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

FORM 10-Q

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

For the quarterly period ended June 30, 2022

OR

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

For the transition period from ______ to ______

Commission file number 001-12019

QUAKER CHEMICAL CORPORATION
(Exact name of registrant as specified in its charter)

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

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

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

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐	Smaller reporting company ☐
Emerging growth company ☐	

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

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

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

Number of Shares of Common Stock Outstanding on July 31, 2022	**17,929,045**

QUAKER CHEMICAL CORPORATION AND CONSOLIDATED SUBSIDIARIES

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PART I
FINANCIAL INFORMATION

Item 1. Financial Statements (Unaudited).

Quaker Chemical Corporation

Condensed Consolidated Statements of Income
(Dollars in thousands, except per share data)

	Unaudited			
	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Net sales	$ 492,388	$ 435,262	$ 966,559	$ 865,045
Cost of goods sold (excluding amortization expense - See Note 13)	342,824	280,811	670,924	554,400
Gross profit	149,564	154,451	295,635	310,645
Selling, general and administrative expenses	115,830	108,679	227,625	212,989
Restructuring and related (credits) charges, net	(1)	298	819	1,473
Combination, integration and other acquisition-related expenses	1,832	6,658	5,885	12,473
Operating income	31,903	38,816	61,306	83,710
Other (expense) income, net	(8,399)	14,010	(10,605)	18,697
Interest expense, net	(6,494)	(5,618)	(11,839)	(11,088)
Income before taxes and equity in net (loss) income of associated companies	17,010	47,208	38,862	91,319
Taxes on income before equity in net (loss) income of associated companies	1,374	15,218	4,240	25,907
Income before equity in net (loss) income of associated companies	15,636	31,990	34,622	65,412
Equity in net (loss) income of associated companies	(1,265)	1,610	(430)	6,820
Net income	14,371	33,600	34,192	72,232
Less: Net income attributable to noncontrolling interest	28	30	33	47
Net income attributable to Quaker Chemical Corporation	$ 14,343	$ 33,570	$ 34,159	$ 72,185
Per share data:				
Net income attributable to Quaker Chemical Corporation common shareholders – basic	$ 0.80	$ 1.88	$ 1.91	$ 4.04
Net income attributable to Quaker Chemical Corporation common shareholders – diluted	$ 0.80	$ 1.88	$ 1.91	$ 4.03
Dividends declared	$ 0.415	$ 0.395	$ 0.830	$ 0.790

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

Quaker Chemical Corporation

Condensed Consolidated Statements of Comprehensive Income
(Dollars in thousands)

	Unaudited			
	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Net income	$ 14,371	$ 33,600	$ 34,192	$ 72,232
Other comprehensive (loss) income, net of tax				
Currency translation adjustments	(76,433)	16,165	(83,299)	(9,296)
Defined benefit retirement plans	1,407	397	1,903	1,689
Current period change in fair value of derivatives	575	452	1,675	1,014
Unrealized (loss) gain on available-for-sale securities	(567)	279	(1,567)	(2,746)
Other comprehensive (loss) income	(75,018)	17,293	(81,288)	(9,339)
Comprehensive (loss) income	(60,647)	50,893	(47,096)	62,893
Less: Comprehensive income (loss) attributable to noncontrolling interest	5	(38)	(1)	(53)
Comprehensive (loss) income attributable to Quaker Chemical Corporation	$ (60,642)	$ 50,855	$ (47,097)	$ 62,840

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

Quaker Chemical Corporation

Condensed Consolidated Balance Sheets
(Dollars in thousands, except par value)

	Unaudited	
	June 30, 2022	**December 31, 2021**
ASSETS		
Current assets		
Cash and cash equivalents	$ 202,348	$ 165,176
Accounts receivable, net	465,352	430,676
Inventories		
Raw materials and supplies	163,055	129,382
Work-in-process and finished goods	150,387	135,149
Prepaid expenses and other current assets	64,674	59,871
Total current assets	1,045,816	920,254
Property, plant and equipment, at cost	432,068	434,344
Less: Accumulated depreciation	(239,571)	(236,824)
Property, plant and equipment, net	192,497	197,520
Right of use lease assets	36,317	36,635
Goodwill	610,167	631,194
Other intangible assets, net	962,580	1,027,782
Investments in associated companies	83,678	95,278
Deferred tax assets	10,897	16,138
Other non-current assets	28,804	30,959
Total assets	$ 2,970,756	$ 2,955,760
LIABILITIES AND EQUITY		
Current liabilities		
Short-term borrowings and current portion of long-term debt	$ 14,485	$ 56,935
Accounts payable	246,345	226,656
Dividends payable	7,437	7,427
Accrued compensation	29,359	38,197
Accrued restructuring	3,812	4,087
Accrued pension and postretirement benefits	1,541	1,548
Other accrued liabilities	97,746	95,617
Total current liabilities	400,725	430,467
Long-term debt	972,369	836,412
Long-term lease liabilities	25,695	26,335
Deferred tax liabilities	156,468	179,025
Non-current accrued pension and postretirement benefits	42,755	45,984
Other non-current liabilities	42,178	49,615
Total liabilities	1,640,190	1,567,838
Commitments and contingencies (Note 18)		
Equity		
Common stock $1 par value; authorized 30,000,000 shares; issued and outstanding 2022 – 17,919,750 shares; 2021 – 17,897,033 shares	17,920	17,897
Capital in excess of par value	921,642	917,053
Retained earnings	535,621	516,334
Accumulated other comprehensive loss	(145,246)	(63,990)
Total Quaker shareholders' equity	1,329,937	1,387,294
Noncontrolling interest	629	628
Total equity	1,330,566	1,387,922
Total liabilities and equity	$ 2,970,756	$ 2,955,760

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

Quaker Chemical Corporation

Condensed Consolidated Statements of Cash Flows
(Dollars in thousands)

	Unaudited Six Months Ended June 30, 2022	2021
Cash flows from operating activities		
Net income	$ 34,192	$ 72,232
Adjustments to reconcile net income to net cash used in operating activities:		
Amortization of debt issuance costs	2,236	2,375
Depreciation and amortization	41,036	44,188
Equity in undistributed earnings of associated companies, net of dividends	3,400	(6,715)
Acquisition-related fair value adjustments related to inventory	—	801
Deferred compensation, deferred taxes and other, net	(10,223)	(13,849)
Share-based compensation	5,433	6,134
Loss on extinguishment of debt	5,246	—
Loss (gain) on disposal of property, plant, equipment and other assets	15	(5,356)
Combination and other acquisition-related expenses, net of payments	(3,880)	(2,305)
Restructuring and related charges	819	1,473
Pension and other postretirement benefits	(2,269)	(2,223)
(Decrease) increase in cash from changes in current assets and current liabilities, net of acquisitions:		
Accounts receivable	(51,944)	(47,252)
Inventories	(58,427)	(57,020)
Prepaid expenses and other current assets	(5,558)	(20,111)
Change in restructuring liabilities	(797)	(4,214)
Accounts payable and accrued liabilities	32,298	22,274
Net cash used in operating activities	(8,423)	(9,568)
Cash flows from investing activities		
Investments in property, plant and equipment	(15,138)	(6,974)
Payments related to acquisitions, net of cash acquired	(9,383)	(29,424)
Proceeds from disposition of assets	85	14,744
Net cash used in investing activities	(24,436)	(21,654)
Cash flows from financing activities		
Payments of long-term debt	(668,500)	(19,065)
Proceeds from long-term debt	750,000	—
Borrowings on revolving credit facilities, net	16,703	29,433
Repayments on other debt, net	(155)	(219)
Financing-related debt issuance costs	(3,734)	—
Dividends paid	(14,862)	(14,113)
Stock options exercised, other	(821)	(416)
Net cash provided by (used in) financing activities	78,631	(4,380)
Effect of foreign exchange rate changes on cash	(8,600)	(683)
Net increase (decrease) in cash and cash equivalents	37,172	(36,285)
Cash and cash equivalents at the beginning of the period	165,176	181,895
Cash and cash equivalents at the end of the period	$ 202,348	$ 145,610

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

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

	Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Loss	Noncontrolling Interest	Total
Balance at December 31, 2020	$ 17,851	$ 905,171	$ 423,940	$ (26,598)	$ 550	$ 1,320,914
Net income	—	—	38,615	—	17	38,632
Amounts reported in other comprehensive loss	—	—	—	(26,630)	(2)	(26,632)
Dividends ($0.395 per share)	—	—	(7,062)	—	—	(7,062)
Share issuance and equity-based compensation plans	24	3,577	—	—	—	3,601
Balance at March 31, 2021	$ 17,875	$ 908,748	$ 455,493	$ (53,228)	$ 565	$ 1,329,453
Net income	—	—	33,570	—	30	33,600
Amounts reported in other comprehensive gain	—	—	—	17,285	8	17,293
Dividends ($0.395 per share)	—	—	(7,062)	—	—	(7,062)
Share issuance and equity-based compensation plans	3	2,114	—	—	—	2,117
Balance at June 30, 2021	$ 17,878	$ 910,862	$ 482,001	$ (35,943)	$ 603	$ 1,375,401
Balance at 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	—	—	—	(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 at 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 at June 30, 2022	$ 17,920	$ 921,642	$ 535,621	$ (145,246)	$ 629	$ 1,330,566

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

Note 1 – Basis of Presentation and Description of Business

Basis of Presentation

As used in these Notes to Condensed Consolidated Financial Statements of this Quarterly Report on Form 10-Q for the period ended June 30, 2022 (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. As used in these Notes to Condensed Consolidated Financial Statements, the "Combination" refers to the legacy Quaker combination with Houghton International, Inc. ("Houghton"). 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, 2022 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, 2021 (the "2021 Form 10-K").

Description of Business

The Company was organized in 1918, incorporated as a Pennsylvania business corporation in 1930, and in August 2019 completed the Combination with Houghton to form Quaker Houghton. 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, can, 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 throughout its four segments: Americas; Europe, Middle East and Africa ("EMEA"); Asia/Pacific; and Global Specialty Businesses.

Hyper-inflationary economies

Based on various indices or index compilations being used to monitor inflation in Argentina as well as economic instability, effective July 1, 2018, Argentina's economy was considered hyper-inflationary under U.S. GAAP. As of, and for the three and six months ended June 30, 2022, the Company's Argentine subsidiaries represented less than 1% of the Company's consolidated total assets and net sales, respectively. During the three and six months ended June 30, 2022, the Company recorded less than $ 0.1 million and $0.2 million, respectively, of remeasurement losses associated with the applicable currency conversions related to Argentina. Comparatively, during the three and six months ended June 30, 2021, the Company recorded $0.1 million and $0.3 million, respectively, of remeasurement losses associated with the applicable currency conversions related to Argentina. These losses were recorded within foreign exchange losses, net, which is a component of other (expense) income, net, in the Company's Condensed Consolidated Statements of Income.

Note 2 – Business Acquisitions

2022 Acquisitions

In January 2022, the Company acquired a business that provides pickling inhibitor technologies for the steel industry, drawing lubricants and stamping oil for metalworking, and various other lubrication, rust preventative, and cleaner applications, for its 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. The Company allocated $5.6 million of the purchase price to intangible assets, comprised of $5.1 million of customer relationships to be amortized over 14 years; and $0.5 million of existing product technologies to be amortized over 14 years. In addition, the Company recorded $1.8 million of goodwill related to expected value not allocated to other acquired assets, all of which is expected to be tax deductible in various jurisdictions in which the Company operates.

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, for its Global Specialty Businesses reportable segment for approximately 1.2 million EUR or approximately $1.4 million. This business expands the Company's geographic presence in Germany as well as broadens its product offerings and service capabilities within its existing impregnation business.

The results of operations of the 2022 acquisitions subsequent to the respective acquisition dates are included in the unaudited Condensed Consolidated Statements of Income for the six month period ended June 30, 2022. Applicable transaction expenses associated with these acquisitions are included in Combination, integration and other acquisition-related expenses in the Company's unaudited Condensed Consolidated Statements of Income. Certain pro forma and other information is not presented, as the operations of the acquisitions are not considered material to the overall operations of the Company for the periods presented.

Previous Acquisitions

In November 2021, the Company acquired Baron Industries ("Baron"), a privately held Company that provides vacuum impregnation services of castings, powder metals and electrical components for its Global Specialty Businesses 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 initially estimated at $3.9 million that are payable at different times from 2022 through 2025. The earn-out provisions could total a maximum of $4.5 million. The Company allocated $8.0 million of the purchase price to intangible assets, $1.1 million of property, plant and equipment and $1.5 million of other assets acquired net of liabilities assumed, which includes $0.3 million of cash acquired. In addition, the Company recorded $0.4 million of goodwill, all of which is expected to be tax deductible. Intangible assets comprised $7.2 million of customer relationships to be amortized over 15 years; and $0.8 million of existing product technology to be amortized over 13 years.

In November 2021, the Company acquired a business that provides hydraulic fluids, coolants, cleaners, and rust preventative oils in Turkey for its EMEA reportable segment for 3.2 million EUR or approximately $3.7 million.

In September 2021, the Company acquired the remaining interest in Grindaix-GmbH ("Grindaix"), a Germany-based, high-tech provider of coolant control and delivery systems for its Global Specialty Businesses reportable segment for 2.4 million EUR or approximately $2.9 million, which is gross of approximately $0.3 million of cash acquired. Previously, in February 2021, the Company acquired a 38% ownership interest in Grindaix for 1.4 million EUR or approximately $1.7 million. The Company recorded its initial investment as an equity method investment within the Condensed Consolidated Financial Statements and accounted for the purchase of the remaining interest as a step acquisition whereby the Company remeasured the previously held equity method investment to its fair value.

In June 2021, the Company acquired certain assets for its chemical milling maskants product line in the Global Specialty Businesses reportable segment for 2.3 million EUR or approximately $2.8 million.

In February 2021, the Company acquired a tin-plating solutions business for the steel end market for $25.0 million. This acquisition is part of each of the Company's geographic reportable segments. The Company allocated $19.6 million of the purchase price to intangible assets, comprised of $18.3 million of customer relationships, to be amortized over 19 years; $0.9 million of existing product technology to be amortized over 14 years; and $0.4 million of a licensed trademark to be amortized over 3 years. In addition, the Company recorded $5.0 million of goodwill related to expected value not allocated to other acquired assets, all of which is expected to be tax deductible in various jurisdictions in which we operate. Factors contributing to the purchase price that resulted in goodwill included the acquisition of business processes and personnel that will allow Quaker Houghton to better serve its customers.

As of June 30, 2022, the allocation of the purchase price of all of the Company's 2022 acquisitions, Grindaix, the acquisition in Turkey, and Baron have not been finalized and the one-year measurement period has not ended. Further adjustments may be necessary as a result of the Company's on-going assessment of additional information related to the fair value of assets acquired and liabilities assumed.

In December 2020, the Company acquired Coral Chemical Corporation ("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. Based on the facts and circumstances of the claim asserted by the Sellers, the Company believes the potential range of exposure for this claim is $0 to $1.5 million.

Note 3 – Recently Issued Accounting Standards

Recently Issued Accounting Standards Adopted

The FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting* in March 2020. The FASB subsequently issued ASU 2021-01, *Reference Rate Reform (Topic 848): Scope* in January 2021 which clarified the guidance but did not materially change the guidance or its applicability to the Company. The amendments provide temporary optional expedients and exceptions for applying U.S. GAAP to contract modifications, hedging relationships and other transactions to ease the potential accounting and financial reporting burden associated with transitioning away from reference rates that are expected to be discontinued, including the London Interbank Offered Rate ("LIBOR"). ASU 2020-04 is effective for the Company as of March 12, 2020 and generally can be applied through December 31, 2022. On June 17, 2022, the Company entered into an amendment to its primary credit facility which, among other things, provided for the use of a USD currency LIBOR successor rate (the Secured Overnight Financing Rate ("SOFR")). See Note 14 of Notes to Condensed Consolidated Financial Statements.

