

Forward Together™

Quaker Houghton Investor Presentation
November 2020



Risks and Uncertainties Statement

On August 1, 2019, Quaker Chemical Corporation (the “Company”, also known as Quaker Houghton) completed its combination with Houghton International, Inc. (“Houghton”) (herein referred to as “the Combination”). In addition, the Company acquired the operating divisions of Norman Hay plc (“Norman Hay”) on October 1, 2019.

Regulation G

The attached charts include Company information that does not conform to generally accepted accounting principles (“GAAP”). In addition, the Company has provided certain unaudited pro forma financial information in the attached charts. The unaudited pro forma financial information is based on the historical consolidated financial statements and results of both Quaker, as reported, and Houghton, and has been prepared to illustrate the effects of the Combination. The unaudited pro forma financial information has been presented for informational purposes only and is not necessarily indicative of Quaker Houghton’s past results of operations, nor is it indicative of the future operating results of Quaker Houghton and should not be considered a substitute for the financial information presented in accordance with GAAP. Management believes that an analysis of this data is meaningful to investors because it provides insight with respect to ongoing operating results of the Company and allows investors to better evaluate the financial results of the Company. These measures should not be viewed as an alternative to GAAP measures of performance. Furthermore, these measures may not be consistent with similar measures provided by other companies. These measures should not be viewed as an alternative to GAAP measures of performance. This data should be read in conjunction with the Company’s first, second and third quarters of 2020 and full year 2019 earnings news releases, which have been furnished to the Securities and Exchange Commission (“SEC”) on Form 8-K as well as its Annual Report for the year ended December 31, 2019.

Forward-Looking Statements

This presentation contains “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 on the Company’s business, results of operations, or financial condition and expectations regarding our liquidity position and continued compliance with the terms of the Company’s credit facility 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, but not limited to, the potential benefits of the Combination, the impacts on our business as a result of the COVID-19 pandemic and any projected global economic rebound or anticipated positive results due to Company actions taken in response to the pandemic, and our current and future results and plans and statements that include the words “may,” “could,” “should,” “would,” “believe,” “expect,” “anticipate,” “estimate,” “intend,” “plan” or similar expressions. These forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those projected in such statements. A major risk is that demand for the Company’s products and services is largely derived from the demand for its customers’ products, which subjects the Company to uncertainties related to downturns in a customer’s business and unanticipated customer production shutdowns. 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, including the potential for significant increases in raw material costs, supply chain disruptions, customer financial stability, worldwide economic and political conditions, 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 steel, automobile, aircraft, industrial equipment, and durable goods manufacturers. 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, the effects on the economy by 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, and governmental programs implemented to assist businesses impacted by the COVID-19 pandemic. Other factors could also adversely affect us, including those related to the Combination and other acquisitions and the integration of the combined company as well as other 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. All forward-looking statements included in this presentation, including expectations about the improvements in business conditions in the second half of 2020, are based upon information available to the Company as of the date of this presentation, which may change. 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 of our Quarterly Report on Form 10-Q for the period ended September 30, 2020, as well as in Item 1A in our Annual Report on Form 10-K for the year ended December 31, 2019, and in our other reports filed from time to time with the SEC. We do not intend to, and we disclaim any duty or obligation to, update or revise any forward-looking statements to reflect new information or future events or for any other reason. This discussion is provided as permitted by the Private Securities Litigation Reform Act of 1995.



Quaker Houghton.

Combination of **Two** Iconic Companies
Specializing in
Industrial Process Fluids.



Quaker Chemical 1918
Houghton International 1865
Headquartered in PA



15k
customers



4k
colleagues



\$1.6b
2019 Pro Forma
Sales



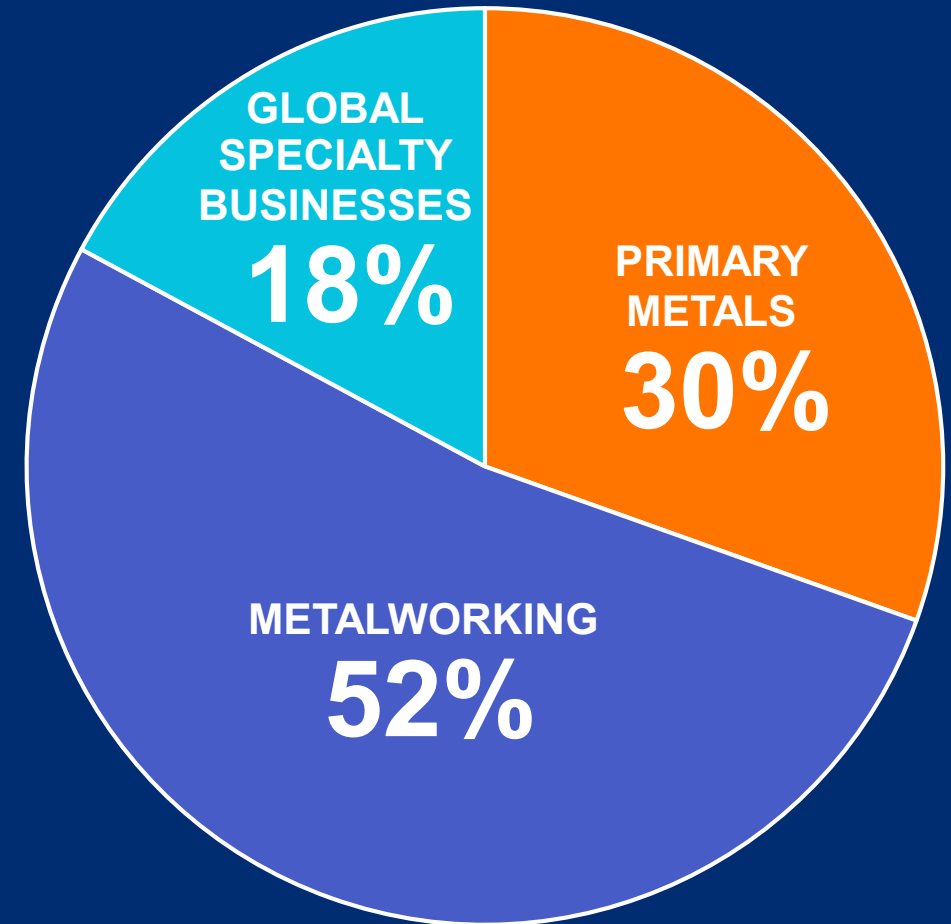
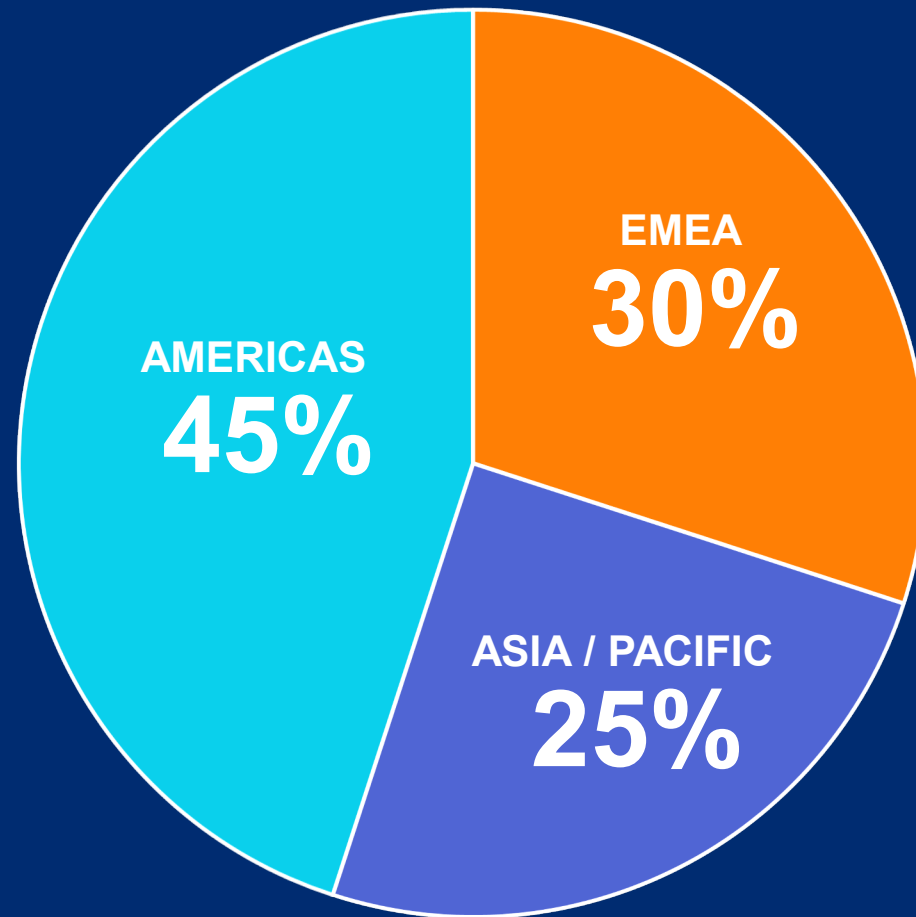
115
countries served around
the world



