

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. Throughout this presentation, all figures presented, unless otherwise stated, reflect the results of operations of the combined company for the three months ended March 31, 2020 and Legacy Quaker for the three months ended March 31, 2019.

Regulation G

The attached charts include Company information that does not conform to generally accepted accounting principles ("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. This data should be read in conjunction with the first quarter earnings news release, dated May 11, 2020, which has been furnished to the Securities and Exchange Commission ("SEC") on Form 8-K.

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 our 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, our current and future results and plans and statements that include the words "may." "could." "should." "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, 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 significance 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 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 the Company's business could cause its 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 and into 2021, 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. you should refer to the Risk Factors detailed in Item 1A of our Annual Report for the year ended December 31, 2019, in Item 1A of our Quarterly Report on Form 10-Q for the period ended March 31, 2020, and in our quarterly and 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.



Speakers

Michael F. Barry

Chairman of the Board, Chief Executive Officer & President

Mary Dean Hall

Senior Vice President, Chief Financial Officer & Treasurer

Robert T. Traub

Senior Vice President, General Counsel & Corporate Secretary

Shane W. Hostetter

Vice President, Finance & Chief Accounting Officer



First Quarter 2020 Headlines

- Net sales of \$378.6 million were negatively impacted by volume declines primarily attributed to the initial impact of COVID-19 and Boeing's decision to temporarily stop production of its 737 Max aircraft, which drove a 3% decline compared to prior year pro forma net sales
- GAAP net loss of \$28.4 million or \$1.60 per diluted share includes current quarter non-cash charges of \$38.0 million for the impairment of certain indefinite-lived intangible assets and \$22.7 million related to the termination of a U.S. defined benefit pension plan
- Non-GAAP earnings per diluted share of \$1.38 were down 2% from 2019 and above analyst consensus of \$1.00
- Adjusted EBITDA of \$60.5 million up 10% versus pro forma prior year first quarter adjusted EBITDA primarily due to the benefits of cost synergies related to the Houghton combination
- The Company now expects to realize Combination cost synergies of \$53 million in 2020 (up from \$35 million), \$65 million in 2021 (up from \$50 million), and \$75 million in 2022 (up from \$60 million)



Chairman Comments

First Quarter 2020

- The Company's top priority is to protect the health and safety of our employees and our customers, while ensuring business continuity and with all 34 of the Company's plants operating we have been able to meet our customers' needs
- Net sales showed improvement compared to reported Q1'19 net sales due to Houghton and Norman Hay, but the
 negative impacts due to COVID-19, Boeing's decision to temporarily stop production of the 737 Max aircraft and foreign
 currency translation drove a decline of 3% compared to prior year pro forma net sales
- Adjusted EBITDA of \$60.5 million increased 10% compared to prior year pro forma adjusted EBITDA driven by estimated share gains, \$10 million of integration synergies, the benefit of Norman Hay and additional cost savings measures put in place due to COVID-19

2020 Outlook

- Expect Q2'20 to be the most challenging quarter as customer shutdowns or reduced production, especially in the first half of the quarter, are expected to result in adjusted EBITDA in Q2'20 being down by nearly half of Q1'20 adjusted EBITDA
- Expect to see a gradual sequential improvement in the second half of the year and expect full year adjusted EBITDA to be more than \$200 million in 2020
- Do not expect bank covenant issues and also expect to maintain good liquidity as releases in working capital will
 positively impact cash flow
- Increased expected integration synergies, additional cost savings actions in response to COVID-19, improvement in gross margins and continuing to take share in the marketplace will continue to help during these challenging times, and coupled with a benefit from the projected gradual rebound in demand in our end markets, we expect will result in significant increases in adjusted EBITDA in 2021 and 2022