Note 4 – Business Segments

The Company's operating segments, which are consistent with its 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 assesses the Company's performance. The Company has four reportable segments: (i) Americas; (ii) EMEA; (iii) Asia/Pacific; and (iv) Global Specialty Businesses. The three geographic segments are composed of the net sales and operations in each respective region, excluding net sales and operations managed globally by the Global Specialty Businesses segment. The Global Specialty Businesses segment includes the Company's container, metal finishing, mining, offshore, specialty coatings, specialty grease and Norman Hay businesses.

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, 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) income, net.

The following table presents information about the performance of the Company's reportable segments for the three and six months ended June 30, 2022 and 2021.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	**2021**	**2022**	**2021**
Net sales				
Americas	$ 172,747	$ 139,673	$ 326,891	$ 274,544
EMEA	123,053	123,436	248,740	243,250
Asia/Pacific	99,828	91,559	204,062	188,265
Global Specialty Businesses	96,760	80,594	186,866	158,986
Total net sales	$ 492,388	$ 435,262	$ 966,559	$ 865,045
Segment operating earnings				
Americas	$ 33,785	$ 33,648	$ 63,005	$ 65,882
EMEA	13,283	23,405	30,049	48,649
Asia/Pacific	22,226	23,227	44,133	50,705
Global Specialty Businesses	27,841	24,209	52,876	48,378
Total segment operating earnings	97,135	104,489	190,063	213,614
Combination, integration and other acquisition-related expenses	(1,832)	(6,658)	(5,885)	(12,473)
Restructuring and related credits (charges), net	1	(298)	(819)	(1,473)
Fair value step up of acquired inventory sold	—	—	—	(801)
Non-operating and administrative expenses	(48,579)	(43,077)	(92,042)	(84,069)
Depreciation of corporate assets and amortization	(14,822)	(15,640)	(30,011)	(31,088)
Operating income	31,903	38,816	61,306	83,710
Other (expense) income, net	(8,399)	14,010	(10,605)	18,697
Interest expense, net	(6,494)	(5,618)	(11,839)	(11,088)
Income before taxes and equity in net (loss) income of associated companies	$ 17,010	$ 47,208	$ 38,862	$ 91,319

Inter-segment revenues for the three and six months ended June 30, 2022, were $3.3 million and $6.2 million for Americas, $12.4 million and $21.3 million for EMEA, $0.1 million and $0.4 million for Asia/Pacific, and $2.0 million and $3.7 million for Global Specialty Businesses, respectively. Inter-segment revenues for the three and six months ended June 30, 2021, were $2.4 million and $5.7 million for Americas, $6.3 million and $15.1 million for EMEA, $0.4 million and $0.5 million for Asia/Pacific, and $2.1 million and $4.1 million for Global Specialty Businesses, respectively. However, all inter-segment transactions have been eliminated from each reportable operating segment's net sales and earnings for all periods presented in the above tables.

Note 5 – Net Sales and Revenue Recognition

Arrangements Resulting in Net Reporting

As part of the Company's Fluidcare™ 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 $20.5 million and $40.3 million for the three and six months ended June 30, 2022, respectively, and $16.7 million and $34.5 million for the three and six months ended June 30, 2021, 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 2021 Form 10-K, during the year ended December 31, 2021, the Company's five largest customers (each composed of multiple subsidiaries or divisions with semiautonomous purchasing authority) accounted for approximately 10% of consolidated net sales, with its largest customer accounting for approximately 3% of consolidated net sales.

Contract Assets and Liabilities

The Company had no material contract assets recorded on its Condensed Consolidated Balance Sheets as of June 30, 2022 or December 31, 2021.

The Company had approximately $6.6 million and $7.0 million of deferred revenue as of June 30, 2022 and December 31, 2021, respectively. For the six months ended June 30, 2022, the Company satisfied all of the associated performance obligations and recognized into revenue the advance payments received and recorded as of December 31, 2021.

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 segment first, and then by customer industry, rather than by individual product lines. Also, 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, approximately proportionate to the level of total sales in each region.

The following tables disaggregate the Company's net sales by segment, geographic region, customer industry, and timing of revenue recognized for the three and six months ended June 30, 2022 and 2021.

	Three Months Ended June 30, 2022			
	Americas	**EMEA**	**Asia/Pacific**	**Consolidated Total**
Customer Industries				
Metals	$ 63,373	$ 37,586	$ 55,596	$ 156,555
Metalworking and other	109,374	85,467	44,232	239,073
	172,747	123,053	99,828	395,628
Global Specialty Businesses	62,367	21,324	13,069	96,760
	$ 235,114	$ 144,377	$ 112,897	$ 492,388
Timing of Revenue Recognized				
Product sales at a point in time	$ 225,135	$ 136,622	$ 110,190	$ 471,947
Services transferred over time	9,979	7,755	2,707	20,441
	$ 235,114	$ 144,377	$ 112,897	$ 492,388

	Three Months Ended June 30, 2021			
	Americas	**EMEA**	**Asia/Pacific**	**Consolidated Total**
Customer Industries				
Metals	$ 51,799	$ 35,634	$ 48,207	$ 135,640
Metalworking and other	87,874	87,802	43,352	219,028
	139,673	123,436	91,559	354,668
Global Specialty Businesses	46,183	21,678	12,733	80,594
	$ 185,856	$ 145,114	$ 104,292	$ 435,262
Timing of Revenue Recognized				
Product sales at a point in time	$ 177,227	$ 137,838	$ 101,264	$ 416,329
Services transferred over time	8,629	7,276	3,028	18,933
	$ 185,856	$ 145,114	$ 104,292	$ 435,262

	Six Months Ended June 30, 2022			
	Americas	EMEA	Asia/Pacific	Consolidated Total
Customer Industries				
Metals	$ 119,533	$ 74,425	$ 110,883	$ 304,841
Metalworking and other	207,358	174,315	93,179	474,852
	326,891	248,740	204,062	779,693
Global Specialty Businesses	119,631	41,345	25,890	186,866
	$ 446,522	$ 290,085	$ 229,952	$ 966,559
Timing of Revenue Recognized				
Product sales at a point in time	$ 426,419	$ 273,825	$ 224,815	$ 925,059
Services transferred over time	20,103	16,260	5,137	41,500
	$ 446,522	$ 290,085	$ 229,952	$ 966,559

	Six Months Ended June 30, 2021			
	Americas	EMEA	Asia/Pacific	Consolidated Total
Customer Industries				
Metals	$ 98,592	$ 69,908	$ 97,950	$ 266,450
Metalworking and other	175,952	173,342	90,315	439,609
	274,544	243,250	188,265	706,059
Global Specialty Businesses	91,439	41,950	25,597	158,986
	$ 365,983	$ 285,200	$ 213,862	$ 865,045
Timing of Revenue Recognized				
Product sales at a point in time	$ 348,821	$ 269,000	$ 207,663	$ 825,484
Services transferred over time	17,162	16,200	6,199	39,561
	$ 365,983	$ 285,200	$ 213,862	$ 865,045

Note 6 - Leases

The Company has operating leases for certain facilities, vehicles and machinery and equipment with remaining lease terms up to 10 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 93 years.

The Company has no material variable lease costs, sublease income or finance leases for three and six months ended June 30, 2022 and 2021. The following table sets forth the components of the Company's lease cost for three and six months ended June 30, 2022 and 2021:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Operating lease expense	$ 3,519	$ 3,548	$ 6,928	$ 7,160
Short-term lease expense	205	283	424	534

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash flows from operating leases	$ 3,442	$ 3,489	$ 6,807	$ 7,068
Non-cash lease liabilities activity:				
Leased assets obtained in exchange for new operating lease liabilities	3,385	825	8,074	3,875

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

	June 30, 2022	December 31, 2021
Right of use lease assets	$ 36,317	$ 36,635
Other current liabilities	10,452	9,976
Long-term lease liabilities	25,695	26,335
Total operating lease liabilities	$ 36,147	$ 36,311
Weighted average remaining lease term (years)	5.6	5.6
Weighted average discount rate	4.14%	4.22%

Maturities of operating lease liabilities were as follows:

	June 30, 2022
For the remainder of 2022	$ 6,201
For the year ended December 31, 2023	10,076
For the year ended December 31, 2024	7,815
For the year ended December 31, 2025	5,749
For the year ended December 31, 2026	4,449
For the year ended December 31, 2027 and beyond	6,678
Total lease payments	40,968
Less: imputed interest	(4,821)
Present value of lease liabilities	$ 36,147

Note 7 – Restructuring and Related Activities

The Company's management approved a global restructuring plan (the "QH Program") as part of its plan to realize certain cost synergies associated with the Combination in the third quarter of 2019. The QH Program includes restructuring and associated severance costs to reduce total headcount by approximately 400 people globally, as well as plans for the closure of certain manufacturing and non-manufacturing facilities. The exact timing and total costs associated with the QH Program depend on a number of factors and are subject to change; however, the Company currently expects reduction in headcount and site closures under the QH Program to continue to occur throughout 2022 and into 2023. Employee separation benefits will vary depending on local regulations within certain foreign countries and will include severance and other benefits.

All costs incurred to date relate to 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 and are recorded in Restructuring and related charges in the Company's Condensed Consolidated Statements of Income. As described in Note 4 of Notes to Condensed 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.

Activity in the Company's accrual for restructuring under the QH Program for the six months ended June 30, 2022 is as follows:

	QH Program
Accrued restructuring as of December 31, 2021	$ 4,087
Restructuring and related charges	819
Cash payments	(797)
Currency translation adjustments	(297)
Accrued restructuring as of June 30, 2022	$ 3,812

Note 8 – Share-Based Compensation

The Company recognized the following share-based compensation expense in its Condensed Consolidated Statements of Income for the three and six months ended June 30, 2022 and 2021:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Stock options	$ 469	$ 332	$ 736	$ 640
Non-vested stock awards and restricted stock units	1,667	1,290	3,215	2,686
Non-elective and elective 401(k) matching contribution in stock	—	—	—	1,553
Director stock ownership plan	20	216	44	419
Performance stock units	815	517	1,438	836
Total share-based compensation expense	$ 2,971	$ 2,355	$ 5,433	$ 6,134

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, and $0.2 million and $0.5 million for the three and six months ended June 30, 2021, respectively, recorded within Combination, integration and other acquisition-related expenses.

Stock Options

During the first six months of 2022, the Company granted stock options under its long-term incentive plan ("LTIP") that are subject only to time vesting over a three year period. For the purposes of determining the fair value of stock option awards, the Company used a Black-Scholes option pricing model and the assumptions set forth in the table below:

	March 2022 Grant
Number of options granted	27,077
Dividend yield	0.80 %
Expected volatility	38.60 %
Risk-free interest rate	2.07 %
Expected term (years)	4.0

The fair value of these options is amortized on a straight-line basis over the vesting period. As of June 30, 2022, unrecognized compensation expense related to all stock options granted was $2.4 million, to be recognized over a weighted average remaining period of 1.6 years.

Restricted Stock Awards and Restricted Stock Units

During the six months ended June 30, 2022, the Company granted 25,743 non-vested restricted shares and 4,490 non-vested restricted stock units under its LTIP, which are subject to time-based vesting, generally over a three year period. The fair value of these grants is based on the trading price of the Company's common stock on the date of grant. The Company adjusts the grant date fair value of these awards for expected forfeitures based on historical experience. As of June 30, 2022, unrecognized compensation expense related to the non-vested restricted shares was $ 6.2 million, to be recognized over a weighted average remaining period of 1.8 years, and unrecognized compensation expense related to non-vested restricted stock units was $1.2 million, to be recognized over a weighted average remaining period of 2.1 years.

Performance Stock Units

The Company grants performance-dependent stock awards ("PSUs") as a component of its LTIP, which will be settled in a certain number of shares subject to market-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 total shareholder return ("TSR") relative to the performance of the Company's peer group, the S&P Midcap 400 Materials group. The service period required for the PSUs is three years and the TSR measurement period for the PSUs is generally from January 1 of the year of grant through December 31 of the year prior to issuance of the shares upon settlement.

Compensation expense for PSUs is measured based on their grant date fair value and is recognized on a straight-line basis over the three year vesting period. The grant-date fair value of the PSUs was estimated using a Monte Carlo simulation on the grant date and using the following assumptions set forth in the table below:

	March 2022 Grant
Number of PSUs granted	16,820
Risk-free interest rate	2.11 %
Dividend yield	0.93 %
Expected term (years)	3.0

As of June 30, 2022, based on the conditions of the PSUs and performance to date for each award, the Company estimates that it will not issue any fully vested shares as of the applicable settlement date of all outstanding PSUs awards. As of June 30, 2022, there was approximately $5.5 million of total unrecognized compensation cost related to PSUs which the Company expects to recognize over a weighted-average period of 2.1 years.

Defined Contribution Plan

The Company has a 401(k) plan with an employer match covering a majority of its U.S. employees. The Company matches 50% of the first 6% of compensation that is contributed to the plan, with a maximum matching contribution of 3% of compensation. Additionally, the plan provides for non-elective nondiscretionary contributions on behalf of participants who have completed one year of service equal to 3% of the eligible participants' compensation. Beginning in April 2020 and continuing through March 2021, the Company matched both non-elective and elective 401(k) contributions in fully vested shares of the Company's common stock rather than cash. There were no matching contributions in stock for the three and six months ended June 30, 2022. For the six months ended June 30, 2021, total contributions were $1.5 million.

Note 9 – Pension and Other Postretirement Benefits

The components of net periodic benefit (income) cost for the three and six months ended June 30, 2022 and 2021 are as follows:

	Three Months Ended June 30,				Six Months Ended June 30,			
	Pension Benefits		Other Postretirement Benefits		Pension Benefits		Other Postretirement Benefits	
	2022	2021	2022	2021	2022	2021	2022	2021
Service cost	$ 174	$ 316	$ 8	$ 2	$ 354	$ 632	$ —	$ 3
Interest cost	1,317	1,094	2	10	2,677	2,184	11	21
Expected return on plan assets	(2,012)	(2,093)	—	—	(4,097)	(4,175)	—	—
Actuarial loss amortization	248	857	(23)	—	505	1,712	(47)	—
Prior service cost amortization	2	3	(9)	—	5	5	(8)	—
Net periodic benefit (income) cost	$ (271)	$ 177	$ (22)	$ 12	$ (556)	$ 358	$ (44)	$ 24

Employer Contributions

As of June 30, 2022, $1.7 million and $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 $6.6 million to its U.S. and foreign pension plans and approximately $0.2 million to its other postretirement benefit plans in 2022 .

Note 10 – Other (Expense) Income, Net

The components of other (expense) income, net, for the three and six months ended June 30, 2022 and 2021 are as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	**2021**	**2022**	**2021**
Income from third party license fees	$ 249	$ 373	$ 653	$ 712
Foreign exchange losses, net	(2,026)	(838)	(3,931)	(2,316)
(Loss) gain on disposals of property, plant, equipment and other assets, net	(38)	(54)	(15)	5,356
Non-income tax refunds and other related (expense) credits	(417)	14,295	(1,739)	14,392
Pension and postretirement benefit income, non-service components	475	129	954	253
Loss on extinguishment of debt	(6,763)	—	(6,763)	—
Other non-operating income, net	121	105	236	300
Total other (expense) income, net	$ (8,399)	$ 14,010	$ (10,605)	$ 18,697

Non-income tax refunds and other related (expense) credits during the three and six months ended June 30, 2022, includes adjustments to Combination-related indemnification assets associated with the settlement of certain income tax audits at certain of the Company's Italian and German affiliates for tax periods prior to August 1, 2019. See Note 11 of Notes to Condensed Consolidated Financial Statements. During the second quarter of 2022, the Company recorded a loss on extinguishment of debt of approximately $6.8 million 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 an amendment to the Company's primary credit facility. See Note 14 of Notes to the Condensed Consolidated Financial Statements.