34
manufacturing
locations

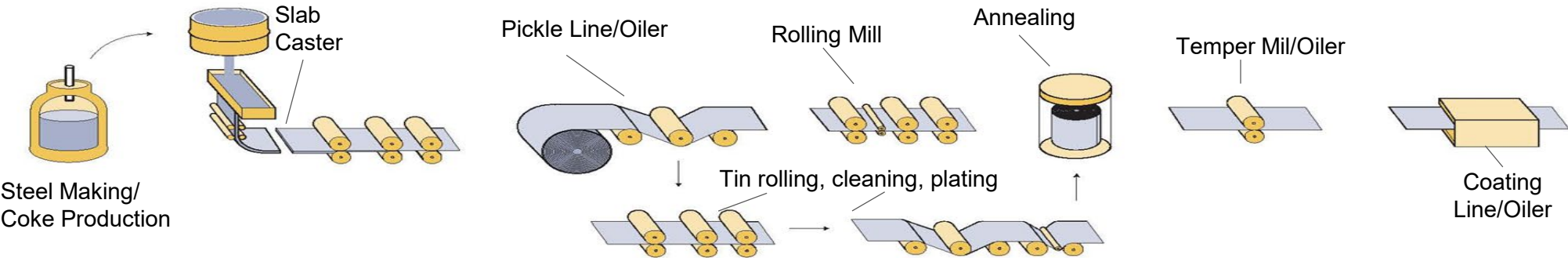
Quaker Houghton: Leading Global Supplier of Industrial Process Fluids with 2019 Pro Forma Net Sales ~ \$1.6B

Geographic and Product Snapshot

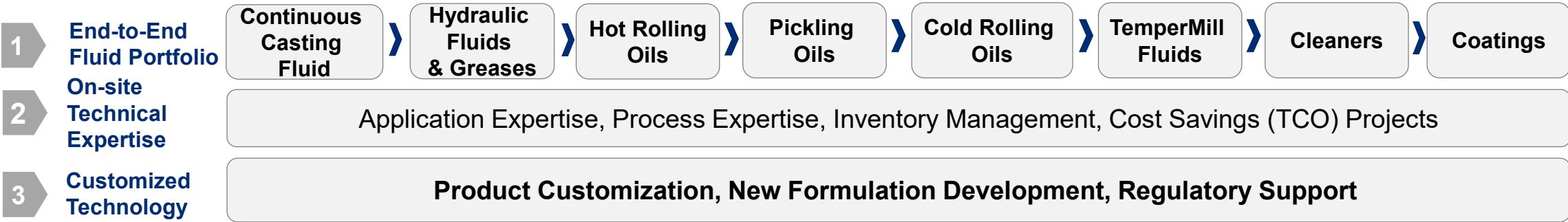


Quaker Houghton: Value Proposition for Primary Metals

Sheet Metal Production Process



QH Value Proposition



Customer Benefits \$\$\$



Quaker Houghton: Value Proposition for Metalworking

Business Segments



Metal Working Processes



QH Value Proposition

- 1 **Expanded Product Portfolio:** Offering for entire metalworking fluid lifecycle
- 2 **FluidCare (On-Site Support):** Application, Inventory and Chemical Management, Training, Cost Savings (TCO) Projects
- 3 **Innovation and Application Expertise:** New Product Development, Product and Formulation Customization
- 4 **Fluid Intelligent Solutions:** Data, Equipment and Engineering