Financial Highlights – Actual Results

First quarter of 2020

- Net sales of \$378.6 million increased 79% compared to Q1'19 due to the inclusion of Houghton and Norman Hay net sales of \$190.3 million; excluding Houghton and Norman Hay net sales declined 11% due to lower volumes of 5%, a negative impact from foreign currency translation of 3%, and a decline from selling price and product mix of 3%
- Gross profit increased \$58.1 million primarily due to the inclusion of Houghton and Norman Hay; Q1'20 gross margin was 35.4% compared to 35.9% in Q1'19 primarily due to lower gross margins in the legacy Houghton business, partially offset by the Company's progress on Combination-related logistics and procurement cost savings initiatives
- SG&A increased \$47.2 million due primarily to Houghton and Norman Hay SG&A, partially offset by foreign currency translation, lower direct selling costs on lower sales, and COVID-19 related savings, including lower travel expenses and other cost savings actions, as well as the benefits of realized cost savings associated with the Combination
- Non-cash impairment charge of \$38.0 million to write down Houghton trademarks to their current estimated fair values
- Non-operating items compared to Q1'19 include higher interest expense due to additional borrowings outstanding to finance the Combination and a \$22.7 million non-cash settlement charge related to the termination of a legacy Quaker U.S. pension plan, partially offset by higher equity income from the Company's Korea joint venture
- Effective tax rates of a benefit of 31.1% and expense of 26.8% for Q1'20 and Q1'19, respectively, include various one-time impacts; without these items ETRs would have been ~22% and ~24% for Q1'20 and Q1'19, respectively



Financial Highlights – Non-GAAP & Pro Forma

First quarter of 2020

Non-GAAP Results

- Non-GAAP EPS of \$1.38 compared to \$1.41 in the prior year impacted by the increase in share count due to the closing of the Combination partially offset by Houghton and Norman Hay earnings
- Non-GAAP operating income increased to \$36.0 million compared to \$24.3 million in the prior year, primarily
 due to additional net sales and operating income from Houghton and Norman Hay as well as the benefits from
 cost savings related to the Combination
- Non-GAAP adjusted EBITDA increased to \$60.5 million compared to \$29.6 million in the prior year, also primarily due to additional earnings from Houghton and Norman Hay

Pro forma Results

- Actual net sales of \$378.6 million decreased 3% compared to pro forma net sales of approximately \$391 million in the prior year, primarily due to lower volumes and a negative impact from foreign currency translation, partially offset by additional net sales from Norman Hay
- Adjusted EBITDA of \$60.5 million increased 10% compared to pro forma adjusted EBITDA of approximately \$55 million in the prior year, primarily due to the benefits of cost synergies realized from the Combination and the benefit of Norman Hay in the current quarter



Financial Snapshot (dollars in millions, unless otherwise noted)

	Q1	2020 Q1 2019		2019	Variand		ce (1)	
GAAP								
Net Sales	\$	378.6	\$	211.2	\$	167.4	79%	
Gross Profit		133.9		75.8		58.1	77%	
Operating (Loss) Income		(12.4)		19.8		(32.3)	-163%	
Net (Loss) Income		(28.4)		13.8		(42.2)	-305%	
(Loss) Earnings Per Diluted Share		(1.60)		1.03		(2.63)	-255%	
Non-GAAP								
Non-GAAP Operating Income	\$	36.0	\$	24.3	\$	11.7	48%	
Non-GAAP Operating Margin (%)		9.5%		11.5%		-2.0%	-17%	
Adjusted EBITDA		60.5		29.6		30.8	104%	
Adjusted EBITDA Margin (%)		16.0%		14.0%		1.9%	14%	
Non-GAAP Earnings Per Diluted Share		1.38		1.41		(0.03)	-2%	
Pro Forma (2)								
Net Sales	\$	378.6	\$	391	\$	(13)	-3%	
Adjusted EBITDA		60.5		55		6	10%	
Adjusted EBITDA Margin (%)		16.0%		14%		2%	14%	



⁽¹⁾ Certain amounts may not calculate due to rounding

⁽²⁾ Pro forma results for Q1 2020 presented above are the actual GAAP and Non-GAAP results for Quaker Houghton

Pro Forma Adjusted EBITDA

(dollars in millions)