Loss (gain) on disposals of property, plant, equipment and other assets, net, during the six months ended June 30, 2021, includes a gain on the sale of certain held-for-sale real property assets related to the Combination.

Note 11 – Income Taxes and Uncertain Income Tax Positions

The Company's effective tax rates for the three and six months ended June 30, 2022 were 8.1% and 10.9%, respectively, compared to 32.2% and 28.4% for the three and six months ended June 30, 2021, respectively. The Company's effective tax rate for the six months ended June 30, 2022 was largely driven by state tax benefits, changes in the valuation allowance for foreign tax credits due to recently issued legislative guidance, the impact of audit settlements reached with German and Italian tax authorities, a deferred tax benefit associated with an intercompany asset transfer, a reduction in reserves for uncertain tax positions relating to management fees, withholding taxes for increased forecasted dividends and the effects of lower pre-tax earnings and the mix of such earnings. In addition, the Company incurred higher tax expense during the three and six months ended June 30, 2022 at one of its subsidiaries as it accrued taxes at a statutory tax rate of 25% while it awaits recertification of a concessionary 15% tax rate, which was available to the Company during all of 2021. Comparatively, the prior year effective tax rates were largely impacted by the sale of a subsidiary which included certain held-for-sale real property assets related to the Combination, changes in foreign tax credit valuation allowances, tax law changes in a foreign jurisdiction and the income tax impacts of certain non-income tax credits recorded by the Company's Brazilian subsidiaries.

As of December 31, 2021, the Company had a deferred tax liability of $ 8.4 million on certain undistributed foreign earnings, which primarily represents the Company's estimate of non-U.S. income taxes the Company will incur to ultimately remit certain earnings to the U.S. As of June 30, 2022 this deferred tax liability balance was $ 7.4 million. As of June 30, 2022, the Company's cumulative liability for gross unrecognized tax benefits was $ 17.8 million, a decrease of approximately $4.7 million from the cumulative liability accrued as of December 31, 2021.

The Company continues to recognize interest and penalties associated with uncertain tax positions as a component of taxes on income before equity in net income of associated companies in its Condensed Consolidated Statements of Income. The Company recognized a benefit for interest of less than $0.1 million and $0.3 million and an expense of less than of $0.1 million and a benefit of $1.5 million for penalties in its Condensed Consolidated Statement of Income for the three and six months ended June 30, 2022, respectively, and recognized an expense for interest of approximately $0.2 million and $0.2 million and a benefit of less than $0.1 million and $0.2 million for penalties in its Condensed Consolidated Statement of Income for the three and six months ended June 30, 2021, respectively. As of June 30, 2022, the Company had accrued $2.6 million for cumulative interest and $1.5 million for cumulative penalties in its Condensed Consolidated Balance Sheets, compared to $3.1 million for cumulative interest and $3.1 million for cumulative penalties accrued at December 31, 2021.

During the six months ended June 30, 2022 and 2021, the Company recognized decreases of $3.5 million and $0.8 million, respectively, in its cumulative liability for gross unrecognized tax benefits due to the settlement of income tax audits with both the Italian and German tax authorities, as well as the expiration of the applicable statutes of limitations for certain tax years.

The Company estimates that during the year ending December 31, 2022 it will reduce its cumulative liability for gross unrecognized tax benefits by approximately $4.2 million due to the settlement of income tax audits and the expiration of the statute of limitations with regard to certain tax positions. This estimated reduction in the cumulative liability for unrecognized tax benefits does not consider any increase in liability for unrecognized tax benefits with regard to existing tax positions or any increase in cumulative liability for unrecognized tax benefits with regard to new tax positions for the year ending December 31, 2022.

The Company and its subsidiaries are subject to U.S. Federal income tax, as well as the income tax of various state and foreign tax jurisdictions. Tax years that remain subject to examination by major tax jurisdictions include Italy from 2007, Brazil from 2011, Germany from 2015, the Netherlands and Mexico from 2016, Canada, China, Spain and the U.S. from 2017, the United Kingdom from 2018, India from fiscal year beginning April 1, 2017 and ending March 31, 2018, and various U.S. state tax jurisdictions from 2011.

As previously reported, the Italian tax authorities have assessed additional tax due from the Company's subsidiary, Quaker Italia S.r.l., relating to the tax years 2007 through 2015. The Company has filed for competent authority relief from these assessments under the Mutual Agreement Procedures ("MAP") of the Organization for Economic Co-Operation and Development for all years except 2007. In 2020, the respective tax authorities in Italy, Spain and the Netherlands reached agreement with respect to the MAP proceedings which the Company had accepted. As of June 30, 2022, the Company received $1.6 million in refunds from the Netherlands and Spain. In February 2022, the Company received a settlement notice from the Italian taxing authorities confirming the amount due of $2.6 million, having granted the Company's request to utilize its remaining net operating losses to partially offset the liability. As of June 30, 2022, the Company has paid the full settlement amount, of which approximately $0.1 million may be refundable.

Houghton Italia, S.r.l is also involved in a corporate income tax audit with the Italian tax authorities covering tax years 2014 through 2018. During the fourth quarter of 2021, the Company settled a portion of the Houghton Italia, S.r.l. corporate income tax audit with the Italian tax authorities for the tax years 2014 and 2015. During the six months ended June 30, 2022, the Company settled tax years 2016 through 2018 for a total of $2.1 million. In total, the Company has now settled all years 2014 through 2018 for $3.7 million. Accordingly, the Company has released all reserves relating to this audit for the settled tax years. As a result of the settlement and reserve release the Company recognized a net benefit to the tax provision of $2.0 million during the first six months of 2022. The Company has an indemnification receivable of $3.6 million in connection with its claim against the former owners of Houghton for any pre-Combination tax liabilities arising from this matter.

As previously reported, Houghton Deutschland GmbH is also under audit by the German tax authorities for the tax years 2015 through 2017. In the second quarter of 2022 the Company settled the corporate tax audit for the tax years 2015-2017 with the German tax authorities for a total of $0.1 million. The Company has an indemnification receivable of $0.3 million in connection with its claim against the former owners of Houghton for any pre-Combination tax liabilities arising from this matter.

Note 12 – Earnings Per Share

The following table summarizes earnings per share calculations for the three and six months ended June 30, 2022 and 2021:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Basic earnings per common share				
Net income attributable to Quaker Chemical Corporation	$ 14,343	$ 33,570	$ 34,159	$ 72,185
Less: income allocated to participating securities	(58)	(134)	(136)	(287)
Net income available to common shareholders	$ 14,285	$ 33,436	$ 34,023	$ 71,898
Basic weighted average common shares outstanding	17,834,329	17,802,366	17,830,218	17,793,915
Basic earnings per common share	$ 0.80	$ 1.88	$ 1.91	$ 4.04
Diluted earnings per common share				
Net income attributable to Quaker Chemical Corporation	$ 14,343	$ 33,570	$ 34,159	$ 72,185
Less: income allocated to participating securities	(58)	(134)	(136)	(287)
Net income available to common shareholders	$ 14,285	$ 33,436	$ 34,023	$ 71,898
Basic weighted average common shares outstanding	17,834,329	17,802,366	17,830,218	17,793,915
Effect of dilutive securities	7,048	47,155	17,186	52,095
Diluted weighted average common shares outstanding	17,841,377	17,849,521	17,847,404	17,846,010
Diluted earnings per common share	$ 0.80	$ 1.88	$ 1.91	$ 4.03

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 33,039 and 24,731 for the three and six months ended June 30, 2022, respectively, and 6,793 and 2,952 for the three and six months ended June 30, 2021, respectively.

Note 13 – Goodwill and Other Intangible Assets

Changes in the carrying amount of goodwill for the six months ended June 30, 2022 were as follows:

	Americas	EMEA	Asia/Pacific	Global Specialty Businesses	Total
Balance as of December 31, 2021	$ 214,023	$ 135,520	$ 162,458	$ 119,193	$ 631,194
Goodwill additions	1,752	—	—	32	1,784
Currency translation adjustments	237	(9,969)	(8,185)	(4,894)	(22,811)
Balance as of June 30, 2022	$ 216,012	$ 125,551	$ 154,273	$ 114,331	$ 610,167

Gross carrying amounts and accumulated amortization for definite-lived intangible assets as of June 30, 2022 and December 31, 2021 were as follows:

	Gross Carrying Amount		Accumulated Amortization	
	2022	2021	2022	2021
Customer lists and rights to sell	$ 828,690	$ 853,122	$ 167,145	$ 147,858
Trademarks, formulations and product technology	156,262	163,974	41,640	38,747
Other	6,269	6,309	5,933	5,900
Total definite-lived intangible assets	$ 991,221	$ 1,023,405	$ 214,718	$ 192,505

The Company amortizes definite-lived intangible assets on a straight-line basis over their useful lives. The Company recorded $14.7 million and $29.2 million of amortization expense for the three and six months ended June 30, 2022, respectively. Comparatively, the Company recorded $15.0 million and $29.8 million of amortization expense for the three and six months ended June 30, 2021, respectively.

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

For the year ended December 31, 2022	$	57,515
For the year ended December 31, 2023		57,349
For the year ended December 31, 2024		56,760
For the year ended December 31, 2025		55,970
For the year ended December 31, 2026		55,752
For the year ended December 31, 2027 and beyond		522,946

The Company had four indefinite-lived intangible assets totaling $186.1 million as of June 30, 2022, including $185.0 million of indefinite-lived intangible assets for trademarks and tradename associated with the Combination. Comparatively, the Company had four indefinite-lived intangible assets for trademarks and tradename totaling $196.9 million as of December 31, 2021.

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 relevant developments in assessing if a triggering event indicates that it is more likely than not that the carrying value of any of the Company's reporting units or indefinite-lived or long-lived assets is not recoverable. The Company continues to monitor various financial, economic and geopolitical conditions impacting the Company, including the Russia-Ukraine war and the Company's decision to cease operations in Russia, raw material, supply chain, and logistics cost escalation, and rising interest rates and cost of capital among other factors. The Company concluded that these and other factors which have and continue to impact the Company did not represent a triggering event as of June 30, 2022. The Company continues to take action to offset these headwinds including, but not limited to, implementing selling price increases aimed at offsetting raw material costs and ongoing inflationary pressures. However, if the Company is unable to successfully implement these actions and future or projected financial performance declines, then it is possible any of these financial, economic or geopolitical conditions could represent a triggering event in the future and could lead to a potential impairment of the Company's reporting unit goodwill or other indefinite-lived or long-lived assets.

Note 14 – Debt

Debt as of June 30, 2022 and December 31, 2021 includes the following:

	As of June 30, 2022			As of December 31, 2021		
	Interest Rate		Outstanding Balance	Interest Rate		Outstanding Balance
Credit Facilities:						
Original Revolver	—	$	—	1.62%	$	211,955
Original U.S. Term Loan	—		—	1.65%		540,000
Original Euro Term Loan	—		—	1.50%		137,616
Amended Revolver	3.05%		228,658	—		—
Amended U.S. Term Loan	3.08%		600,000	—		—
Amended Euro Term Loan	1.50%		148,917	—		—
Industrial development bonds	5.26%		10,000	5.26%		10,000
Bank lines of credit and other debt obligations	Various		1,495	Various		1,777
Total debt		$	989,070		$	901,348
Less: debt issuance costs			(2,216)			(8,001)
Less: short-term and current portion of long-term debts			(14,485)			(56,935)
Total long-term debt		$	972,369		$	836,412

Credit facilities

The Company, its wholly owned subsidiary, Quaker Chemical B.V., as borrowers, Bank of America, N.A., as administrative agent, U.S. Dollar swing line lender and letter of credit issuer, and the other lenders party thereto, entered into a credit agreement on August 1, 2019, as amended (the "Original Credit Facility"). The Original Credit Facility was comprised of a $400.0 million multicurrency revolver (the "Original Revolver"), a $600.0 million term loan (the "Original U.S. Term Loan"), each with the Company as borrower, and a $150.0 million (as of August 1, 2019) Euro equivalent term loan (the "Original Euro Term Loan") with Quaker Chemical B.V., a Dutch subsidiary of the Company as borrower, each with a five-year term, maturing in August 2024.

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 the Original Credit Facility (the "Amended Credit Facility"). The Amended Credit Facility established (A) a new $150.0 million Euro equivalent senior secured term loan (the "Amended Euro Term Loan"), (B) a new $600.0 million senior secured term loan (the "Amended U.S. Term Loan"), and (C) a new $500.0 million senior secured revolving credit facility (the "Amended Revolver"). The Company has the right to increase the amount of the Amended 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). In addition, the Amended Credit Facility also:

(i) eliminated the requirement that material foreign subsidiaries must guaranty the Original Euro Term Loan;

(ii) replaced the U.S. Dollar borrowings reference rate from LIBOR to SOFR;

(iii) extended the maturity date of the Original Credit Facility from August 2024 to June 2027; and

(iv) effected certain other changes to the Original Credit Facility as set forth in the Amended Credit Facility.

The Company used the proceeds of the Amended Credit Facility to repay all outstanding loans under the Original Credit Facility, unpaid accrued interest and fees on the closing date under the Original Credit Facility and certain expenses and fees. U.S. Dollar-denominated borrowings under the Amended Credit Facility bear interest, at the Company's election, at the base rate or term SOFR plus an applicable rate ranging from 1.00% to 1.75% for term SOFR loans and from 0.00% to 0.75% for base rate loans, depending upon the Company's consolidated net leverage ratio. Loans based on term SOFR also include a spread adjustment equal to 0.10% per annum. Borrowings under the Amended Credit Facility denominated in currencies other than U.S. Dollars bear interest at the alternative currency term rate plus the applicable rate ranging from 1.00% to 1.75%.

The Amended Credit Facility contains affirmative and negative covenants, financial covenants and events of default, including without limitation restrictions on (a) the incurrence of additional indebtedness; (b) investments in and acquisitions of other businesses, lines of business and divisions; (c) the making of dividends or capital stock purchases; and (d) dispositions of assets. Dividends and share repurchases are permitted in annual amounts not exceeding the greater of $75 million annually and 25% of consolidated EBITDA if there is no default. All restricted payments may be made if there is no default and if the consolidated net leverage ratio is less than 2.50 to 1.00.

Financial covenants contained in the Amended Credit Facility include a consolidated interest coverage ratio test and a consolidated net leverage ratio test. The consolidated net leverage ratio at the end of a quarter may not be greater than 4.00 to 1.00, subject to a permitted increase during a four-quarter period after certain acquisitions. The Company has the option of replacing the consolidated net leverage ratio test with a consolidated senior net leverage ratio test if the Company issues certain types of unsecured notes, subject to certain limitations. Events of default in the Amended Credit Facility include without limitation defaults for non-payment, breach of representations and warranties, non-performance of covenants, cross-defaults, insolvency, and a change of control in certain circumstances. The occurrence of an event of default under the Amended Credit Facility could result in all loans and other obligations becoming immediately due and payable and the Amended Credit Facility being terminated. As of June 30, 2022, the Company was in compliance with all of the Amended Credit Facility covenants.

The weighted average variable interest rate incurred on the outstanding borrowings under the Original Credit Facility and the Amended Credit Facility during the six months ended June 30, 2022 was approximately 2.0%. As of June 30, 2022, the interest rate on the outstanding borrowings under the Amended Credit Facility was approximately 2.8%. In addition to paying interest on outstanding principal under the Original Credit Facility, the Company was required to pay a commitment fee ranging from 0.2% to 0.3% depending on the Company's consolidated net leverage ratio under the Original Revolver in respect of the unutilized commitments thereunder. As part of the Amended Credit Facility, the Company is required to pay a commitment fee ranging from 0.150% to 0.275% related to unutilized commitments under the Amended Revolver, depending on the Company's consolidated net leverage ratio. The Company had unused capacity under the Amended Revolver of approximately $268 million, net of bank letters of credit of approximately $4 million, as of June 30, 2022.

