

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

FORM 8-K/A
(Amendment No. 1)

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

August 1, 2019
Date of Report (Date of earliest event reported)

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

Commission File Number 001-12019

PENNSYLVANIA
(State or other jurisdiction of
incorporation or organization)

No. 23-0993790
(I.R.S. Employer
Identification No.)

One Quaker Park
901 E. Hector Street
Conshohocken, Pennsylvania 19428
(Address of principal executive offices)
(Zip Code)

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

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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 is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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.

Explanatory Note

This Amendment No. 1 to Current Report on Form 8-K/A is being filed with the Securities and Exchange Commission (the “SEC”) solely to amend and supplement Item 9.01 of the Current Report on Form 8-K (the “Original 8-K”) filed by Quaker Chemical Corporation (the “Company”) on August 2, 2019, which reported under Item 2.01 (as incorporated by reference from Item 1.01 thereof) the completion of its previously announced acquisition of the outstanding share capital of Global Houghton Ltd., an exempted company incorporated under the laws of the Cayman Islands (“Global Houghton”). Under Item 9.01 of the Original 8-K, the Company stated that the financial statements and pro forma financial information required to be provided under Item 9.01 of Form 8-K would be provided by amendment to the Original 8-K not later than 71 days after the date the Original 8-K was required to be filed. This Amendment No. 1 provides this information required by Item 9.01.

Item 9.01. Financial Statements and Exhibits.

(a) Financial statements of businesses acquired.

The audited consolidated balance sheets of Global Houghton as of December 31, 2018 and 2017, the related audited consolidated statements of operations, comprehensive income and cash flows of Global Houghton for the years ended December 31, 2018, 2017 and 2016, the notes related thereto and the Independent Auditor’s Report, are attached hereto as Exhibit 99.1.

The unaudited condensed consolidated balance sheet of Global Houghton as of June 30, 2019 and the related unaudited condensed consolidated statements of operations, comprehensive income and cash flows of Global Houghton for the six months ended June 30, 2019 and 2018, are attached hereto as Exhibit 99.2.

(b) Pro forma financial information.

The unaudited pro forma condensed combined balance sheet of the Company and Global Houghton as of June 30, 2019 and the unaudited pro forma condensed combined statements of income for the six months ended June 30, 2019 and the year ended December 31, 2018, and the notes related thereto are furnished hereto as Exhibit 99.3.

(d) Exhibits.

The following exhibits are included as part of this report:

<u>Exhibit No.</u>	<u>Description</u>
23.1	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm.*
99.1	Audited consolidated financial statements of Global Houghton as of and for the years ended December 31, 2018, 2017 and 2016.*
99.2	Unaudited condensed consolidated financial statements of Global Houghton as of and for the six months ended June 30, 2019 and June 30, 2018.*
99.3	Unaudited pro forma condensed combined balance sheet of the Company and Global Houghton as of June 30, 2019 and the unaudited pro forma condensed combined statements of income for the six months ended June 30, 2019 and the year ended December 31, 2018.**
101.SCH	Inline XBRL Extension Schema Document *
101.LAB	Inline XBRL Label Linkbase Document *
101.PRE	Inline XBRL Presentation Linkbase Document *
104	Cover Page Interactive Data File (formatted in Inline XBRL and contained in Exhibit 101) *

* Filed herewith.

** Furnished herewith.

SIGNATURE

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 hereunto duly authorized.

QUAKER CHEMICAL CORPORATION

Date: August 29, 2019

By: /s/ Robert T. Traub

Robert T. Traub
Senior Vice President, General Counsel
and Corporate Secretary

CONSENT OF INDEPENDENT AUDITORS

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (Registration No. 333-155607) and on Forms S-8 (Registration Nos. 333-48130, 033-54158, 333-58676, 333-115713, 333-159513, 333-174145, 333-208188, 333-188594 and 333-211238) of Quaker Chemical Corporation of our report dated March 29, 2019, except for the paragraph under the subheading “Subsequent Event Alleviating Substantial Doubt” and the change in the manner in which Global Houghton Ltd. accounts for net periodic pension cost discussed in Note 1 to the consolidated financial statements, as to which the date is August 29, 2019, relating to the financial statements of Global Houghton Ltd., which appears in this Current Report on Form 8-K/A.

/s/PricewaterhouseCoopers LLP
Philadelphia, Pennsylvania
August 29, 2019

**Global Houghton Ltd. and Subsidiaries
Consolidated Financial Statements
as of December 31, 2018 and December 31, 2017 and
for the years ended December 31, 2018 and 2017 and 2016.**

Table of Contents

	Pages
FINANCIAL INFORMATION	
Financial Statements:	
Report of Independent Auditors	3
Consolidated Statements of Operations	4
Consolidated Statements of Comprehensive Loss	5
Consolidated Statements of Financial Position	6
Consolidated Statements of Cash Flows	8
Consolidated Statements of Changes in Equity	9
Notes to Consolidated Financial Statements	10

Report of Independent Auditors

To the Management of Global Houghton Ltd.

We have audited the accompanying consolidated financial statements of Global Houghton Ltd. and its subsidiaries, which comprise the consolidated statements of financial position as of December 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive loss, changes in equity and cash flows for each of the three years in the period ended December 31, 2018.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Global Houghton Ltd. and its subsidiaries as of December 31, 2018 and 2017, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2018 in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Management and we previously concluded there was substantial doubt about the Company's ability to continue as a going concern. As discussed in Note 1, management has subsequently taken certain actions which management and we have concluded remove that substantial doubt. Our opinion is not modified with respect to this matter.

/s/PricewaterhouseCoopers LLP
Philadelphia, Pennsylvania

March 29, 2019, except for the paragraph under the subheading "Subsequent Event Alleviating Substantial Doubt" and the change in the manner in which the Company accounts for net periodic pension cost discussed in Note 1 to the consolidated financial statements, as to which the date is August 29, 2019.

CONSOLIDATED STATEMENTS OF OPERATIONS

(Thousands of U.S. Dollars)

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Net sales	\$ 862,456	\$ 818,762	\$ 766,806
Cost of goods sold	580,023	544,755	500,023
Gross profit	<u>282,433</u>	<u>274,007</u>	<u>266,783</u>
Selling, general and administrative expense	227,515	245,790	218,988
Restructuring	81	64	1,797
Goodwill and intangibles impairment loss	-	-	40,922
Other operating expense	418	1,943	1,780
Operating income	<u>54,419</u>	<u>26,210</u>	<u>3,296</u>
Other expense, net	(1,389)	(1,992)	(4,038)
Interest expense, net	(56,354)	(51,478)	(50,312)
Loss before income taxes and equity in net income of investee	(3,324)	(27,260)	(51,054)
Income tax expense (benefit)	<u>2,824</u>	<u>38,791</u>	<u>(5,188)</u>
Net loss before equity in net income of investee	(6,148)	(66,051)	(45,866)
Equity in net income of investee	5,702	6,911	9,255
Net loss	<u>(446)</u>	<u>(59,140)</u>	<u>(36,611)</u>
Net loss attributable to non-controlling interest	-	-	(48)
Net loss attributable to Global Houghton Ltd.	<u>\$ (446)</u>	<u>\$ (59,140)</u>	<u>\$ (36,563)</u>

The accompanying Notes are an integral part of these Financial Statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Thousands of U.S. Dollars)

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Net loss	\$ (446)	\$ (59,140)	\$ (36,611)
Other comprehensive (loss) income:			
Foreign currency translation adjustment, net of tax benefit (expense) of \$885, (\$2,618) and \$958	(23,207)	36,869	(23,380)
Pension adjustments, net of tax benefit (expense) of \$538, (\$133) and \$1,151	(3,454)	318	(4,067)
Total other comprehensive (loss) income	<u>(26,661)</u>	<u>37,187</u>	<u>(27,447)</u>
Comprehensive loss	\$ (27,107)	\$ (21,953)	\$ (64,058)
Comprehensive income attributable to NCI	-	-	2,192
Comprehensive loss attributable to Global Houghton Ltd.	<u>\$ (27,107)</u>	<u>\$ (21,953)</u>	<u>\$ (66,250)</u>

The accompanying Notes are an integral part of these Financial Statements.

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(Thousands of U.S. Dollars except share and per share amounts)

	December 31, 2018	December 31, 2017
ASSETS		
Current Assets:		
Cash and cash equivalents	\$ 49,364	\$ 65,616
Restricted cash	45	117
Accounts receivable, net	153,713	157,502
Inventories	87,437	80,619
Prepaid expense and other assets	24,054	23,674
Total current assets	314,613	327,528
Property, plant and equipment, net	75,824	79,844
Goodwill	260,583	270,451
Customer relationships and other intangible assets, net	324,951	378,532
Investment in equity investee	43,641	44,880
Non-current deferred tax assets	219	225
Other non-current assets	728	667
TOTAL ASSETS	\$ 1,020,559	\$ 1,102,127

The accompanying Notes are an integral part of these Financial Statements.

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(Thousands of U.S. Dollars except share and per share amounts)

	December 31, 2018	December 31, 2017
LIABILITIES AND EQUITY		
Current Liabilities:		
Current portion of long-term debt	\$ 510,540	\$ 4,560
Short-term debt	10,904	20,797
Accounts payable	81,084	85,871
Accrued employee related costs	28,309	34,922
Other current liabilities	26,679	29,117
Total current liabilities	657,516	175,267
Long-term debt	198,523	716,389
Other non-current liabilities:		
Liability for pension benefits	28,817	30,686
Non-current deferred tax liabilities	45,433	64,825
Other non-current liabilities	40,820	38,403
Total other non-current liabilities	115,070	133,914
TOTAL LIABILITIES	971,109	1,025,570
Commitments and Contingencies (Note 20)		
Redeemable Stock	9,267	8,547
Equity:		
Global Houghton Ltd. Shareholder's equity		
Common Stock - par value \$0.01 per share; 5,000,000 authorized; 3,142,952 issued and 3,113,995 outstanding at December 31, 2018 and December 31, 2017	31	31
Additional paid-in capital	302,785	303,505
Accumulated deficit	(134,281)	(133,835)
Accumulated other comprehensive loss	(127,559)	(100,898)
Treasury stock - at cost; 24,502 shares at December 31, 2018 and December 31, 2017	(793)	(793)
TOTAL SHAREHOLDER'S EQUITY	40,183	68,010
TOTAL LIABILITIES AND EQUITY	\$ 1,020,559	\$ 1,102,127

The accompanying Notes are an integral part of these Financial Statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(Thousands of U.S. Dollars)

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net loss	\$ (446)	\$ (59,140)	\$ (36,611)
Adjustments to reconcile net loss to Net cash provided by operating activities:			
Depreciation and amortization	54,392	54,905	55,032
Non-cash debt discount/issuance cost amortization	5,953	5,903	5,829
(Gain) loss on disposal of property, plant, and equipment	(127)	26	(423)
Goodwill and intangibles impairment loss	-	-	40,922
Asset impairments	837	-	-
Equity in net income of investee, net of dividends received	(155)	2,162	(5,212)
Pension benefits	(5,422)	(4,429)	(3,379)
Stock compensation expense	4,358	18,583	2,848
Deferred income taxes	(16,035)	20,196	(23,916)
Changes in operating assets and liabilities, net:			
Increase in due to/from affiliate	(35)	(131)	(672)
Increase in receivables, net	(4,067)	(17,253)	(4,548)
(Increase) decrease in inventories	(10,906)	788	(2,448)
Increase in other assets	(1,930)	(2,129)	(1,737)
(Decrease) increase in accounts payable	(955)	497	10,088
(Decrease) increase in other liabilities	(6,133)	2,975	6,459
Net cash provided by operating activities	<u>19,329</u>	<u>22,953</u>	<u>42,232</u>
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of property, plant and equipment	(10,950)	(11,357)	(9,201)
Cost of companies acquired, net of cash acquired	-	-	(39,363)
Proceeds from disposal of property, plant and equipment	695	2,006	1,517
Net cash used in investing activities	<u>(10,255)</u>	<u>(9,351)</u>	<u>(47,047)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:			
Net borrowings of short-term debt	(9,501)	12,481	7,990
Repayments of long-term debt	(13,783)	(4,550)	(4,551)
Repayments on capital lease obligations	(9)	(64)	(212)
Net borrowings on revolver	-	-	56
Dividends paid	-	(2,839)	-
Debt issuance costs	-	(182)	-
Proceeds from sale of common stock	-	102	11
Repurchase of common stock	-	-	(264)
Net cash (used in) provided by financing activities	<u>(23,293)</u>	<u>4,948</u>	<u>3,030</u>
Net (decrease) increase in cash and cash equivalents, restricted cash	(14,219)	18,550	(1,785)
Effect of exchange rate changes on cash and cash equivalents, restricted cash	(2,105)	3,121	(2,855)
BEGINNING CASH AND CASH EQUIVALENTS, RESTRICTED CASH	65,733	44,062	48,702
ENDING CASH AND CASH EQUIVALENTS, RESTRICTED CASH	<u>\$ 49,409</u>	<u>\$ 65,733</u>	<u>\$ 44,062</u>

The accompanying Notes are an integral part of these Financial Statements.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(Thousands of U.S. Dollars except share and per share amounts)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Shares	Treasury Stock	Non- controlling interests	Total
	Shares	Par Value							
Balance at December 31, 2015	3,115,420	\$ 31	\$ 313,663	\$ (37,667)	\$ (108,398)	10,146	\$ (522)	\$ (2,076)	\$ 165,031
Net loss	-	-	-	(36,563)	-	-	-	(48)	(36,611)
Stock compensation	-	-	626	-	-	-	-	-	626
Stock compensation adjustments for forfeitures	-	-	715	(465)	-	-	-	-	250
Stock compensation liability market adjustment	-	-	1,027	-	-	-	-	-	1,027
Management share market adjustment	-	-	(669)	-	-	-	-	-	(669)
Net cash settlement of stock options	-	-	-	-	-	11,856	(7)	-	(7)
Exercise of stock options	100	-	11	-	-	-	-	-	11
Repurchase of management shares	(2,500)	-	264	-	-	2,500	(264)	-	-
Purchase non-controlling interest	-	-	116	-	(1,912)	-	-	1,796	-
Other comprehensive (loss) income	-	-	-	-	(27,775)	-	-	328	(27,447)
Balance at December 31, 2016	3,113,020	31	315,753	(74,695)	(138,085)	24,502	(793)	-	102,211
Net loss	-	-	-	(59,140)	-	-	-	-	(59,140)
Stock-compensation liability market adjustment	-	-	(4,631)	-	-	-	-	-	(4,631)
Redeemable stock market adjustment	-	-	(4,880)	-	-	-	-	-	(4,880)
Exercise of stock options	975	-	102	-	-	-	-	-	102
Payment of dividends	-	-	(2,839)	-	-	-	-	-	(2,839)
Other comprehensive (loss) income	-	-	-	-	37,187	-	-	-	37,187
Balance at December 31, 2017	3,113,995	31	303,505	(133,835)	(100,898)	24,502	(793)	-	68,010
Net loss	-	-	-	(446)	-	-	-	-	(446)
Redeemable stock market adjustment	-	-	(720)	-	-	-	-	-	(720)
Other comprehensive (loss) income	-	-	-	-	(26,661)	-	-	-	(26,661)
Balance at December 31, 2018	3,113,995	31	302,785	(134,281)	(127,559)	24,502	(793)	-	40,183

The accompanying Notes are an integral part of these Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Thousands of U.S Dollars, except share and per share amounts)

1. Summary of Significant Accounting Policies

Background and Basis of Presentation

Global Houghton Ltd (the “Company,” “Houghton,” “we,” “us” or “our”) is a global supplier of industrial fluids and chemical management services, primarily for the metalworking industry through its wholly-owned subsidiaries. The principal markets for the Company’s products and services are the Americas, Europe, the Middle East and Africa (together, “EMEA”), North Asia and South Asia.

The Company is a Cayman Island corporation that was formed in February 2014 and is a member of the Hinduja group of companies. In August 2014, GHG London Limited (“GHG”), a private limited company organized under the laws of England and Wales and parent company to GHG Lubricants Ltd Holdings (“GHG Lubricants”), GH Holdings Inc. (“GH”) and Houghton International, Inc. and subsidiaries (“HII”), was contributed to the Company through a series of transactions.

On December 20, 2012, GHG, the wholly-owned subsidiary of the Company, acquired the outstanding equity interests of HII (“Gulf Transaction”). As a result of the Gulf Transaction, the assets and liabilities were adjusted to their estimated fair values as of December 20, 2012. This resulted in a significant increase in the carrying value of our identifiable intangible assets and goodwill. In addition, we revalued our pension obligations, recorded significant deferred tax liabilities and certain deferred tax assets and we incurred substantial additional indebtedness.

During the fourth quarter of 2013, certain members of Management purchased from GHG Lubricants outstanding shares of GH. These shares contain certain call and put option terms (see Note 1, Redeemable Stock).

Effective June 15, 2015, the Board of Directors and stockholders of the Company approved an amendment to the Company’s certificate of incorporation to effectuate a stock split of the Company’s common stock. As a result of the stock split, common shares issued and outstanding was reduced from 308,839,803 at December 31, 2014 to 3,074,270 at June 30, 2015 and par value was reduced from \$1.00 to \$0.01 per share.

In July 2015, the Company conducted an exchange offer which allowed certain management holders of GH common stock, stock options and stock appreciation rights to exchange their shares and options for a like number of common stock, stock options and stock appreciation rights in Houghton. As of December 31, 2018 and December 31, 2017, these shares represented 1.28% of the total outstanding shares of Houghton, respectively.

During July 2015, the Company amended its 2012 Senior Credit Facilities primarily to make guarantor, covenant and other verbiage changes as disclosed in Note 14. In connection with the amendment, GHG acquired the remaining 0.1% of outstanding equity interests of GHG Lubricants not already owned by GHG for \$403.

Investments in entities over which the Company has the ability to exercise significant influence, but not control, are accounted for using the equity method of accounting. All significant intercompany transactions and balances have been eliminated. Prior to acquiring the remaining 40% of its Japan joint venture in March 2016, the Company had non-controlling interests which were included in the financial statements.

The Financial Accounting Standards Board’s (“FASB’s”) guidance regarding the consolidation of certain Variable Interest Entities (“VIEs”) generally requires that assets, liabilities and results of the activities of a VIE be included in the financial statements of the enterprise that is considered the primary beneficiary. The financial statements include the accounts of the Company and all of its subsidiaries in which a controlling interest is maintained and would include any VIEs if the Company was the primary beneficiary pursuant to the provisions of the applicable guidance. The Company is not the primary beneficiary of any VIEs.