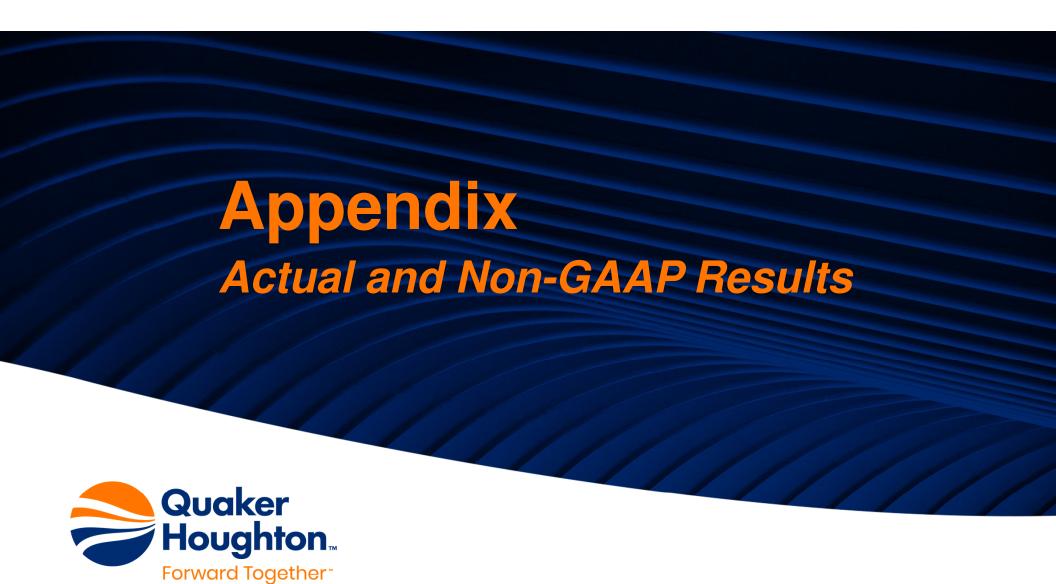
Q1'20 pro forma adjusted EBITDA increase due to the benefits of cost savings realized from the Combination and the inclusion of Norman Hay



Leverage and Liquidity Update

- As a precautionary measure in response to the current economic uncertainty from COVID-19, the Company drew down most of the available liquidity on its revolving credit facility during the first quarter of 2020
- Total gross outstanding borrowings of \$1,127.8 million and \$316.4 million of cash on hand as of March 31, 2020
- Net debt to TTM adjusted EBITDA of 3.40x as of March 31, 2020 compared to 3.47x as of December 31, 2019;
 expect to remain in compliance with bank calculated net debt to adjusted EBITDA (2.76x as of March 31, 2020 compared to maximum permitted leverage of 4.25x) and all other bank covenants
- Cost of debt ~3.0% during Q1'20 and ~2.4% at March 31, 2020
- In past downturns, such as the 2008/2009 recession, when sales volumes declined significantly, working capital cash requirements correspondingly decreased and the Company's operating cash flow improved
- The Company does not expect any significant cash burn during 2020
- Net operating cash flow of \$20.2 million in Q1'20 increased quarter-over-quarter compared to less than \$0.1 million in Q1'19 primarily driven by the inclusion of earnings from Houghton and Norman Hay
- Expect current year reduction in capex of approximately 30% compared to previous expectations due to COVID-19 related actions in 2020





Non-GAAP and **Pro Forma Measures**

The information included in this presentation includes non-GAAP (unaudited) financial information that includes 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, 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 (loss) income attributable to the Company before depreciation and amortization, interest expense, net, and taxes on income before equity in net income of associated companies. The Company also presents adjusted EBITDA which is calculated as EBITDA plus or minus certain items that are not considered indicative of future operating performance or not considered indicative of future operating performance or not considered indicative of future operating performance or not considered core to the Company's operating income which is calculated as 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 - adjusted, interest expense, net - adjusted, and taxes on income before equity in net income of associated companies - 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 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. 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 months ended March 31, 2019 include Quaker's historical results, while Houghton reflects its stand-alone results. Pro forma results for the trailing twelve months ended March 31, 2020 include eight months of Houghton's operations post-closing of the Combination, while Houghton reflects seven months of results for the period from April 1, 2019 through July 31, 2019. Pro forma results for the year 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 second quarter 2020 and 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 first quarter earnings news release dated May 11, 2020, which has been furnished to the SEC on Form 8-K and the Company's Form 10-Q for the period ended March 31, 2020, filled on May 11, 2020 with the SEC. These documents may contain additional explanatory language and information regarding certain of the items included in the following reconciliations.