The Company previously capitalized $23.7 million of certain third-party debt issuance costs in connection with executing the Original Credit Facility. Approximately $15.5 million of the capitalized costs were attributed to the Original Term Loans and recorded as a direct reduction of Long-term debt on the Condensed Consolidated Balance Sheet. Approximately $8.3 million of the capitalized costs were attributed to the Original Revolver and recorded within Other assets on the Condensed Consolidated Balance Sheet. These capitalized costs were being amortized into Interest expense over the five year term of the Original Credit Facility. As of December 31, 2021, the Company had $8.0 million of debt issuance costs recorded as a reduction of Long-term debt attributable to the Original Credit Facility. As of December 31, 2021, the Company had $4.3 million of debt issuance costs recorded within Other

assets attributable to the Original Credit Facility. Prior to executing the Amended Credit Facility, the Company had $ 6.6 million of debt issuance costs recorded as a reduction of Long-term debt attributable to the Original Credit Facility and $3.5 million of debt issuance costs recorded within Other assets attributable to the Original Credit Facility.

In connection with executing the Amended Credit Facility, the Company recorded a loss on extinguishment of debt of approximately $6.8 million 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. Also in connection with executing the Amended Credit Facility, during the second quarter of 2022, the Company capitalized $2.2 million of certain third-party and creditor debt issuance costs. Approximately $0.7 million of the capitalized costs were attributed to the Amended Euro Term Loan and Amended 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 Amended Revolver and recorded within Other assets on the Condensed Consolidated Balance Sheet. These capitalized costs, as well as the previously capitalized costs that were not written off will collectively be amortized into Interest expense over the five-year term of the Amended Credit Facility. As of June 30, 2022, the Company had $2.2 million of debt issuance costs recorded as a reduction of Long-term debt on the Condensed Consolidated Balance Sheet and $4.8 million of debt issuance costs recorded within Other assets on the Condensed Consolidated Balance Sheet.

The Original Credit Facility required the Company to fix its variable interest rates on at least 20% of its total Original Term Loans. In order to satisfy this requirement as well as to manage the Company's exposure to variable interest rate risk associated with the Original Credit Facility, in November 2019, the Company entered into $170.0 million notional amounts of three-year interest rate swaps at a base rate of 1.64% plus an applicable margin as provided in the Original Credit Facility, based on the Company's consolidated net leverage ratio. At the time the Company entered into the swaps, and as of June 30, 2022, the aggregate interest rate on the swaps, including the fixed base rate plus an applicable margin, was 3.1%. The Amended Credit Facility does not require the Company to fix variable interest rates on any portion of its borrowings. As of June 30, 2022, the Company has not amended its current interest rate swaps. See Note 17 of Notes to Condensed Consolidated Financial Statements.

Industrial development bonds

As of June 30, 2022 and December 31, 2021, 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 Amended 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, 2022 was approximately $28 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, 2022 were approximately $5 million.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Interest expense	$ 6,134	$ 4,813	$ 10,880	$ 9,463
Amortization of debt issuance costs	1,049	1,188	2,236	2,375
Total	$ 7,183	$ 6,001	$ 13,116	$ 11,838

Based on the variable interest rates associated with the Amended Credit Facility, as of June 30, 2022 and the Original Credit Facility as of December 31, 2021, the amounts at which the Company's total debt were recorded are not materially different from their fair market value.

On June 30, 2022, annual maturities on the Amended Credit Facility in the next five fiscal years (excluding the reduction to long-term debt attributed to capitalized and unamortized debt issuance costs) are as follows:

	June 30, 2022
For the remainder of 2022	$ 4,681
For the year ended December 31, 2023	18,723
For the year ended December 31, 2024	23,404
For the year ended December 31, 2025	37,446
For the year ended December 31, 2026	37,446
For the year ended December 31, 2027	855,875
Total payments	$ 977,575

Note 15 – Accumulated Other Comprehensive Income

The following tables show the reclassifications from and resulting balances of accumulated other comprehensive income (“AOCI”) for the three and six months ended June 30, 2022 and 2021:

	Currency Translation Adjustments	Defined Benefit Pension Plans	Unrealized Gain (Loss) in Available-for-Sale Securities	Derivative Instruments	Total
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)
Balance at March 31, 2021	$ (28,334)	$ (22,175)	$ 317	$ (3,036)	$ (53,228)
Other comprehensive income (loss) before reclassifications	16,157	(260)	341	586	16,824
Amounts reclassified from AOCI	—	852	2	—	854
Related tax amounts	—	(195)	(64)	(134)	(393)
Balance at June 30, 2021	$ (12,177)	$ (21,778)	$ 596	$ (2,584)	$ (35,943)

	Currency Translation Adjustments	Defined Benefit Pension Plans	Unrealized Gain (Loss) in Available-for-Sale Securities	Derivative Instruments	Total
Balance at 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 at June 30, 2022	$ (133,110)	$ (11,269)	$ (1,170)	$ 303	$ (145,246)
Balance at December 31, 2020	$ (2,875)	$ (23,467)	$ 3,342	$ (3,598)	$ (26,598)
Other comprehensive (loss) income before reclassifications	(9,302)	521	(404)	1,316	(7,869)
Amounts reclassified from AOCI	—	1,714	(3,083)	—	(1,369)
Related tax amounts	—	(546)	741	(302)	(107)
Balance at June 30, 2021	$ (12,177)	$ (21,778)	$ 596	$ (2,584)	$ (35,943)

All reclassifications related to unrealized gain (loss) 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. These assets are subject to fair value measurement as follows:

		Fair Value Measurements at June 30, 2022 Using Fair Value Hierarchy		
Assets	Total Fair Value	Level 1	Level 2	Level 3
Company-owned life insurance	$ 2,112	$ —	$ 2,112	$ —
Total	$ 2,112	$ —	$ 2,112	$ —

		Fair Value Measurements at December 31, 2021 Using Fair Value Hierarchy		
Assets	Total Fair Value	Level 1	Level 2	Level 3
Company-owned life insurance	$ 2,533	$ —	$ 2,533	$ —
Total	$ 2,533	$ —	$ 2,533	$ —

The fair values of Company-owned life insurance assets are based on quotes for like instruments with similar credit ratings and terms. The Company did not hold any Level 3 investments as of June 30, 2022 or December 31, 2021, respectively, so related disclosures have not been included.

Note 17 – Hedging Activities

In order to satisfy certain requirements of the Original Credit Facility as well as to manage the Company's exposure to variable interest rate risk associated with the Original Credit Facility, in November 2019, the Company entered into $ 170.0 million notional amounts of three year interest rate swaps. 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.

In June 2022, the Company amended the Original Credit Facility. See Note 14 of Notes to the Condensed Consolidated Financial Statements. The Amended Credit Facility does not require the Company to fix variable interest rates on any portion of its borrowings.

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, 2022**	**December 31, 2021**
Derivatives designated as cash flow hedges:			
Interest rate swaps	Prepaid expenses and other current assets	$ 394	$ —
	Other accrued liabilities	—	1,782
		$ 394	$ 1,782

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

		June 30, 2022	**December 31, 2021**
Derivatives designated as cash flow hedges:			
Interest rate swaps	AOCI	$ (303)	$ 1,372
		$ (303)	$ 1,372

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

		Three Months Ended June 30,		Six Months Ended June 30,	
		2022	**2021**	**2022**	**2021**
Amount and location of expense reclassified from AOCI into expense (effective portion)	Interest expense, net	$ (378)	$ (659)	$ (1,015)	$ (1,302)

Interest rate swaps are entered into with a limited number of counterparties, each of which allows for net settlement of all contracts through a single payment 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.

Note 18 – Commitments and Contingencies

The Company previously disclosed in its 2021 Form 10-K that AC Products, Inc. ("ACP"), a wholly owned subsidiary, in 2007, agreed to operate two groundwater treatment systems, so as to hydraulically contain groundwater contamination emanating from ACP's site until such time as the concentrations of contaminants are below the current Federal maximum contaminant level for four consecutive quarterly sampling events. In 2014, ACP ceased operation at one of its two groundwater treatment systems, as it had met the above condition for closure. As of June 30, 2022, ACP continues to operate the second groundwater treatment system, while the Company discusses with the relevant authorities whether the second groundwater treatment system meets the conditions for closure. In addition, the Santa Ana Regional Water Quality Control Board requested that ACP conduct additional indoor and outdoor soil vapor testing on and near the ACP site to confirm that ACP continues to meet the applicable local soil vapor standards. As of June 30, 2022, ACP performed such testing and is awaiting the review of the results from the Santa Ana Regional Water Quality Control Board.

As of June 30, 2022, the Company believes that the range of potential-known liabilities associated with the balance of the ACP water remediation program is approximately $0.1 million to $1.0 million. The low and high ends of the range are based on the length of operation of the treatment system as determined by groundwater modeling. Costs of operation include the operation and maintenance of the extraction well, groundwater monitoring and program management.

The Company previously disclosed in its 2021 Form 10-K that an inactive subsidiary of the Company that was acquired in 1978 sold certain products containing asbestos, primarily on an installed basis, and is among the defendants in numerous lawsuits alleging injury due to exposure to asbestos. During the three and six months ended June 30, 2022, there have been no significant changes to the facts or circumstances of this previously disclosed matter, aside from on-going claims and routine payments associated with this litigation. Based on a continued analysis of the existing and anticipated future claims against this subsidiary, it is currently projected that the subsidiary's total liability over the next 50 years for these claims is approximately $0.3 million (excluding costs of defense).

The Company previously disclosed in its 2021 Form 10-K that it is party to certain environmental matters related to certain domestic and foreign properties. These environmental matters primarily require the Company to perform long-term monitoring and maintenance at each of the applicable sites. During the three and six months ended June 30, 2022, there have been no significant changes to the facts or circumstances of these previously disclosed matters, aside from on-going monitoring and maintenance activities and routine payments associated with each of the sites. The Company continually evaluates its obligations related to such

matters, and based on historical costs incurred and projected costs to be incurred over the next approximately 30 years, has estimated the range of costs for all of these environmental matters, on a discounted basis, to be between approximately $5.0 million and $6.0 million as of June 30, 2022, for which $5.5 million was accrued within other accrued liabilities and other non-current liabilities on the Company's Condensed Consolidated Balance Sheet as of June 30, 2022. Comparatively, as of December 31, 2021, the Company had $5.6 million accrued for with respect to these matters.

Although there can be no assurance regarding the outcome of other unrelated environmental matters, the Company believes that it has made adequate accruals for costs associated with other environmental problems for which it is aware, and has accrued $0.4 million as of both June 30, 2022 and December 31, 2021, respectively, to provide for such anticipated future environmental assessments and remediation costs.

The Company previously disclosed in its 2021 Form 10-K that during the first six months of 2021, one of the Company's Brazilian subsidiaries received a notice that it had prevailed on an existing legal claim in regard to certain non-income (indirect) taxes that had been previously charged and paid. The matter specifically related to companies' rights to exclude the state tax on goods circulation (a valued-added-tax or VAT equivalent, known in Brazil as "ICMS") from the calculation of certain additional indirect taxes (specifically the program of social integration ("PIS") and contribution for the financing of social security ("COFINS")) levied by the Brazilian States on the sale of goods. In May 2021, the Brazilian Supreme Court concluded that ICMS should not be included in the tax base of PIS and COFINS, and confirmed the methodology for calculating the PIS and COFINS tax credit claims to which taxpayers are entitled. The Company's Brazilian entities had previously filed legal or administrative disputes on this matter and are entitled to receive tax credits and interest dating back five years preceding the date of their legal claims. As a result of these court rulings in the first six months of 2021, the Company recognized non-income tax credits of 67.0 million BRL or approximately $13.3 million, which includes approximately $8.4 million for the PIS and COFINS tax credits as well as interest on these tax credits of $4.9 million. The tax credits to which the Company's Brazilian subsidiaries are entitled are claimable once registered with the Brazilian tax authorities which the Company subsequently completed. These tax credits can be used to offset future Brazilian federal taxes and the Company currently anticipates using the full amount of credits during the five year period of time permitted.

In connection with obtaining regulatory approvals for the Combination, certain steel and aluminum related product lines of Houghton were divested in August 2019. The Company previously disclosed in its 2021 Form 10-K that in July 2021, the entity that acquired these divested product lines submitted an indemnification claim for certain alleged breaches of representation made by Houghton in the agreement pursuant to which such assets had been divested. The Company responded to the subject matters of the indemnification claim and during the first quarter of 2022, the matter was resolved consistent with the Company's expectations and position that there were no amounts owed by the Company.

The Company previously disclosed in its 2021 Form 10-K that two of the Company's locations suffered property damages as a result of flooding and fire, respectively. The Company maintains property insurance for all of its facilities globally. During the six months ended June 30, 2022, there have been no significant changes to the facts or circumstances of these previously disclosed matters, aside from the on-going restoration of both sites. The Company, its insurance adjuster and insurance carrier are actively managing the remediation and restoration activities associated with these events and at this time the Company has concluded, based on all available information and discussions with its insurance adjuster and insurance carrier, that the losses were covered under the Company's property insurance coverage, net of an aggregate deductible of $2.0 million. The Company has received payments from its insurers of $2.1 million and has recorded an insurance receivable associated with these events (and a gain on insurance recoveries for losses incurred) of $0.9 million as of June 30, 2022.

The Company is party to other litigation which management currently believes will not have a material adverse effect on the Company's results of operations, cash flows or financial condition. In addition, the Company has an immaterial amount of contractual purchase obligations.

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.

Overall, the Company's second quarter of 2022 performance reflected continued progress navigating through a myriad of financial, economic and geopolitical headwinds, including persistent and significant raw material cost escalation and overall inflationary pressures, supply chain and logistics challenges, production and distribution disruptions due to COVID-19 related actions in China, the direct and indirect impacts of the ongoing war in Ukraine and foreign currency volatility. Despite these challenges, net sales in the second quarter of 2022 were a record $492.4 million, representing an increase of approximately 13% compared to $435.3 million in the second quarter of 2021. This was primarily driven by an increase in selling price and product mix of approximately 22% and additional net sales from acquisitions of 1%, partially offset by a decline in organic sales volumes of 4% and the unfavorable impact from foreign currency translation of 6%. The increase in selling price and product mix is primarily the result of strategic price increases implemented to help offset the ongoing inflationary pressures that began during 2021 and have continued into 2022. The decline in organic sales volumes was primarily attributable to COVID-19 related disruptions in China, the wind-down of the tolling agreement for products previously divested related to the Combination, the impact of the war in Ukraine and the Company's ongoing value-based pricing initiatives.

The Company generated net income in the second quarter of 2022 of $14.3 million, or $0.80 per diluted share, compared to net income of $33.6 million, or $1.88 per diluted share in the second quarter of 2021. Excluding non-recurring and non-core items in each period, the Company's second quarter of 2022 non-GAAP earnings per diluted share were $1.32 compared to $1.82 in the prior year quarter and the Company's current quarter adjusted EBITDA was $58.5 million compared to $70.1 million in the second quarter of 2021. These results were primarily driven by lower gross margins in the current quarter due to a significant increase in raw material and other input costs as well as the direct and indirect impacts of global supply chain disruptions, the unfavorable impact of foreign currency, and to a lesser extent, by higher selling, general and administrative expenses ("SG&A"). 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.