Customer Benefits \$\$\$

Sustainable Cost Reductions



Product Surface Improvements



Equipment & Tool-life Improvement



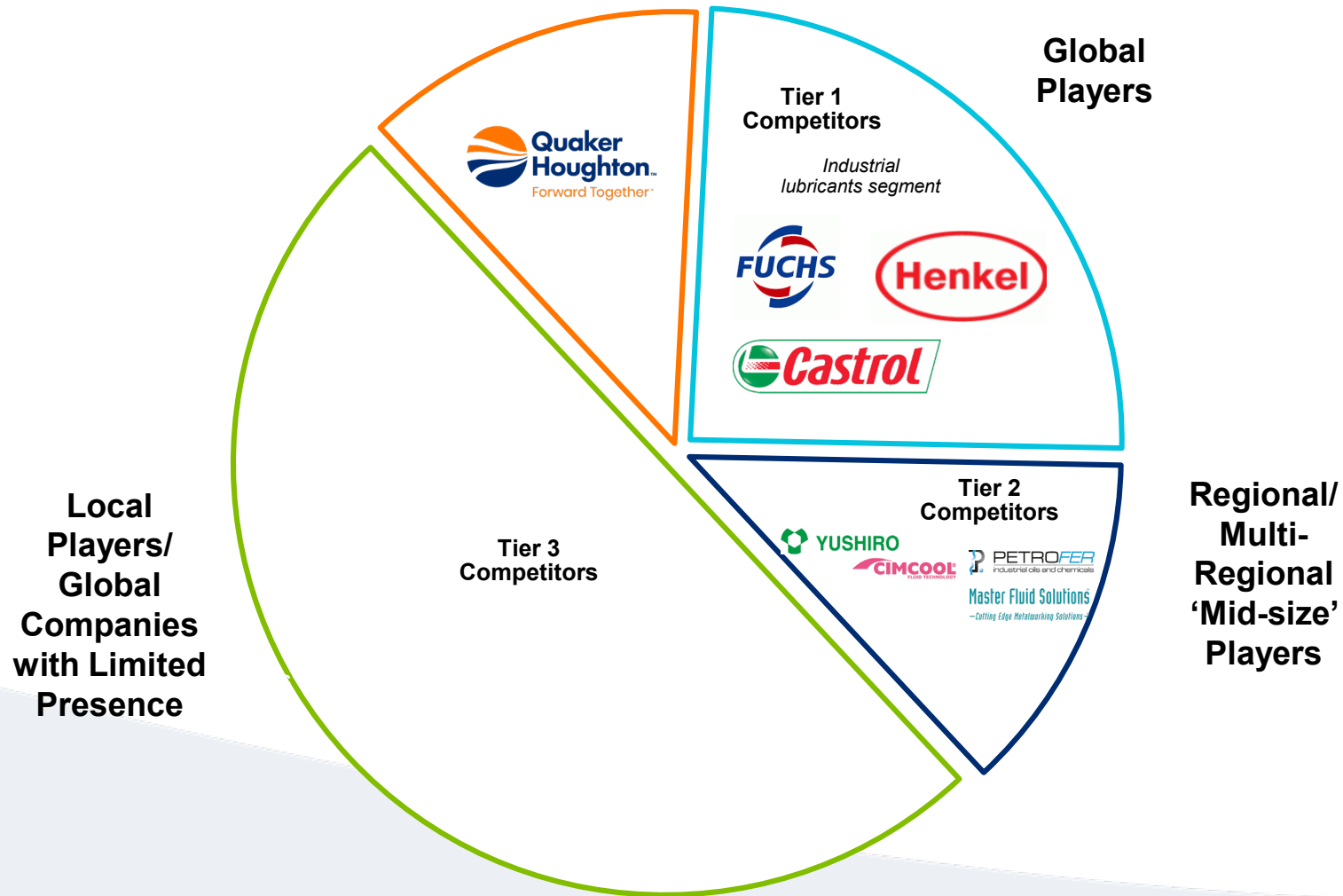
Increased Throughput & Utilization

Outperformance Powered by Distinctive Customer Intimacy Model




































Competitive Landscape: Only Global Pure Play in Our Addressable Markets

~\$12.6B Addressable Market



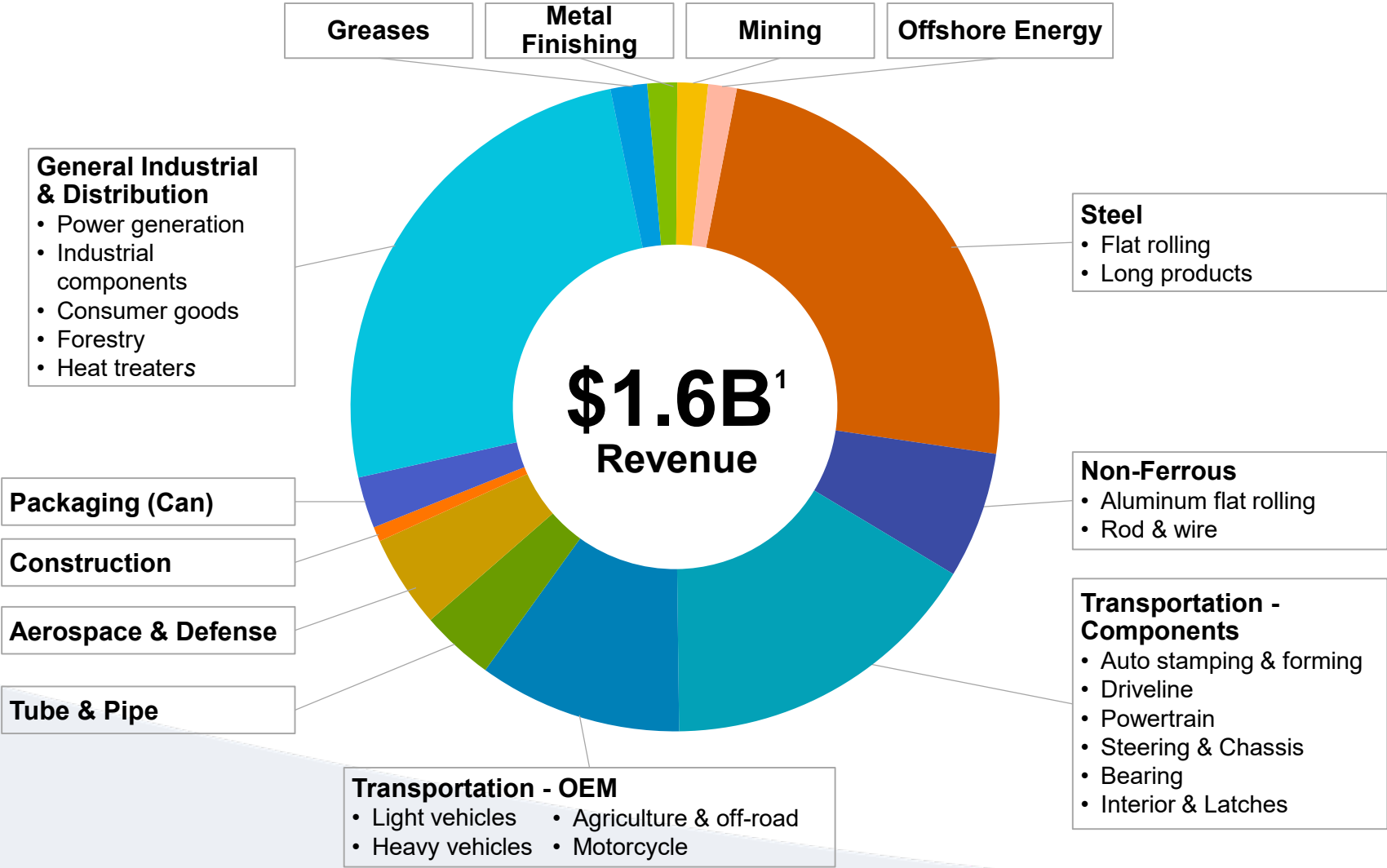
Differentiated from Competitors by Scale, Focus and Solution Offering

		Tier 1 Competitors	Tier 2 Competitors	Tier 3 Competitors	
		  	   	Small, Local Player	Diversified Chemical Companies
Scale and Global Reach					
Tight Strategic Focus					
Portfolio Breadth and Depth					
Industry Talent and Expertise					
Service Capabilities: Fluidcare® & Solutions					

 Advantage
  Neutral / Average
  Potential Disadvantage
Industrial Processing Fluid Market Perspective

Diversified End Markets

QH Continues to Expand Addressable Markets



Note: 1. Based on 2019 Pro Forma Net Sales as of December 31, 2019 plus an additional ~\$60 million in Net Sales due to the acquisition of Norman Hay.