Non-GAAP Operating Income Reconciliation

(dollars in thousands, unless otherwise noted)

	C	21 2020	Q1 2019
Operating (loss) income	\$	(12,444) \$	19,829
Houghton combination and other acquisition-related expenses		8,276	4,483
Restructuring and related charges		1,716	-
Customer bankruptcy costs		463	-
Indefinite-lived intangible asset impairment		38,000	-
Non-GAAP operating income	\$	36,011 \$	24,312
Non-GAAP operating margin (%)		9.5%	11.5%



Adjusted EBITDA Reconciliation

(dollars in thousands, unless otherwise noted)

	G	21 2020	Q1 2019	<u> </u>
Net (loss) income attributable to Quaker Chemical Corporation	\$	(28,381)	\$ 13,8	344
Depreciation and amortization		21,584	4,8	359
Interest expense, net		8,461	7	776
Taxes on (loss) income before equity in net income of associated companies		(13,070)	4,9	929
EBITDA	•	(11,406)	24,4	108
Equity loss (income) in a captive insurance company		327	(3	346)
Houghton combination and other acquisition-related expenses		7,803	4,4	483
Restructing and related charges		1,716	!	-
Customer bankruptcy costs		463	ı	_
Indefinite-lived intangible asset impairment		38,000		-
Pension and postretirement benefit costs, non-service components		23,525	8	396
Currency conversion impacts of hyper-inflationary economies		51	1	194
Adjusted EBITDA	\$	60,479	\$ 29,6	35
Adjusted EBITDA Margin (%)		16.0%	14	.0%



Non-GAAP EPS Reconciliation

	Q1	2020	Q1 2	019
GAAP (loss) earnings per diluted share attributable to Quaker Chemical Corporation common shareholders	\$	(1.60)	\$	1.03
Equity loss (income) in a captive insurance company per diluted share		0.02		(0.03)
Houghton combination and other acquisition-related expenses per diluted share		0.36		0.35
Restructuring and related charges per diluted share		0.07		-
Customer bankruptcy costs per diluted share		0.02		-
Indefinite-lived intangible asset impairment per diluted share		1.65		-
Pension and postretirement benefit costs, non-service components per diluted share		0.88		0.05
Currency conversion impacts of hyper-inflationary economies per diluted share		0.00		0.01
Impact of certain discrete tax items per diluted share		(0.02)		-
Non-GAAP earnings per diluted share	\$	1.38	\$	1.41



Segment Performance

(dollars in thousands)

		Q1 2020	Q1 2019		
Net sales					
Americas	\$	129,896	\$	72,225	
EMEA		104,839		52,425	
Asia/Pacific		73,552		46,167	
Global Specialty Businesses		70,274		40,393	
Total net sales	\$	378,561	\$	211,210	
Segment operating earnings					
Americas	\$	29,188	\$	14,339	
EMEA		18,359		8,793	
Asia/Pacific		19,541		12,812	
Global Specialty Businesses		20,560		10,604	
Total segment operating earnings		87,648		46,548	
Combination and other acquisition-related expenses		(7,878)		(4,483)	
Restructuring and related charges		(1,716)		_	
Indefinite-lived intangible asset impairment		(38,000)		-	
Non-operating and administrative expenses		(38,451)		(20,348)	
Depreciation of corporate assets and amortization		(14,047)		(1,888)	
Operating (loss) income		(12,444)		19,829	
Other expense, net		(21,175)		(635)	
Interest expense, net		(8,461)		(776)	
(Loss) income before taxes and equity in net income of associated					
companies	<u>\$</u>	(42,080)	\$	18,418	





Q1 2019 Pro Forma Reconciliations

	Three months ended March 31, 2019									
	Qı	uaker	Ho	oughton	Dive	stitures	Otl	her (a)	Pro	Forma*
Net sales	\$	211	\$	200	\$	(14)	\$	(5)	\$	391
Net Income Attributable to Quaker Houghton	\$	14	\$	3	\$	(3)	\$	4	\$	17
Depreciation and Amortization		5		13		-		1		19
Interest Expense, Net		1		14		-		(6)		9
Taxes on Income (b)		5_		(4)		(1)		11		2
EBITDA*		24		26		(3)		0		47
Combination and Other Acquisition-Related Expenses		5		2		-		-		6
Other Addbacks (c)		1_		0				- [1
Adjusted EBITDA*	\$	30	\$	29	\$	(3)	\$	0	\$	55
Adjusted EBITDA Margin* (%)		14%		14%		24%		0%		14%

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

- (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 loss (income) in a captive insurance company, currency conversion impacts of hyper-inflationary economies, affiliate management fees, pension and postretirement benefit costs, non-service components and other non-recurring miscellaneous charges.



⁽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.