The accompanying financial statements were prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”). In the opinion of management, all adjustments necessary, which are of a normal recurring nature, have been made to present fairly the financial position, the results of operations and cash flows.

Investments in Unconsolidated Joint Ventures

Investments in unconsolidated joint ventures are included at cost plus its equity in undistributed earnings in accordance with the equity method of accounting and reflected as investment in equity investee in the balance sheets. The Company received \$5,547, \$9,072, and \$4,043 in 2018, 2017, and 2016, respectively from the unconsolidated joint venture.

Non-controlling Interest

In March 2016, the Company acquired the remaining 40% of its Japan joint venture for a de minimis amount. This resulted in a reduction of Non-controlling interest and an increase in Additional paid-in capital and Accumulated other comprehensive loss.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make extensive estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates and assumptions.

Changes in Classifications

Certain reclassifications of prior period amounts have been made to conform to current period presentation.

Revenue Recognition

Sales of products and services are recorded (i) upon shipment if title passes to the customer upon shipment, or upon delivery if title passes to the customer upon delivery or when services are rendered, (ii) when persuasive evidence of an arrangement exists with the customer, (iii) when the sales price is fixed and determinable, and (iv) when the collectability of the sales price is reasonably assured. Revenue is recognized net of discounts and allowances, which are comprised of trade allowances, cash discounts and sales returns and value added tax. Freight costs and any directly related costs of shipping finished product to customers are recorded in Cost of goods sold. Billings to customers for shipping fees are included in net sales in accordance with ASC 605-45. Handling costs are incurred from the point the product is removed from inventory until it is provided to the shipper. Handling costs are recorded in Cost of goods sold. For consigned inventory, revenue is recognized after the customer has consumed consignment inventory in their manufacturing process. Consigned inventory mainly relates to our Fluidcare and Metal Finishing businesses, in which our inventory is maintained at customer locations for use as needed in their manufacturing processes.

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents represent cash in banks and cash equivalents, which includes highly liquid short-term investments and bank drafts with original maturities of three months or less. Bank deposits and other cash equivalents that are restricted by agreement or that have been clearly designated for a specific purpose are recorded as restricted cash. Such restriction on cash is primarily a result of certain foreign retirement benefits and social plans, taxes, security deposits, and bank drafts.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivables are reported at the gross outstanding amount adjusted for an allowance for doubtful accounts. Accounts receivable collectability is evaluated using a combination of factors, including past due status based on contractual terms, trends in write-offs, the age of the receivable, industry, country specific economics and political conditions and counterparty creditworthiness. Significant events, such as bankruptcies, are also considered. Accounts receivables are written off in the period in which the receivable is deemed uncollectible. Recoveries of accounts receivables previously written off are recorded when amounts are collected.

Inventories

The Company accounts for inventories under the first-in, first-out (“FIFO”) method, stated at the lower of cost or net realizable value.

Property, Plant and Equipment

Property, plant and equipment are carried at cost, and presented net of accumulated depreciation. Significant expenditures which extend the useful lives of existing assets are capitalized. Maintenance and repair costs are charged to Cost of goods sold in the period incurred. Depreciation is computed using the straight-line method over the estimated useful lives of the assets as follows:

<u>Asset Class</u>	<u>Useful Lives</u>
Land and buildings	
Buildings	10-40 years
Buildings and improvements	3-15 years
Machinery and equipment	
Manufacturing machinery and equipment	3-25 years
Furniture and fixtures	5-7 years
Leasehold improvements	Lesser of lease term or estimated useful life
Vehicles and computer equipment	3-5 years

Property, plant and equipment is tested for recoverability whenever events or changes in circumstances indicate that carrying values may not be recoverable. An impairment loss would be recognized if the carrying amount is not recoverable and exceeds the fair value of the asset. Fair value is based on estimated future discounted cash flows. During 2018, an impairment loss of \$837 was recognized. \$810 related to JDE system implementation project that was halted. \$27 related to a decrease in value of the Company’s Rouen Site.

The cost of assets and related accumulated depreciation is removed from the accounts when such assets are disposed of, and any related gains or losses are reflected in Other expense, net in the period of sale.

Goodwill, Intangible Assets and Other Long-Lived Assets

Goodwill represents the excess of the purchase price paid over the fair value of the identifiable net assets acquired in a business combination. Goodwill and other indefinite-lived intangible assets that are not subject to amortization are reviewed for impairment annually as of October 1 or when events or circumstances indicate that the carrying amount exceeds the fair value, including potential triggering events such as decline in actual or projected operating profits. Each of our operating segments represents a reporting unit.

The Company assesses goodwill for impairment by first comparing the carrying value of each reporting unit to its fair value using a market approach. In determining the fair value of the Company’s reporting units, the Company considered the terms of the pending Quaker transaction (Note 2, Business Acquisitions and Divestitures) and determined use of the market approach most appropriate for determination of fair value. The estimate of reporting unit fair values under the market approach is derived from estimates of fair value based on market multiples of revenue and earnings derived from comparable publicly traded companies with similar operating and investment characteristics as the reporting unit. The Company also considered the Quaker acquisition terms to corroborate the reporting units valuations, reconciling the aggregate estimated fair value of its reporting units to the implied Company enterprise value, including consideration of a control premium representing the estimated amount a market participant would pay to obtain a controlling interest. If the fair value is less than the carrying value, then the Company would perform a second test for that reporting unit to determine the amount of impairment loss, if any. The Company believes these assumptions are consistent with those a hypothetical market participant would utilize given the circumstances present at the time estimates were made.

As of October 1, 2018 and 2017, the Company performed a valuation of goodwill and indefinite-lived intangible assets to test for impairment. The carrying value of goodwill and indefinite-lived intangibles were not impaired through the date of the impairment test nor were there any events or circumstances that indicated the carrying amount exceeded the fair value.

As a result of the October 1, 2016 impairment test, the South Asia reporting unit recognized a goodwill impairment loss of \$15,116 in December 2016. The decline in the fair value of the South Asia reporting unit and resulting impairment charge was due to a decline in earnings since the 2012 acquisition resulting from changes in economic outlook within the region.

We believe the estimates and assumptions used in the goodwill impairment assessment are reasonable and based on available market information, including assumptions regarding foreign currency movement, but variations in any of the assumptions could result in materially different calculations of fair value and determination of whether or not an impairment charge is indicated.

Other acquired intangible assets are initially measured based on their fair value. The Houghton trade name has been assigned an indefinite life due to the over 150-year history of the Houghton brand. As of October 1, 2018 and 2017, the Company performed its annual impairment test, using the relief-from-royalty method. There were no events or circumstances that indicated that the carrying amount exceeded fair value. In 2016, in connection with the annual impairment test and the Step 2 analysis prepared to measure the fair value of the finite-lived intangible assets, the South Asia reporting unit recorded an impairment loss of \$25,806 related to customer relationships. Finite-lived intangible assets are amortized over their economic lives based on terms of the economic benefit as follows:

<u>Intangible Asset</u>	<u>Useful Lives</u>
Trade name (Houghton)	Indefinite
Trade name (Products)	2-20 years
Technological know-how	9-15 years
Customer relationships	11-13 years

Long-lived assets subject to amortization are reviewed for impairment using the relief-from-royalty method when events or circumstances indicate carrying amounts may not be recoverable. If such analysis indicates that the carrying value of these assets is not recoverable, then the carrying value of such assets is reduced to fair value through a charge to the Company's Consolidated Statements of Operations.

Leases

The Company has both capital and operating leases. A lease is capitalized as a capital lease if any of the following criteria are met: transfer of ownership to the lessee by the end of the lease term; the lease contains a bargain purchase option; the lease term is equal to 75% or greater of the asset's useful economic life; or the present value of the future minimum lease payments is equal to or greater than 90% of the asset's fair market value. Capital leases are capitalized at the lower of the net present value of the total amount of rent payable under the leasing agreement (excluding finance charges) or fair market value of the leased asset. Capital lease assets are depreciated on a straight-line basis, over a period consistent with our normal depreciation policy for tangible fixed assets, but not exceeding the lease term. Operating lease expense is recognized over the life of the lease on a straight line basis.

Income Taxes

The Company accounts for income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and for operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which temporary differences are expected to be recovered or settled. The deferred tax assets and liabilities are recorded as either a non-current asset or non-current liability on a net basis for each tax jurisdiction. The effect upon deferred tax assets and liabilities of a change in tax rate is recognized in the period that includes the enactment date.

Significant judgment is required in determining income tax provisions and evaluating tax provisions under the accounting guidance for income taxes. The Company establishes additional provisions for income taxes based upon the technical merits of the tax positions using applicable accounting guidance. Unrecognized tax benefits are generated when there are differences between tax positions taken in a tax return and amounts recognized in the consolidated financial statements. Tax benefits are recognized in the consolidated financial statements when it is more-likely-than-not that a tax position will be sustained upon examination. Tax benefits are measured as the largest amount of tax benefit that is greater than 50% likely of being realized upon settlement. The Company regularly assesses the potential outcomes of these examinations and any future examinations for the current or prior years in determining the adequacy of the provision for income taxes. Interest accrued related to unrecognized tax benefits and income tax related penalties are both included as a component of the provision for taxes and adjust the income tax provision, the current tax liability and deferred taxes in the period of which the facts that give rise to a revision become known.

The Company follows the accounting guidance for income taxes that prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. In addition, the guidance provides rules on de-recognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition.

Environmental and Legal Liabilities and Expenditures

Liabilities are recorded when the Company determines that it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. If no amount in the possible range of liability is considered a better estimate than any other amount, the Company records the lowest amount in the range. Due to the nature of the monitoring requirements and the impact of remediation efforts, the Company has a policy of reserving monitoring costs for a period of three to five years. Any activity beyond that period cannot be reasonably estimated. Considering the magnitude of the reserves and duration of the accrual policy, liabilities are not recorded at a discount. Environmental expenditures are included in Selling, general and administrative expenses.

Asset Retirement Obligation

The Company follows the FASB's guidance regarding asset retirement obligations, which addresses the accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated retirement costs. Also, the Company follows the FASB's guidance for conditional asset retirement obligations ("CARO"), which relates to legal obligations to perform an asset retirement activity in which the timing and (or) method of settlement are conditional on a future event that may or may not be within the control of the entity. At December 31, 2018 and December 31, 2017, the exposure to such obligations is immaterial to the Company.

Foreign Currency Translation

Substantially all non-U.S. subsidiaries and affiliates use the local currency as the functional currency. For those operations, assets and liabilities are translated into U.S. dollars at the exchange rate at the end of the period and revenues and expenses are translated into U.S. dollars at the average exchange rates during the period. Such adjustments are reported, net of their related tax effects, as a component of Accumulated other comprehensive income (loss) ("AOCI").

Assets and liabilities denominated in currencies other than the local currency are remeasured into the local currency prior to translation into U.S. dollars and the resultant exchange gains or losses are recorded in the period in which they occur. Gains and losses from remeasurement and foreign currency transactions are included in Other expense, net, except for those covered by net investment hedges or resulting from the dissolution of holding companies, which are recorded to AOCI.

Fair Value Measurements

The Company values certain financial and nonfinancial assets and liabilities at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement dates (exit price). The Company uses various valuation techniques to measure the fair value of an asset or liability incorporating inputs that are observable, independent market data and unobservable data that management believes are predicated on the assumptions market participants would use to price an asset or liability.

The Company classifies fair value measurements within one of three levels on the fair value hierarchy. The level assigned to a fair value measurement is based on the lowest level input that is significant to the fair value measurement in its entirety. The three levels of the fair value hierarchy are as follows:

Level 1 – quoted prices (unadjusted) in active markets for identical assets or liabilities for which quoted prices are accessible at the measurement date.

Level 2 – inputs other than quoted prices included within Level 1 that are either directly or indirectly observable. These include quoted prices in active markets for similar assets or liabilities or quoted prices in inactive markets for identical assets or liabilities accessible at the measurement date.

Level 3 – unobservable inputs that management believes are predicated on the assumptions market participants would use to measure the asset or liability at fair value.

The Company values pension assets, stock-based compensation liability and management shares under the fair value guidelines. The details of the fair value measurements and required disclosures are included within Note 3 – Stock-based Compensation and Other Compensation Arrangements and Note 15 – Employee Benefit Plans.

Credit Concentrations

Credit risk represents the accounting loss that would be recognized at the reporting date if counter-parties failed to perform as contracted. Concentrations of credit risk (whether on or off balance sheet) that arise from financial instruments exist for groups of customers or counterparties when they have similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions. Financial instruments with potential credit risk include cash and cash equivalents, accounts receivable and bank drafts.

The Company maintains cash and cash equivalents and bank drafts with various major financial institutions which provides potential credit risk exposure. The Company has not experienced losses from this activity. Concentrations of credit risk with respect to receivables are generally limited with no individual customers in excess of 5% of total revenue.

Restructuring

Actions associated with restructuring plans include, but are not limited to, workforce reduction, plant or facility closures and sales. Costs associated with these actions may include, but are not limited to, employee severance, accelerated post-employment benefits, plant deactivations and asset impairments.

Post-employment benefits accrued for workforce reduction related to restructuring activities are recorded in the period which a liability is incurred, except for one-time employee termination benefits that are incurred over time. Other restructuring costs are recorded when the costs are incurred. Restructuring reserves are included in Other current liabilities. Reserves are reviewed at least quarterly for adequacy and any necessary adjustments are recorded in the period the adjustment is determinable. Should the actual amounts differ from estimates, the amount of the restructuring costs could be materially impacted.

Debt Issuance Costs

The Company presents debt issuance costs in the balance sheet as a direct deduction from the carrying amount of the corresponding debt liability, consistent with the presentation of debt discounts.

Derivatives

The Company is exposed to the impact of changes in interest rates, foreign currency, changes in commodity prices and credit risk. The Company does not currently use derivative instruments to mitigate these risks. The Company does not enter into speculative derivative contracts for trading purposes.

During 2015, the Company entered into a £1.95 million intercompany loan and designated the loan as a hedge against the net investment as the loan will offset the change in economic value of the investment attributable to changes in the exchange rates between the euro and Great Britain pound. The Company recognizes foreign currency fluctuations on the loan in AOCI. In December 2016, the subsidiary was dissolved, the intercompany loan was forgiven and the \$470 of related cumulative foreign currency fluctuations remains in AOCI.

The Company recognizes all derivatives on the balance sheet.

Employee Benefit Plans

The Company applies the recognition and disclosure provisions of the accounting rules on pensions. This standard requires employers to recognize the funded status (i.e., the difference between the fair value of the plan assets and projected benefit obligation) of all Pension Plans in the Statements of Financial Position, with corresponding adjustments to AOCI. The adjustments of AOCI at adoption represents the net unrecognized actuarial gains and losses, prior service costs and unrecognized transition amounts which were previously netted against the plan's funded status pursuant to prior accounting provisions. This amount will be subsequently recognized as the net pension (income) expense in accordance with the Company's accounting policy for amortizing such amounts. Further, unrecognized actuarial gains and losses, prior service costs and unrecognized transaction amounts that arise in subsequent periods and are not recognized as net pension (income) expense in the same periods will be recognized as a component of AOCI.

As of December 31, 2018, the Company contributes to one multi-employer defined benefit pension plan under the terms of the collective bargaining union contracts. The Company's contribution rate to the multi-employer pension plan is specified in the collective bargaining union contracts and contributions are made monthly. The Company has withdrawn from the Central States, Southeast and Southwest Areas Pensions Funds. The Company will remain in the Cleveland Bakers and Teamsters Pension Fund.

Stock-based Compensation

On October 16, 2013, the Board of Directors of GH approved the Stock Option Plan ("the GH Plan") that provided for GH to grant stock-based compensation to their employees in the form of stock options based on service and performance vesting over a five year term. On July 16, 2014, GH amended and restated the Plan to authorize the Company to grant stock appreciation rights ("SARs") to employees. A SAR is the right to receive upon exercise, shares of Houghton common stock equal in value to the excess of: (i) the Fair Market Value (as of the time of exercise) of a share of Houghton common stock, over (ii) the SAR Base Value (defined as grant date fair value of a share of Houghton common stock) per share of common stock. This difference is often referred to as the "spread amount" or the amount by which the SAR is "in the money." A SAR confers the same economic benefit and provides the same number of shares to a holder of a SAR as the net exercise of a stock option by an optionee. The service based SARs vest at a rate of 20% per year while performance based SARs vest based on annual and cumulative targets, both awards having a contractual term of ten years.

In July 2015, the Company conducted an exchange offer which allowed holders of GH stock options and SARs to exchange their options for a like number of share options in Houghton ("Exchange Offer"). In conjunction with the exchange, the Board of Directors approved the Global Houghton Ltd. Share Option and Share Appreciation Rights Plan ("the Houghton Plan"). The awards granted with performance vesting are deemed granted upon approval of the targets, which occurs annually, generally in the first quarter of each plan year. The number of shares of Houghton common stock that were reserved for issuance under the Houghton plan at December 31, 2018 was 96,209.

Prior to the exchange offer, the Company applied the accounting guidance for stock-based compensation, which required the Company to expense the fair value of employee stock options granted. Compensation expense was measured at the grant date based on the fair value of the award on an accelerated basis. If awards contain certain performance conditions in order to vest, the Company recognized the cost of the award when achievement of the performance condition was probable. The Company recorded stock-based compensation expense in Selling, general and administrative expense. Stock compensation expense incurred under the GH Plan was reflected as an increase in Non-controlling interest through the date of the Exchange Offer. Upon the effective date of the Exchange Offer, the stock compensation expense accumulated in non-controlling interest was reclassified into Additional paid-in capital.

