additional tax or interest under Section 409A of the Code.

(b) Reimbursement and In-Kind Benefits. Notwithstanding any provision of this Agreement to the contrary, with respect to in-kind benefits provided or expenses eligible for reimbursement under this Agreement which are subject to Section 409A of the Code, (i) the benefits provided or the amount of expenses eligible for reimbursement during any calendar year shall not affect the benefits provided or expenses eligible for reimbursement in any other calendar year, except as otherwise provided in Treas. Reg. §1.409A-3(i)(1)(iv)(B), and (ii) the reimbursement of an eligible expense shall be made as soon as practicable after the Manager requests such reimbursement (subject to Section 9(a)), but not later than the December 31 following the calendar year in which the expense was incurred.

(c) Interpretation and Construction. This Agreement is intended to comply with Section 409A of the Code and shall be administered, interpreted and construed in accordance therewith to avoid the imposition of additional tax under Section 409A of the Code.

10. Confidentiality and Noncompetition.

(a) Confidential Information. The Manager acknowledges that information concerning the method and conduct of the Company's (and any affiliate's) business, including, without limitation, strategic and marketing plans, budgets, corporate practices and procedures, financial statements, customer and supplier information, formulae, formulation information, application technology, manufacturing information, and laboratory test methods and all of the Company's (and any affiliate's) manuals, documents, notes, letters, records, and computer programs ("Proprietary Business Information"), are the sole and exclusive property of the Company (and/or the Company's affiliates, as the case may be) and are likely to constitute, contain or reveal trade secrets ("Trade Secrets") of the Company (and/or the Company's affiliate's, as the case may be). The term "Trade Secrets" as used herein does not include Proprietary Business Information that is known or becomes known to the public through no act or failure to act on the part of the Manager, or which can be clearly shown by written records to have been known by the Manager prior to the commencement of her employment with the Company.

(i) The Manager agrees that at no time during or following her employment with the Company will he use, divulge, or pass on, directly or through any other individual or entity, any Trade Secrets.

(ii) Upon termination of the Manager's employment with the Company regardless of the reason for the termination of the Manager's employment hereunder, or at any other time upon the Company's request, the Manager agrees to forthwith surrender to the Company any and all materials in her possession or control which constitute or contain any Proprietary Business Information.

(b) Noncompetition. The Manager agrees that during her employment and for a period of one (1) year thereafter, regardless of the reason for the termination of the Manager's employment, he will not:

(i) directly or indirectly, together or separately or with any third party, whether as an individual proprietor, partner, stockholder, officer, director, joint venturer, investor, or in any other capacity whatsoever actively engage in business or assist anyone or any firm in business as a manufacturer, seller, or distributor of specialty chemical products or chemical management services which are the same, like, similar to, or which compete with the products and services offered by the Company (or any of its affiliates);

(ii) directly or indirectly recruit, solicit or encourage any employee of the Company (or any of its affiliates) or otherwise induce such employee to leave the employ of the Company (or any of its affiliates) or to become an employee or otherwise be associated with her or any firm, corporation, business or other entity with which he is or may become associated; or

(iii) solicit, directly or indirectly, for himself or as agent or employee of any person, partnership, corporation, or other entity (other than for the Company), any then or former customer, supplier, or client of the Company with the intent of actively engaging in business which would cause competitive harm to the Company (or any of its affiliates).

(c) Severability. The Manager acknowledges and agrees that all of the foregoing restrictions are reasonable as to the period of time and scope. However, if any paragraph, sentence, clause, or other provision is held invalid or unenforceable by a court of competent and relevant jurisdiction, such provision shall be deemed to be modified in a manner consistent with the intent of such original provision so as to make it valid and enforceable, and this Agreement and the application of such provision to persons and circumstances other than those with respect to which it would be invalid or unenforceable shall not be affected thereby.

(d) Remedies. The Manager agrees and recognizes that in the event of a breach or threatened breach of the provisions of the restrictive covenants contained in this Section 10, the Company may suffer irreparable harm, and monetary damages may not be an adequate remedy. Therefore, if any breach occurs or is threatened, the Company shall be entitled to seek equitable remedies, including injunctive relief in any court of applicable jurisdiction notwithstanding the provisions of Section 12. In the event of any breach of the restrictive covenant contained in this Section 10, the term of the restrictive covenant specified herein shall be extended by a period of time equal to that period beginning on the date such violation commenced and ending when the activities constituting such violation cease. Furthermore, if a court or arbitration panel determines that the Manager has breached any of the provisions of this Section 10, the Company's obligations to pay amounts and continue the benefits under this Agreement to the Manager (and her dependents) shall immediately terminate.