TTM Q1 2020 Pro Forma Reconciliations

	Trailing Twelve Months Ended March 31, 2020										
	C	uaker	Ho	ughton	Dive	stitures	Oth	ner (a)	Pro	Forma*	
Net sales	\$	1,301	\$	275	\$	(19)	\$	(7)	\$	1,550	
Net (Loss) Income Attributable to Quaker Houghton	\$	(11)	\$	(6)	\$	(4)	\$	6	\$	(15)	
Depreciation and Amortization		62		18		-		2		81	
Interest Expense, Net		25		19		-		(9)		35	
Taxes on Income (b)		(16)		3		(1)		2		(13)	
EBITDA*		60		34		(5)		0		89	
Combination and Other Acquisition-Related Expenses		39		42		-		-		81	
Gain on Sale of Divested Assets		-		(35)		-		-		(35)	
Fair Value Step Up of Houghton and Norman Hay Inventory Sold		12		-		-		-		12	
Pension and postretirement benefit costs, non-service components		25		(0)		-		-		25	
Indefinite-lived intangible asset impairment		38		-		-		-		38	
Restructuring and Related Charges		28		-		-		-		28	
Other Addbacks (c)		2		(1)		-		-		1	
Adjusted EBITDA*	\$	204	\$	40	\$	(5)	\$	0	\$	239	
Adjusted EBITDA Margin* (%)		16%		14%		24%		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 loss (income) in a captive insurance company, currency conversion impacts of hyper-inflationary economies, affiliate management fees, insurance insolvency recoveries, customer bankruptcy costs, charges related to the settlement of a non-core equipment sale and other non-recurring miscellaneous charges.



Full Year 2019 Pro Forma Reconciliations

	2019									
	Q	uaker	Но	ughton	Div	estitures	O ₁	her (a)	Pro	Forma*
Net sales	\$	1,134	\$	475	\$	(34)	\$	(13)	\$	1,562
Net Income 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 and Other Acquisition-Related Expenses		35		44		-		=		80
Gain on 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)	\$	11	\$	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.

- (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.



⁽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.

Full Year 2018 Pro Forma Reconciliations

	2018									
	Qu	aker	Ηοι	ughton	Dive	stitures	Oth	er (a)	Pro	Forma*
Net sales	\$	868	\$	861	\$	(53)	\$	(22)	\$	1,655
Net Income 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 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 Reconciliations

(donars in minions)	2017										
	Quaker		Houghton	Divestitures	Other (a)	Pro Forma*					
Net Income Attributable to Quaker Houghton	\$ 20	5	\$ (47)	\$ (9)	\$ 9	\$ (26)					
Depreciation and Amortization	20)	55	-	5	80					
Interest Expense, Net	1	1	51	-	(16)	37					
Taxes on Income (b)	42	2	42	(2)	2	84					
EBITDA*	83	3	102	(11)	0	175					
Equity Income in a Captive Insurance Company	(3	3)	-	-	-	(3)					
Combination and Other Acquisition-Related Expenses	30)	10	-	-	40					
Pension and Postretirement Benefit Costs, Non-Service Components	2	4	(1)	-	-	4					
Cost Reduction Activities	(0	2	-	-	2					
Loss on Disposal of Held-for-Sale Asset	()	-	-	-	0					
Insurance Insolvency Recovery	(1	1)	-	-	-	(1)					
Affiliate Management Fees	-		2	-	-	2					
Non-Income Tax Settlement Expense	-		1	-	-	1					
Other Addbacks (c)	()	0			1					
Adjusted EBITDA*	\$ 115	5	\$ 116	\$ (11)	\$ 0	\$ 221					
Adjusted EBITDA Margin* (%)	149	%	15%	20%	0%	14%					

- * Certain amounts may not calculate due to round, 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 the Divestitures and Other, as described above, each tax effected at the U.S. tax rate of 21%.
- (c) Other Addbacks includes charges related to inventory fair value adjustments in the Wallover acquisition, currency conversion impacts of hyper-inflationary economies and other non-recurring charges.



Full Year 2016 Pro Forma Reconciliations

(uonars in minions)	2016										
•	Quaker	Houghton	Divestitures	Other (a)	Pro Forma*						
Net Income 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)	0	158						
Equity Income in a Captive Insurance Company	(2)	-	-	-	(2)						
Combination 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 round, 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 the Divestitures and Other, as described above, each tax effected at the U.S. 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.