Subsequent to the Exchange Offer, the Company demonstrated the intent for allowing net cash settlements of stock-based awards as well as the removal of the six month holding period for recipients of stock-based awards. This intent triggered liability accounting for stock-based compensation, which requires outstanding options and SARS to be classified as liability-based awards and valued at fair value. The liability is remeasured and adjusted until the options are exercised, expire, or payment is made to the employees. The stock-based compensation liability is included in Other non-current liabilities and was \$29,874 and \$27,475 at December 31, 2018 and December 31, 2017, respectively. Compensation expense of stock-based awards granted prior to the liability accounting modification (July 2015) is recognized over the applicable vesting period based upon the greater of the awards' grant date fair value (the "Floor") or fair value at the reporting period. Corresponding fair value adjustments to the liability balance of awards subject to the Floor are recorded through Additional paid-in capital. Compensation expense of stock-based awards granted subsequent to the liability accounting modification is recognized over the applicable vesting period based upon fair value at the reporting period, and subsequent fair value adjustments to the corresponding liability recorded through compensation expense. The Company records stock-based compensation expense in Selling, general and administrative expense. Upon exercise, the Company will record an income tax windfall or shortfall by comparing the tax deduction realized with the expected benefit recorded as a deferred tax asset. These income tax windfalls and shortfalls are recorded as a component of income tax expense.

The service based options vest at a rate of 20% per year while performance based options vest based on annual and cumulative targets, both awards having a contractual term of ten years. As of December 31, 2018, all performance based options and SARS are fully vested. The awards granted contain a put option, which gives the recipient the ability to sell vested shares back to the Company upon certain events. The put option expires at the earliest of nine months from employee termination (15 months from employee termination for death, disability, or retirement); initial public offering; change in control; or 10 years and 9 months from the associated option or SAR grant date. There are instances where the Company will extend the put option terms to maintain compliance with debt covenants, which place an annual limit on the amount of such payouts that can be made. The shares put to the Company will be valued at fair market value as of the date of the contingent event, except for the trigger related to potential termination. Contingent events triggering the ability to put the shares include the passage of time.

The awards granted also contain a call option, which gives the Company the right to call shares upon employee termination. The call expires at the earliest of nine months from the employment termination date, an initial public offering, or a change in control. The shares called by the Company will be valued at fair value as of the date of the call for any holder voluntarily terminated other than on account of good reason or retirement, or the lesser of cost or fair value as of the date of the call for any holder terminated for cause.

Redeemable Stock

During the fourth quarter of 2013, 1.86% of the outstanding shares of GH were purchased from GHG Lubricants by certain members of management. In July 2015, the Company conducted an exchange offer which allowed shareholders of GH to exchange their shares for a like number of shares in Houghton, with the same terms and conditions as the GH share agreement. As of December 31, 2018 and December 31, 2017, these shares represented 1.28% of the total outstanding shares of Houghton, respectively. These shares contain certain call and put option terms which provide the Company with the right, but not the obligation, to call the shares upon certain events and provides the management shareholder the ability to sell shares back to the Company upon certain events.

The put option provides each management shareholder the ability to sell shares back to the Company upon certain events. The put option expires at the earliest of 10 years, plus nine months, from the initial issuance of the shares; or nine months from employee termination (15 months from employee termination for death, disability or retirement), initial public offering, or change in control. The shares put to the Company will be valued at fair value as of the put date.

The call option provides the Company the right to call shares upon employee termination. The call expires at the earliest of six months from the employment termination date, an initial public offering or a change in control. Shares that become callable by the Company will be valued at fair value as of the date of the call for any holder terminated other than on account of good reason of retirement or the lesser of cost or fair value as of the date of the call for any holder terminated for cause.

The shares put to or called by the Company will be valued at fair value. Prior to December 20, 2015, the call provision allowed the Company to repurchase the management shares at the lesser of cost plus deemed interest or fair value. Such provision limited the management shareholder's ability to share in the risk and rewards of equity ownership, creating a vesting or service period for the management shareholder and resulting in liability classification of such shares in accordance with accounting guidance for stock-based compensation. After June 20, 2016, upon maturity of the management shares (6 months from expiration of the Company call provision for an amount other than fair value), the management shares are classified as Redeemable stock in Mezzanine equity and recorded at fair value (redemption value). As the Company is in an accumulated deficit position, changes in fair value (redemption value) of the management shares are recognized in Additional paid-in capital at each period end.

At December 31, 2018, the fair market value of the management shares was \$233.28, resulting in an equity adjustment of \$720. As of December 31, 2018 and 2017, the value of the management shares recorded in Redeemable stock was \$9,267 and \$8,547, respectively. Through June 30, 2015, GH repurchased 13,000 shares from former members of management. Subsequent to the exchange of shares, through December 31, 2018, Houghton repurchased 6,580 shares from former members of management in accordance with shareholder agreements and accounted for these shares as treasury stock.

Advertising Expense

Advertising costs are expensed in the period incurred. Advertising expense is recorded within Selling, general and administrative expense. Advertising costs for the years ended December 31, 2018, 2017 and 2016 were \$2,163, \$2,128 and \$2,014, respectively.

Research, Development and Engineering Expense

Research, development and engineering costs are expensed as incurred. Research and development costs for the years ended December 31, 2018, 2017 and 2016 were \$22,294, \$21,561 and \$20,843, respectively. These costs are included in Selling general and administrative expense.

Long-Term Incentive Plan

Under the Global Houghton Ltd Long-Term Incentive Plan ("LTIP") certain members of executive management are eligible to receive a cash-based award based on achievement of certain performance targets. The performance period is from January 1, 2015 through December 31, 2017. Under the terms of the plan, the participant's award shall be forfeited in the event of participant's termination for cause as defined in the agreement or upon voluntary resignation. As the participants provide service, the Company ratably recognizes expense within Selling, general and administrative expense, based upon the Company's estimated level of achievement. There was not a similar plan in 2018.

Going Concern

As of December 31, 2018, the Company's third-party debt, net of deferred discount and issuance costs of \$5,908, totaled \$709,063, of which \$510,540 is classified as current with a maturity date of December 2019, at which time the current portion is due. Cash and cash equivalents of \$49,364, as of December 31, 2018, and expected 2019 cash flows, are not sufficient to fund the repayment of the current portion of the debt. The Company's debt agreements contain various covenants, which a failure to comply with, including not making a payment when required, could cause the Company to be at risk of default which would have a material impact on the Company's operations. Under the terms of its purchase agreement with Quaker Chemical Corporation ("Quaker"), see Note 2, the Company is not permitted to change the current debt structure without the agreement of Quaker.

Subsequent Event Alleviating Substantial Doubt

On August 1, 2019, the Company completed its combination with Quaker Chemical Corporation ("Quaker"), whereby Quaker acquired all of the issued and outstanding shares of Houghton from Gulf Houghton Lubricants, Ltd. in accordance with the share purchase agreement dated April 4, 2017. In conjunction with the acquisition, and pursuant to the terms of the Company's debt agreements, funds from the transaction were used to repay all amounts outstanding under the Company's third-party debt agreements, alleviating substantial doubt about the Company's ability to continue as a going concern.

Adopted Guidance

In January 2018, the Company adopted ASU 2016-15, *Statement of Cash Flows, Classification of Certain Cash Receipts and Cash Payments*, which clarifies how entities should classify certain cash receipts and cash payments on the statement of cash flows. The adoption did not have an impact on the Company's consolidated financial statements as there were no reclassification needed.

In January 2018, the Company adopted ASU 2016-16, *Income Taxes, Intra-Entity Transfers of Assets Other than Inventory*, which requires companies to account for the income tax effects of intercompany sales and transfers of assets other than inventory (e.g., intangible assets) when the transfer occurs. The adoption did not have an impact on the Company's consolidated financial statements as there were no intercompany sales or transfer during the period.

In January 2018, the Company adopted ASU 2016-18, *Statement of Cash Flows, Restricted Cash*, which requires entities to show the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. The adoption did not have a material impact on the Company's consolidated financial statements.

In January 2018, the Company adopted ASU 2016-19, *Technical Corrections and Improvements*, which corrects errors and makes minor improvements affecting a variety of topics in the ASC. The adoption did not have a material impact on the Company's consolidated financial statements.

In January 2018, the Company adopted ASU 2017-01, *Clarifying the Definition of a Business*, to clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The adoption did not have an impact as there are no planned acquisitions.

In July 2019, the Company adopted ASU 2017-07, *Compensation – Retirement Benefits, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. This guidance, which was applied retrospectively for all periods presented in these financial statements, requires that employers that sponsor defined benefit pension and/or other postretirement benefit plans to present the service cost component of net periodic benefit cost in the same income statement line item(s) as other employee compensation costs arising for services rendered during the period. Only the service cost component will be eligible for capitalization in assets. Other components of net periodic benefit cost will be presented separately from the line item(s) that include service cost and outside of any subtotal of operating income, if one is presented. The Company adopted the guidance within this accounting standard update, including the use of a practical expedient which allows the Company to use amounts previously disclosed in its pension and other postretirement benefits note for the prior period as the estimation basis for applying the required retrospective presentation. The Company has retrospectively revised the presentation of the non-service components of periodic pension benefit from Selling, general and administrative expense and Cost of goods sold to Other expense, net in the Consolidated Statements of Operations. The following table presents a summary of the effects for the period ended December 31, 2018, December 31, 2017 and December 31, 2016, respectively. The adoption did not have a material impact on the Company's consolidated financial statements.

	As Reported			Adjustment			As Revised		
	December 31,			December 31,			December 31,		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Cost of goods sold	\$ 579,881	\$ 544,760	\$ 499,934	\$ (142)	\$ 5	\$ (89)	\$ 580,023	\$ 544,755	\$ 500,023
Gross Profit	\$ 282,575	\$ 274,002	\$ 266,872	\$ 142	\$ (5)	\$ 89	\$ 282,433	\$ 274,007	\$ 266,783
Selling, general and administrative expense	\$ 226,031	\$ 245,091	\$ 218,246	\$ (1,484)	\$ (699)	\$ (742)	\$ 227,515	\$ 245,790	\$ 218,988
Operating income	\$ 56,045	\$ 26,904	\$ 4,127	\$ 1,626	\$ 694	\$ 831	\$ 54,419	\$ 26,210	\$ 3,296
Other expense, net	\$ (3,015)	\$ (2,686)	\$ (4,869)	\$ (1,626)	\$ (694)	\$ (831)	\$ (1,389)	\$ (1,992)	\$ (4,038)
Loss before income taxes and equity in net income of investee	\$ (3,324)	\$ (27,260)	\$ (51,054)	\$ -	\$ -	\$ -	\$ (3,324)	\$ (27,260)	\$ (51,054)

In January 2018, the Company adopted ASU 2017-09—*Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting*. The guidance clarifies when changes to the terms or conditions of a share-based payment award must be accounted for as modifications. Entities will apply the modification accounting guidance if the value, vesting conditions or classification of the award changes. The adoption did not have a material impact on the Company's consolidated financial statements.

Recent Accounting Standards

The leasing guidance, *Leases*, (ASU 2016-02, ASU 2018-01, ASU 2018-10, ASU 2018-11, ASU 2018-20) will increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The guidance is effective for the Company for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. The Company is currently evaluating this guidance and has not determined the impact it may have on the Company's consolidated financial statements nor decided upon the method of adoption.

The revenue guidance, *Revenue from Contracts with Customers*, (ASU 2014-09, ASU 2015-14, ASU 2016-08, ASU 2016-10, ASU 2016-12, ASU 2016-20 and ASU 2017-10) is effective for the Company for annual periods beginning after December 15, 2018 and interim periods within annual periods beginning after December 15, 2019. The guidance can be adopted by the Company using either a full retrospective or modified retrospective approach, with early adoption prohibited. The Company will adopt the modified retrospective approach and does not expect a material impact to the Company's consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, *Simplifying the Test for Goodwill Impairment*, to simplify the subsequent measurement of goodwill and eliminate the Step 2 from the goodwill impairment test. Under the amendments in this Update, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. A public business entity should adopt the amendments in this update for its annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. The Company is currently evaluating ASU 2017-04 and will assess the impact on future goodwill impairment tests.

In February 2017, the FASB issued ASU 2017-05, *Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20)*. This guidance clarifies the scope an application of ASC 610-20, which was issued with the new revenue recognition standard, on the sale or transfer of nonfinancial assets to noncustomers. This guidance applies to nonfinancial assets, including real estate, ship and intellectual property. The new guidance is effective for the Company upon the adoption of the new revenue standard, which is for annual periods beginning after December 15, 2018.

In February 2018, the FASB issued ASU 2018-02, *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, which permits entities to reclassify tax effects stranded in accumulated other comprehensive income (OCI) as a result of U.S. tax reform to retained earnings. The guidance is effective for all companies for fiscal years beginning after December 15, 2018, and interim periods therein. The Company is currently evaluating ASU 2018-02 and has not determined the impact it may have on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820), Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement*, which eliminates, adds and modifies certain disclosure requirements for fair value measurements. The guidance also modifies certain disclosure requirements for nonpublic entities to make them less burdensome. The guidance is effective for all entities for fiscal years beginning after December 15, 2019, and interim periods within those years. Entities are permitted to early adopt the entire standard or only the provisions that eliminate or modify the requirements. The Company is currently evaluating ASU 2018-13 and has not determined the impact it may have on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-14, *Compensation – Retirement Benefits – General (Subtopic 715-20, Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefits Plans*, which eliminates requirements for certain disclosure that are no longer considered cost beneficial and requires new ones that the FASB considers more pertinent for employers that sponsor defined benefit pension and/or other postretirement benefit plans. The guidance is effective for public companies for fiscal years ending after December 15, 2020. Early adoption is permitted. The Company is currently evaluating ASU 2018-14 and has not determined the impact it may have on its consolidated financial statements.

In October 2018, the FASB issued ASU 2018-17, *Consolidation (Topic 810), Targeted Improvements to Related Party Guidance for Variable Interest Entities*, which created a new private company accounting alternative that replaces the previous alternative. The new guidance requires an entity to consider indirect interests held through related parties under common control on a proportionate basis to evaluate decision-making fees. This guidance is effective for public companies for fiscal years beginning after December 15, 2019, including interim periods within those years. Early adoption is permitted. All entities are required to apply the guidance retrospectively with a cumulative-effect adjustment to retained earnings at the beginning of the earliest period presented. The Company does not expect this guidance to have a material impact on its consolidated financial statements.

In November 2018, the FASB issued ASU 2018-18, *Collaborative Arrangements (Topic 808), Clarifying the Interaction between Topic 808 and Topic 606*, which amended ASC 808 and ASC 606 to clarify that transactions in a collaborative arrangements should be accounted for under ASC 606 when the counterparty is a customer for a distinct good or service. This guidance is effective for public companies for fiscal years beginning after December 15, 2019, and interim periods in those years. Entities are required to apply the amendments retrospectively to the date they initially applied ASC 606, and they may elect to do so either for all contracts or only for contracts that are not at the date they initially applied ASC 606. The Company does not expect this guidance to have a material impact to its consolidated financial statements.

2. Business Acquisitions and Divestitures

Quaker Chemical Corporation's Proposed Acquisition of Houghton

On April 4, 2017, Quaker executed a definitive agreement for the purchase of Houghton. Under the terms of the agreement, Houghton shareholders will receive \$172,500 of cash and a 24.5% ownership in the combined company, representing approximately 4,300,000 of newly issued Quaker shares. In addition, the Company's debt will be repaid in conjunction with the transaction closing.

The purchase is subject to approval by Quaker's shareholders under the rules of the New York Stock Exchange. This approval was received at a meeting of the Company's shareholders during the third quarter of 2017. Also, the combination is subject to regulatory approval in the United States, Europe, China and Australia. The Company received regulatory approval from China and Australia in 2017. The European Commission conditionally approved the combination on December 11, 2018, including the remedy proposed by Quaker and Houghton. Quaker expects final approval from the European Commission within a few months after the final purchase agreement is in place between Quaker, Houghton, and the buyer of the divested product lines, which was signed on March 25, 2019. The Company has presented a remedy to the United States Federal Trade Commission and expects to receive approval and close the combination in the next few months.

Acquisition of Wallover Enterprises, Inc.

On July 6, 2016, the Company completed the acquisition of Wallover Enterprises, Inc. (“Wallover”) and subsidiaries, in the United States and Canada (“Wallover Acquisition”). Wallover is based in Strongsville, Ohio. Wallover is a branded manufacturer of consumable, custom oil and water-based industrial lubricants and metalworking fluids which are used in a broad array of manufacturing applications. Products manufactured using Wallover’s industrial lubricants and metalworking fluids include: automotive components, products for the oil & gas industries, appliances, consumer and commercial electronics, aerospace components, medical devices, and various metals. Under the terms of the Wallover Acquisition, the Company acquired certain assets, including trade receivables, equipment and customer lists and also assumed certain liabilities for consideration of \$39,363 net of cash received. Management believes that the acquisition will enable the Company to strengthen our market position in the consumable, custom oil and water-based industrial lubricants, as well as metalworking fluids and will complement our services in the United States and Canada.

The Company incurred and expensed transaction costs of \$800 for the year ended December 31, 2016.

The final purchase price allocation is summarized as follows:

<u>Consideration</u>	
Cash paid to the sellers, net of cash acquired	\$ 39,363
<u>Assets Acquired</u>	
Trade receivables	\$ 4,364
Inventories	3,773
Property, plant and equipment	6,395
Goodwill	15,022
Other intangible assets	19,240
Other assets	786
Assets acquired	<u>\$ 49,580</u>
<u>Liabilities Assumed</u>	
Accounts payable	\$ 1,543
Accrued expenses	326
Deferred tax liabilities	8,348
Liabilities assumed	<u>10,217</u>
Net assets acquired	<u>\$ 39,363</u>

Of the \$19,240 of acquired intangible assets, \$15,000 was assigned to customer lists with an eleven year useful life, \$3,600 was assigned to technology and intellectual property with a nine year useful life, \$510 was assigned to non-compete agreements with a five year useful life, and \$130 was assigned to trademarks with a two year useful life. The fair value of the identifiable intangible asset was determined based on an income approach. The excess of the purchase price over the fair value of the assets acquired was recorded as Goodwill, which is not deductible for income tax purposes.

Recognition of inventory fair value adjustments were \$298 for the year ended December 31, 2016 and were included in Cost of goods sold. Realization of the inventory fair value adjustments related to the Wallover Acquisition were recognized ratably over the estimated inventory turnover period and were completed in September 2016.

3. Stock-based Compensation and Other Compensation Arrangements

Stock Option Plan

Stock options have been provided under two plans. The GH Plan was in effect from October 16, 2013 through June 26, 2015, when the Company conducted an exchange offer which allowed holders of GH stock options and SARS to exchange their options for a like number of share options in Houghton. In conjunction with the exchange, the Board of Directors approved the Houghton Plan.