~13% Market Share in \$12.6B Addressable Market

Significant Opportunities to Grow

~\$12.6B Addressable Market		QH Market Share ²	Strategic Segments
PRIMARY METALS	\$1.4B	~38%	<ul style="list-style-type: none">• Steel• Non-Ferrous
METALWORKING Mid-large size customers	\$3.7B	~13%	<ul style="list-style-type: none">• Transportation – OEM• Transportation – Components• Aerospace & Defense• Tube & Pipe
METALWORKING Small-mid size customers	\$5.4B	~7%	<ul style="list-style-type: none">• General Industrial• Indirect Channel
GLOBAL SPECIALTY BUSINESSES	\$2.1B ¹	~13%	<ul style="list-style-type: none">• Global Specialty Segment

Quaker Houghton is the Industry's R&D Leader

Combined
\$200 million
spent in past 5 years
on R&D

320+ R&D staff
in 16 countries

Centers of Innovation
and Regional Labs
in Asia, Europe
and the U.S.

- R&D Technology Center
- ★ Center of Innovation (COI)
 - ★ COI Primary Metals
 - ★ COI Global Metalworking
 - ★ COI Surface Chemistry

Well-Positioned to Address Market Trends

TECHNOLOGY ADVANCEMENT

ELECTRIC VEHICLES

A close-up of a white electric vehicle's charging port with a green plug inserted, set against a background of a road and trees.

INDUSTRY 4.0

A white autonomous vehicle with a sensor dome on its roof, driving on a road towards the viewer.

NEW MATERIALS / ADDITIVE MFG

A 3D printer's extruder head printing a red part on a white platform in a factory setting.

CLIMATE CHANGE / SUSTAINABILITY

LIGHT-WEIGHTING

A white, skeletal chassis of a car, highlighting the lightweighting process.

TIGHTENING REGULATORY ENVIRONMENT

A green recycling symbol (three arrows in a triangle) superimposed over a globe of the Earth.

GREEN CHEMISTRY INITIATIVES

A collection of laboratory glassware, including beakers and flasks, containing green liquids, set against a green background.

Data and Equipment Solutions: Complement Existing Product Portfolio

Growing Pipeline of Customer
Opportunities and Interest



Our Plan to Grow

▶ Mid-teens **market share** allows plenty of **room to grow**

▶ Combination provides unique opportunities to **cross-sell** products to **expanded customer base** and **end markets**

▶ Well positioned to take advantage of macro trends like **electrification, digitization**, and an expected **increased regulatory environment**

▶ We are in **markets** that are expected to **grow at a rate of 1-3%** over time

▶ Differentiated **customer intimate** business model will enable **share gains above market at 2-4%** into the future

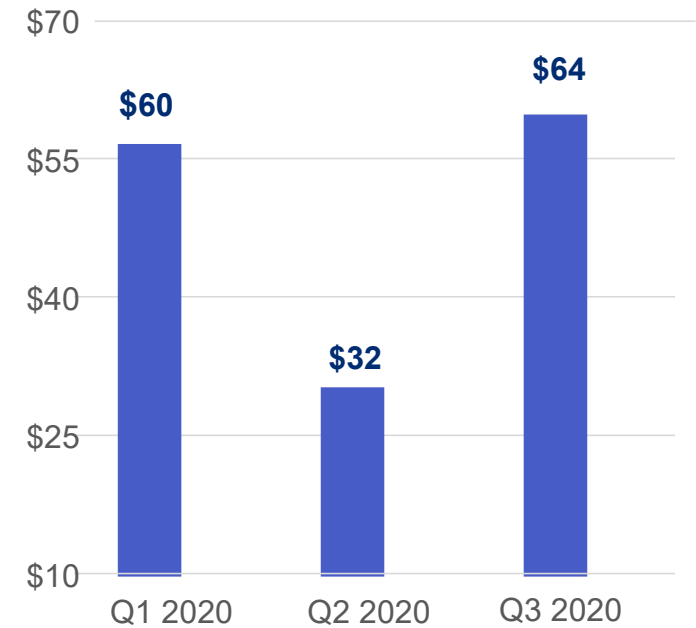
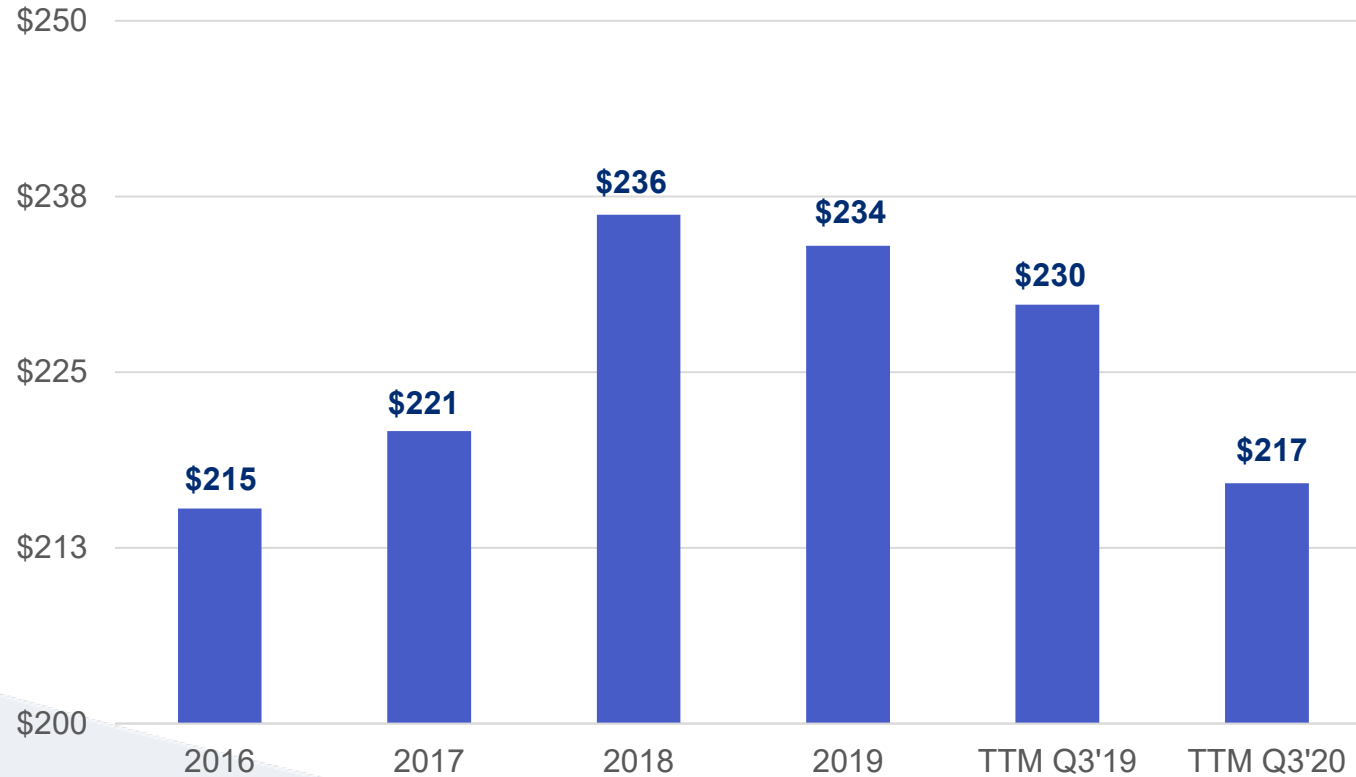
▶ Continue to pursue strategic **acquisitions**

Impact of COVID-19

- Top priority is to protect the health and safety of our employees and our customers, while ensuring business continuity to meet all our customers' needs
- All 34 production facilities worldwide are open and operating
- Acted quickly to conserve cash and reduce costs, including eliminating discretionary spending, hiring freezes, selective furloughs and planned capital expenditures reduced by 30%
- Operating cash flow during the first nine months of 2020 more than tripled compared to the prior year period; Do not expect any liquidity or bank covenant issues.
- Expect gradual sequential improvement in our markets as we progress through the next two years
- In 2021, we expect to see a 20+% increase in Adjusted EBITDA compared to 2020

Pro Forma Adjusted EBITDA

(dollars in millions)



Demand trough from impact of COVID-19 occurred in Q2'20 with strong recovery in Q3'20. 2021 expected to show 20+% increase in Adjusted EBITDA.