The Company's second quarter of 2022 operating performance in each of its four reportable segments: (i) Americas; (ii) Europe, Middle East and Africa ("EMEA"); (iii) Asia/Pacific; and (iv) Global Specialty Businesses, reflect similar drivers to that of its consolidated performance as each of the Company's reportable segments net sales benefitted year-over-year from double-digit increases in selling price and product mix and additional net sales from acquisitions, while those increases in net sales for most segments were partially offset by lower organic sales volumes and the unfavorable impact of foreign currency translation. Organic volumes for the Global Speciality Businesses increased in the second quarter of 2022 compared to the prior year quarter due to strong demand for this segment's products. Operating earnings for the Global Specialty Businesses and Americas increased compared to the prior year quarter, whereas operating earnings for Asia/Pacific and EMEA declined, due to the persistent and significant inflationary pressures on raw materials and other costs, the impact of COVID-19 disruptions in China, and the negative impact of foreign currency translation, partially offset by continued price realization. Sequentially, operating earnings increased in Global Speciality Businesses and the Americas driven by higher selling prices, and was relatively consistent in Asia/Pacific. Operating margins for the three aforementioned segments increased sequentially, as price realization was able to help offset the inflationary pressures on each of the segment's gross margins. 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.

The Company had a net operating cash outflow of $8.4 million in the first six months of 2022 as compared to a net operating cash outflow of $9.6 million in the first six months of 2021. The net operating cash outflow in both periods reflects a significant working capital investment primarily related to higher accounts receivable due to the increase in net sales as well as higher inventory due primarily to the rising cost of raw materials and to a lesser extent a build in certain inventory stock in response to global supply chain and logistics challenges. 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 another quarter of strong net sales growth, driven by strong price realization and above market growth. The expected decline in earnings was primarily driven by ongoing inflationary pressures, COVID-19 disruptions in China, unfavorable currency translation, geopolitical issues and other disruptions that impacted our customers and end markets. Notwithstanding, we delivered double-digit year-over-year increases in selling price and largely stabilized the Company's gross margins on a sequential basis despite continued increases in our costs. Looking at the remainder of 2022, the Company's focus remains on executing on items within its control. The Company is encouraged by the momentum in its business and resilience of its end markets, with some regional differences. The Company continues to work with its customers to get the needed pricing to offset the persistent inflationary pressures on its margin while also exhibiting continued cost controls. Despite significant uncertainty caused by several macroeconomic factors, the Company continues to expect to deliver sequential gross margin expansion and earnings growth in the second half of 2022.

On-going impact of COVID-19

The global outbreak of COVID-19 in March of 2020 has negatively impacted all locations where the Company does business. Although the Company has now operated in this COVID-19 environment for more than two years, the full extent of the outbreak and related business impacts continue to remain uncertain and volatile, and therefore the full extent to which COVID-19 may impact the Company's future results of operations or financial condition is uncertain. This outbreak has significantly disrupted the operations of the Company and those of its suppliers and customers and, at times during the pandemic, the Company has experienced volume declines as compared to pre-COVID-19 levels. Management continues to monitor the impact that the COVID-19 pandemic is having on the Company, the overall specialty chemical industry and the economies and markets in which the Company operates. The prolonged pandemic and resurgences of the outbreak including as new variants continue to emerge, and continued restrictions on day-to-day life and business operations such as recent restrictions in China as well as border controls or closures and transportation disruptions may result in volume declines and lower net sales in future periods. To the extent that the Company's customers and suppliers are adversely impacted by COVID-19, this could reduce the availability, or result in delays, of materials or supplies to or from the Company, which in turn could significantly interrupt the Company's business operations. Given this ongoing uncertainty, the Company cautions that its future results of operations could be significantly and adversely impacted by COVID-19. While the circumstances have presented and are expected to continue to present challenges and have necessitated additional time and resources to be deployed to sufficiently address the challenges brought on by the pandemic at this time, Management does not believe that COVID-19 has had a material impact on its financial reporting processes, internal controls over financial reporting, or disclosure controls and procedures.

The Company's top priority is to protect the health and safety of its employees and customers, while working to ensure business continuity to meet customers' needs. During the pandemic, the Company has taken incremental steps to protect the health and wellbeing of its people in affected areas through various actions, including enabling work at home where needed and practicable, and employing social distancing standards, implementing travel restrictions where applicable, enhancing onsite hygiene practices, and instituting visitation restrictions at the Company's facilities. The Company has not and does not expect that it will incur material expenses implementing these health and safety policies. All of the Company's more than 30 production facilities worldwide are open and operating and are deemed as essential businesses in the jurisdictions where they are operating. The Company continues to expect that the impacts from COVID-19 will gradually decline subject to the effective containment of the virus and its variants and successful distribution and acceptance of the available vaccines and treatments; however, the incidence of reported cases of COVID-19 or a variant in several geographies where the Company has significant operations remains relatively high. Differing government responses to these reported cases continues to evolve and it therefore remains highly uncertain as to how long the global pandemic and related economic challenges will last in each of the jurisdictions where the Company conducts business and when our customers' businesses will recover to pre-COVID-19 levels. Though the Company was able to supply customers with value added solutions, as a result of the government-imposed quarantine and lockdown measures implemented at the end of March 2022 and continuing in effect until early June 2022, the Company's Shanghai, China-based locations were significantly impacted. The negative impact of those measures on our operations and liquidity was experienced during the second quarter of 2022 and the ultimate impact will depend on how quickly the Chinese economy recovers from the quarantine and lockdown measures that were temporarily implemented. While the actions the Company has taken to date to protect our workforce, to continue to serve our customers with excellence and to conserve cash and reduce costs as applicable, have been effective thus far, further actions to respond to the pandemic and its effects may be necessary as conditions continue to evolve.

Impact of Political Conflicts

A significant portion of the Company's revenues and earnings are generated by non-U.S. operations. This subjects the Company to political and economic risks that could adversely affect the Company's business, liquidity, financial position and results of operations. The existence of military conflicts, for example the Russian invasion of Ukraine, bring inherent risks such as the potential for supply chain disruptions, increased costs of resources including oil, decreased trade activity and other consequences related to economic or other sanctions. The U.S. government and other nations have imposed significant restrictions on most companies' ability to do business in Russia as a result of the military conflict between Russia and Ukraine. It is not possible to predict the broader or longer-term consequences of this conflict, which could include further sanctions, embargoes, regional instability, geopolitical shifts and adverse effects on macroeconomic conditions, security conditions, currency exchange rates and financial markets. The military conflict between Russia and Ukraine has had a negative impact on the Company's ability to sell to, ship products to collect payments from, and support customers in certain regions based on trade restrictions, embargoes and export control law restrictions, and logistics restrictions including closures of air space. If this conflict continues or expands, it could increase the costs, risks and adverse impacts from these new challenges. The Company and its customers and suppliers may also be the subject of increased cyber-attacks.

During the second quarter of 2022, the Company decided to cease its operations in Russia. The Company's operations in the conflict areas including Russia, Ukraine and Belarus historically represented less than 2% of the Company's consolidated net sales and less than 1% of the Company's consolidated total assets. The Company's primary exposure in the conflict areas related to outstanding customer accounts receivable. The Company is actively monitoring its outstanding Russian receivables for collections and has recorded incremental allowances for doubtful accounts where warranted.

Liquidity and Capital Resources

At June 30, 2022, the Company had cash and cash equivalents of $202.3 million. Total cash and cash equivalents was $165.2 million at December 31, 2021. The $37.2 million increase in cash and cash equivalents was the net result of $78.6 million of cash provided by financing activities partially offset by $8.4 million of cash used in operating activities, $24.4 million of cash used in investing activities and $8.6 million negative impact due to the effect of foreign currency translation.

Net cash flows used in operating activities were $8.4 million in the first six months of 2022 compared to net cash flows used in operating activities of $9.6 million in the first six months of 2021. The net operating cash outflow in both periods reflects working capital investment primarily related to higher accounts receivable due to the increase in net sales and higher inventory due primarily to the rising cost of raw materials and to a lesser extent a build in certain inventory in response to global supply chain and logistics challenges. The slight improvement in operating cash flow year-over-year is a result of a lower working capital investment partially offset by lower earnings in the first six months of 2022 compared to the first six months of 2021.

Net cash flows used in investing activities were $24.4 million in the first six months of 2022 compared to $21.7 million in the first six months of 2021. This increase in cash outflows was a result of lower cash proceeds from the disposition of assets which included the sale of certain held-for-sale real property assets related to the Combination in the prior year period, and higher capital expenditures in the current year largely related to certain infrastructure and sustainability-related spending. These increases in cash used in investing activities were partially offset by lower cash payments related to acquisitions as a result of the level of acquisition activity in each year. See Note 2 of Notes to Condensed Consolidated Financial Statements in Item 1 of this Report.

Net cash flows provided by financing activities were $78.6 million in the first six months of 2022 compared to net cash flows used in financing activities of $4.4 million in the first six months of 2021. The increase in net cash flows was primarily related to an increase in borrowings in the current year under the Company's credit facility, which was amended and extended, as further described below, in the second quarter of 2022. In addition, the Company paid $14.9 million of cash dividends during the first six months of 2022, a $0.7 million or 5% increase in cash dividends compared to the prior year.

The Company, its wholly owned subsidiary, Quaker Chemical B.V., as borrowers, Bank of America, N.A., as administrative agent, U.S. Dollar swing line lender and letter of credit issuer, and the other lenders party thereto, entered into a credit agreement on August 1, 2019, as amended (the "Original Credit Facility"). 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 the Original Credit Facility (the "Amended Credit Facility"). The Company used the proceeds of the Amended Credit Facility to repay all outstanding loans under the Original Credit Facility, as well as accrued interest and fees, and to terminate the revolving credit commitments under the Original Credit Facility.

The Company's Amended Credit Facility is comprised of a $500.0 million multicurrency revolver, a $600.0 million term loan and a $150.0 million (as of June 17, 2022) Euro equivalent term loan (collectively, the "Amended Term Loans") with the Company and Quaker Houghton B.V., as borrowers, each with a five-year term maturing in June 2027. Subject to the consent of the Administrative Agent and certain other conditions, the Company may designate additional borrowers. The Company has the right to increase the amount of the Amended Credit Facility by an aggregate amount not to exceed the greater of (i) $300 million and (ii) 100% of Consolidated EBITDA, subject to certain conditions, including the agreement to provide financing by any Lender providing any such increase. U.S. Dollar-denominated borrowings under the Amended Credit Facility bear interest, at the Company's election, at the base rate or term Secured Overnight Financing Rate ("SOFR") plus an applicable rate ranging from 1.00% to 1.75% for term SOFR loans and from 0.00% to 0.75% for base rate loans, depending upon the Company's consolidated net leverage ratio. Loans based on term SOFR also include a spread adjustment equal to 0.10% per annum. Borrowings under the Amended Credit Facility denominated in currencies other than U.S. Dollars bear interest at the alternative currency term rate plus the applicable rate ranging from 1.00% to 1.75%. In addition to paying interest on outstanding principal under the Amended Credit Facility, the Company is required to pay a commitment fee ranging from 0.15% to 0.275% depending on the Company's consolidated net leverage ratio to the Lenders under the Amended Revolver in respect of the unutilized commitments thereunder.

The Amended Credit Facility contains affirmative and negative covenants, financial covenants and events of default that are customary for agreements of this nature. The Amended Credit Facility contains a number of customary business covenants, including without limitation restrictions on (a) the incurrence of additional indebtedness by the Company or certain of its subsidiaries, (b) investments in and acquisitions of other businesses, lines of business and divisions by the Company or certain of its subsidiaries, (c) the payment of dividends or capital stock purchases by the Company or certain of its subsidiaries and (d) dispositions of assets by the Company or certain of its subsidiaries. Dividends and share repurchases are permitted in annual amounts not exceeding the greater of $75 million annually and 25% of Consolidated EBITDA if there is no default. All restricted payments may be made if there is no default and if the consolidated net leverage ratio is less than 2.50 to 1.00.

Financial covenants contained in the Amended Credit Facility include a consolidated interest coverage ratio test and a consolidated net leverage ratio test. The consolidated net leverage ratio at the end of a quarter may not be greater than 4.00 to 1.00, subject to a permitted increase during a four quarter period after certain acquisitions. The Company has the option of replacing the consolidated net leverage ratio test with a consolidated senior net leverage ratio test if the Company issues certain types of unsecured debt, subject to certain customary limitations. Customary events of default in the Amended Credit Facility include without limitation defaults for non-payment, breach of representations and warranties, non-performance of covenants, cross-defaults, insolvency, and a change of control of the Company in certain circumstances. The occurrence of an event of default under the Amended Credit Facility could result in all loans and other obligations becoming immediately due and payable and the Amended Credit Facility being terminated.

The Original Credit Facility required the Company to fix its variable interest rates on at least 20% of its total Original Term Loans. In order to satisfy this requirement as well as to manage the Company's exposure to variable interest rate risk associated with the Original Credit Facility, in November 2019, the Company entered into $170.0 million notional amounts of three year interest rate swaps at a base rate of 1.64% plus an applicable margin as provided in the Original Credit Facility, based on the Company's consolidated net leverage ratio. At the time the Company entered into the swaps, and as of June 30, 2022, the aggregate interest rate on the swaps, including the fixed base rate plus an applicable margin, was 3.1%. The Amended Credit Facility does not require the Company to fix variable interest rates on any portion of its borrowings.

The Company previously capitalized $23.7 million of certain third-party debt issuance costs in connection with the Original Credit Facility. Approximately $15.5 million of the capitalized costs were attributed to the Original Term Loans and recorded as a direct reduction of Long-term debt on the Condensed Consolidated Balance Sheet. Approximately $8.3 million of the capitalized costs were attributed to the Original Revolver and recorded within Other assets on the Condensed Consolidated Balance Sheet. These capitalized costs were being amortized into Interest expense over the five-year term of the Original Credit Facility. As of December 31, 2021, the Company had $8.0 million of debt issuance costs recorded as a reduction of Long-term debt attributable to the Original Credit Facility. As of December 31, 2021, the Company had $4.3 million of debt issuance costs recorded within Other assets attributable to the Original Credit Facility. Prior to executing the Amended Credit Facility, the Company had $6.6 million of debt issuance costs recorded as a reduction of Long-term debt attributable to the Original Credit Facility and $3.5 million of debt issuance costs recorded within Other assets attributable to the Original Credit Facility. In connection with executing the Amended Credit Facility, the Company recorded a loss on extinguishment of debt of approximately $6.8 million 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. Also in connection with executing the Amended Credit Facility, during the second quarter of 2022, the Company capitalized $2.2 million of certain third-party debt issuance costs. Approximately $0.7 million of the capitalized costs were attributed to the Amended Euro Term Loan and Amended 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 Amended Revolver and recorded within Other assets on the Condensed Consolidated Balance Sheet. These capitalized costs, as well as the previously capitalized costs that were not written off will collectively be amortized into Interest expense over the five-year

term of the Amended Credit Facility. As of June 30, 2022, the Company had $2.2 million of debt issuance costs recorded as a reduction of Long-term debt on the Condensed Consolidated Balance Sheet and $4.8 million of debt issuance costs recorded within Other assets on the Condensed Consolidated Balance Sheet.

As of June 30, 2022, the Company had Amended Credit Facility borrowings outstanding of $977.6 million. As of December 31, 2021, the Company had Original Credit Facility borrowings outstanding of $889.6 million. The Company has unused capacity under the Amended Revolver of approximately $268 million, net of bank letters of credit of approximately $4 million, as June 30, 2022. The Company's other debt obligations are primarily industrial development bonds, bank lines of credit and municipality-related loans, which totaled $11.5 million and $11.8 million as of June 30, 2022 and December 31, 2021, respectively. Total unused capacity under these arrangements as of June 30, 2022 was approximately $28 million. The Company's total net debt as of June 30, 2022 was $786.7 million.

The Company incurred $8.3 million of total Combination, integration and other acquisition-related expenses in the first six months of 2022, which includes $2.4 million of other expenses related to indemnification assets, described in the Non-GAAP Measures section of this Item below. Comparatively, in the first six months of 2021, the Company incurred $7.6 million of total Combination, integration and other acquisition-related expenses, which was net of a $5.4 million gain on the sale of certain held-for-sale real property assets and also included $0.5 million of accelerated depreciation. The Company had aggregate net cash outflows of approximately $9.2 million related to the Combination, integration and other acquisition-related expenses during the first six months of 2022 as compared to $14.8 million during the first six months of 2021. During the first six months of 2022, the Company incurred $6.2 million of strategic planning and transformation expenses. The Company expects that these 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 will continue in 2022 and potentially extend into the next several years.