In 2015, the Company demonstrated the intent for allowing net cash settlements of stock-based awards as well as the removal of the six month waiting period for recipients of stock-based awards. This intent triggered a modification to liability accounting for stock-based compensation, which requires the outstanding options and SARS to be measured at fair value as of the grant date and re-measured at fair value at the end of each reporting period. Compensation expense associated with service awards is recognized over the requisite service period, while performance based options are recognized over the performance period based upon achievement of targets.

The following weighted average assumptions were used in the pricing models to estimate the fair value of options granted:

	2018	2017	2016
Range of risk-free interest rate	2.40%	1.28%	1.46-1.87%
Range of expected term (Years)	0.25	0.42	3.52-5.55
Volatility	55%	35%	50%
Expected dividend yield	-	-	-
Estimated fair value per option granted - service	\$119.72-131.48	\$101.48-113.28	\$23.41-29.38
Estimated fair value per option granted - performance	\$119.72-131.48	\$101.48-113.28	\$23.39-31.27

The risk-free interest rate is based on the U.S Treasury yield curve. The Company considered the contractual term and the vesting schedule of the stock options to determine the expected term. Expected volatility is based on an analysis of stock price data for guideline companies. Compensation expense recognized is net of actual forfeitures.

The following table provides stock-based compensation expense for the years ended December 31,

	2018	2017	2016
Stock options	\$ 2,344	\$ 8,957	\$ 1,228
Performance shares	1,970	9,234	1,534
Stock appreciation rights	44	392	86
Stock-based compensation	4,358	18,583	2,848
Deferred tax benefit	\$ 906	\$ 3,344	\$ 631

The following table lists option grant activity:

	Service Based Stock Options			
	Shares	Weighted Average Exercise Price	Weighted Average Remaining contractual life (in years)	Aggregate Intrinsic Value
Outstanding, December 31, 2017	128,250	\$ 105.60	6.54	
Granted	-	-	-	
Exercised	2,850	105.00		
Forfeited	300	105.00		
Expired	-	-		
Outstanding under Houghton Plan as of December 31, 2018	125,100	\$ 105.61	5.55	
Exercisable, December 31, 2018	118,020	\$ 105.49	5.50	
Vested and expected to vest as of December 31, 2018	125,100	\$ 105.61	5.55	\$ 15,971

	Performance Based Stock Options			Aggregate Intrinsic Value
	Shares	Weighted Average Exercise Price	Weighted Average Remaining contractual life (in years)	
Outstanding, December 31, 2017	<u>120,660</u>	<u>\$ 105.58</u>	6.53	
Granted	-	-		
Exercised	12,659	106.58		
Forfeited	-	-		
Expired	-	-		
Outstanding under Houghton Plan as of December 31, 2018	<u>108,001</u>	<u>\$ 105.47</u>	5.55	
Exercisable, December 31, 2018	<u>108,001</u>	<u>\$ 105.47</u>	5.55	
Vested and expected to vest as of December 31, 2018	<u>108,001</u>	<u>\$ 105.47</u>	5.55	\$ 13,804

The weighted-average grant-date fair value of service based options granted in 2016 was \$36.56. There were no service based options granted in 2018 and 2017. The weighted-average grant-date fair value of performance based options granted during 2017 and 2016 was \$36.43 and \$36.56, respectively. There were no performance based options granted in 2018. The total fair value of stock options vested during 2018 was \$356 for the service based stock options and \$0 for the performance based stock options. The total fair value of stock options vested during 2017 was \$1,413 for the service based stock options and \$3,973 for the performance based stock options. The total fair value of stock options vested during 2016 was \$1,189 for the service based stock options and \$1,364 for the performance based stock options.

	Service Based Stock Options	
	Shares	Weighted Average Grant Date Fair Value
Nonvested stock options outstanding, December 31, 2017	11,920	\$ 37.12
Granted	-	-
Vested	4,540	36.85
Forfeited	300	30.97
Nonvested stock options outstanding, December 31, 2018	<u>7,080</u>	<u>\$ 37.55</u>

	Performance Based Stock Options	
	Shares	Weighted Average Grant Date Fair Value
Nonvested stock options outstanding, December 31, 2017	-	\$ -
Granted	-	-
Vested	-	-
Forfeited	-	-
Nonvested stock options outstanding, December 31, 2018	-	\$ -

During 2018, 17,749 options were net cash settled at exercise prices ranging from \$105.00 to \$114.30 and a fair value of \$218.29. As such, \$1,970 was paid out of the Houghton Plan. There was no share issuance concurrent with the settlement of the liability. During 2017, 22,242 options were net cash settled at exercise prices ranging from \$102.42 to \$114.30 and fair values ranging from \$105.66 to \$189.70. As such, \$1,455 was paid out of the Houghton Plan. There was no share issuance concurrent with the settlement of the liability. During 2016, 11,856 options were net cash settled at an exercise price of \$105.00 and a fair value of \$105.66, with \$7 paid out of the Houghton Plan and 11,856 shares recorded as treasury stock.

As of December 31, 2018, there was approximately \$242 of expected future pre-tax stock-based compensation expense related to non-vested service stock options outstanding, which is expected to be recognized over the remaining period of 1.36 years. These expected future expenses were calculated assuming no change in fair value. Given that the stock options are deemed a liability instrument, a change in fair value will result in a corresponding change to future pre-tax stock-based compensation expense.

The following table lists SARs activity:

	Service Based SARs			Aggregate Intrinsic Value
	Shares	Weighted Average Exercise Price	Weighted Average Remaining contractual life (in years)	
Outstanding, December 31, 2017	3,100	\$ 111.30	7.37	
Granted	-	-		
Exercised	840	114.30		
Forfeited	1,260	114.30		
Expired	-	-		
Outstanding under Houghton Plan as of December 31, 2018	1,000	\$ 105.00	5.57	
Exercisable, December 31, 2018	1,000	\$ 105.00	5.57	
Vested and expected to vest as of December 31, 2018	1,000	\$ 105.00	5.57	\$ 128

	Performance Based SARS			Aggregate Intrinsic Value
	Shares	Weighted Average Exercise Price	Weighted Average Remaining contractual life (in years)	
Outstanding, December 31, 2017	2,400	\$ 110.43	7.26	
Granted	-	-		
Exercised	1,400	114.30		
Forfeited	-	-		
Expired	-	-		
Outstanding under Houghton Plan as of December 31, 2018	1,000	\$ 105.00	5.57	
Exercisable, December 31, 2018	1,000	\$ 105.00	5.57	
Vested and expected to vest as of December 31, 2018	1,000	\$ 105.00	5.57	\$ 128

The total fair value of SARS vested during 2018 was \$6 for the service based SARS and \$0 for the performance based SARS. The total fair value of SARS vested during 2017 was \$56 for the service based SARS and \$89 for the performance based SARS. The total fair value of SARS vested during 2016 was \$38 for the service based SARS and \$46 for the performance based SARS.

	Service Based SARS	
	Shares	Weighted Average Grant Date Fair Value
Nonvested stock options outstanding, December 31, 2017	1,460	\$ 40.27
Granted	-	-
Vested	200	30.97
Forfeited	1,260	41.75
Nonvested stock options outstanding, December 31, 2018	-	\$ -
	Performance Based SARS	
	Shares	Weighted Average Grant Date Fair Value
Nonvested stock options outstanding, December 31, 2017	-	\$ -
Granted	-	-
Vested	-	-
Forfeited	-	-
Nonvested stock options outstanding, December 31, 2018	-	\$ -

Service and performance SARS were fully vested as of December 31, 2018.

Long-Term Incentive Plan

The performance period under the Global Houghton Ltd LTIP is from January 1, 2015 through December 31, 2017. At December 31, 2017, the Company had a liability recorded of \$7,500, which was paid in full in March 2018. For the year ended December 31, 2017, LTIP expense was \$2,500. For the year ended December 31, 2016, LTIP expense was \$2,562. LTIP expense was recognized as a component of Selling, general and administrative expenses.

4. Other Expenses

Other Operating Expense

Other operating expenses were \$418 for year ended December 31, 2018. This primarily consisted of \$273 related to strategic headcount reductions and the remainder related to other corporate activities.

Other operating expenses were \$1,943 for year ended December 31, 2017. This primarily consisted of a \$551 Wallover multiemployer benefit plan withdrawal penalty, \$321 related to Wallover escrow settlement, and \$355 related to strategic headcount reduction. The remainder related to other corporate activities.

Other operating expenses were \$1,780 for year ended December 31, 2016. This primarily consisted of \$1,355 related to strategic headcount reductions and the remainder related to other corporate activities.

Other Expense, net

Other expense was \$1,389 for the year ended December 31, 2018. This primarily related to \$2,820 in foreign currency transaction losses and offset by \$1,626 of pension income. The remainder related to other non-operating expenses.

Other expense was \$1,992 for the year ended December 31, 2017. This primarily related to \$1,505 in foreign currency transaction losses, \$506 accrued for a VAT legal claim in Brazil, and offset by \$694 of pension income. The remainder related to other non-operating expenses.

Other expense was \$4,038 for the year ended December 31, 2016. This primarily related to a \$2,096 claim pending with Brazilian tax authorities specific to VAT taxes, \$1,537 in foreign currency transaction losses, \$605 of royalties expense, \$526 in other non-income related tax expense, \$332 paid to a consultant to the Board of Directors, and offset by \$831 of pension income. The remainder related to other non-operating expenses and income.

5. Restructuring

Restructuring expenses are related to corporate activities that are planned and controlled by management and materially change the scope of the applicable business or the manner in which the business is conducted.

During the acquisition of Wallover in July 2016, the Company made strategic decisions to close two plant facilities and reduce headcount in East Liverpool, Ohio and Hamilton, Ohio. The Company completed these activities in 2017. Also in 2016, an \$815 environmental accrual related to the Genoa, Italy facility was recorded as income as a result of the reversal of the accrual, as this property was sold in January 2017 with no further obligations.

The following table summarizes restructuring charges:

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Severance cost	\$ 7	\$ (39)	\$ 2,190
Facility closing costs	47	103	(393)
Fixed asset impairments	27	-	-
Total	<u>\$ 81</u>	<u>\$ 64</u>	<u>\$ 1,797</u>

The following table summarizes the movements in the accrued liabilities relating to the cost categories described above:

	December 31, 2017	Provisions	Non-cash Transactions	Cash Reductions	December 31, 2018
Severance cost	\$ 136	\$ 7	\$ (47)	(96)	\$ -
Facility closing costs	69	47	(2)	(114)	-
Fixed asset impairments	-	27	(27)	-	-
Total	<u>\$ 205</u>	<u>\$ 81</u>	<u>\$ (76)</u>	<u>\$ (210)</u>	<u>\$ -</u>

	December 31, 2016	Provisions	Non-cash Transactions	Cash Reductions	December 31, 2017
Severance cost	\$ 1,485	\$ (39)	\$ 73	\$ (1,383)	\$ 136
Facility closing costs	431	103	19	(484)	69
Fixed asset impairments	-	-	-	-	-
Total	<u>\$ 1,916</u>	<u>\$ 64</u>	<u>\$ 92</u>	<u>\$ (1,867)</u>	<u>\$ 205</u>

The Wuppertal, Germany manufacturing plant was sold during March 2016 with the gain of \$56 included in restructuring expense.

As of December 31, 2018 and December 31, 2017, \$0 and \$205 was reserved for restructuring activities, included within Other current liabilities.

6. Income Taxes

The provision for (benefit from) income taxes is summarized as follows:

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Current:			
U.S. federal and state	\$ (109)	\$ 1,001	\$ 1,874
Foreign	18,968	17,594	16,854
Total current	<u>18,859</u>	<u>18,595</u>	<u>18,728</u>
Deferred:			
U.S. federal and state	(9,693)	24,800	(9,416)
Foreign	(6,342)	(4,604)	(14,500)
Total deferred	<u>(16,035)</u>	<u>20,196</u>	<u>(23,916)</u>
Total	<u>\$ 2,824</u>	<u>\$ 38,791</u>	<u>\$ (5,188)</u>

Income (loss) before income taxes were as follows:

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Domestic	\$ (27,678)	\$ (26,516)	\$ (20,428)
Foreign	24,354	(744)	(30,626)
Pre-tax loss	<u>\$ (3,324)</u>	<u>\$ (27,260)</u>	<u>\$ (51,054)</u>

Differences between income tax expense (benefit) at the U.S. Federal statutory and the Company's continuing operations effective tax rate for 2018, 2017 and 2016 were:

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Tax at statutory rate	\$ (698)	\$ (9,541)	\$ (17,869)
Permanent differences:			
Management fees	533	813	770
Meals & entertainment	316	364	343
Non-deductible transaction costs	511	2,229	535
Transfer pricing	-	-	258
Domestic production activities deduction	-	(200)	(250)
Goodwill impairment	-	-	5,291
All other permanent differences	(371)	154	1,643
State tax expense (benefit)			
Net of federal benefit	579	641	294
Adjustment to the deferred tax asset valuation allowance	(5,952)	44,830	1,410
Foreign rate differential	1,541	(1,874)	1,270
R&D Credit	(206)	(299)	(932)
Taxes on foreign earnings	5,953	10,494	3,443
Unrecognized tax benefits	515	3,905	(1,080)
US tax reform	-	(11,394)	-
Change in enacted tax rates	103	(1,331)	(314)
Total	\$ 2,824	\$ 38,791	\$ (5,188)

As of December 31, 2018, the Company had the following federal, state and foreign net operating loss carryforwards:

Expiration	2018
2018	\$ 107
2019	1,204
2020	2,331
2021	2,457
2022-2037	81,710
Indefinite	11,679
Total	\$ 99,488

In addition to \$281 of non-US foreign tax credits which are not subject to expiration, the Company had excess U.S. foreign tax credits of \$48,686 as of December 31, 2018 subject to the following expirations:

Expiration	2018
2019	\$ 7,072
2020	8,067
2021	8,810
2022-2028	24,737
Total	\$ 48,686

Deferred income taxes arise due to certain items being includable in the determination of taxable income in periods different than for financial reporting purposes. The tax effect of significant types of temporary differences and carryforwards that gave rise to the Company's deferred tax assets and liabilities as of December 31, 2018 and 2017 follow:

	December 31, 2018	December 31, 2017
Deferred tax assets:		
Accrued expenses	\$ 3,601	\$ 3,652
Capitalized income and expenditures	1,519	1,794
Accrued pensions and post-retirement benefits	6,985	7,366
Tax loss carryforwards	8,933	9,878
Foreign and other tax credit carryforwards	49,812	54,966
Advance royalties	294	2,052
Stock Options	7,030	6,478
Other deferred tax asset	2,115	2,256
Previous transaction costs	1,039	1,213
Environmental and restructuring reserves	494	473
Non-Deductible interest	7,535	52
Foreign exchange	-	211
Inventory	946	945
	<u>90,303</u>	<u>91,336</u>
Valuation allowance	(48,525)	(54,297)
	<u>41,778</u>	<u>37,039</u>
Deferred tax liabilities:		
Depreciable and amortizable assets	(80,003)	(93,938)
Investment in subsidiary	(6,970)	(7,701)
Foreign exchange	(19)	-
	<u>(86,992)</u>	<u>(101,639)</u>
Net deferred tax liabilities	\$ (45,214)	\$ (64,600)

In assessing the realizability of deferred tax assets, management considers whether it is more-likely-than-not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities (including the impact of available carryback and carryforward periods), projected future taxable income, and tax-planning strategies and the Company's ability to implement tax planning in a timely manner when making this assessment. Based upon the level of historical taxable income, projections for future taxable income and the reversal of deferred tax liabilities over the periods in which the deferred tax assets are deductible, management believes it is more-likely-than-not that the Company will realize the benefits of these deductible differences, net of the existing valuation allowances at December 31, 2017 and 2018. The amount of the deferred tax asset considered realizable, however, could be reduced in the near term if estimates of future taxable income during the carryforward period are reduced.

On December 22, 2017, the U.S. federal government enacted the Tax Cuts and Jobs Act ("2017 Tax Act"). The 2017 Tax Act significantly changed the existing U.S. corporate income tax laws by, among other things, lowering the corporate tax rate, implementing a territorial tax system, and imposing a one-time deemed repatriation toll tax on cumulative undistributed foreign earnings, for which we have not previously provided U.S. taxes. The 2017 Tax Act includes a number of changes in existing tax law impacting businesses, including a permanent reduction in the U.S. federal statutory rate from 35% to 21%, effective January 1, 2018, and a one-time deemed repatriation of cumulative undistributed foreign earnings. Under U.S. GAAP, changes in tax rates and tax law are accounted for in the period of enactment and deferred tax assets and liabilities are measured at the enacted tax rate expected to apply to taxable income in the years in which the temporary differences are expected to recover or be settled.

Consistent with guidance issued by the Securities Exchange Commission (“SEC”), which provides for a measurement period of one year from the enactment date to finalize the accounting for effects of the 2017 Tax Act, the Company provisionally recorded an income tax benefit of \$11,394 related to the federal statutory rate change in the December 31, 2017 year end. There were no material adjustments to this provisional amount during the measurement period.

The one-time deemed repatriation toll charge was fully offset by foreign tax credits with no net tax cost. As a result of the 2017 Tax Act, expectations of future foreign source income generation have been reduced and certain tax planning strategies for utilization of certain foreign tax credit carryforwards are no longer considered probable. The Company has considered such impacts in assessing the realizability of deferred tax assets and related valuation allowances recorded.

U.S. foreign tax credit carryforwards of \$48,686 and \$54,466 in 2018 and 2017, respectively, can be carried forward up to 10 years and expire through 2028 whereas non-US foreign tax credit carryforwards of \$281 and \$320, respectively, are not subject to expiration. During 2018 and 2017, a valuation allowance of \$32,919 and \$46,290, respectively, were recorded against foreign tax credit related deferred tax assets due to the uncertainty regarding the utilization of these credits prior to expiration. The reduction in the valuation allowance is primarily due to tax reform guidance issued during 2018. The valuation allowances of \$48,525 and \$54,297 at December 31, 2018 and 2017, respectively, were primarily related to federal, state and foreign net operating loss U.S. and foreign tax credit carryforwards that, in the judgment of management, are not more-likely-than-not to be realized.

The Internal Revenue Code and some states impose limitations on a corporation’s ability to utilize tax attributes if it experiences an “ownership change.” Future ownership changes could have an impact on our ability to realize the deferred tax assets discussed above.