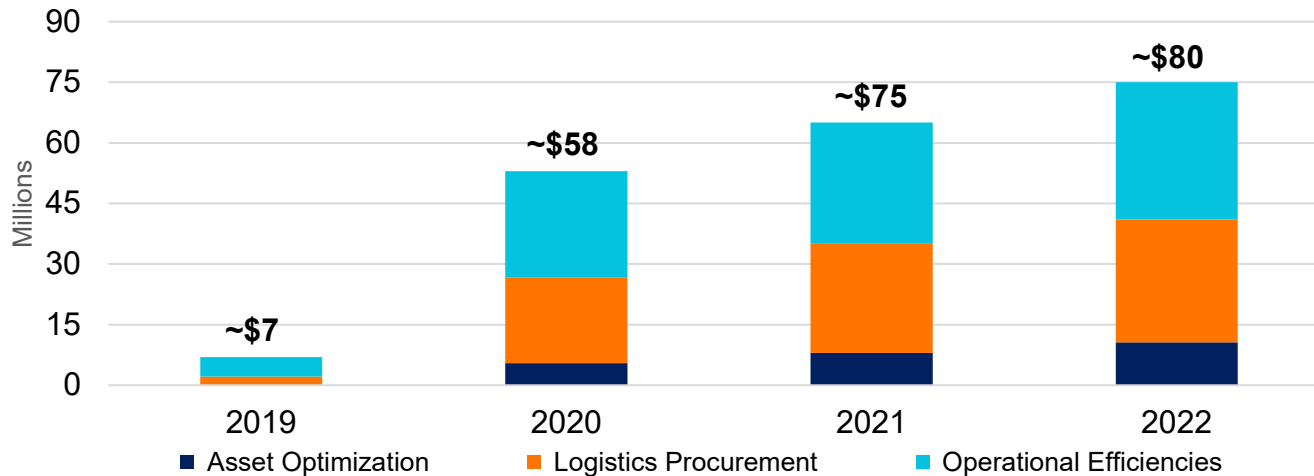
Balanced Capital Allocation Strategy

Supported by Strong Free Cash Flow with adjustments for COVID-19

Capital Structure	Net Leverage Target $\leq 2.5x$	Post COVID-19 focus on reducing leverage while maintaining strong liquidity and compliance with bank covenants
Capex	Houghton Integration	Post COVID-19 reduction in capex to low \$20's mm vs previous ~\$35 mm estimate for 2020; preserves integration related capex
	Long-term	~1.5% of sales after integration plan completed in ~ two years
Return to Shareholders	Dividends	Maintain/increase dividends consistent with Quaker's practice over 48 years
	Share Repurchase	Return excess cash to shareholders through opportunistic buybacks
Acquisitions	Support Growth Strategy	Bolt-ons will support core growth near term; larger opportunities considered post leverage reduction in ~ two years

Estimated Cost Synergies Increased

Estimated Synergy Realization Timing



Synergy Updates

- Synergies of ~\$58 million in 2020 (up from \$35 million); ~\$75 million in 2021 (up from \$50 million) and ~\$80 million in 2022 (up from \$60 million)
- At the end of the third quarter of 2020, the Company estimates it realized ~ \$40 million of cumulative synergies

Sources of Synergy

Asset Optimization (~15%)

- Manufacturing footprint optimization
- Optimize IT platforms

Logistics & Procurement (~40%)

- Raw material purchasing
- Freight / warehousing
- Ester production

Operational Efficiencies (~45%)

- Organizational redundancies
- Non-labor cost savings

Success: What Does it Look Like?

We are highly confident in our ability to deliver our Integration Plan

1

We will have industry leading safety performance

2

We will have retained our customers

3

We will have achieved our targets and increased Adjusted EBITDA margin by ~4% pts

4

We will be growing above the market by 2 to 4%

5

We will have reduced our debt to targeted level of $\leq 2.5x$ net debt to Adjusted EBITDA