Quaker Houghton's Management approved, and the Company initiated, a global restructuring plan (the "QH Program") in the third quarter of 2019 as part of its planned cost synergies associated with the Combination. The QH Program includes restructuring and associated severance costs to reduce total headcount by approximately 400 people globally and plans for the closure of certain manufacturing and non-manufacturing facilities. The exact timing and total costs associated with the QH Program depends on a number of factors and is subject to change; however, reductions in headcount and site closures have occurred, and the Company currently expects additional headcount reductions and site closures to occur throughout 2022 and into 2023. The Company made cash payments related to the settlement of restructuring liabilities under the QH Program during the first six months of 2022 of approximately $0.8 million compared to $4.2 million in the first six months of 2021.

As of June 30, 2022, the Company's gross liability for uncertain tax positions, including interest and penalties, was $21.9 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 $6.9 million as a result of offsetting benefits in other tax jurisdictions.

In 2021, two of the Company's locations suffered significant property damage as a result of flooding and fire. The Company maintains property insurance for all of its facilities globally. The Company, its insurance adjuster and insurance carrier are actively managing the remediation and restoration activities associated with both of these events and at this time the Company has concluded, based on all available information and discussions with its insurance adjuster and insurance carrier, that the losses incurred during 2021 were covered under the Company's property insurance coverage, net of an aggregate deductible of $2.0 million. The Company has received payments from its insurers of $2.1 million and has recorded an insurance receivable associated with these events of $0.9 million as of June 30, 2022. See Note 18 of Notes to Condensed Consolidated Financial Statements in Item 1 of this Report.

The Company believes that its existing cash, anticipated cash flows from operations and available additional 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, costs related to ongoing acquisition integration and optimization, pension plan contributions, capital expenditures, other business opportunities (including potential acquisitions), 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 Amended 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.

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 (loss) 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 (loss) 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,**		**Six Months Ended June 30,**	
	2022	**2021**	**2022**	**2021**
Operating income	$ 31,903	$ 38,816	$ 61,306	$ 83,710
Combination, restructuring and other acquisition-related expenses (a)	1,831	7,082	6,704	15,288
Strategic planning and transformation expenses (b)	3,112	—	6,200	—
Executive transition costs (c)	645	308	1,184	812
Russia-Ukraine conflict related expenses (d)	929	—	2,095	—
Other charges (e)	385	242	476	293
Non-GAAP operating income	$ 38,805	$ 46,448	$ 77,965	$ 100,103
Non-GAAP operating margin (%) (l)	7.9%	10.7%	8.1%	11.6%

EBITDA, Adjusted EBITDA, Adjusted EBITDA Margin and Non-GAAP Net Income Reconciliations	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Net income attributable to Quaker Chemical Corporation	$ 14,343	$ 33,570	$ 34,159	$ 72,185
Depreciation and amortization (a)(j)	20,856	22,344	41,583	44,792
Interest expense, net	6,494	5,618	11,839	11,088
Taxes on income before equity in net (loss) income of associated companies (k)	1,374	15,218	4,240	25,907
EBITDA	43,067	76,750	91,821	153,972
Equity loss (income) in a captive insurance company (f)	1,781	(883)	2,025	(3,963)
Combination, restructuring and other acquisition-related expenses (a)	2,248	6,956	9,100	9,359
Strategic planning and transformation expenses (b)	3,112	—	6,200	—
Executive transition costs (c)	645	308	1,184	812
Russia-Ukraine conflict related expenses (d)	929	—	2,095	—
Brazilian non-income tax credits (g)	—	(13,293)	—	(13,293)
Loss on extinguishment of debt (h)	6,763	—	6,763	—
Other charges (e)	(54)	219	(253)	318
Adjusted EBITDA	$ 58,491	$ 70,057	$ 118,935	$ 147,205
Adjusted EBITDA margin (%) (l)	11.9%	16.1%	12.3%	17.0%
Adjusted EBITDA	$ 58,491	$ 70,057	$ 118,935	$ 147,205
Less: Depreciation and amortization - adjusted (a)	20,856	22,218	41,583	44,251
Less: Interest expense, net	6,494	5,618	11,839	11,088
Less: Taxes on income before equity in net income of associated companies - adjusted (a)(k)	7,466	9,773	16,368	21,512
Non-GAAP net income	$ 23,675	$ 32,448	$ 49,145	$ 70,354

Non-GAAP Earnings per Diluted Share Reconciliations	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
GAAP earnings per diluted share attributable to Quaker Chemical Corporation common shareholders	$ 0.80	$ 1.88	$ 1.91	$ 4.03
Equity loss (income) in a captive insurance company per diluted share (f)	0.10	(0.05)	0.11	(0.22)
Combination, restructuring and other acquisition-related expenses per diluted share (a)	0.13	0.30	0.41	0.42
Strategic planning and transformation expenses per diluted share (b)	0.13	—	0.27	—
Executive transition costs per diluted share (c)	0.03	0.02	0.05	0.04
Russia-Ukraine conflict related expenses per diluted share (d)	0.04	—	0.10	—
Brazilian non-income tax credits per diluted share (g)	—	(0.44)	—	(0.44)
Loss on extinguishment of debt per diluted share (h)	0.29	—	0.29	—
Other charges per diluted share (e)	(0.00)	0.01	(0.01)	0.02
Impact of certain discrete tax items per diluted share (i)	(0.20)	0.10	(0.39)	0.08
Non-GAAP earnings per diluted share (m)	$ 1.32	$ 1.82	$ 2.74	$ 3.93

(a) Combination, restructuring and other acquisition-related expenses include certain legal, financial, and other advisory and consultant costs incurred in connection with the Combination integration activities including internal control readiness and remediation as well as costs incurred by the Company associated with the QH restructuring program, which was initiated in the third quarter of 2019 as part of the Company's plan to realize cost synergies associated with the Combination. These amounts also include expense associated with other of the Company's acquisitions, including cost associated with selling inventory from acquired businesses which was adjusted to fair value as part of purchase accounting. 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, respectively, and approximately $0.4 million and $0.5 million in the three and six months ended June 30, 2021, respectively, 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 the three and six months ended June 30, 2022, the Company recorded $0.4 million and $2.4 million, respectively, of other expense related to an indemnification asset, which is included in the caption "Combination, restructuring and other acquisition-related 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. During the three and six months ended June 30, 2021, the Company recorded $0.1 million $0.5 million, respectively, of accelerated depreciation related to certain of the Company's facilities, which is included in the caption "Combination, restructuring and other acquisition-related expenses" in the reconciliation of operating income to non-GAAP operating income and included in the caption "Depreciation and amortization" in the reconciliation of net income attributable to the Company to EBITDA, but excluded from the caption "Depreciation and amortization - adjusted" in the reconciliation of adjusted EBITDA to non-GAAP net income attributable to the Company. During the six months ended June 30, 2021, the Company recorded a $5.4 million gain on the sale of certain held-for-sale real property assets related to the Combination which is included in the caption "Combination, restructuring and other acquisition-related 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. During the three and six months ended June 30, 2022, respectively, the Company recorded restructuring and related charges of less than $0.1 million and $0.8 million, respectively, and $0.3 million and $1.5 million during the three and six months ended June 30, 2021, respectively. During the six months ended June 30, 2021, the Company recorded $0.8 million related to the sale of inventory from acquired businesses which was adjusted to fair value. See Notes 2, 7, 10 and 11 of Notes to Condensed Consolidated Financial Statements, which appear in Item 1 of this Report.

(b) Strategic planning and transformation expenses include certain consultant and advisory expenses for the Company's long-term strategic planning, as well as process optimization and the next phase of the Company's long-term integration to further optimize its footprint, processes and other functions. These costs are not indicative of the future operating performance of the Company.

(c) Executive transition costs represent the costs related to the Company's search, hiring and transition to a new CEO in connection with the executive transition that took place in 2021 as well as the search, hiring and transition for other officers during the first six months of 2022. These expenses 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 the second quarter of 2022, primarily 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 due to the economic instability associated with certain customer accounts receivables which have been directly impacted by the current economic conflict between Russia and Ukraine or the Company's decision to end operations in Russia. These expenses are not indicative of the future operating performance of the Company.

(e) Other charges include charges incurred by an inactive subsidiary of the Company as a result of the termination of restrictions on insurance settlement reserves, non-service components of the Company's pension and postretirement net periodic benefit income and the foreign currency remeasurement impacts associated with the Company's affiliates whose local economies are designated as hyper-inflationary under U.S. GAAP. These expenses are not indicative of the future operating performance of the Company. See Notes 1 and 9 of Notes to Condensed Consolidated Financial Statements, which appear in Item 1 of this Report.

(f) Equity loss (income) in a captive insurance company represents the after-tax loss (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 loss (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) Brazilian non-income tax credits represent indirect tax credits related to certain of the Company's Brazilian subsidiaries prevailing in a legal claim as well as the Brazilian Supreme Court ruling on these non-income tax matters. The non-income tax credits arising from the claim and court ruling are non-recurring and not indicative of the future operating performance of the Company. See Note 18 of Notes to Condensed Consolidated Financial Statements, which appears in Item 1 of this Report.

(h) In connection with executing the Amended Credit Facility, the Company recorded a loss on extinguishment of debt of approximately $6.8 million 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.

(i) The impacts of certain discrete tax items include changes in valuation allowances recorded on certain Brazilian branch foreign tax credits and the recording of deferred taxes on Brazilian branch income. Both of these discrete items related to tax law changes in the U.S. due to the issuance of final foreign tax credit regulations during the period. Additionally, the Company has discrete items related to the release of the reserves for uncertain tax positions settled during the quarter and certain taxes, penalties, and interest due as a result of the settlements. See Note 11 of Notes to Condensed Consolidated Financial Statements, which appears in Item 1 of this Report.

(j) Depreciation and amortization for the three and six months ended June 30, 2022 includes approximately $0.2 million and $0.5 million, respectively, and for the three and six months ended June 30, 2021 includes $0.3 million and $0.6 million, respectively, of amortization expense recorded within equity in net loss (income) of associated companies in the Company's Condensed Consolidated Statements of income, 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 loss (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, restructuring and other acquisition-related expenses described in (a) resulted in a tax benefit of approximately $0.1 million and incremental taxes of $1.6 million for the three and six months ended June 30, 2022, respectively, compared to $1.6 million and $2.2 million for the three and six months ended June 30, 2021, respectively. Strategic planning and transformation expenses describes in (b) above resulted in incremental taxes of $0.7 million and $1.4 million for the three and six months ended June 30, 2022, respectively. Executive transition costs described in (c) resulted in incremental taxes of $0.2 million and $0.3 million for the three and six months ended June 30, 2022, respectively, compared to $0.1 million and $0.2 million for the three and six months ended June 30, 2021, 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 less than $0.1 million and a tax benefit of less than $0.1 million for the three and six months ended June 30, 2022, respectively, compared to $0.1 million during each of the three and six months ended June 30, 2021. Brazilian non-income tax credits described in (g) resulted in incremental taxes of $5.3 million during the three and six months ended June 30, 2021. 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. The impact of certain discrete items described in (i) resulted in a tax benefit of $3.5 million and $6.9 million for the three and six months ended June 30, 2022, respectively, compared to $1.9 million and $1.5 million for the three and six months ended June 30, 2021, respectively.

(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, 2022. The Company's off-balance sheet items outstanding as of June 30, 2022 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 2022 with the Second Quarter of 2021

Net sales were $492.4 million in the second quarter of 2022 compared to $435.3 million in the second quarter of 2021. The net sales increase of $57.1 million or 13% quarter-over-quarter reflects increases in selling price and product mix of approximately 22% and additional net sales from acquisitions of 1% partially offset by the unfavorable impact from foreign currency translation of 6% and a decline in organic sales volumes of approximately 4%. The increase in selling price and product mix is primarily driven by price increases implemented to help offset the significant increases in raw material and other input costs that began during 2021 and continued into 2022. The decline in organic sales volumes was primarily attributable to COVID-19 related production disruptions in China, the tolling agreement for products previously divested related to the Combination, the ongoing war in Ukraine and the Company's ongoing value-based pricing initiatives.

COGS were $342.8 million in the second quarter of 2022 compared to $280.8 million in the second quarter of 2021. The increase in COGS of $62.0 million or 22% was driven by the continued increases in the Company's global raw material and supply chain and logistics costs compared to the prior year.

Gross profit in the second quarter of 2022 decreased $4.9 million or 3% from the second quarter of 2021. The Company's reported gross margin in the second quarter of 2022 was 30.4% compared to 35.5% in the second quarter of 2021. The Company's current quarter gross margin reflects the continued significant increase in raw material and other input costs experienced throughout the second quarter of 2022 and the impacts of constraints on the global supply chain, partially offset by the Company's ongoing value-based pricing initiatives.

SG&A in the second quarter of 2022 increased $7.2 million or 7% compared to the second quarter of 2021 due primarily to the impact of sales increases on direct selling costs, inflation driven higher operating costs, costs associated with strategic planning and transformation initiatives (see the Non-GAAP Measures section of this Item, above), and additional SG&A from recent acquisitions partially offset by lower SG&A due to foreign currency translation compared to the prior year.

During the second quarter of 2022, the Company incurred $1.8 million of Combination, integration and other acquisition-related operating expenses primarily for professional fees related to the Houghton integration and other acquisition-related activities. Comparatively, the Company incurred $6.7 million of expenses in the prior year second quarter, primarily due to various professional fees related to legal, financial and other advisory and consultant expenses for integration activities including internal control readiness and remediation. See the Non-GAAP Measures section of this Item, above.

The Company initiated a restructuring program during the third quarter of 2019 as part of its global plan to realize cost synergies associated with the Combination. The Company incurred Restructuring and related (credits) charges for reductions in headcount and site closures under this program, net of adjustments to initial estimates for severance of a credit of less than $0.1 million and a charge of $0.3 million during the second quarters of 2022 and 2021, respectively. See the Non-GAAP Measures section of this Item, above.

Operating income in the second quarter of 2022 was $31.9 million compared to $38.8 million in the second quarter of 2021. 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 quarter non-GAAP operating income decreased to $38.8 million compared to $46.4 million in the prior year second quarter primarily due to the lower gross profit and higher SG&A described above.

The Company had other expense, net, of $8.4 million in the second quarter of 2022 compared to other income, net of $14.0 million in the second quarter of 2021. The second quarter of 2022 includes a loss on extinguishment of debt of $6.8 million associated with the refinancing of the Original Credit Facility while the second quarter of 2021 included $13.3 million of income related to certain non-income tax credits recorded by the Company's Brazilian subsidiaries. See the Non-GAAP Measures section of this Item, above. In addition, the Company incurred higher foreign exchange transaction losses in the second quarter of 2022 compared to the prior year quarter.

Interest expense, net, increased $0.9 million compared to the second quarter of 2021 as a result of increases in the average borrowings outstanding in the second quarter of 2022 compared to the second quarter of 2021 coupled with an increase in interest rates quarter-over-quarter.

The Company's effective tax rates for the second quarters of 2022 and 2021 were 8.1% and 32.2%, respectively. The Company's effective tax rate for the second quarter of 2022 was largely driven by state tax benefits, a reduction in reserves for uncertain tax positions relating to management fees, a deferred tax benefit associated with an intercompany asset transfer, withholding taxes for increased forecasted dividends, and the effects of lower pre-tax earnings and the mix of such earnings. In addition, the Company incurred higher tax expense during the second quarter of 2022 primarily related to the Company recording earnings in one of its subsidiaries at a statutory tax rate of 25% while it awaits recertification of a concessionary 15% tax rate, which was available to the Company during all of 2021. Comparatively, the prior year quarter effective tax rate was impacted by changes in foreign tax credit

valuation allowances, tax law changes in foreign jurisdictions as well as the tax impacts of certain non-income tax credits recorded by the Company's Brazilian subsidiaries. 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 both the second quarters of 2022 and 2021 would have been approximately 24%. 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, including the high technology incentive at one of our subsidiaries based in China which is currently up for triennial renewal, 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 decreased $2.9 million in the second quarter of 2022 compared to the second quarter of 2021, primarily due to lower current year income from the Company's interest in a captive insurance company and 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 quarters of 2022 and 2021.