The Company recognizes the tax benefits of an uncertain tax position only if those benefits are more-likely-than-not to be sustained based on existing tax law. Additionally, the Company establishes a reserve for tax positions that are more-likely-than-not to be sustained based on existing tax law, but uncertain in the ultimate benefit to be sustained upon examination by the relevant taxing authorities. Unrecognized tax benefits are subsequently recognized at the time the more-likely-than-not recognition threshold is met, the tax matter is effectively settled or the statute of limitations for the relevant taxing authority to examine and challenge the tax position has expired, whichever is earlier.

The Company had approximately \$5,818 and \$5,908 of total gross unrecognized tax benefits as of December 31, 2018 and December 31, 2017, respectively. All of these unrecognized tax benefits, if recognized in future periods, would impact the effective tax rate. The Company expects \$638 of the unrecognized tax benefits to be recognized next year due to statute of limitation expirations. The gross unrecognized tax benefits relate primarily to state income taxes and intercompany transactions. A reconciliation of the beginning and ending amount of gross unrecognized tax benefits is presented in the following table:

	2018	2017
Gross unrecognized tax benefits at beginning of year	\$ 5,907	\$ 4,444
Gross increase for tax positions of prior years	-	376
Gross decrease for tax positions of prior years	(689)	(1)
Gross increase for tax positions of current year	946	1,493
Gross decrease for tax positions due to settlements	-	-
Gross decreases for tax positions due to lapse of statute of limitations	(346)	(404)
Gross unrecognized tax benefits at end of year	<u>\$ 5,818</u>	<u>\$ 5,908</u>

The Company accounts for interest and penalties related to income tax matters as income tax expense. The Company had accrued \$2,386 and \$2,406 for interest and penalties at December 31, 2018 and 2017, respectively.

The Company has operations in approximately 27 states and over 30 foreign taxing jurisdictions. The Company files income tax returns in the U.S. federal jurisdiction and various state and local jurisdictions. The Company's number of open tax years vary by jurisdiction. During the period ended December 31, 2018, the Company recorded \$187 of tax expense for interest and penalties. The Company's returns are no longer subject to U.S. federal tax examinations for years prior to 2015 except to the extent of deductions of net operating losses originating prior to 2015.

The 2017 Tax Act allows the Company to repatriate foreign earnings back to the U.S. in future years with minimal U.S. income tax consequences. As a result, the Company has not accrued any U.S. tax related to foreign cumulative earnings as a result of the 2017 Tax Act. The Company has accrued foreign withholding taxes related to certain foreign cumulative earnings which are not considered permanently reinvested.

The Company has not provided foreign withholding taxes on cumulative earnings of non-U.S. affiliates and associated companies that have been reinvested indefinitely. These earnings relate to ongoing operations and, at December 31, 2018 and 2017, were \$375,088 and \$372,081, respectively. These earnings have been reinvested in active non-U.S. business operations.

7. Accounts Receivable, net

Accounts receivables at December 31, 2018 and 2017 were \$157,997 and \$163,784, respectively, which were offset by an allowance for doubtful accounts of \$4,284 and \$6,282, respectively.

Total expense related to the reserve for doubtful accounts for the year ended December 31, 2018, 2017 and 2016 were (\$949), \$129, and \$1,547.

8. Inventories

The Company's total inventory consists of the following:

	December 31, 2018	December 31, 2017
Raw materials	\$ 34,359	\$ 31,489
Work in process	292	277
Finished goods	52,786	48,853
Total	<u>\$ 87,437</u>	<u>\$ 80,619</u>

9. Prepaid Expense and Other Assets

The Company's prepaid expense and other current assets consisted of the following:

	December 31, 2018	December 31, 2017
Prepaid expense	\$ 4,183	\$ 3,918
Total refundable taxes	3,787	5,485
Marketable securities	11,577	11,386
Current deposits	939	1,177
Other current assets	3,568	1,708
Total	<u>\$ 24,054</u>	<u>\$ 23,674</u>

10. Property, Plant and Equipment

Property, plant and equipment are comprised of the following:

	December 31, 2018	December 31, 2017
Land and buildings	\$ 49,813	\$ 49,582
Machinery and equipment	81,582	78,637
Construction in progress	4,967	3,587
	<u>\$ 136,362</u>	<u>\$ 131,806</u>
Less: Accumulated depreciation	(60,538)	(51,962)
Total	<u>\$ 75,824</u>	<u>\$ 79,844</u>

Depreciation expense, including depreciation on assets under capital leases, are as follows:

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Depreciation Expense	\$ 10,820	\$ 11,985	\$ 11,175

The loss (gain) on disposal of property, plant and equipment are as follows:

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Loss (gain) on disposal	\$ (127)	\$ 26	\$ (423)

11. Goodwill, Intangible Assets and Other Long-lived assetsGoodwill

The changes in the carrying amount of Goodwill are as follows:

Balance as of December 31, 2016	\$ 254,118
Deferred Tax Liability	(258)
Currency translation adjustments	<u>16,591</u>
Balance as of December 31, 2017	\$ 270,451
Currency translation adjustments	<u>(9,868)</u>
Balance as of December 31, 2018	<u>\$ 260,583</u>

In 2016, the Company recognized an impairment of goodwill in the amount of \$15,116 related to the annual impairment review of its South Asia operations. The goodwill impairment loss represented substantially all of the goodwill reported in South Asia's operations. There were no indicators of impairment identified in 2017 and 2018.

Intangible Assets

Intangible assets are comprised of the following:

	Gross Carrying Amount		Accumulated Amortization	
	December 31, 2018	December 31, 2017	December 31, 2018	December 31, 2017
Customer relationships	\$ 488,004	\$ 505,840	\$ (220,489)	\$ (189,029)
Technological know-how	57,906	57,906	(22,818)	(18,737)
Trade name (Houghton)	21,115	21,115	-	-
Trade name (Products)	1,530	1,530	(552)	(450)
Non-Compete Covenants	510	510	(255)	(153)
Total	<u>\$ 569,065</u>	<u>\$ 586,901</u>	<u>\$ (244,114)</u>	<u>\$ (208,369)</u>

There were no indicators of impairment identified and no impairment losses recognized in 2017 and 2018.

Amortization expense for the year ended December 31, 2018, 2017, and 2016 was \$43,572, \$42,920, and \$43,857, respectively. Amortization expense is recorded within Selling, general and administrative expense within the Company's Consolidated Statements of Operations.

As of December 31, 2018, expected amortization expense for each of the next five years and thereafter was as follows:

2019	41,578
2020	41,578
2021	41,578
2022	41,578
2023	41,578
Thereafter	95,946
Total	<u>\$ 303,836</u>

12. Investments in Equity Investee

As of December 31, 2018 the Company held a 49.99% investment in Korea Houghton Corporation (South Korea).

The carrying amount of the Company's equity investment in Korea Houghton Corporation at December 31, 2018 was \$43,641.

Summarized financial information of Korea Houghton Corporation is as follows:

	December 31, 2018	December 31, 2017
Current assets	\$ 100,685	\$ 105,816
Non-current assets	45,631	34,153
Current liabilities	41,481	38,989
Non-current liabilities	14,919	8,592

	December 31, 2018	December 31, 2017	December 31, 2016
Net sales	\$ 195,879	\$ 184,535	\$ 173,087
Gross margin	53,655	54,053	56,421
Income before taxes	15,223	17,882	22,800
Net income	11,755	14,327	18,275

During 2018, 2017 and 2016, the Company received dividend distributions from Korea Houghton Corporation of \$5,547, \$9,073, and \$4,043, which were accounted for as reductions of the Company's investment in equity investee.

At December 31, 2018 and December 31, 2017 the Company's share of undistributed earnings from Korea Houghton were \$44,949 and \$46,185, respectively.

13. Other Current Liabilities

Other current liabilities consist of the following:

	December 31, 2018	December 31, 2017
Other accrued expense	\$ 6,169	\$ 5,774
Non-employee commissions	908	1,353
Accrued environmental costs	1,813	1,663
Accrued professional fees	4,374	4,407
Deferred revenue	1,010	662
Other accrued taxes	7,764	9,016
Accrued restructuring and other costs	1,489	1,601
Accrued income taxes	2,668	3,493
Other	484	1,148
	<u>\$ 26,679</u>	<u>\$ 29,117</u>

14. Financing Activities

Credit Arrangements and Short-term Debt

Short-term debt consists of borrowings under unsecured bank lines of credit and discounting facilities. The bank lines of credit were not collateralized and the discounting facilities were collateralized by the underlying accounts receivable. The total available under these facilities are as follows:

	December 31, 2018	December 31, 2017
Capacity	\$ 18,586	\$ 29,922
Outstanding borrowed	10,904	20,797
Unused capacity	<u>\$ 7,682</u>	<u>\$ 9,125</u>
Weighted-average interest rate	4.79%	4.20%

Long-Term Debt Facilities

Long-term debt is comprised of the following:

	December 31, 2018	December 31, 2017
2012 Senior Credit Facilities		
First Lien U.S. Term Loans	\$ 427,700	\$ 432,250
First Lien Dutch Term Loans	87,271	100,594
Second Lien U.S. Term Loans	200,000	200,000
Revolving Facilities	-	-
	<u>714,971</u>	<u>732,844</u>
Less: Debt discounts	(1,414)	(2,842)
Less: Debt issuance costs	(4,494)	(9,063)
2012 Senior Credit Facilities, net	<u>709,063</u>	<u>720,939</u>
Obligations under capital leases	-	10
Total Debt	<u>709,063</u>	<u>720,949</u>
Less: Current portion of long-term debt	(510,540)	(4,560)
Total long-term debt	<u>\$ 198,523</u>	<u>\$ 716,389</u>

Fixed maturities of the Company's debt are as follows:

2019	\$ 514,971
2020	200,000
Total	<u>\$ 714,971</u>

The Company incurred the following debt related expenses that are included within Interest expense:

	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Interest expense	\$ 50,514	\$ 45,690	\$ 44,661
Amortization of debt issuance costs	\$ 4,569	\$ 4,491	\$ 4,419
Amortization of debt discounts	\$ 1,428	\$ 1,412	\$ 1,409

Senior Credit Facilities

On December 20, 2012, in connection with the GH Transaction, the Company entered into credit facilities ("2012 Senior Credit Facilities") which included the first and second lien facilities. The first lien consisted of \$455,000 in U.S. dollar denominated Term Loans ("First Lien U.S. Term Loan"), €100,000 in euro-denominated Term Loans ("First Lien Dutch Term Loan"), and dollar and multicurrency revolving facilities with a net capacity of \$50,000 ("Revolving Credit Facility"). The second lien facility consisted of \$200,000 in U.S. Term Loans ("Second Lien U.S. Term Loan").

Borrowings under the 2012 Senior Credit Facilities provide for a selection of interest rates, at the option of the Company, based upon the prevailing LIBOR or prime rate, plus applicable margin, subject to a 1.25% floor. In addition to paying interest on outstanding principal under the First Lien U.S. Term Loans, Dutch Term Loan, and Second Lien U.S. Term Loan, the Company pays a commitment fee to the lenders under the 2012 Revolving Credit Facility in respect of unutilized commitments. Commitment fees paid to the lender were \$161, \$207, and \$204 for 2018, 2017 and 2016, respectively. The line of credit is subject to normal terms related to default and change of control.

Subject to voluntary prepayments, the Company is required to pay 0.25% of the funded initial principal balances on the First Lien U.S. Term Loans and Dutch Term Loans quarterly through the maturity date, at which time the remaining aggregate principal balance is due. The revolving credit facility matures in September 2019. The First Lien U.S. Term Loan and First Lien Dutch Term Loan mature in December 2019. The Second Lien U.S. Term Loan matures in December 2020.

The net proceeds from the 2012 Senior Credit Facilities were used to repay the 2011 Senior Credit Facility, with the balance of the borrowings used to fund the GH Transaction. In conjunction with obtaining the 2012 Senior Credit Facilities, the Company capitalized debt issuance costs of \$22,557 in the period ended December 31, 2012. The Company also capitalized \$10,111 of debt discount, in the period ended December 31, 2012, related to the 2012 Senior Credit Facilities.

During May 2013, the Company amended the 2012 Senior Credit Facilities, which resulted in a reduction in the interest rates applicable to the First Lien U.S. and Dutch Term Loans of 1.25% and Revolving Credit Facility of 0.25%. Also, the LIBOR floor following the amendment was 1.00% in the case of the First Lien U.S. Term Loan and the First Lien Dutch Term Loan and 1.25% in the case of the Second Lien U.S. Term Loan. The Company paid fees of \$6,672 in connection with this amendment. The Company accounted for the amendment in accordance with accounting guidance for debt modifications and extinguishments. Accordingly, amendment fees of \$5,834 were capitalized and third party fees of \$838 were expensed as Interest expense. Capitalized fees will be amortized through the debt maturity in 2019.

During July 2015, the Company amended its 2012 Senior Credit Facilities primarily to make guarantor, covenant and other verbiage changes. In conjunction with the amendment, the Company incurred a 0.25% increase in the interest rate margin on its First Lien and Second Lien Term Loans. The Company also incurred approximately \$1,921 in amendment fees paid at closing to the lenders and approximately \$1,149 in attorney, arrangement and accounting fees. The other terms and conditions of the credit facilities, discussed herein, were unchanged. The Company accounted for the amendment in accordance with accounting guidance for debt modifications and extinguishments. Therefore the amendment fees of \$1,921 were capitalized as additional debt issuance costs with all other fees being expensed as Interest expense. Capitalized fees will be amortized through the debt maturity in 2019.

In March 2017, the Company amended its 2012 Revolving Credit Facilities to extend the maturity date from December 2017 to September 2019. The extended facility was reduced to a total capacity of \$41,000, which took effect in December 2017. No other changes were made to the terms of the agreement. In connection with this amendment, the Company paid fees of \$182. The Company accounted for the amendment in accordance with accounting guidance for debt modifications and extinguishments. The Company considered the limited changes presented by the amendment and reviewed the old and new lenders on a creditor by creditor basis and determined that the amendment was a modification. Accordingly, amendment fees of \$182 were capitalized as debt issuance costs. Capitalized fees will be amortized through the debt maturity in 2019.

The Company is required to make mandatory repayments on the first and second lien loans based upon a 1% loan amortization rate. Additional payments are required if net proceeds from asset sales exceed \$5,000 individually or \$10,000 cumulatively per annum. Further additional payments are required per annum based on an excess cash flow calculation that adjusts net income for working capital and other items, 50% of the calculated amount must be used to make a payment on the debt. Mandatory repayments may be deferred due to voluntary prepayments. For 2018 and 2017, no excess cash flow payments were required. Covenants include requirements for quarterly reporting to the lenders regarding compliance based upon interest and leverage ratios, reporting of environmental matters exceeding \$15,000, limitation on dividend amounts, certain limitations on additional indebtedness, and restrictions on asset sales in excess of \$35,000.

The Company has unused capacity under the Revolving Credit Facility of \$36,969 and \$36,318 net of bank letters of credit of \$4,031 and \$4,682 as of December 31, 2018 and December 31, 2017, respectively.

The interest rates on the 2012 Senior Credit Facilities, as amended, were as follows:

	December 31, 2018	December 31, 2017
First Lien U.S. Term Loan	5.59%	4.58%
Revolving Credit Facility	6.32%	5.01%
First Lien Dutch Term Loan	4.75%	4.75%
Second Lien U.S. Term Loan	10.84%	9.83%

The 2012 Senior Credit Facilities permitted HII Holding Corporation to make up to \$25,000 in dividends or distributions to its shareholders. As of December 31, 2018, HII Holding Corporation had paid \$25,000 in dividends to its shareholders. Beyond this \$25,000, the 2012 Senior Credit Facilities prevent HII Holding Corporation from paying any dividends or making any distributions except to the extent of HII Holding Corporation's excess cash flow (as defined per the agreement) that is not required by the terms of the 2012 Senior Credit Facilities to be applied to the mandatory prepayment of outstanding first lien term loans under the 2012 Senior Credit Facilities and only if at such time HII Holding Corporation satisfies a first lien leverage ratio test on a pro forma basis after giving effect to such dividend or distribution.

As of December 31, 2018 and December 31, 2017, the Company was in compliance with its financial covenants. The Company also pledged as collateral to its lenders substantially all U.S. assets, specific Non-U.S. assets and stock of certain subsidiaries.

15. Employee Benefit Plans

The Company has defined benefit pension plans ("Pension Plans") covering certain U.S. salaried and hourly employees ("U.S. Plans") as well as certain employees in the United Kingdom, France and Germany ("Non-U.S. Plans"). The U.S. Plans provide benefits based on an employee's years of service and compensation received for the highest five consecutive years of earnings. The Company made the decision to freeze benefits for non-union employees as of March 31, 2009 for the U.S. Plans. The Non-U.S. Plans provide benefits based on a formula of years of service and a percentage of compensation which varies among the Non-U.S. Plans. The Company made the decision to freeze its United Kingdom Non-U.S. plan benefits as of May 1, 2013. In 2015, the Company annuitized the assets in the Canada plan in order to remove Houghton as the primary risk bearer and the annuity company now makes direct payments to the pension plan members. The Company's funding policy is consistent with funding requirements of applicable government laws and regulations.