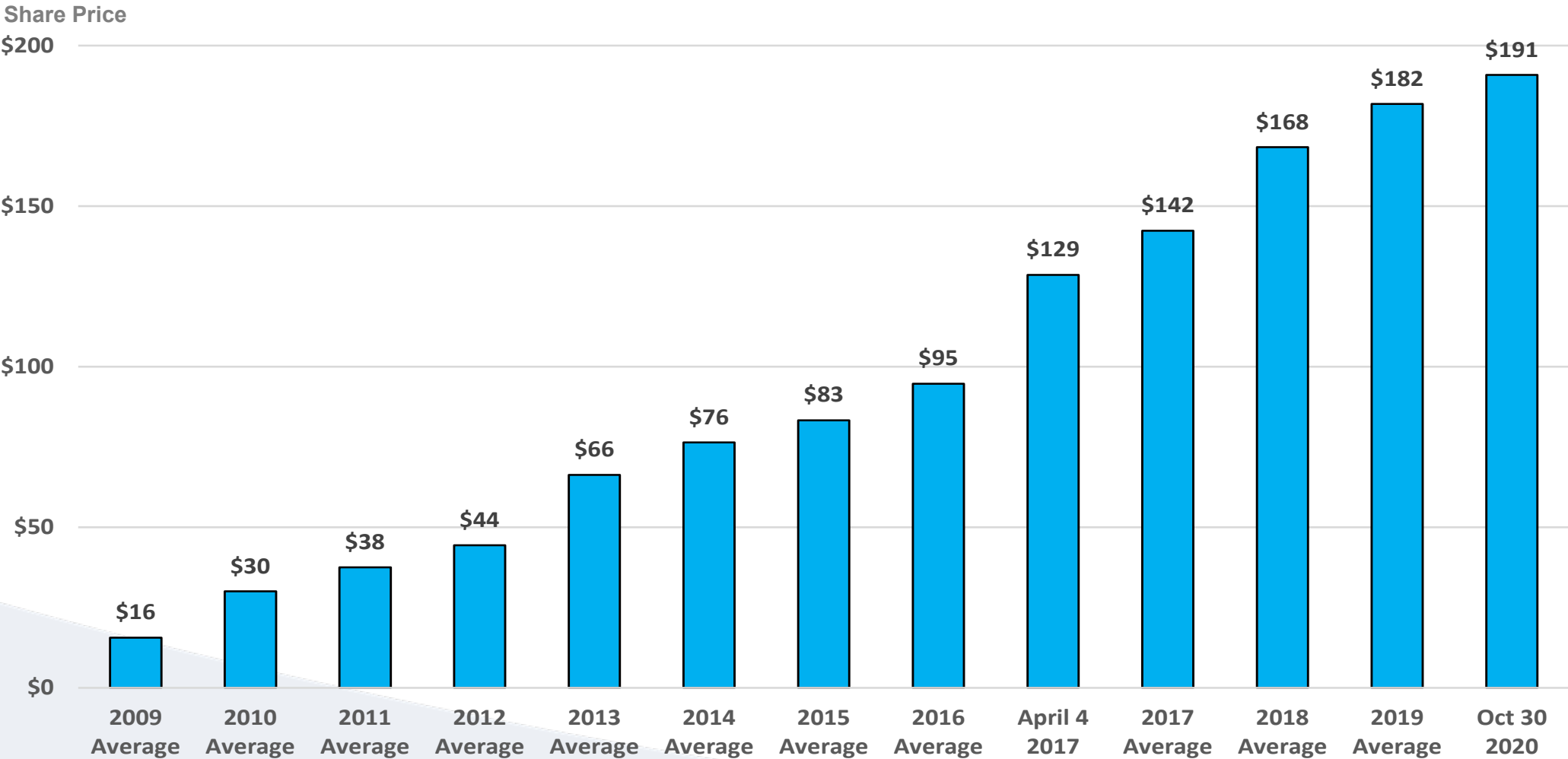
6

We will have made at least one acquisition and be positioned for more

7

We will have an engaged and happy workforce

Creating Shareholder Value Is Our Priority



Appendix

Actual and Non-GAAP Results



Non-GAAP and Pro Forma Measures

The information included in this presentation 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, non-GAAP earnings per diluted share, and pro forma net sales, net income (loss) attributable to Quaker Houghton, EBITDA, adjusted EBITDA and adjusted EBITDA margin. 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 and pro forma information 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 (loss) attributable to the Company before depreciation and amortization, interest expense, net, and taxes on (loss) income before equity in net income of associated companies. The Company also presents adjusted EBITDA which is calculated as EBITDA plus or minus certain items that are not considered indicative of future operating performance or not considered core to the Company's operations. In addition, the Company presents non-GAAP operating income which is calculated as operating income (loss) plus or minus certain items that are not 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 analysts, investors, and competitors in our industry as well as by management in assessing the operating performance of the Company on a consistent basis.

Additionally, the Company presents non-GAAP net income and non-GAAP earnings per diluted share as additional performance measures. Non-GAAP net income is calculated as adjusted EBITDA, defined above, less depreciation and amortization, interest expense, net, and taxes on income before equity in net income of associated companies, in each case adjusted, as applicable, for any depreciation, amortization, interest or tax impacts resulting from the non-core items identified in the reconciliation of net income (loss) 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 analysts, investors, and competitors in our industry as well as by management in assessing the operating performance of the Company on a consistent basis.

In addition, the Company has provided certain unaudited pro forma financial information in this presentation. The unaudited pro forma financial information is based on the historical consolidated financial statements and results of both Quaker and Houghton and has been prepared to illustrate the effects of the Combination. The unaudited pro forma financial information has been presented for informational purposes only and is not necessarily indicative of Quaker Houghton's past results of operations, nor is it indicative of the future operating results of Quaker Houghton and should not be considered a substitute for the financial information presented in accordance with GAAP. The Company has not provided pro forma financial information as it relates to the acquired operating divisions of Norman Hay plc based on materiality. Pro forma results for the three and nine months ended September 30, 2019 include two months of Houghton's operations as the Combination closed on August 1, 2019, while Houghton reflects its stand-alone results for the month of July 2019 for the three months ended September 30, 2019 and year-to-date July 2019 for the nine months ended September 30, 2019. Pro forma results for the year ended December 31, 2019 include five months of Houghton's operations post-closing of the Combination, while Houghton reflects seven months of results for the period from January 1, 2019 through July 31, 2019. Pro forma results for the years ended December 31, 2018, 2017 and 2016, respectively, include Quaker's historical results, while Houghton reflects its stand-alone results.

As it relates to the full year 2020 expected adjusted EBITDA and other forward-looking information described in this presentation, the Company has not provided guidance for comparable GAAP measures or a quantitative reconciliation of forward-looking non-GAAP financial measures to the most directly comparable U.S. GAAP measure because it is unable to determine with reasonable certainty the ultimate outcome of certain significant items necessary to calculate such measures without unreasonable effort. These items include, but are not limited to, certain non-recurring or non-core items the Company may record that could materially impact net income, as well as the impact of COVID-19. These items are uncertain, depend on various factors, and could have a material impact on the U.S. GAAP reported results for the guidance period.

The following charts should be read in conjunction with the Company's third quarter earnings news release dated November 5, 2020, which has been furnished to the SEC on Form 8-K and the Company's Form 10-Q for the period ended September 30, 2020, filed on November 5, 2020 with the SEC. These documents may contain additional explanatory language and information regarding certain of the items included in the following reconciliations.

Adjusted EBITDA Reconciliation

(dollars in thousands, unless otherwise noted)

	Q3 2020	Q3 2019	YTD 2020	YTD 2019
Net income (loss) attributable to Quaker Chemical Corporation	\$ 27,304	\$ (13,053)	\$ (8,812)	\$ 16,382
Depreciation and amortization	21,022	14,312	63,764	24,014
Interest expense, net	6,837	6,102	22,109	7,611
Taxes on income (loss) before equity in net income of associated companies	2,245	(5,633)	(7,603)	4,096
EBITDA	\$ 57,408	\$ 1,728	\$ 69,458	\$ 52,103
Equity income in a captive insurance company	(542)	(524)	(697)	(1,260)
Fair value step up of inventory sold	-	10,214	226	10,214
Houghton combination, integration and other acquisition-related expenses	6,913	14,702	22,679	23,789
Restructuring and related charges	1,383	24,045	3,585	24,045
Customer bankruptcy costs	-	-	463	-
Charges related to the settlement of a non-core equipment sale	-	-	-	384
Indefinite-lived intangible asset impairment	-	-	38,000	-
Pension and postretirement benefit costs, non-service components	(1,375)	513	22,491	2,304
Currency conversion impacts of hyper-inflationary economies	154	728	278	891
Adjusted EBITDA	\$ 63,941	\$ 51,406	\$ 156,483	\$ 112,470
Adjusted EBITDA Margin (%)	17.4%	15.8%	15.2%	15.2%