11. Set-Off Mitigation.

Except as provided in Section 6, the Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any set-off, counterclaim, recoupment, defense, or other claim, right, or action which the Company may have against the Manager or others. In no event shall the Manager be obligated to seek other employment or take any other action by way of mitigation of the amounts payable to the Manager under any of the provisions of this Agreement.

12. Arbitration: Costs and Expenses of Enforcement.

(a) Arbitration. Except as otherwise provided in Sections 10(d) and 13, any controversy or claim arising out of or relating to this Agreement or the breach thereof which cannot promptly be resolved by the parties shall be promptly submitted to and settled exclusively by arbitration in the City of Philadelphia, Pennsylvania, in accordance with the laws of the Commonwealth of Pennsylvania by three arbitrators, one of whom shall be appointed by the Company, one by the Manager, and the third of whom shall be appointed by the first two arbitrators. The arbitration shall be conducted in accordance with the rules of the American Arbitration Association, except with respect to the selection of arbitrators which shall be as provided in this Section 12. Judgment upon the award rendered by the arbitrators may be entered in any court having jurisdiction thereof.

(b) Costs and Expenses. In the event that it shall be necessary or desirable for the Manager to retain legal counsel and/or incur other costs and expenses in connection with the enforcement of any and all of her rights under this Agreement at any time during her lifetime, the Company shall pay (or the Manager shall be entitled to recover from the Company, as the case may be) her reasonable attorneys' fees and costs and expenses in connection with the enforcement of her said rights (including those incurred in or related to any arbitration proceedings provided for in subsection (a) and the enforcement of any arbitration award in court), regardless of the final outcome.

13. Limitation on Payment Obligation.

(a) Definitions. For purposes of this Section 13, all terms capitalized but not otherwise defined herein shall have the meanings as set forth in Section 280G of the Code. In addition:

(i) the term "Parachute Payment" shall mean a payment described in Section 280G(b)(2)(A) or Section 280G(b)(2)(B) of the Code (including, but not limited to, any stock option rights, stock grants, and other cash and noncash compensation amounts that are treated as payments under either such section) and not excluded under Section 280G(b)(4)(A) or Section 280G(b)(6) of the Code;

(ii) the term "Reasonable Compensation" shall mean reasonable compensation for prior personal services as defined in Section 280G(b)(4)(B) of the Code and subject to the requirement that any such reasonable compensation must be established by clear and convincing evidence; and

(iii) the portion of the "Base Amount" and the amount of "Reasonable Compensation" allocable to any "Parachute Payment" shall be determined in accordance with Section 280G(b)(3) and (4) of the Code.

(b) Limitation. Notwithstanding any other provision of this Agreement, Parachute Payments to be made to or for the benefit of the Manager but for this subsection (b), whether pursuant to this Agreement or otherwise, shall be reduced if and to the extent necessary so that the aggregate Present Value of all such Parachute Payments shall be at least one dollar ($1.00) less than the greater of (i) three times the Manager's Base Amount and (ii) the aggregate Reasonable Compensation allocable to such Parachute Payments. Any reduction in Parachute Payments caused by reason of this subsection (b) shall be applied in the manner least economically detrimental to the Manager. In the event reduction of two or more types of payments would be economically equivalent, the reduction shall be applied pro-rata to such types of payments.

This subsection (b) shall be interpreted and applied to limit the amounts otherwise payable to the Manager under this Agreement or otherwise only to the extent required to avoid any material risk of the imposition of excise taxes on the Manager under Section 4999 of the Code or the disallowance of a deduction to the Company under Section 280G(a) of the Code. In the making of any such interpretation and application, the Manager shall be presumed to be a disqualified individual for purposes of applying the limitations set forth in this subsection (b) without regard to whether or not the Manager meets the definition of disqualified individual set forth in Section 280G(c) of the Code. In the event that the Manager and the Company are unable to agree as to the application of this subsection (b), the Company's independent auditors shall select independent tax counsel to determine the amount of such limits. Such selection of tax counsel shall be subject to the Manager's consent, provided that the Manager shall not unreasonably withhold her consent. The determination of such tax counsel under this Section 13 shall be final and binding upon the Manager and the Company.

(c) Illegal Payments. Notwithstanding any other provision of this Agreement, no payment shall be made hereunder to or for the benefit of the Manager if and to the extent that such payments are determined to be illegal.

14. Notices.

Any notices, requests, demands, and other communications provided for by this Agreement shall be sufficient if in writing, and if hand delivered or if sent by registered or certified mail, if to the Manager, at the last address he had filed in writing with the Company or if to the Company, at its principal executive offices. Notices, requests, etc. shall be effective when actually received by the addressee or at such address.

15. Withholding.

Notwithstanding any provision of this Agreement to the contrary, the Company may, to the extent required by law, withhold applicable Federal, state and local income and other taxes from any payments due to the Manager hereunder.