The components of net pension expense are as follows:

	U.S. Plans		
	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Net pension (income) expense:			
Expected return on net assets	\$ (3,595)	\$ (3,307)	\$ (3,717)
Service cost-benefits earned during period	59	48	45
Interest cost on projected benefit obligation	2,980	3,244	3,389
Amortization of prior service cost	10	9	3
	<u>\$ (546)</u>	<u>\$ (6)</u>	<u>\$ (280)</u>
	Non-U.S. Plans		
	Year Ended December 31, 2018	Year Ended December 31, 2017	Year Ended December 31, 2016
Net pension (income) expense:			
Expected return on net assets	\$ (3,477)	\$ (3,223)	\$ (3,259)
Service cost-benefits earned during period	91	82	65
Interest cost on projected benefit obligation	2,176	2,227	2,753
Net amortization and deferral	280	356	-
	<u>\$ (930)</u>	<u>\$ (558)</u>	<u>\$ (441)</u>

The Company made the following contributions to its Pension Plans:

	U.S Plans			Non U.S Plans		
	December 31,			December 31,		
	2018	2017	2016	2018	2017	2016
Employer contributions	\$ 1,613	\$ 1,536	\$ 44	\$ 2,333	\$ 2,329	\$ 2,614
Employee contributions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefit payments	\$ (4,061)	\$ (4,053)	\$ (3,981)	\$ (2,896)	\$ (4,444)	\$ (3,458)

A reconciliation of the funded status of the Company's Pension Plans to amounts recognized in the balance sheets is as follows:

	U.S. Plans			Non-U.S. Plans		
	December 31,			December 31,		
	2018	2017	Total	2018	2017	Total
Accumulated benefit obligation	\$ (80,060)	\$ (87,613)		\$ (81,873)	\$ (91,412)	
Fair value of plan assets	59,170	66,792		73,799	81,396	
Projected benefit obligation	(80,060)	(87,613)		(81,873)	(91,412)	
Funded status	<u>\$ (20,890)</u>	<u>\$ (20,821)</u>		<u>\$ (8,074)</u>	<u>\$ (10,016)</u>	
Current liability	\$ (69)	\$ (69)		\$ (78)	\$ (82)	
Non-current liability	(20,821)	(20,752)		(7,996)	(9,934)	
	<u>\$ (20,890)</u>	<u>\$ (20,821)</u>		<u>\$ (8,074)</u>	<u>\$ (10,016)</u>	
	U.S. Plans	Non-U.S. Plans	Total	U.S. Plans	Non-U.S. Plans	Total
	December 31, 2018			December 31, 2017		
Change in benefit obligation						
Gross benefit obligation at beginning of year	\$ 87,613	\$ 91,412	\$ 179,025	\$ 83,305	\$ 84,268	\$ 167,573
Service cost	59	91	150	48	82	130
Interest cost	2,980	2,176	5,156	3,244	2,227	5,471
Benefits paid	(4,061)	(2,896)	(6,957)	(4,053)	(4,444)	(8,497)
Actuarial (gain) loss	(6,531)	(4,505)	(11,036)	5,069	999	6,068
Translation differences and other	-	(4,405)	(4,405)	-	8,280	8,280
Gross benefit obligation at end of year	<u>\$ 80,060</u>	<u>\$ 81,873</u>	<u>\$ 161,933</u>	<u>\$ 87,613</u>	<u>\$ 91,412</u>	<u>\$ 179,025</u>
Change in plan assets						
Fair value of plan assets at beginning of year	\$ 66,792	\$ 81,396	\$ 148,188	\$ 60,389	\$ 71,735	\$ 132,124
Actual return on plan assets	(5,174)	(2,723)	(7,897)	8,920	4,663	13,583
Employer contributions	1,613	2,333	3,946	1,536	2,329	3,865
Benefits paid	(4,061)	(2,896)	(6,957)	(4,053)	(4,444)	(8,497)
Translation differences	-	(4,311)	(4,311)	-	7,113	7,113
Fair value of plan assets at end of year	<u>\$ 59,170</u>	<u>\$ 73,799</u>	<u>\$ 132,969</u>	<u>\$ 66,792</u>	<u>\$ 81,396</u>	<u>\$ 148,188</u>
Net benefit obligation recognized	<u>\$ (20,890)</u>	<u>\$ (8,074)</u>	<u>\$ (28,964)</u>	<u>\$ (20,821)</u>	<u>\$ (10,016)</u>	<u>\$ (30,837)</u>
Amounts recognized in the balance sheet consist of:						
Current liabilities	\$ (69)	\$ (78)	\$ (147)	\$ (69)	\$ (82)	\$ (151)
Non-current liabilities	(20,821)	(7,996)	(28,817)	(20,752)	(9,934)	(30,686)
Net benefit obligation recognized	<u>\$ (20,890)</u>	<u>\$ (8,074)</u>	<u>\$ (28,964)</u>	<u>\$ (20,821)</u>	<u>\$ (10,016)</u>	<u>\$ (30,837)</u>
Amounts not yet reflected in net periodic benefit costs and included in accumulated other comprehensive loss:						
Prior service credit (cost)	\$ (34)	\$ -	\$ (34)	\$ (41)	\$ -	\$ (41)
Accumulated loss	(2,849)	(129)	(2,978)	(1,169)	(156)	(1,325)
AOCI	(2,883)	(129)	(3,012)	(1,210)	(156)	(1,366)
Cumulative employer contributions in excess of or (below) net periodic benefit cost	(18,007)	(7,945)	(25,952)	(19,611)	(9,860)	(29,471)
Net benefit obligation recognized	<u>\$ (20,890)</u>	<u>\$ (8,074)</u>	<u>\$ (28,964)</u>	<u>\$ (20,821)</u>	<u>\$ (10,016)</u>	<u>\$ (30,837)</u>

The amounts, net of tax, recognized in Other comprehensive income as a component of net pension (income) expense are as follows:

	U.S. and Non U.S. Plans	
	December 31,	
	2018	2017
Unrecognized prior service cost	\$ 324	\$ 12
Unrecognized net actuarial (gain) loss	3,130	(330)
	<u>\$ 3,454</u>	<u>\$ (318)</u>

The amounts, net of tax, in AOCI that have not yet been recognized as a component of net pension (income) expense are as follows:

	U.S. and Non U.S. Plans	
	December 31,	
	2018	2017
Unrecognized prior service cost	\$ 34	\$ 41
Unrecognized net actuarial loss	2,978	1,325
	<u>\$ 3,012</u>	<u>\$ 1,366</u>

Weighted average assumptions used to determine benefit obligations for years ended:

	U.S. Plans		Non-U.S. Plans	
	December 31,		December 31,	
	2018	2017	2018	2017
Discount rate	4.10%	3.50%	2.75%	2.37%
Rate of compensation increase	N/A	N/A	3.00%	3.00%

Weighted average assumptions used to determine net periodic benefit cost:

	U.S. Plans			Non-U.S. Plans		
	December 31,			December 31,		
	2018	2017	2016	2018	2017	2016
Discount rate	3.50%	4.00%	4.25%	2.75%	2.37%	2.57%
Expected long-term return on plan assets	6.50%	6.50%	7.25%	4.21%	4.22%	4.23%
Rate of compensation increase	N/A	N/A	N/A	3.00%	3.00%	3.00%

Historical and future expected returns of multiple asset classes were analyzed to develop a risk-free real rate of return and risk premiums for each asset class. The overall rate for each asset class was developed by combining a long-term inflation component, the risk-free real rate of return, and the associated risk premium. A weighted average rate was developed based on those overall rates and the target asset allocation of the plan.

As of December 31, 2018 and 2017, the asset allocations of the Company's Pension Plans were as follows:

U.S Pension Assets	December 31,			
	2018		2017	
	Target	Actual	Target	Actual
U.S. equity securities	37.8%	33.6%	37.8%	40.1%
International equity securities	16.2%	17.9%	16.2%	17.1%
Fixed income securities	40.0%	41.7%	40.0%	36.8%
Real Estate	6.0%	6.8%	6.0%	6.0%

Non U.S Pension Assets	December 31,			
	2018		2017	
	Target	Actual	Target	Actual
Cash	8.3%	6.2%	3.1%	2.7%
Diversified equity securities	50.9%	35.7%	60.3%	39.1%
Fixed income securities	40.8%	57.2%	33.7%	55.8%
Insurance contracts	0.0%	0.2%	0.0%	0.2%
Other	0.0%	0.7%	2.9%	2.2%

U.S. and Non U.S. Plans' investments are measured at fair value on a recurring basis. Note that some of the investments below are held by the Plans in a pooled or commingled investment vehicle that is maintained by the securities sponsor, each with many investors. The investments are classified based on the nature of the underlying investments held by the commingled pools. The following tables present the fair values of the U.S. and Non U.S. Plan investments as of December 31, 2018 and 2017.

U.S Pension Assets	December 31, 2018			
	Level 1	Level 2	Level 3	Total
U.S. equity securities	\$ -	\$ 19,878	\$ -	\$ 19,878
International equity securities	-	10,578	-	10,578
Fixed income securities	-	24,702	-	24,702
Real Estate	-	-	4,012	4,012
Total U.S. Pension Assets	\$ -	\$ 55,158	\$ 4,012	\$ 59,170

Non U.S Pension Assets	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Cash	\$ 4,580	\$ -	\$ -	\$ 4,580
Diversified equity securities	9,235	14,165	2,934	26,334
Fixed income securities	24,781	17,430	-	42,211
Insurance contracts	-	129	-	129
Other	-	545	-	545
Total Non U.S. Pension Assets	\$ 38,596	\$ 32,269	\$ 2,934	\$ 73,799

U.S Pension Assets	December 31, 2017			
	Level 1	Level 2	Level 3	Total
U.S. equity securities	\$ -	\$ 26,803	\$ -	\$ 26,803
International equity securities	-	11,408	-	11,408
Fixed income securities	-	24,543	-	24,543
Real Estate	-	-	4,038	4,038
Total U.S. Pension Assets	\$ -	\$ 62,754	\$ 4,038	\$ 66,792

Non U.S Pension Assets	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Cash	\$ 2,206	\$ -	\$ -	\$ 2,206
Diversified equity securities	12,390	17,973	1,494	31,857
Fixed income securities	40,896	4,538	-	45,434
Insurance contracts	-	133	-	133
Other	-	1,766	-	1,766
Total Non U.S. Pension Assets	\$ 55,492	\$ 24,410	\$ 1,494	\$ 81,396

The Company's Pension Plans hold Level 3 assets primarily comprised of funds holding real estate and unquoted funds. Fair value is determined based upon the Company's units in the fund and net asset value of the Company's share of total fund value. The table below presents a roll forward of activity for these assets between December 31, 2016 and 2017 and December 31, 2017 and 2018:

	Real Estate Assets	Alternative Assets	Total
Balance at December 31, 2016	\$ 4,930	\$ 4	\$ 4,934
Purchases, sales, settlements, net	-	(4)	(4)
Gains	602	-	602
Balance at December 31, 2017	\$ 5,532	\$ -	\$ 5,532
Purchases, sales, settlements, net	1,464	-	1,464
Losses	(50)	-	(50)
Balance at December 31, 2018	\$ 6,946	\$ -	\$ 6,946

The investment strategy is to develop an efficient, well-diversified portfolio based on a long-term, strategic outlook of the investment markets. The investment market outlook utilizes both historical-based and forward-looking return forecasts to establish future return expectations for various asset classes. These return expectations are used to develop a core asset allocation based on the needs of the plan. The core asset allocation utilizes investment portfolios of various asset classes and multiple investment managers in order to help maximize the plan's return while providing multiple layers of diversification to help minimize risk.

The Company expects to contribute \$1,299 to the U.S. Plan and \$2,312 to the Non U.S. Plans in 2019.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

	U.S. Plans	Non U.S. Plans
2019	\$ 4,982	\$ 2,733
2020	\$ 4,587	\$ 2,957
2021	\$ 4,656	\$ 2,949
2022	\$ 4,684	\$ 3,063
2023	\$ 4,872	\$ 3,177
Thereafter	\$ 25,231	\$ 18,226

Multiemployer Benefit Plans

The Company contributes to a multiemployer defined benefit pension plans under terms of the collective bargaining union contracts. The Company's contribution rate to the multiemployer pension plan is specified in the collective bargaining union contracts and contributions are made to the plan based on its union employee payroll. While the Company may also have additional liabilities imposed by law as a result of its participation in the multiemployer defined benefit pension plan, there is no liability as of December 31, 2018. The Employee Retirement Income Security Act of 1974, as amended by the Multi-Employer Pension Plan Amendments Act of 1980, imposes certain contingent liabilities upon an employer who is a contributor to a multiemployer pension plan if the employer withdraws from the plan or the plan is terminated or experiences a mass withdrawal. The Company has terminated and withdrawn from the Central States, Southeast and Southwest Areas Pensions Funds. The Company paid a withdrawal penalty of \$551 to exit the plan. The Company will remain in the Cleveland Bakers and Teamsters Pension Fund.

The Pension Protection Act of 2006 (the PPA) also added special funding and operational rules generally applicable to plan years beginning after 2007 for multiemployer plans that are classified as "endangered", "seriously endangered" or "critical" status based on a multitude of factors (including, for example, the plan's funded percentage, cash flow position and whether the plan is projected to experience a minimum funding deficiency).

Plans in the “endangered”, “seriously endangered” or “critical” status classifications must adopt measures to improve their funded status through a funding improvement or rehabilitation plan which may require additional contributions from employers (which may take the form of a surcharge on benefit contributions) and/or modifications to retiree benefits. The plan to which the Company contributes is in “critical” status. The amount of additional funds that the Company may be obligated to contribute to the plan in the future cannot be estimated as such amounts will be likely based on future levels of work that require the specific use of those union employees covered by the plan, and the amount of that future work and the number of affected employees that may be needed cannot reasonably be estimated.

The following table contains a summary of the Company’s participation in multiemployer defined benefit pension plans. The most recent PPA zone status available relates to the plan’s fiscal year-end in 2018.

Pension Fund	Employer Identification Number	PPA Zone Status			FIP/RP Status	Contributions for the twelve months ended December 31, 2018	Expiration Date of Collective Bargaining Contracts
		2018	2017	2016			
Central States, Southeast and Southwest Areas Pension Funds	36-6044243-001	Red	Red	Red	Implemented	\$ -	01/31/2019
Cleveland Bakers and Teamsters Pension Fund	34-0904419-001	Red	Red	Red	Implemented	\$ 115	05/01/2019

Multiemployer Health and Welfare Benefit Plan

The Company also contributes to union sponsored multi-employer health and welfare benefit plans that was adopted with the acquisition. Plan benefits include medical, sickness, prescription, dental, vision, hearing, life, and accident or disability benefits. Total contributions to these multi-employer health and welfare benefit plans were approximately \$115 and \$134 for the years ended December 31, 2018 and 2017, respectively.

Other Benefit Plans

The Company has a Houghton International Inc. Tax Advantage Capital Accumulation Plan and Trust (the “Profit Sharing/401(k) Plan”) whereby regular U.S. employees of Houghton International Inc. who have completed certain minimum service requirements can defer a portion of their income through contributions to the Profit Sharing/401(k) Plan. The Profit Sharing/401(k) Plan provides for HII contributions to the Profit Sharing/401(k) Plan, as follows: 1) matching contributions to each participant up to 50% of the first 6% of compensation contributed by the participant and 2) a discretionary non-elective contribution in an amount up to 3% of eligible compensation. The Company’s contributions are subject to overall employer contribution limits and may not exceed the amount deductible for income tax purposes. The Profit Sharing/401(k) Plan may be amended or discontinued at any time by the Company.

In addition, the Company acquired a defined contribution retirement plan, during the Wallover Acquisition that covers substantially all non-union employees in the Wallover segment and all employees of Commonwealth who meet certain age and length of service requirements. Under the plan, the Company will make a matching contribution for Wallover employees equal to 50% of the first 6% of an employee’s elective deferral and contributes up to a maximum of \$5 per year per Commonwealth employee. In addition to the matching contribution, the Company may make discretionary contributions.

The Company's contribution expenses for all Retirement Plans are as follows:

	December 31,		
	2018	2017	2016
Houghton International Profit Sharing/ 401 (k) Plan	\$ 2,195	\$ 2,069	\$ 2,078
Wallover Defined Contribution Plan	94	201	165
Commonwealth Defined Contribution Plan	33	7	6
Total	<u>\$ 2,322</u>	<u>\$ 2,277</u>	<u>\$ 2,249</u>

16. Operating Leases

The future minimum rental payments required under operating leases that have initial or remaining non-cancelable lease terms in excess of one year as of December 31, 2018 are as follows:

2019	\$ 5,600
2020	3,940
2021	3,055
2022	1,179
2023	857
Thereafter	690
Total	<u>\$ 15,321</u>

Rent expense on operating leases was \$7,637, \$6,120 and \$5,033 for the years ended December 31, 2018, 2017 and 2016, respectively.

17. Other Non-Current Liabilities

Other non-current liabilities consists of the following:

	December 31, 2018	December 31, 2017
Unrecognized tax benefits	\$ 8,204	\$ 8,314
Deferred compensation	2,562	2,499
Stock-based compensation liability	29,874	27,475
Other liabilities	180	115
Total	<u>\$ 40,820</u>	<u>\$ 38,403</u>

Unrecognized tax benefits are generated when there are differences between tax positions taken in a tax return and amounts recognized in the financial statements. Tax benefits are recognized in the financial statements when it is more-likely-than-not that a tax position will be sustained upon examination. See Note 6, Income Taxes.

The Stock compensation liability has increased to reflect updated option valuation. See Note 3, Stock-based Compensation and Other Compensation Arrangements.

18. Accumulated Other Comprehensive Loss

The cumulative balance of each component of other comprehensive income (loss) and the income tax effects allocated to each component are as follows:

	Currency translation adjustments	Defined benefit pension plans	Total
Balance at December 31, 2015	\$ (100,934)	\$ (7,464)	\$ (108,398)
Other comprehensive loss before reclassifications	(24,338)	(5,218)	(29,556)
CTA attributable to non-controlling interest	(328)	-	(328)
Amounts reclassified from AOCI	(1,912)	-	(1,912)
Related tax amounts	958	1,151	2,109
Balance at December 31, 2016	\$ (126,554)	\$ (11,531)	\$ (138,085)
Other comprehensive income before reclassifications	39,487	451	39,938
Related tax amounts	(2,618)	(133)	(2,751)
Balance at December 31, 2017	\$ (89,685)	\$ (11,213)	\$ (100,898)
Other comprehensive loss before reclassifications	(24,092)	(3,992)	(28,084)
Related tax amounts	885	538	1,423
Balance at December 31, 2018	\$ (112,892)	\$ (14,667)	\$ (127,559)

Reclassifications of pension and other post-retirement actuarial items out of AOCI are included in the computation of net periodic benefit cost.

19. Related Party Transactions

The Company has related party transactions with sales and purchases to and from certain affiliates. For the year ended December 31, 2018 related party sales were \$1,163, and related party purchases were \$708. For the year ended December 31, 2017 related party sales were \$1,136, and related party purchases were \$757. For the year ended December 31, 2016, related party sales were \$1,028, and related party purchases were \$522. At December 31, 2018 and December 31, 2017 amounts payable to affiliated companies for these transactions were \$14 and \$22, respectively.

The Company also provides management services to certain affiliates, including technical services, blending and packaging, corporate advice and project management. Amounts outstanding and included in Accounts receivable at December 31, 2018 and December 31, 2017 were \$168 and \$141, respectively.