Appendix

Pro Forma Results



TTM Q3 2020 Adjusted EBITDA Reconciliation

	A YTD Q3 2019	B Full Year 2019	C = B - A Q4 2019	D YTD Q3 2020	E = C + D TTM Q3 2020
Net income (loss) attributable to Quaker Chemical Corporation	\$ 16,382	\$ 31,622	\$ 15,240	\$ (8,812)	\$ 6,428
Depreciation and amortization	24,014	45,264	21,250	63,764	85,014
Interest expense, net	7,611	16,976	9,365	22,109	31,474
Taxes on income (loss) before equity in net income of associated companies	4,096	2,084	(2,012)	(7,603)	(9,615)
EBITDA	\$ 52,103	\$ 95,946	\$ 43,843	\$ 69,458	\$ 113,301
Equity income in a captive insurance company	(1,260)	(1,822)	(562)	(697)	(1,259)
Fair value step up of inventory sold	10,214	11,714	1,500	226	1,726
Houghton combination, integration and other acquisition-related expenses	23,789	35,361	11,572	22,679	34,251
Restructuring and related charges	24,045	26,678	2,633	3,585	6,218
Customer bankruptcy costs	-	1,073	1,073	463	1,536
Insurance insolvency recovery	-	(60)	(60)	-	(60)
Charges related to the settlement of a non-core equipment sale	384	384	-	-	-
Indefinite-lived intangible asset impairment	-	-	-	38,000	38,000
Pension and postretirement benefit costs, non-service components	2,304	2,805	501	22,491	22,992
Currency conversion impacts of hyper-inflationary economies	891	1,033	142	278	420
Adjusted EBITDA	\$ 112,470	\$ 173,112	\$ 60,642	\$ 156,483	\$ 217,125

Q3 2019 Pro Forma Reconciliation

(dollars in millions)

	Three months ended September 30, 2019				
	As Reported	Houghton	Divestitures	Other (a)	Pro Forma*
Net Sales	\$ 325	\$ 72	\$ (9)	\$ (2)	\$ 386
Net (Loss) Income Attributable to Quaker Houghton	\$ (13)	\$ (7)	\$ (1)	\$ 2	\$ (20)
Depreciation and Amortization	14	4	-	0	19
Interest Expense, Net	6	5	-	(2)	9
Taxes on (Loss) Income (b)	(6)	4	(0)	0	(2)
EBITDA*	2	6	(1)	0	7
Combination, Integration and Other Acquisition-Related Expenses	15	40	-	-	55
Gain on Sale of Divested Assets	-	(35)	-	-	(35)
Fair value step up of Houghton inventory sold	10	-	-	-	10
Restructuring and related charges	24	-	-	-	24
Other Addbacks (c)	1	0	-	-	1
Adjusted EBITDA*	\$ 51	\$ 11	\$ (1)	\$ 0	\$ 61
Adjusted EBITDA Margin* (%)	16%	15%	13%	-5%	16%

* Certain amounts may not calculate due to rounding, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

(a) Other includes: (i) additional depreciation and amortization expense based on the initial estimates of fair value step up and estimated useful lives of depreciable fixed assets, definite-lived intangible assets and investment in associated companies acquired; (ii) adoption of required accounting guidance and alignment of related accounting policies; (iii) elimination of transactions between Quaker and Houghton; and (iv) an adjustment to interest expense, net, to reflect the impact of the new financing and capital structure of the combined Company.

(b) Taxes on (loss) income related to both Divestitures and Other reflect each tax effected at the U.S. federal tax rate of 21%.

(c) Other addbacks include equity income in a captive insurance company, currency conversion impacts of hyper-inflationary economies, and pension and postretirement benefit costs, non-service components.

YTD Q3 2019 Pro Forma Reconciliation

(dollars in millions)

	Nine months ended September 30, 2019				
	As Reported	Houghton	Divestitures	Other (a)	Pro Forma*
Net Sales	\$ 742	\$ 475	\$ (34)	\$ (13)	\$ 1,171
Net Income (Loss) Attributable to Quaker Houghton	\$ 16	\$ (3)	\$ (6)	\$ 9	\$ 16
Depreciation and Amortization	24	31	-	3	58
Interest Expense, Net	8	33	-	(14)	26
Taxes on Income (Loss) (b)	4	(1)	(2)	3	4
EBITDA*	52	60	(8)	1	104
Combination, Integration and Other Acquisition-Related Expenses	24	44	-	-	68
Gain on Sale of Divested Assets	-	(35)	-	-	(35)
Fair value step up of Houghton inventory sold	10	-	-	-	10
Restructuring and related charges	24	-	-	-	24
Other Addbacks (c)	2	(0)	-	-	2
Adjusted EBITDA*	\$ 112	\$ 68	\$ (8)	\$ 1	\$ 173
Adjusted EBITDA Margin* (%)	15%	14%	24%	-4%	15%

* Certain amounts may not calculate due to rounding, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

(a) Other includes: (i) additional depreciation and amortization expense based on the initial estimates of fair value step up and estimated useful lives of depreciable fixed assets, definite-lived intangible assets and investment in associated companies acquired; (ii) adoption of required accounting guidance and alignment of related accounting policies; (iii) elimination of transactions between Quaker and Houghton; and (iv) an adjustment to interest expense, net, to reflect the impact of the new financing and capital structure of the combined Company.

(b) Taxes on income (loss) related to both Divestitures and Other reflect each tax effected at the U.S. federal tax rate of 21%.

(c) Other addbacks include equity income in a captive insurance company, currency conversion impacts of hyper-inflationary economies, pension and postretirement benefit costs, non-service components, and charges related to the settlement of a non-core equipment sale.



TTM Q3 2019 Pro Forma Reconciliation

(dollars in thousands)

	Trailing 12 Months Ended September 30, 2019				
	Quaker	Houghton	Divestitures	Other (a)	Pro Forma*
Net sales	\$ 954	\$ 683	\$ (46)	\$ (22)	\$ 1,568
Net Income (Loss) Attributable to Quaker Houghton	\$ 24	\$ (7)	\$ (9)	\$ 13	\$ 21
Depreciation and Amortization	29	44	-	5	78
Interest Expense, Net	8	48	-	(21)	35
Taxes on Income (b)	16	4	(2)	4	21
EBITDA*	77	89	(11)	0	154
Combination, Integration and Other Acquisition-Related Expenses	28	46	-	-	74
Gain on the Sale of Divested Assets	-	(35)	-	-	(35)
Fair Value Step Up of Inventory Sold	10	-	-	-	10
Pension and Postretirement Benefit Costs, Non-Service Components	3	(0)	-	-	2
Restructuring and Related Charges	24	(0)	-	-	24
Other Addbacks (c)	0	0	-	-	1
Adjusted EBITDA*	\$ 142	\$ 99	\$ (11)	\$ 0	\$ 230
Adjusted EBITDA Margin* (%)	15%	15%	25%	0%	15%

* Certain amounts may not calculate due to rounding, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

(a) Other includes: (i) additional depreciation and amortization expense based on the initial estimates of fair value step up and estimated useful lives of depreciable fixed assets, definite-lived intangible assets and investment in associated companies acquired; (ii) adoption of required accounting guidance and alignment of related accounting policies; (iii) elimination of transactions between Quaker and Houghton; and (iv) an adjustment to interest expense, net, to reflect the impact of the new financing and capital structure of the combined Company.

(b) Taxes on income related to both Divestitures and Other reflect each tax effected at the U.S. federal tax rate of 21%.

(c) Other addbacks include equity income in a captive insurance company, currency conversion impacts of hyper-inflationary economies, insurance insolvency recoveries, affiliate management fees, and a gain on the liquidation of an inactive legal entity.