16. Assignment and Benefit.

(a) This Agreement is personal to the Manager and shall not be assignable by the Manager, by operation of law, or otherwise without the prior written consent of the Company otherwise than by will or the laws of descent and distribution. This Agreement shall inure to the benefit of and be enforceable by the Manager's heirs and legal representatives.

(b) This Agreement shall inure to the benefit of and be binding upon the Company and its successors and assigns, including, without limitation, any subsidiary of the Company to which the Company may assign any of its rights hereunder; provided, however, that no assignment of this Agreement by the Company, by operation of law, or otherwise shall relieve it of its obligations hereunder except an assignment of this Agreement to, and its assumption by, a successor pursuant to subsection (c).

(c) The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation, operation of law, or otherwise) to all or substantially all of the business and/or assets of the Company to assume expressly and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place, but, irrespective of any such assignment or assumption, this Agreement shall inure to the benefit of and be binding upon such a successor. As used in this Agreement, "Company" shall mean the Company as hereinbefore defined and any successor to its business and/or assets as aforesaid.

17. Governing Law.

The provisions of this Agreement shall be construed in accordance with the laws of the Commonwealth of Pennsylvania without reference to principles of conflicts of laws.

18. Entire Agreement; Amendment.

(a) Except for the change in control provisions set forth in the Company's annual incentive plan and long-term incentive plans, this Agreement represents the entire agreement and understanding of the parties with respect to the subject matter hereof. The Manager understands and acknowledges that the Company's severance plan, annual incentive plan and long-term incentive plans are hereby amended with respect to the Manager to avoid duplication of benefits, as provided in Section 7.

(b) The Company reserves the right to unilaterally amend this Agreement without the consent of the Manager to the extent the Compensation/Management Development Committee of the Company's Board of Directors (in its sole discretion) determines is necessary or appropriate to avoid the additional tax under Section 409A(a)(1)(B) of the Code; otherwise, this Agreement may not be altered or amended except by an agreement in writing executed by the Company and the Manager.

19. No Waiver.

The failure to insist upon strict compliance with any provision of this Agreement by any party shall not be deemed to be a waiver of any future noncompliance with such provision or of noncompliance with any other provision.

20. Severability.

In the event that any provision or portion of this Agreement shall be determined to be invalid or unenforceable for any reason, the remaining provisions of this Agreement shall be unaffected thereby and shall remain in full force and effect.

21. <u>Indemnification</u>.

The Company shall defend and hold the Manager harmless to the fullest extent permitted by applicable law in connection with any claim, action, suit, investigation or proceeding arising out of or relating to performance by the Manager of services for, or action of the Manager as a director, officer or employee of the Company or any parent, subsidiary or affiliate of the Company, or of any other person or enterprise at the Company's request. Expenses incurred by the Manager in defending such a claim, action, suit or investigation or criminal proceeding shall be paid by the Company in advance of the final disposition thereof upon the receipt by the Company of an undertaking by or on behalf of the Manager to repay said amount unless it shall ultimately be determined that the Manager is entitled to be indemnified hereunder; provided, however, that this shall not apply to a nonderivative action commenced by the Company against the Manager.

IN WITNESS WHEREOF, the Manager has hereunto set her hand and, pursuant to the authorization from its Board of Directors, the Company has caused these presents to be executed in its name and on its behalf and attested by its Secretary or Assistant Secretary, all as of the day and year first above written.

MANAGER

/s/ Anna Ransley
July 31, 2023

QUAKER CHEMICAL CORPORATION

By: /s/ Melissa Leneis
July 31, 2023

Title: Senior Vice President, Chief Human Resources Officer

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER OF THE COMPANY PURSUANT TO RULE 13a 14(a) OF THE SECURITIES EXCHANGE ACT OF 1934

I, Andrew E. Tometich, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Quaker Chemical 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 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 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: August 1, 2023

/s/ Andrew E. Tometich

Andrew E. Tometich
Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER OF THE COMPANY PURSUANT TO RULE 13a-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934

I, Shane W. Hostetter, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Quaker Chemical 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 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 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: August 1, 2023

/s/ Shane W. Hostetter

Shane W. Hostetter

Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350

The undersigned hereby certifies that the Form 10-Q Quarterly Report of Quaker Chemical Corporation (the “Company”) for the quarterly period ended June 30, 2023 filed with the Securities and Exchange Commission (the “Report”) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 1, 2023

/s/ Andrew E. Tometich

Andrew E. Tometich

Chief Executive Officer of Quaker Chemical Corporation

EXHIBIT 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350

The undersigned hereby certifies that the Form 10-Q Quarterly Report of Quaker Chemical Corporation (the "Company") for the quarterly period ended June 30, 2023 filed with the Securities and Exchange Commission (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 1, 2023

/s/ Shane W. Hostetter

Shane W. Hostetter

Chief Financial Officer of Quaker Chemical Corporation