In addition, there are various management service agreements with certain affiliates. Total management fees incurred by the Company relating to these agreements amounted to \$2,000 for the year ended December 31, 2018 and \$2,323 for the year ended December 31, 2017 and \$2,200 for the year ended December 31, 2016. These management fees are included under Selling, general and administrative expenses. Services performed relate to promotional and corporate governance services. At December 31, 2018 and 2017, there were no affiliate management fees outstanding.

20. Commitments and Contingencies

The Company participates in certain payments in connection with environmental consent orders related to certain hazardous waste cleanup activities under the U.S. Federal Superfund statute and also has obligations to perform certain cleanup activities related to properties currently or previously owned. The Company has made accruals for these costs as well as costs associated with other environmental issues of which it is aware. The Company continually evaluates its obligations related to such matters and has estimated the range of costs to be between \$1,813 and \$3,227. As of December 31, 2018 and 2017, the Company had accrued \$1,813 and \$1,663, respectively, for these activities. These accruals are included under Other current liabilities. The Company paid \$304 for the year ended December 31, 2018, \$754 for the year ended December 31, 2017, and \$984 during the year ended December 31, 2016 for such activities. The Company continually evaluates its obligations related to such matters and updates estimates as necessary.

Due to the nature of the Company's activities, it is also, at times, subject to pending and threatened legal actions that arise out of the ordinary course of business. The Company continually evaluates its obligations to such matters. In the opinion of management, based in part upon advice of legal counsel, the disposition of any such matters is not expected to have a material effect on the Company's results of operations, financial condition or cash flows.

The Company approved incentive awards of \$6,757 from a cash pool, which includes awards for multiple milestones and are contingent upon multiple future events, including future service and completion of potential transactions. Due to the contingencies, the pool does not represent an accounting liability of the Company as of December 31, 2018 and; therefore is not reflected in the Company's Statement of Operations, Cash Flows or Financial Position.

Under the GH Holdings, Inc. Severance and Change in Control Plan for Senior Management ("Severance Plan"), certain members of executive management are eligible to receive severance benefits. Under the Severance Plan, certain employees are eligible for severance pay if employment is terminated by the Company for any reason other than cause, death or disability, or upon resignation of the employee for good reason. Eligibility also requires that the termination date not occur at any time during the change in control period. Severance pay provides an eligible employee with an amount equal to twelve months of annual base salary plus a pro rata portion of the employee's targeted annual bonus. In addition, a continuation of eligibility to participate in the Company's medical benefits plans. The Severance Plan also provides for change in control severance to certain eligible employees if employment is terminated by the Company during a change in control period or if employment is terminated by the Company for any reason other than cause, death or disability, or by the employee on account of good reason. Change in control severance pay provides each eligible employee with an amount equal to eighteen months of the eligible employee's base salary plus the employee's target annual bonus, paid in a lump sum on or after the 30th day that follows the employee's termination date. The employee is also eligible for continued participation in the Company's medical benefit plans for eighteen months immediately following termination. The estimated cost of the change in control severance of \$5,144 does not represent an accounting liability of the Company as of December 31, 2018 due to the severance being contingent upon future events, including completion of potential transactions and termination of employment, and therefore is not reflected in the Company's Statement of Operations, Cash Flows or Financial Position.

The Company will incur certain liabilities upon the finalization of its purchase by Quaker. The Company will owe \$8,000 to RBC Capital Markets, LLC ("RBC") for investment banking services provided to the Company during the transaction. If the purchase is not completed, then RBC will receive a termination fee equal to 10% of the break-up fee or any other termination fee received by the Company, payable in cash when such fee is received by the Company. Similarly, a success fee is owed to Mayer Brown LLP, once the transaction is complete, for attorney services provided to the Company during the transaction. The success fee will equal 10% of either actual time incurred or the maximum aggregate fee payable in light of negotiated fee caps, whichever is lower. If the purchase is not completed, and the Company receives a termination fee or cost reimbursement, Mayer Brown, LLP will receive payment in full for all actual time incurred, without discount. As of December 31, 2018 and December 31, 2017, the Company had accrued \$1,327 and \$574, respectively, for transaction-related legal costs.

The Company had letters of credit outstanding for \$4,031 and \$4,682 as of December 31, 2018 and 2017, respectively, which guarantee funding of certain activities, some of which are still under negotiation with regulators. These letters of credit reduce the capacity under the 2012 Revolving Credit Facility (see Note 14).

Local laws and regulations in certain countries require that the Company obtain letters of credit or bank guarantees in connection with certain legal proceedings and general business purposes. These letters of credit or bank guarantee do not represent accounting liabilities of the Company and; therefore, are not reflected in the Company's Statement of Operations, Cash Flows or Balance Sheets. The amount of these letters of bank guarantee was \$2,554 and \$850 as of December 31, 2018 and December 31, 2017, respectively.

21. Subsequent Events

The Company's management has evaluated all activity of the Company through March 29, 2019 and concluded that there were no subsequent event required to be reflected in the Company's consolidated financial statements or notes as required by standards for accounting disclosure of subsequent events.

In connection with the reissuance of the financial statements, the Company has evaluated subsequent events through August 29, 2019, the date the financial statements were available to be reissued.

As discussed under the sub-heading "Subsequent Event Alleviating Substantial Doubt" of footnote 1, On August 1, 2019, in conjunction with the acquisition of the Company by Quaker, and pursuant to the terms of the Company's debt agreements, funds from the Quaker transaction were used to repay all amounts outstanding under the Company's third-party debt agreements, alleviating substantial doubt about the Company's ability to continue as a going concern.

Events Subsequent to original Issuance of Financial Statements (Unaudited)

On August 1, 2019, the Company completed its combination with Quaker Chemical Corporation ("Quaker"), whereby Quaker acquired all of the issued and outstanding shares of Houghton from Gulf Houghton Lubricants, Ltd. in accordance with the share purchase agreement dated April 4, 2017. The final purchase consideration was comprised of: (i) approximately \$170,800 in cash; and (ii) the issuance of approximately 4,300,000 shares of common stock of Quaker with par value of \$1.00, comprising 24.5% of the common stock of Quaker at closing.

The Company received regulatory approvals from the European Commission ("EC") during the second quarter of 2019 and the U.S. Federal Trade Commissions ("FTC") in July 2019. The approvals from the FTC and the EC required the concurrent divestiture of certain steel and aluminum product lines of Houghton, which were sold on August 1, 2019 for approximately \$37,000 in cash. The final remedy agreed with the EC and the FTC was consistent with the Company's previous expectation that the total divested product lines would be approximately 3% of the combined company's revenue.

**Global Houghton Ltd. and Subsidiaries
Condensed Consolidated Financial Statements
as of June 30, 2019 and December 31, 2018 and
for the three and six months ended June 30, 2019 and 2018**

Table of Contents

	Pages
FINANCIAL INFORMATION	
Financial Statements (unaudited):	
Condensed Consolidated Statements of Operations	3
Condensed Consolidated Statements of Comprehensive Income (Loss)	4
Condensed Consolidated Statements of Financial Position	5
Condensed Consolidated Statements of Cash Flows	7
Condensed Consolidated Statements of Changes in Equity	8
Notes to Condensed Consolidated Financial Statements	9

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(Thousands of U.S. Dollars)

(Unaudited)

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Net sales	\$ 203,681	\$ 222,434	\$ 403,491	\$ 441,058
Cost of goods sold	136,020	149,551	270,478	296,619
Gross profit	<u>67,661</u>	<u>72,883</u>	<u>133,013</u>	<u>144,439</u>
Selling, general and administrative expense	52,894	58,348	107,231	115,680
Restructuring	3	-	6	10
Other operating (income) expense	(203)	168	(187)	288
Operating income	<u>14,967</u>	<u>14,367</u>	<u>25,963</u>	<u>28,462</u>
Other (expense) income, net	(1,176)	(15)	258	(143)
Interest expense, net	(14,028)	(14,151)	(27,869)	(27,400)
(Loss) income before income taxes and equity in net income of investee	(237)	201	(1,648)	919
Income tax (benefit) expense	<u>(985)</u>	<u>(411)</u>	<u>(4,548)</u>	<u>351</u>
Net income before equity in net income of investee	748	612	2,900	568
Equity in net income of investee	<u>1,346</u>	<u>1,391</u>	<u>2,741</u>	<u>3,634</u>
Net income	<u>\$ 2,094</u>	<u>\$ 2,003</u>	<u>\$ 5,641</u>	<u>\$ 4,202</u>

The accompanying Notes are an integral part of these Consolidated Financial Statements.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(Thousands of U.S. Dollars)

(Unaudited)

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Net income	\$ 2,094	\$ 2,003	\$ 5,641	\$ 4,202
Other comprehensive income (loss):				
Foreign currency translation adjustment, net of tax	110	(29,755)	(846)	(18,308)
Total other comprehensive income (loss)	110	(29,755)	(846)	(18,308)
Comprehensive income (loss)	\$ 2,204	\$ (27,752)	\$ 4,795	\$ (14,106)

The accompanying Notes are an integral part of these Consolidated Financial Statements.

CONDENSED CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(Thousands of U.S. Dollars except share and per share amounts)

	(Unaudited) June 30, 2019	December 31, 2018
ASSETS		
Current Assets:		
Cash and cash equivalents	\$ 41,827	\$ 49,364
Restricted cash	217	45
Accounts receivable, net	159,461	153,713
Inventories	88,290	87,437
Prepaid expense and other assets	26,911	24,054
Total current assets	<u>316,706</u>	<u>314,613</u>
Property, plant and equipment, net	74,123	75,824
Goodwill	260,885	260,583
Customer relationships and other intangible assets, net	304,394	324,951
Investment in equity investee	39,137	43,641
Non-current deferred tax assets	219	219
Other non-current assets	740	728
TOTAL ASSETS	<u>\$ 996,204</u>	<u>\$ 1,020,559</u>

The accompanying Notes are an integral part of these Consolidated Financial Statements.

CONDENSED CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(Thousands of U.S. Dollars except share and per share amounts)

	(Unaudited) June 30, 2019	December 31, 2018
LIABILITIES AND EQUITY		
Current Liabilities:		
Current portion of long-term debt	\$ 501,250	\$ 510,540
Short-term debt	8,431	10,904
Accounts payable	80,573	81,084
Accrued employee related costs	19,398	28,309
Other current liabilities	23,054	26,679
Total current liabilities	632,706	657,516
Long-term debt	199,261	198,523
Other non-current liabilities:		
Liability for pension benefits	26,920	28,817
Noncurrent deferred tax liabilities	42,352	45,433
Other non-current liabilities	40,720	40,820
Total other non-current liabilities	109,992	115,070
TOTAL LIABILITIES	941,959	971,109
Commitments and Contingencies (Note 18)		
Redeemable Stock	9,267	9,267
Equity:		
Global Houghton Ltd. Shareholder's equity		
Common Stock - par value \$0.01 per share; 5,000,000 authorized; 3,142,952 issued and 3,113,995 outstanding at June 30, 2019 and December 31, 2018	31	31
Additional paid-in capital	302,785	302,785
Accumulated deficit	(128,640)	(134,281)
Accumulated other comprehensive loss	(128,405)	(127,559)
Treasury stock - at cost; 24,502 shares at June 30, 2019 and December 31, 2018	(793)	(793)
TOTAL SHAREHOLDER'S EQUITY	44,978	40,183
TOTAL LIABILITIES AND EQUITY	\$ 996,204	\$ 1,020,559

The accompanying Notes are an integral part of these Consolidated Financial Statements.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(Thousands of U.S. Dollars)

(Unaudited)

	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	\$ 5,641	\$ 4,202
Adjustments to reconcile net income to net cash used in operating activities:		
Depreciation and amortization	26,399	27,780
Non-cash debt discount/issuance cost amortization	2,219	2,987
Loss (gain) on disposal of property, plant, and equipment	16	(76)
Equity in net income of investee, net of dividends received	2,620	1,913
Pension benefits	(1,929)	(2,632)
Stock compensation expense	75	784
Deferred income taxes	(3,102)	(5,614)
Changes in operating assets and liabilities, net:		
Decrease (increase) in due to/from affiliate	69	(23)
Increase in receivables, net	(5,436)	(12,196)
Increase in inventories	(625)	(8,900)
(Increase) decrease in other assets	(2,150)	353
(Decrease) increase in accounts payable	(754)	6,670
Decrease in other liabilities	(14,186)	(18,421)
Net cash provided by (used in) operating activities	<u>8,857</u>	<u>(3,173)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of property, plant and equipment	(3,696)	(2,819)
Proceeds from disposal of property, plant and equipment	105	548
Net cash used in investing activities	<u>(3,591)</u>	<u>(2,271)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:		
Net repayments of short-term debt	(2,462)	(7,263)
Repayments of long-term debt	(10,110)	(2,275)
Repayments on capital lease obligations	-	(6)
Net borrowings on revolver	-	11,000
Net cash (used in) provided by financing activities	<u>(12,572)</u>	<u>1,456</u>
Net decrease in cash and cash equivalents, restricted cash	(7,306)	(3,988)
Effect of exchange rate changes on cash and cash equivalents, restricted cash	(59)	(1,076)
BEGINNING CASH AND CASH EQUIVALENTS, RESTRICTED CASH	<u>49,409</u>	<u>65,733</u>
ENDING CASH AND CASH EQUIVALENTS, RESTRICTED CASH	<u>\$ 42,044</u>	<u>\$ 60,669</u>
Supplemental Cash Flow Information:		
Cash paid for taxes, net of refunds	\$ 5,507	\$ 7,812
Cash paid for interest	\$ 25,755	\$ 24,477

The accompanying Notes are an integral part of these Consolidated Financial Statements.

CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(Thousands of U.S. Dollars except share and per share amounts)

(Unaudited)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Shares	Treasury Stock	Total
	Shares	Par Value						
Balance at December 31, 2017	3,113,995	\$ 31	\$ 303,505	\$ (133,835)	\$ (100,898)	24,502	\$ (793)	\$ 68,010
Net income	-	-	-	2,199	-	-	-	2,199
Redeemable stock market adjustment	-	-	(125)	-	-	-	-	(125)
Other comprehensive income	-	-	-	-	11,447	-	-	11,447
Balance at March 31, 2018	<u>3,113,995</u>	<u>\$ 31</u>	<u>\$ 303,380</u>	<u>\$ (131,636)</u>	<u>\$ (89,451)</u>	<u>\$ 24,502</u>	<u>\$ (793)</u>	<u>\$ 81,531</u>
Net income	-	-	-	2,003	-	-	-	2,003
Other comprehensive loss	-	-	-	-	(29,755)	-	-	(29,755)
Balance at June 30, 2018	<u>3,113,995</u>	<u>\$ 31</u>	<u>\$ 303,380</u>	<u>\$ (129,633)</u>	<u>\$ (119,206)</u>	<u>\$ 24,502</u>	<u>\$ (793)</u>	<u>\$ 53,779</u>
Balance at December 31, 2018	<u>3,113,995</u>	<u>\$ 31</u>	<u>\$ 302,785</u>	<u>\$ (134,281)</u>	<u>\$ (127,559)</u>	<u>\$ 24,502</u>	<u>\$ (793)</u>	<u>\$ 40,183</u>
Net income	-	-	-	3,547	-	-	-	3,547
Other comprehensive loss	-	-	-	-	(956)	-	-	(956)
Balance at March 31 2019	<u>3,113,995</u>	<u>\$ 31</u>	<u>\$ 302,785</u>	<u>\$ (130,734)</u>	<u>\$ (128,515)</u>	<u>\$ 24,502</u>	<u>\$ (793)</u>	<u>\$ 42,774</u>
Net income	-	-	-	2,094	-	-	-	2,094
Other comprehensive Income	-	-	-	-	110	-	-	110
Balance at June 30, 2019	<u>3,113,995</u>	<u>\$ 31</u>	<u>\$ 302,785</u>	<u>\$ (128,640)</u>	<u>\$ (128,405)</u>	<u>\$ 24,502</u>	<u>\$ (793)</u>	<u>\$ 44,978</u>

The accompanying Notes are an integral part of these Consolidated Financial Statements.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(Thousands of U.S. Dollars, except share and per share amounts)

(Unaudited)

1. Summary of Significant Accounting Policies

Background and Basis of Presentation

Global Houghton Ltd. (the "Company," "Houghton," "we," "us" or "our") is a global supplier of industrial fluids and chemical management services, primarily for the metalworking industry through its wholly-owned subsidiaries. The principal markets for the Company's products and services are the Americas, Europe, the Middle East and Africa (together, "EMEA"), North Asia and South Asia.

The Company is a Cayman Island corporation that was formed in February 2014 and is a member of the Hinduja group of companies. In August 2014, GHG London Limited ("GHG"), a private limited company organized under the laws of England and Wales and parent company to GHG Lubricants Ltd Holdings ("GHG Lubricants"), GH Holdings Inc. ("GH") and Houghton International, Inc. and subsidiaries ("HII"), was contributed to the Company through a series of transactions.

In July 2015, the Company conducted an exchange offer which allowed certain management holders of GH common stock, stock options and stock appreciation rights to exchange their shares and options for a like number of common stock, stock options and stock appreciation rights in Houghton. As of June 30, 2019 and December 31, 2018, these shares represented 1.28% of the total outstanding shares of Houghton.

Investments in entities over which the Company has the ability to exercise significant influence, but not control, are accounted for using the equity method of accounting. All significant intercompany transactions and balances have been eliminated.

The Financial Accounting Standards Board's ("FASB's") guidance regarding the consolidation of certain Variable Interest Entities ("VIEs") generally requires that assets, liabilities and results of the activities of a VIE be included in the financial statements of the enterprise that is considered the primary beneficiary. The financial statements include the accounts of the Company and all of its subsidiaries in which a controlling interest is maintained and would include any VIEs if the Company was the primary beneficiary pursuant to the provisions of the applicable guidance. The Company is not the primary beneficiary of any VIEs.

The accompanying financial statements were prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). In the opinion of management, all adjustments necessary, which are of a normal recurring nature, have been made for a fair statement of the financial position, results of operations and cash flows for the interim periods.

The year-end condensed consolidated balance sheet data was derived from audited financial statements, but does not include all disclosures required by GAAP.

The accompanying unaudited condensed consolidated financial statements should be read in conjunction with the financial statements and related notes of the Company for the year ended December 31, 2018. The interim period results are not necessarily indicative of the results to be expected for the full year.