Full Year 2019 Pro Forma Reconciliation

(dollars in millions)

	Quaker	Houghton	Divestitures	Other (a)	Pro Forma*
Net sales	\$ 1,134	\$ 475	\$ (34)	\$ (13)	\$ 1,562
Net Income (Loss) Attributable to Quaker Houghton	\$ 32	\$ (3)	\$ (6)	\$ 10	\$ 33
Depreciation and Amortization	45	31	-	3	77
Interest Expense, Net	17	33	-	(15)	35
Taxes on Income (b)	2	(1)	(2)	3	2
EBITDA*	96	60	(8)	1	148
Combination, Integration and Other Acquisition-Related Expenses	35	44	-	-	80
Gain on the Sale of Divested Assets	-	(35)	-	-	(35)
Fair Value Step Up of Houghton and Norman Hay Inventory Sold	12	-	-	-	12
Restructuring and Related Charges	27	-	-	-	27
Other Addbacks (c)	3	(0)	-	-	3
Adjusted EBITDA*	\$ 173	\$ 68	\$ (8)	\$ 1	\$ 234
Adjusted EBITDA Margin* (%)	15%	14%	24%	-4%	15%

* Certain amounts may not calculate due to rounding, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

(a) Other includes: (i) additional depreciation and amortization expense based on the initial estimates of fair value step up and estimated useful lives of depreciable fixed assets, definite-lived intangible assets and investment in associated companies acquired; (ii) adoption of required accounting guidance and alignment of related accounting policies; (iii) elimination of transactions between Quaker and Houghton; and (iv) an adjustment to interest expense, net, to reflect the impact of the new financing and capital structure of the combined Company.

(b) Taxes on income related to both Divestitures and Other reflect each tax effected at the U.S. federal tax rate of 21%.

(c) Other addbacks include equity income in a captive insurance company, pension and postretirement benefit costs, non-service components, customer bankruptcy costs, insurance insolvency recoveries and currency conversion impacts of hyper-inflationary economies.

Full Year 2018 Pro Forma Reconciliation

(dollars in millions)

	Quaker	Houghton	Divestitures	Other (a)	Pro Forma*
Net sales	\$ 868	\$ 861	\$ (53)	\$ (22)	\$ 1,655
Net Income (Loss) Attributable to Quaker Houghton	\$ 59	\$ (0)	\$ (9)	\$ 17	\$ 66
Depreciation and Amortization	20	54	-	5	79
Interest Expense, Net	4	56	-	(25)	35
Taxes on Income (b)	25	3	(2)	5	30
EBITDA*	108	113	(12)	1	210
Combination, Integration and Other Acquisition-Related Expenses	16	7	-	-	23
Other Addbacks (c)	1	2	-	-	3
Adjusted EBITDA*	\$ 126	\$ 121	\$ (12)	\$ 1	\$ 236
Adjusted EBITDA Margin* (%)	14%	14%	23%	-4%	14%

* Certain amounts may not calculate due to rounding, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

(a) Other includes: (i) additional depreciation and amortization expense based on the initial estimates of fair value step up and estimated useful lives of depreciable fixed assets, definite-lived intangible assets and investment in associated companies acquired; (ii) adoption of required accounting guidance and alignment of related accounting policies; (iii) elimination of transactions between Quaker and Houghton; and (iv) an adjustment to interest expense, net, to reflect the impact of the new financing and capital structure of the combined Company.

(b) Taxes on income related to both Divestitures and Other reflect each tax effected at the U.S. federal tax rate of 21%.

(c) Other addbacks include currency conversion impacts on hyper-inflationary economies, a gain on the liquidation of an inactive legal entity and charges related to non-recurring non-income tax and VAT charges.

Full Year 2017 Pro Forma Reconciliation

(dollars in millions)

	Quaker	Houghton	Divestitures	Other (a)	Pro Forma*
Net Income (Loss) Attributable to Quaker Houghton	\$ 20	\$ (47)	\$ (9)	\$ 9	\$ (26)
Depreciation and Amortization	20	55	-	5	80
Interest Expense, Net	1	51	-	(16)	37
Taxes on Income (b)	42	42	(2)	2	84
EBITDA*	83	102	(11)	0	175
Equity Income in a Captive Insurance Company	(3)	-	-	-	(3)
Combination, Integration and Other Acquisition-Related Expenses	30	10	-	-	40
Pension and Postretirement Benefit Costs, Non-Service Components	4	(1)	-	-	4
Cost Reduction Activities	0	2	-	-	2
Loss on Disposal of Held-for-Sale Asset	0	-	-	-	0
Insurance Insolvency Recovery	(1)	-	-	-	(1)
Affiliate Management Fees	-	2	-	-	2
Non-Income Tax Settlement Expense	-	1	-	-	1
Other Addbacks (c)	0	0	-	-	1
Adjusted EBITDA*	<u>\$ 115</u>	<u>\$ 116</u>	<u>\$ (11)</u>	<u>\$ 0</u>	<u>\$ 221</u>
Adjusted EBITDA Margin* (%)	14%	15%	20%	0%	14%

* Certain amounts may not calculate due to rounding, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

(a) Other includes estimated increases to depreciation and amortization due to purchase accounting fair value adjustments and a reduction of interest expense based on the average borrowings of the period plus the purchase consideration under the Quaker Houghton facility estimated interest rates.

(b) Taxes on income related to both Divestitures and Other reflect each tax effected at the U.S. federal tax rate of 21%.

(c) Other addbacks includes charges related to inventory fair value step up adjustments in the Wallover acquisition, currency conversion impacts of hyper-inflationary economies and other non-recurring charges.

Full Year 2016 Pro Forma Reconciliation

(dollars in millions)

	Quaker	Houghton	Divestitures	Other (a)	Pro Forma*
Net Income (Loss) Attributable to Quaker Houghton	\$ 61	\$ (37)	\$ (8)	\$ 7	\$ 23
Depreciation and Amortization	20	55	-	5	80
Interest Expense, Net	1	51	-	(14)	37
Taxes on Income (b)	23	(5)	(2)	2	18
EBITDA*	105	64	(10)	-	158
Equity Income in a Captive Insurance Company	(2)	-	-	-	(2)
Combination, Integration and Other Acquisition-Related Expenses	2	3	-	-	5
Pension and Postretirement Benefit Costs, Non-Service Components	2	(1)	-	-	1
Cost Reduction Activities	-	4	-	-	4
Impairment of Goodwill and Intangible Assets	-	41	-	-	41
Affiliate Management Fees	-	2	-	-	2
Non-Income Tax Settlement Expense	-	2	-	-	2
Full-Year Impact of Wallover Acquisition	-	3	-	-	3
Other Addbacks (c)	(0)	1	-	-	1
Adjusted EBITDA*	\$ 107	\$ 119	\$ (10)	\$ 0	\$ 215
Adjusted EBITDA Margin* (%)	14%	16%	22%	0%	15%

* Certain amounts may not calculate due to rounding, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

(a) Other includes estimated increases to depreciation and amortization due to purchase accounting fair value adjustments and a reduction of interest expense based on the average borrowings of the period plus the purchase consideration under the Quaker Houghton facility estimated interest rates.

(b) Taxes on income related to both Divestitures and Other reflect each tax effected at the U.S. federal tax rate of 21%.

(c) Other addbacks includes a charge related to a legal settlement, a charge related to inventory fair value adjustments in the Wallover acquisition, offset by a gain on the sale of an asset, currency conversion impacts of hyper-inflationary economies and a restructuring credit.