Foreign exchange unfavorably impacted the Company's second quarter of 2022 results by approximately 11% 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 2022 with the First Six Months of 2021

Net sales were $966.6 million in the first six months of 2022 compared to $865.0 million in the first six months of 2021. The net sales increase of $101.5 million or 12% year-over-year reflects increases in selling price and product mix of approximately 19% and additional net sales from acquisitions of 2% partially offset by a decline in organic sales volumes of approximately 5% and the unfavorable impact from foreign currency translation of 4%. The increase in selling price and product mix is primarily driven by price increases implemented to help offset the significant increases in raw material and other input costs that began during 2021 and continued into 2022. The decline in sales volumes was primarily attributable to the comparison to a very strong first half of 2021, and primarily the first quarter of 2021, where customers replenished their supply chains, the impact of lower volumes related to the tolling agreement for products previously divested related to the Combination, the ongoing war in Ukraine, COVID-19 disruptions in China and the Company's ongoing value-based pricing initiatives.

COGS were $670.9 million in the first six months of 2022 compared to $554.4 million in the first six months of 2021. The increase in COGS of $116.5 million or 21% was driven by the continued increases in the Company's global raw material and supply chain and logistics costs compared to the prior year.

Gross profit in the first six months of 2022 decreased $15.0 million or 5% from the first six months of 2021. The Company's reported gross margin in the first six months of 2022 was 30.6% compared to 35.9% in the first six months of 2021. The Company's current year gross margin reflects a significant increase in raw material and other input costs and the impacts of constraints on the global supply chain, partially offset by the Company's ongoing value-based pricing initiatives.

SG&A in the first six months of 2022 increased $14.6 million or 7% compared to the first six months of 2021 due primarily to the impact of sales increases on direct selling costs, inflation driven higher operating costs, costs associated with strategic planning and transformation initiatives (see the Non-GAAP Measures section of this Item, above), and additional SG&A from recent acquisitions partially offset by lower SG&A due to foreign currency translation compared to the prior year. In addition, SG&A was lower in the prior year period as a result of continued temporary cost saving measures the Company implemented in response to the onset of COVID-19.

During the first six months of 2022, the Company incurred $5.9 million of Combination, integration and other acquisition-related operating expenses primarily for professional fees related to the Houghton integration and other acquisition-related activities. Comparatively, the Company incurred $12.5 million of expenses in the prior year's first six months, primarily due to various professional fees related to legal, financial and other advisory and consultant expenses for integration activities including internal control readiness and remediation. See the Non-GAAP Measures section of this Item, above.

The Company initiated a restructuring program during the third quarter of 2019 as part of its global plan to realize cost synergies associated with the Combination. The Company incurred Restructuring and related charges for reductions in headcount and site closures under this program, net of adjustments to initial estimates for severance of $0.8 million and $1.5 million during the first six months of 2022 and 2021, respectively. See the Non-GAAP Measures section of this Item, above.

Operating income in the first six months of 2022 was $61.3 million compared to $83.7 million in the first six months of 2021. 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 decreased to $78.0 million for the first six months of 2022 compared to $100.1 million in the prior year's first six months primarily due to the lower gross profit and higher SG&A described above.

The Company had other expense, net, of $10.6 million in the first six months of 2022 compared to other income, net of $18.7 million in the first six months of 2021. The first six months of 2022's results include $6.8 million loss on extinguishment of debt related to the Company's refinancing the Original Credit Facility and other expenses of $2.4 million related to the impact of certain adjustments to the Company's Combination related indemnification receivables, while the prior year's first six months of 2022 other income includes $13.3 million of income related to certain non-income tax credits recorded by the Company's Brazilian subsidiary as well as a $5.4 million gain on the sale of certain held-for-sale real property assets. See the Non-GAAP Measures section of this Item, above. In addition, the Company incurred higher foreign exchange transaction losses in the first six months of 2022 compared to the prior year period.

Interest expense, net, increased $0.8 million compared to the first six months of 2021, due to an increase in the average borrowings outstanding in the first six months of 2022 coupled with 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 2022 and 2021 were 10.9% and 28.4%, respectively. The Company's effective tax rate for the six months ended June 30, 2022 was largely driven by changes in the valuation allowance for foreign tax credits due to recently issued legislative guidance, impacts due to settlements reached on certain tax audits, state tax benefits, a reduction in reserves for uncertain tax positions relating to management fees, a deferred tax benefit associated with an intercompany asset transfer, withholding taxes for increased forecasted dividends and the effects of lower pre-tax earnings and the mix of such earnings. Comparatively, the prior year six month effective tax rate was impacted by the sale of a subsidiary which included certain held-for-sale real property assets related to the Combination, certain U.S. tax law changes and the tax impact of certain non-income tax credits recorded by the Company's Brazilian subsidiaries. Excluding the impact of all other 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 2022 and 2021 would have been approximately 26% and 24%, respectively. In addition, the Company incurred higher tax expense during the six months ended June 30, 2022 primarily related to the Company recording earnings in one of its subsidiaries at a statutory tax rate of 25% while it awaits recertification of a concessionary 15% tax rate, which was available to the Company during all of 2021.

Equity in net income of associated companies decreased $7.3 million in the first six months of 2022 compared to the first six months of 2021, primarily due to lower current year income from the Company's interest in a captive insurance company and 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 first six months of 2022 and 2021.

Foreign exchange unfavorably impacted the Company's first six months of 2022 results by approximately 7% 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 2022 with the Second Quarter of 2021

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. The Company has four reportable segments: (i) Americas; (ii) EMEA; (iii) Asia/Pacific; and (iv) Global Specialty Businesses. The three geographic segments are composed of the net sales and operations in each respective region, excluding net sales and operations managed globally by the Global Specialty Businesses segment, which includes the Company's container, metal finishing, mining, offshore, specialty coatings, specialty grease and Norman Hay businesses.

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, Restructuring and related charges, and COGS related to acquired inventory sold, which is adjusted to fair value as part of purchase accounting, 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) income, net.

Americas

Americas represented approximately 35% of the Company's consolidated net sales in the second quarter of 2022. The segment's net sales were $172.7 million, an increase of $33.1 million or 24% compared to the second quarter of 2021. The increase in net sales was due to higher selling price and product mix of 28%, additional net sales from acquisitions of 1% and a favorable impact from foreign currency translation of 1%, partially offset by a 6% decline in organic sales volumes. The increase in selling price and product mix is primarily driven by price increases implemented to help offset the significant increases in raw material and other input costs that began during 2021 and continued through the second quarter of 2022. The current quarter decline in organic sales volumes was primarily driven by the tolling agreement for previously divested products related to the Combination, the Company's ongoing value-based pricing initiatives and lower volumes into the automotive industry due to the semiconductor supply constraints, partially offset by net new business wins. This segment's operating earnings were $33.8 million, an increase of $0.1 million compared to the second quarter of 2021. The increase in segment operating earnings was primarily driven by higher net sales which were partially offset by on-going inflationary pressures on our business.

EMEA

EMEA represented approximately 25% of the Company's consolidated net sales in the second quarter of 2022. The segment's net sales were $123.1 million, a decrease of $0.4 million compared to the second quarter of 2021. This was driven by higher selling price and product mix of 21% and additional net sales from acquisitions of approximately 1%, partially offset by the unfavorable impact of foreign currency translation of 15% and a decrease in organic sales volumes of 7%. The increase in selling price and product mix was primarily driven by price increases implemented to help offset the significant increases in raw material and other input costs that began during 2021 and continued through the second quarter of 2022. The decline in organic sales volumes was primarily driven by the current geopolitical and macroeconomic pressures including the direct and indirect impacts of the ongoing war in Ukraine and the impact of the economic and other sanctions by other nations on Russia in response to the war, as well as lower volumes associated with the Company's ongoing value-based pricing initiatives, the tolling agreement for products previously divested related to the Combination and softer economic conditions in the region. The unfavorable foreign exchange impact was primarily due to the strengthening of the U.S. dollar against the euro as this exchange rate averaged 1.07 in the second quarter of 2022 compared to 1.20 in the second quarter of 2021. This segment's operating earnings were $13.3 million, a decrease of $10.1 million or 43% compared to the second quarter of 2021. The decrease in segment operating earnings was primarily a result of higher net sales which were more than offset by lower gross margins due to inflationary pressures on the Company's costs exceeding its value-based pricing actions. Operating earnings were also negatively impacted by foreign currency translation.

Asia/Pacific

Asia/Pacific represented approximately 20% of the Company's consolidated net sales in the second quarter of 2022. The segment's net sales were $99.8 million, an increase of $8.3 million or 9% compared to the second quarter of 2021. The increase in net sales was driven by higher selling price and product mix of 17% partially offset by lower organic sales volumes of 4% and an unfavorable impact from foreign currency translation of 4%. The increase in selling price and product mix was primarily driven by price increases implemented to help offset the significant increases in raw material and other input costs that began during 2021 and continued through the second quarter of 2022, partially offset by a net increase in volumes elsewhere in the region. The decline in organic sales volumes was primarily driven by lower sales volumes in China as a result of the government imposed COVID-19 quarantine and related production disruptions implemented at the end of March 2022 and continued throughout the second quarter of 2022. 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 6.61 in the second quarter of 2022 compared to 6.46 in the second quarter of 2021. This segment's operating earnings were $22.2 million, a decrease of $1.0 million or 4% compared to the second quarter of 2021. The decrease in segment operating earnings was primarily a result of higher net sales which was more than offset by lower gross margins due to inflationary pressures and higher costs as a result of the COVID-19 production disruptions in China.

Global Specialty Businesses

Global Specialty Businesses represented approximately 20% of the Company's consolidated net sales in the second quarter of 2022. The segment's net sales were $96.8 million, an increase of $16.2 million or 20% compared to the second quarter of 2021. The increase in net sales was driven by higher selling price and product mix of 11%, additional net sales from acquisitions of 3% and an increase in organic sales volumes of 10%, partially offset by the unfavorable impact from foreign currency translation of 4%. The increase in selling price and product mix was primarily driven by price increases implemented to help offset the significant increases in raw material and other input costs that began during 2021 and continued through the second quarter of 2022. The increase in organic sales volumes was primarily attributable to a continued favorable demand environment for this segment's products. The unfavorable foreign exchange impact was primarily due to the strengthening of the U.S. dollar against the euro as described in the EMEA section above. This segment's operating earnings were $27.8 million, an increase of $3.6 million or 15% compared to the second quarter of 2021. The increase in segment operating earnings reflects the higher net sales partially offset by lower gross margins in the current year and slightly higher operating expenses due to inflationary pressures.

Reportable Segments Review - Comparison of the First Six months of 2022 with the First Six months of 2021

Americas

Americas represented approximately 34% of the Company's consolidated net sales in the first six months of 2022. The segment's net sales were $326.9 million, an increase of $52.4 million or 19% compared to the first six months of 2021. The increase in net sales was due to higher selling price and product mix of 26%, additional net sales from acquisitions of 1% and the favorable impacts of foreign currency translation of 1%, partially offset by a decrease in organic sales volumes of 9%. The increase in selling price and product mix was primarily driven by price increases implemented to help offset the significant increases in raw material and other input costs that began during 2021 and have continued into 2022. The current year decline in organic sales volumes was primarily driven by lower sales volumes into the automotive end market, the tolling agreement for previously divested products related to the Combination, the prior year period comparison which included a strong rebound from COVID-19 impacts and the Company's ongoing value-based pricing initiatives, partially offset by net new business wins. This segment's operating earnings were $63.0 million, a decrease of $2.9 million or 4% compared to the first six months of 2021. The decrease in segment operating earnings was primarily a result of higher net sales which was more than offset by lower gross margins driven by inflationary pressures.

EMEA

EMEA represented approximately 26% of the Company's consolidated net sales in the first six months of 2022. The segment's net sales were $248.7 million, an increase of $5.5 million or 2% compared to the first six months of 2021. The increase in net sales was due to higher selling price and product mix of 19% and additional net sales from acquisitions of 2%, partially offset by the unfavorable impact of foreign currency translation of 12% and a decrease in organic sales volumes of 7%. The increase in selling price and product mix was primarily driven by price increases implemented to help offset the significant increases in raw material and other input costs that began during 2021 and have continued into 2022. The decline in organic sales volumes was primarily driven by the current geopolitical and macroeconomic pressures including the direct and indirect impacts of the ongoing war in Ukraine and the impact of the economic and other sanctions by other nations on Russia in response to the war, lower volumes associated with the Company's ongoing value-based pricing initiatives, the tolling agreement for products previously divested related to the Combination, the prior year period comparison which included a strong rebound from COVID-19 impacts, and softer economic conditions in the region in the current period, partially offset by net new business wins. The unfavorable foreign exchange impact was primarily due to the strengthening of the U.S. dollar against the euro as this exchange rate averaged 1.09 in the first six months of 2022 compared to 1.21 in first six months of 2021. This segment's operating earnings were $30.0 million, a decrease of $18.6 million or 38% compared to the first six months of 2021. The decrease in segment operating earnings was primarily a result of higher net sales which was more than offset by lower gross margins driven by significant inflationary pressures and the negative impact of foreign currency translation year-over-year.

Asia/Pacific

Asia/Pacific represented approximately 21% of the Company's consolidated net sales in the first six months of 2022. The segment's net sales were $204.1 million, an increase of $15.8 million or 8% compared to the first six months of 2021. The increase in net sales was driven by higher selling price and product mix of 14% partially offset by lower organic sales volumes of 4% and the unfavorable impacts of foreign currency translation of 2%. The increase in selling price and product mix was primarily driven by price increases implemented to help offset the significant increases in raw material and other input costs that began during 2021 and continued into 2022. The current year decline in organic sales volumes was primarily driven by lower sales volumes in China as a result of the government imposed COVID-19 quarantine and related production disruptions implemented at the end of March 2022 and which continued throughout the second quarter of 2022 and the prior year comparison which included a strong rebound from COVID-19 impacts as customers replenished their supply chains, partially offset by net new business wins. This segment's operating earnings were $44.1 million, a decrease of $6.6 million or 13% compared to the first six months of 2021. The decrease in segment operating earnings was primarily a result of higher net sales which was more than offset by lower gross margins driven by significant inflationary pressures and the unfavorable impact of foreign currency translation.

Global Specialty Businesses

Global Specialty Businesses represented approximately 19% of the Company's consolidated net sales in the first six months of 2022. The segment's net sales were $186.9 million, an increase of $27.9 million or 18% compared to the first six months of 2021. The increase in net sales was driven by higher selling price and product mix of 11%, an increase in organic sales volumes of 6% and additional net sales from acquisitions of 4%, partially offset by the unfavorable impact from foreign currency translation of approximately 3%. The increase in selling price and product mix was primarily driven by price increases implemented to help offset the significant increases in raw material and other input costs that began during 2021 and continued into 2022. The increase in organic sales volumes was primarily attributable to a continued favorable demand environment for this segment's products. The unfavorable foreign exchange impact was primarily due to the strengthening of the U.S. dollar against the euro described in the EMEA section above. This segment's operating earnings were $52.9 million, an increase of $4.5 million or 9% compared to the first six months of 2021. The increase in segment operating earnings reflects higher net sales partially offset by lower gross margins driven by inflationary pressures and the negative impact of foreign currency translation year-over-year.

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 Quaker Chemical Corporation 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, including statements regarding the potential effects of the COVID-19 pandemic and global supply chain constraints on the Company's business, results of operations, and financial condition, our expectation that we will maintain sufficient liquidity and remediate any of our material weaknesses in internal control over financial reporting, and statements regarding the impact of increased raw material costs and pricing initiatives on our current expectations about future events.

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 potential benefits of the Combination and other acquisitions;
- 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;
- cost increases and the impacts of constraints and disruptions in the global supply chain;
- the potential for a variety of macroeconomic events, including the possibility of global or regional recessions, inflation generally, 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;
- 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 Annual Report to Shareholders for 2021 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 disruption. Other major risks and uncertainties include, but are not limited to, the primary and secondary impacts of the COVID-19 pandemic, including actions taken in response to the pandemic by various governments, which could exacerbate some or all of the other risks and uncertainties faced by the Company, as well as inflationary pressures, including the potential for 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. The ultimate impact of COVID-19 on our business will depend on, among other things, the extent and duration of the pandemic, the severity of the disease and the number of people infected with the virus including new variants, the continued uncertainty regarding global availability, administration, acceptance and long-term efficacy of vaccines, or other treatments for COVID-19 or its variants, the longer-term effects on the economy of the pandemic, including the resulting market volatility, and by the measures taken by governmental authorities and other third parties restricting day-to-day life and business operations and the length of time that such measures remain in place, as well as laws and other governmental programs implemented to address the pandemic or assist impacted businesses, such as fiscal stimulus and other legislation designed to deliver monetary aid and other relief. Other factors could also adversely affect us, including those related to acquisitions and the

integration of acquired businesses. Our forward-looking statements are subject to risks, uncertainties and assumptions about the Company and its operations that are subject to change based on various important factors, some of which are beyond our control. These risks, uncertainties, and possible inaccurate assumptions relevant to our business could cause our actual results to differ materially from expected and historical results.

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 2021 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, 2021, and we believe there has been no material change to that information, except the interest rate risk noted below.

Interest Rate Risk.

The Company's exposure to interest rate risk relates primarily to its outstanding borrowings under its credit facility. During June 2022, the Company entered into an amendment to its primary credit facility (the "Original Credit Facility", or as amended, the "Amended Credit Facility"). See Note 14 of Notes to Condensed Consolidated Financial Statements, which appears in Item 1 of this Report. As of June 30, 2022, borrowings under the Amended Credit Facility bear interest at either term 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 Amended Credit Facility, if interest rates rise significantly, the cost of debt to the Company will increase. This can have an adverse effect on the Company, depending on the extent of the Company's borrowings outstanding throughout a given year.

As of June 30, 2022, the Company had outstanding borrowings under the Amended Credit Facility of approximately $977.6 million. The interest rate applicable on outstanding borrowings under the Amended Credit Facility was approximately 2.8% as of June 30, 2022. As of December 31, 2021, the Company had outstanding borrowings under the Original Credit Facility of approximately $889.6 million. The variable interest rate incurred on the outstanding borrowings under the Original Credit Facility during the year ended December 31, 2021 was approximately 1.6%. If interest rates had changed by 10% during 2021, the Company's interest expense for the period ended December 31, 2021 on its credit facilities, including the Original Credit Facility borrowings outstanding post-closing of the Combination, would have correspondingly increased or decreased by approximately $1 million. Likewise, if interest rates had changed by 10% during the six month period ended June 30, 2022, the Company's interest expense for the six month period ended June 30, 2022 on its credit facilities, including the Amended Credit Facility borrowings outstanding, would have correspondingly increased or decreased by approximately $2 million.

The Original Credit Facility required the Company to fix its variable interest rates on at least 20% of its total term loans. In order to satisfy this requirement as well as to manage the Company's exposure to variable interest rate risk associated with the Original Credit Facility, in November 2019, the Company entered into $170.0 million notional amounts of three year interest rate swaps at a base rate of 1.64% plus an applicable margin as provided in the Original Credit Facility, based on the Company's consolidated net leverage ratio. At the time the Company entered into the swaps, and as of June 30, 2022, the aggregate interest rate on the swaps, including the fixed base rate plus an applicable margin, was 3.1%. The Amended Credit Facility does not require the Company to fix variable interest rates on any portion of its borrowings.

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, 2022, 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, 2022 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, 2022.

PART II.
OTHER INFORMATION

Items 3, 4 and 5 of Part II are inapplicable and have been omitted.

Item 1. Legal Proceedings.

Incorporated by reference is the information in Note 18 of the 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 2021 Form 10-K. While there have been no material changes to the risk factors described in our 2021 Form 10-K, reference is made to the developments discussed under the headings ***On-going impact of COVID-19*** and ***Impact of Political Conflicts*** within Part I, Item 2 of this Report.

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	280	$ 162.86	—	$ 86,865,026
May 1 - May 31	729	$ 147.04	—	$ 86,865,026
June 1 - June 30	56	$ 149.52	—	$ 86,865,026
Total	1,065	$ 151.33	—	$ 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, 2022.

Limitation on the Payment of Dividends

The Amended Credit Facility has certain limitations on the payment of dividends and other so-called restricted payments. See Note 14 of Notes to Condensed Consolidated Financial Statements, in Part I, Item 1, of 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	–	Restated By-laws (effective May 6, 2015, as amended through March 27, 2020). Incorporated by reference to Exhibit 3.2 as filed by the Registrant within its quarterly report on Form 10-Q filed on May 11, 2020.
10.1	–	Amendment No. 3, dated as of June 17, 2022, to the Credit Agreement, dated as of August 1, 2019, as amended. Incorporated by reference to Exhibit 10.1 as filed by the Registrant with Form 8-K filed on June 21, 2022.
10.2	–	Memorandum of Employment by and between the Registrant and Melissa Leneis dated May 24, 2022 and effective July 5, 2022.*†
10.3	–	Form of Change of Control Agreement by and between the Registrant and certain executive officers (including Melissa Leneis).*†
10.4	–	Memorandum of Employment by and between the Registrant and Dhruwa Rai dated June 23, 2022 and effective July 6, 2022.*†
10.5	–	Form of Change of Control Agreement by and between the Registrant and certain executive officers (including Dhruwa Rai).*†
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 4, 2022

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

EXHIBIT 10.2

EMPLOYMENT AGREEMENT

May 24, 2022

NAME: **Melissa Leneis**

[REDACTED]

The parties to this Employment Agreement ("Agreement") are Melissa Leneis ("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 Senior Vice President and Chief Human Resources Officer ("CHRO").

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 CHRO. 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 generally available by Quaker Houghton to its 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.

The 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 CHRO, 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 any and 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. <u>Covenant Not to Compete</u>

In consideration of your position of CHRO 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 plus 12 months of the target incentive of the Company's annual incentive plan, 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 05/31/2022	/s/ Andrew E. Tometich 05/24/2022
Robert T. Traub	Andrew E. Tometich
WITNESS:	
/s/ Robert T. Traub 05/31/2022	/s/ Melissa Leneis 05/24/2022
Robert T. Traub	Melissa Leneis

ADDENDUM 1

Base Salary:	Your salary will be payable on a bi-weekly basis at the rate of $17,500, which is annualized at $455,000. You will be eligible for your next salary increase in 2023.
Annual and Long-Term Bonuses:	For your position, you are eligible to participate in the Annual Incentive Plan ("AIP") with a target award percentage for 2022 full year of 65% of your base salary, dependent upon Quaker Houghton's financial results and personal objectives to be determined. You will be eligible to participate in the 2022-2024 Long-Term Incentive Plan ("LTIP") for the full year of 2022. Your award for the 2022-2024 performance period includes an even mix of time-based restricted stock, stock options, and target performance stock units (PSU's). The value, at a target level is $600,000. All incentive compensation awards are made at the Company's discretion, are subject to change, and require the approval of the Company's Compensation and Human Resources Committee.
Special One-time Grants:	You will be provided a one-time equity award within 7 days of your start date equaling a cash value at time of grant of $1,000,000 in order to offset the equity that will expire upon your accepting employment with Quaker Houghton. Such award will be provided as time-based restricted stock with cliff vesting one year from the date of grant. Such payment is subject to a claw-back and must be repaid to the Company if you voluntarily terminate your employment with Quaker Houghton for any reason other than cause within the first two (2) years of your tenure with Quaker Houghton. Further, if you terminate for cause or if you are involuntarily terminated by Quaker Houghton for any reason other than cause, no clawback will apply. You will be provided a one-time cash award equaling $300,000 in order to offset the cash bonus opportunity that will expire upon your accepting employment with Quaker Houghton. Such award will be cash and will be paid out in two equal installments of $150,000 upon 90 days of employment and 180 days of employment, respectively. Such cash award must be repaid to the Company if you terminate your employment with Quaker Houghton for any reason other than cause within the first two (2) years of your tenure with Quaker Houghton. Further, if you terminate for cause or if you are involuntarily terminated by Quaker Houghton for any reason other than cause, no clawback will apply.
Financial Planning:	You will be eligible to be reimbursed for up to $3,500 per calendar year for expenses incurred for financial planning and/or tax preparation.
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) ● The Company is reviewing a non-qualified deferred compensation plan, which if adopted will be part of your overall benefits package.

In addition to these flexible benefits, Quaker Houghton also currently offers the following benefit plans:

Retirement Savings Plan (401K)

Vacation / Holidays: You will be eligible for 25 PTO days per calendar year while you are working in the U.S. You will begin to accrue an additional 5 days of PTO per calendar year when you meet the next service level as defined in the plan. In addition, you will be eligible to be paid for regional holidays. Unused vacation days will not roll over from year to year, unless applicable law requires otherwise.

EXHIBIT 10.3

CHANGE IN CONTROL AGREEMENT

THIS AGREEMENT, dated May 24, 2022 between QUAKER CHEMICAL CORPORATION, d/b/a QUAKER HOUGHTON, a Pennsylvania corporation (the "Company"), and MELISSA LENEIS (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, 2022, 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); provided, however, that a Change in Control shall not be deemed to have occurred under the provisions of this subsection (a) by reason of the beneficial ownership of voting securities by members of the Benoliel family (as defined below) unless and until the beneficial ownership of all members of the Benoliel family (including any other individuals or entities who or which, together with any member or members of the Benoliel family, are deemed under Sections 13(d) or 14(d) of the Exchange Act to constitute a single Person) exceeds 50% of the combined voting power of the Company's then outstanding securities;

(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. <u>Entitlement to Change in Control Benefits; Certain Definitions</u>.

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.

"<u>Cause</u>" 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 his position.

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

"<u>Disability</u>" 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.

"<u>Good Reason</u>" 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.

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

"<u>Release</u>" 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 his 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 his 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 his 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 his 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 his 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 his 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 his family); and the Manager's "family" shall mean his parents, his siblings and their spouses, his 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 2001 Global 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 2011 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 his employment with the Company.

(i) The Manager agrees that at no time during or following his 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 his possession or control which constitute or contain any Proprietary Business Information.

(b) Noncompetition. The Manager agrees that during his 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 his 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 his 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 his rights under this Agreement at any time during his lifetime, the Company shall pay (or the Manager shall be entitled to recover from the Company, as the case may be) his reasonable attorneys' fees and costs and expenses in connection with the enforcement of his 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 his 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. Indemnification.

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 his 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/ Melissa Leneis 05/24/2022

QUAKER CHEMICAL CORPORATION

By: /s/ Andrew E. Tometich 05/24/2022

Title: CEO & President

ATTEST:

/s/ Robert T. Traub
05/31/2022

EXHIBIT 10.4

EMPLOYMENT AGREEMENT

June 23, 2022

NAME: **Dhruwa Rai**

[REDACTED]

The parties to this Employment Agreement (“Agreement”) are Dhruwa Rai (“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 Senior Vice President and Chief Information and Digital Officer (“CIDO”).

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. <u>Duties</u>

Quaker Houghton agrees to employ you and you agree to serve as Quaker Houghton’s CIDO. 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. <u>Compensation</u>

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 generally available by Quaker Houghton to its 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. <u>Term of Employment</u>.

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 CIDO, 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 any and 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 CIDO 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. <u>Contractual Restrictions</u>

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. <u>Inventions</u>

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. <u>Termination.</u>

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
	Robert T. Traub, SVP, General Counsel and Corporate Secretary
WITNESS:	
/s/ James Myran	/s/ Dhruwa Rai
James Myran	Dhruwa Rai

ADDENDUM 1

Base Salary:

Your salary will be payable on a bi-weekly basis at the rate of $14,615, which is annualized at $380,000. You will be eligible for your next salary increase in 2023.

Annual and Long-Term Bonuses:

For your position, you are eligible to participate in the Annual Incentive Plan ("AIP") with a target award percentage for 2022 full year of 55% of your base salary, dependent upon Quaker Houghton's financial results and personal objectives to be determined.

You will be eligible to participate in the 2022-2024 Long-Term Incentive Plan ("LTIP") for the full year of 2022. Your award for the 2022-2024 performance period includes an even mix of time-based restricted stock, stock options, and target performance stock units (PSU's). The value, at a target level is $100,000.

All incentive compensation awards are made at the Company's discretion, are subject to change, and require the approval of the Company's Compensation and Human Resources Committee.

Special One-time Grants:

You will be provided a one-time cash award equaling $100,000 in order to offset the cash bonus opportunity that will expire upon your accepting employment with Quaker Houghton. Such award will be cash and will be paid out in October of 2022 assuming a start date prior to then. Such cash award must be repaid to the Company if you either voluntarily leave your employment or are dismissed for cause within the first two (2) years of your tenure with Quaker Houghton per the attached Sign-On Bonus Acknowledgement.

Financial Planning:

You will be eligible to be reimbursed for up to $3,500 per calendar year for expenses incurred for financial planning and/or tax preparation.

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)

In addition to these flexible benefits, Quaker Houghton also currently offers the following benefit plans:

Retirement Savings Plan (401K)

EXHIBIT 10.5

CHANGE IN CONTROL AGREEMENT

THIS AGREEMENT, dated June 23, 2022 between QUAKER CHEMICAL CORPORATION, d/b/a QUAKER HOUGHTON, a Pennsylvania corporation (the "Company"), and DHRUWA RAI (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, 2022, 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); provided, however, that a Change in Control shall not be deemed to have occurred under the provisions of this subsection (a) by reason of the beneficial ownership of voting securities by members of the Benoliel family (as defined below) unless and until the beneficial ownership of all members of the Benoliel family (including any other individuals or entities who or which, together with any member or members of the Benoliel family, are deemed under Sections 13(d) or 14(d) of the Exchange Act to constitute a single Person) exceeds 50% of the combined voting power of the Company's then outstanding securities;

(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. <u>Entitlement to Change in Control Benefits; Certain Definitions</u>.

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.

"<u>Cause</u>" 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 his position.

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

"<u>Disability</u>" 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.

"<u>Good Reason</u>" 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.

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

"<u>Release</u>" 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 his 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 his 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 his 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 his 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 his 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 his 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 his family); and the Manager's "family" shall mean his parents, his siblings and their spouses, his 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 2001 Global 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 2011 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.

(d)

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 his employment with the Company.

(i) The Manager agrees that at no time during or following his 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 his possession or control which constitute or contain any Proprietary Business Information.

(b) Noncompetition. The Manager agrees that during his 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 his 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 his 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 his rights under this Agreement at any time during his lifetime, the Company shall pay (or the Manager shall be entitled to recover from the Company, as the case may be) his reasonable attorneys' fees and costs and expenses in connection with the enforcement of his 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 his 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. Indemnification.

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 his 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/ Dhruwa Rai

QUAKER CHEMICAL CORPORATION

By: /s/ Robert T. Traub

Title: SVP, General Counsel and Corporate Secretary

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 4, 2022

/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 4, 2022

/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, 2022 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.

Dated: August 4, 2022

/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, 2022 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.

Dated: August 4, 2022

/s/ Shane W. Hostetter
Shane W. Hostetter
Chief Financial Officer of Quaker Chemical Corporation