Investments in Unconsolidated Joint Ventures

Investments in unconsolidated joint ventures are included at cost plus its equity in undistributed earnings in accordance with the equity method of accounting and reflected as investment in equity investee in the balance sheets. During the six months ended June 30, 2019 and 2018 the Company received \$5,361 and \$5,547, respectively from the unconsolidated joint venture.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make extensive estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates and assumptions.

Changes in Classifications

Certain reclassifications of prior period amounts have been made to conform to current period presentation.

Revenue Recognition

Sales of products and services are recorded (i) upon shipment if title passes to the customer upon shipment, or upon delivery if title passes to the customer upon delivery or when services are rendered, (ii) when persuasive evidence of an arrangement exists with the customer, (iii) when the sales price is fixed and determinable, and (iv) when the collectability of the sales price is reasonably assured. Revenue is recognized net of discounts and allowances, which are comprised of trade allowances, cash discounts and sales returns and value added tax. Freight costs and any directly related costs of shipping finished product to customers are recorded in Cost of goods sold. Billings to customers for shipping fees are included in net sales in accordance with ASC 605-45. Handling costs are incurred from the point the product is removed from inventory until it is provided to the shipper. Handling costs are recorded in Cost of goods sold. For consigned inventory, revenue is recognized after the customer has consumed consignment inventory in their manufacturing process. Consigned inventory mainly relates to our Fluidcare and Metal Finishing businesses, in which our inventory is maintained at customer locations for use as needed in their manufacturing processes.

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents represent cash in banks and cash equivalents, which includes highly liquid short-term investments and bank drafts with original maturities of three months or less. Bank deposits and other cash equivalents that are restricted by agreement or that have been clearly designated for a specific purpose are recorded as restricted cash. Such restriction on cash is primarily a result of certain foreign retirement benefits and social plans, taxes, security deposits, and bank drafts.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivables are reported at the gross outstanding amount adjusted for an allowance for doubtful accounts. Accounts receivable collectability is evaluated using a combination of factors, including past due status based on contractual terms, trends in write-offs, the age of the receivable, industry, country specific economics and political conditions and counterparty creditworthiness. Significant events, such as bankruptcies, are also considered. Accounts receivables are written off in the period in which the receivable is deemed uncollectible. Recoveries of accounts receivables previously written off are recorded when amounts are collected.

Inventories

The Company accounts for inventories under the first-in, first-out ("FIFO") method, stated at the lower of cost or net realizable value.

Property, Plant and Equipment

Property, plant and equipment are carried at cost, and presented net of accumulated depreciation. Significant expenditures which extend the useful lives of existing assets are capitalized. Maintenance and repair costs are charged to Cost of goods sold in the period incurred. Depreciation is computed using the straight-line method over the estimated useful lives of the assets as follows:

Asset Class	Useful Lives
Land and buildings	
Buildings	10-40 years
Buildings and improvements	3-15 years
Machinery and equipment	
Manufacturing machinery and equipment	3-25 years
Furniture and fixtures	5-7 years
Leasehold improvements	Lesser of lease term or estimated useful life
Vehicles and computer equipment	3-5 years

Property, plant and equipment is tested for recoverability whenever events or changes in circumstances indicate that carrying values may not be recoverable. An impairment loss would be recognized if the carrying amount is not recoverable and exceeds the fair value of the asset. Fair value is based on estimated future discounted cash flows. During 2018, an impairment loss of \$837 was recognized. \$810 related to JDE system implementation project that was halted and \$27 related to a decrease in value of the Company's Rouen Site.

The cost of assets and related accumulated depreciation is removed from the accounts when such assets are disposed of, and any related gains or losses are reflected in Other expense, net in the period of sale.

Goodwill, Intangible Assets and Other Long-Lived Assets

Goodwill represents the excess of the purchase price paid over the fair value of the identifiable net assets acquired in a business combination. Goodwill and other indefinite-lived intangible assets that are not subject to amortization are reviewed for impairment annually as of October 1 or when events or circumstances indicate that the carrying amount exceeds the fair value, including potential triggering events such as decline in actual or projected operating profits. Each of our operating segments represents a reporting unit.

The Company assesses goodwill for impairment by first comparing the carrying value of each reporting unit to its fair value using a market approach. In determining the fair value of the Company's reporting units, the Company considered the terms of the pending Quaker transaction (Note 2, Business Acquisitions and Divestitures) and determined use of the market approach most appropriate for determination of fair value. The estimate of reporting unit fair values under the market approach is derived from estimates of fair value based on market multiples of revenue and earnings derived from comparable publicly traded companies with similar operating and investment characteristics as the reporting unit. The Company also considered the Quaker acquisition terms to corroborate the reporting units valuations, reconciling the aggregate estimated fair value of its reporting units to the implied Company enterprise value, including consideration of a control premium representing the estimated amount a market participant would pay to obtain a controlling interest. If the fair value is less than the carrying value, then the Company would perform a second test for that reporting unit to determine the amount of impairment loss, if any. The Company believes these assumptions are consistent with those a hypothetical market participant would utilize given the circumstances present at the time estimates were made.

As of October 1, 2018, the Company performed a valuation of goodwill and indefinite-lived intangible assets to test for impairment. The carrying value of goodwill and indefinite-lived intangibles were not impaired through the date of the impairment test nor were there any events or circumstances that indicated the carrying amount exceeded the fair value. We believe the estimates and assumptions used in the goodwill impairment assessment are reasonable and based on available market information, including assumptions regarding foreign currency movement, but variations in any of the assumptions could result in materially different calculations of fair value and determination of whether or not an impairment charge is indicated.

Other acquired intangible assets are initially measured based on their fair value. The Houghton trade name has been assigned an indefinite life due to the over 150-year history of the Houghton brand. As of October 1, 2018, the Company performed its annual impairment test, using the relief-from-royalty method. There were no events or circumstances that indicated that the carrying amount exceeded fair value. Finite-lived intangible assets are amortized over their economic lives based on terms of the economic benefit as follows:

<u>Intangible Asset</u>	<u>Useful Lives</u>
Trade name (Houghton)	Indefinite
Trade name (Products)	2-20 years
Technological know-how	9-15 years
Customer relationships	11-13 years

Long-lived assets subject to amortization are reviewed for impairment using the relief-from-royalty method when events or circumstances indicate carrying amounts may not be recoverable. If such analysis indicates that the carrying value of these assets is not recoverable, then the carrying value of such assets is reduced to fair value through a charge to the Company's Consolidated Statements of Operations.

Leases

The Company has both capital and operating leases. A lease is capitalized as a capital lease if any of the following criteria are met: transfer of ownership to the lessee by the end of the lease term; the lease contains a bargain purchase option; the lease term is equal to 75% or greater of the asset's useful economic life; or the present value of the future minimum lease payments is equal to or greater than 90% of the asset's fair market value. Capital leases are capitalized at the lower of the net present value of the total amount of rent payable under the leasing agreement (excluding finance charges) or fair market value of the leased asset. Capital lease assets are depreciated on a straight-line basis, over a period consistent with our normal depreciation policy for tangible fixed assets, but not exceeding the lease term. Operating lease expense is recognized over the life of the lease on a straight line basis.

Income Taxes

The Company accounts for income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and for operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which temporary differences are expected to be recovered or settled. The deferred tax assets and liabilities are recorded as either a non-current asset or non-current liability on a net basis for each tax jurisdiction. The effect upon deferred tax assets and liabilities of a change in tax rate is recognized in the period that includes the enactment date.

Significant judgment is required in determining income tax provisions and evaluating tax provisions under the accounting guidance for income taxes. The Company establishes additional provisions for income taxes based upon the technical merits of the tax positions using applicable accounting guidance. Unrecognized tax benefits are generated when there are differences between tax positions taken in a tax return and amounts recognized in the consolidated financial statements. Tax benefits are recognized in the consolidated financial statements when it is more-likely-than-not that a tax position will be sustained upon examination. Tax benefits are measured as the largest amount of tax benefit that is greater than 50% likely of being realized upon settlement. The Company regularly assesses the potential outcomes of these examinations and any future examinations for the current or prior years in determining the adequacy of the provision for income taxes. Interest accrued related to unrecognized tax benefits and income tax related penalties are both included as a component of the provision for taxes and adjust the income tax provision, the current tax liability and deferred taxes in the period of which the facts that give rise to a revision become known.

The Company follows the accounting guidance for income taxes that prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. In addition, the guidance provides rules on de-recognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition.

Environmental and Legal Liabilities and Expenditures

Liabilities are recorded when the Company determines that it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. If no amount in the possible range of liability is considered a better estimate than any other amount, the Company records the lowest amount in the range. Due to the nature of the monitoring requirements and the impact of remediation efforts, the Company has a policy of reserving monitoring costs for a period of three to five years. Any activity beyond that period cannot be reasonably estimated. Considering the magnitude of the reserves and duration of the accrual policy, liabilities are not recorded at a discount. Environmental expenditures are included in Selling, general and administrative expenses.

Asset Retirement Obligation

The Company follows the FASB's guidance regarding asset retirement obligations, which addresses the accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated retirement costs. Also, the Company follows the FASB's guidance for conditional asset retirement obligations ("CARO"), which relates to legal obligations to perform an asset retirement activity in which the timing and (or) method of settlement are conditional on a future event that may or may not be within the control of the entity. At June 30, 2019 and December 31, 2018, the exposure to such obligations is immaterial to the Company.

Foreign Currency Translation

Substantially all non-U.S. subsidiaries and affiliates use the local currency as the functional currency. For those operations, assets and liabilities are translated into U.S. dollars at the exchange rate at the end of the period and revenues and expenses are translated into U.S. dollars at the average exchange rates during the period. Such adjustments are reported, net of their related tax effects, as a component of Accumulated other comprehensive income (loss) ("AOCI").

Assets and liabilities denominated in currencies other than the local currency are remeasured into the local currency prior to translation into U.S. dollars and the resultant exchange gains or losses are recorded in the period in which they occur. Gains and losses from remeasurement and foreign currency transactions are included in Other expense, net, except for those covered by net investment hedges or resulting from the dissolution of holding companies, which are recorded to AOCI.

Fair Value Measurements

The Company values certain financial and nonfinancial assets and liabilities at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement dates (exit price). The Company uses various valuation techniques to measure the fair value of an asset or liability incorporating inputs that are observable, independent market data and unobservable data that management believes are predicated on the assumptions market participants would use to price an asset or liability.

The Company classifies fair value measurements within one of three levels on the fair value hierarchy. The level assigned to a fair value measurement is based on the lowest level input that is significant to the fair value measurement in its entirety. The three levels of the fair value hierarchy are as follows:

Level 1 – quoted prices (unadjusted) in active markets for identical assets or liabilities for which quoted prices are accessible at the measurement date.

Level 2 – inputs other than quoted prices included within Level 1 that are either directly or indirectly observable. These include quoted prices in active markets for similar assets or liabilities or quoted prices in inactive markets for identical assets or liabilities accessible at the measurement date.

Level 3 – unobservable inputs that management believes are predicated on the assumptions market participants would use to measure the asset or liability at fair value.

The Company values pension assets, stock-based compensation liability and management shares under the fair value guidelines. The details of the fair value measurements and required disclosures are included within Note 3 – Stock-based Compensation.

Credit Concentrations

Credit risk represents the accounting loss that would be recognized at the reporting date if counter-parties failed to perform as contracted. Concentrations of credit risk (whether on or off balance sheet) that arise from financial instruments exist for groups of customers or counterparties when they have similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions. Financial instruments with potential credit risk include cash and cash equivalents, accounts receivable and bank drafts.

The Company maintains cash and cash equivalents and bank drafts with various major financial institutions which provides potential credit risk exposure. The Company has not experienced losses from this activity. Concentrations of credit risk with respect to receivables are generally limited with no individual customers in excess of 5% of total revenue.

Restructuring

Actions associated with restructuring plans include, but are not limited to, workforce reduction, plant or facility closures and sales. Costs associated with these actions may include, but are not limited to, employee severance, accelerated post-employment benefits, plant deactivations and asset impairments.

Post-employment benefits accrued for workforce reduction related to restructuring activities are recorded in the period which a liability is incurred, except for one-time employee termination benefits that are incurred over time. Other restructuring costs are recorded when the costs are incurred. Restructuring reserves are included in Other current liabilities. Reserves are reviewed at least quarterly for adequacy and any necessary adjustments are recorded in the period the adjustment is determinable. Should the actual amounts differ from estimates, the amount of the restructuring costs could be materially impacted.

Debt Issuance Costs

The Company presents debt issuance costs in the balance sheet as a direct deduction from the carrying amount of the corresponding debt liability, consistent with the presentation of debt discounts.

Employee Benefit Plans

The Company applies the recognition and disclosure provisions of the accounting rules on pensions. This standard requires employers to recognize the funded status (i.e., the difference between the fair value of the plan assets and projected benefit obligation) of all Pension Plans in the Statements of Financial Position, with corresponding adjustments to AOCI. The adjustments of AOCI at adoption represents the net unrecognized actuarial gains and losses, prior service costs and unrecognized transition amounts which were previously netted against the plan's funded status pursuant to prior accounting provisions. This amount will be subsequently recognized as the net pension (income) expense in accordance with the Company's accounting policy for amortizing such amounts. Further, unrecognized actuarial gains and losses, prior service costs and unrecognized transaction amounts that arise in subsequent periods and are not recognized as net pension (income) expense in the same periods will be recognized as a component of AOCI.

As of June 30, 2019, the Company contributes to one multiemployer defined benefit pension plan under the terms of the collective bargaining union contracts. The Company's contribution rate to the multiemployer pension plan is specified in the collective bargaining union contracts and contributions are made monthly.

Stock-based Compensation

On October 16, 2013, the Board of Directors of GH approved the Stock Option Plan ("the GH Plan") that provided for GH to grant stock-based compensation to their employees in the form of stock options based on service and performance vesting over a five year term. On July 16, 2014, GH amended and restated the Plan to authorize the Company to grant stock appreciation rights ("SARs") to employees. A SAR is the right to receive upon exercise, shares of Houghton common stock equal in value to the excess of: (i) the Fair Market Value (as of the time of exercise) of a share of Houghton common stock, over (ii) the SAR Base Value (defined as grant date fair value of a share of Houghton common stock) per share of common stock. This difference is often referred to as the "spread amount" or the amount by which the SAR is "in the money." A SAR confers the same economic benefit and provides the same number of shares to a holder of a SAR as the net exercise of a stock option by an optionee. The service based SARs vest at a rate of 20% per year while performance based SARs vest based on annual and cumulative targets, both awards having a contractual term of ten years.

In July 2015, the Company conducted an exchange offer which allowed holders of GH stock options and SARS to exchange their options for a like number of share options in Houghton ("Exchange Offer"). In conjunction with the exchange, the Board of Directors approved the Global Houghton Ltd. Share Option and Share Appreciation Rights Plan ("the Houghton Plan"). The awards granted with performance vesting are deemed granted upon approval of the targets, which occurs annually, generally in the first quarter of each plan year. The number of shares of Houghton common stock that were reserved for issuance under the Houghton plan at June 30, 2019 was 96,209.

Subsequent to the Exchange Offer, the Company demonstrated the intent for allowing net cash settlements of stock-based awards as well as the removal of the six month holding period for recipients of stock-based awards. This intent triggered liability accounting for stock-based compensation, which requires outstanding options and SARS to be classified as liability-based awards and valued at fair value. The liability is remeasured and adjusted until the options are exercised, expire, or payment is made to the employees. The stock-based compensation liability is included in Other non-current liabilities and was \$29,722 and \$29,874 at June 30, 2019 and December 31, 2018, respectively. Compensation expense of stock-based awards is recognized over the applicable vesting period based upon fair value at the reporting period, and subsequent fair value adjustments to the corresponding liability recorded through compensation expense. The Company records stock-based compensation expense in Selling, general and administrative expense. Upon exercise, the Company will record an income tax windfall or shortfall by comparing the tax deduction realized with the expected benefit recorded as a deferred tax asset. These income tax windfalls and shortfalls are recorded as a component of income tax expense.

The service based options vest at a rate of 20% per year while performance based options vest based on annual and cumulative targets, both awards having a contractual term of ten years. As of June 30, 2019, all performance based options and SARS are fully vested. The awards granted contain a put option, which gives the recipient the ability to sell vested shares back to the Company upon certain events. The put option expires at the earliest of nine months from employee termination (15 months from employee termination for death, disability, or retirement); initial public offering; change in control; or 10 years and 9 months from the associated option or SAR grant date. There are instances where the Company will extend the put option terms to maintain compliance with debt covenants, which place an annual limit on the amount of such payouts that can be made. The shares put to the Company will be valued at fair market value as of the date of the contingent event, except for the trigger related to potential termination. Contingent events triggering the ability to put the shares include the passage of time.

The awards granted also contain a call option, which gives the Company the right to call shares upon employee termination. The call expires at the earliest of nine months from the employment termination date, an initial public offering, or a change in control. The shares called by the Company will be valued at fair value as of the date of the call for any holder voluntarily terminated other than on account of good reason or retirement, or the lesser of cost or fair value as of the date of the call for any holder terminated for cause.

Redeemable Stock

During the fourth quarter of 2013, 1.86% of the outstanding shares of GH were purchased from GHG Lubricants by certain members of management. In July 2015, the Company conducted an exchange offer which allowed shareholders of GH to exchange their shares for a like number of shares in Houghton, with the same terms and conditions as the GH share agreement. As of June 30, 2019 and December 31, 2018, these shares represented 1.28% of the total outstanding shares of Houghton. As the Company is in an accumulated deficit position, changes in fair value of the management shares are recognized in Additional paid-in capital at each period end.

Advertising Expense

Advertising costs are expensed in the period incurred. Advertising expense is recorded within Selling, general and administrative expense. Advertising costs for the three and six months ended June 30, 2019 were \$466 and \$1,089, and for the three and six months ended June 30, 2018 were \$489 and \$958.

Research, Development and Engineering Expense

Research, development and engineering costs are expensed as incurred. Research and development costs for the three and six months ended June 30, 2019 were \$5,614 and \$11,064, and for the three and six months ended June 30, 2018 were \$5,802 and \$11,409. These costs are included in Selling, general and administrative expense.

Going Concern

As of June 30, 2019, the Company's third-party debt, net of deferred discount and issuance costs of \$3,681, totaled \$700,511, of which \$501,250 is classified as current with a maturity date of December 2019, at which time the current portion is due. Cash and cash equivalents of \$41,827, as of June 30, 2019, and expected 2019 cash flows, are not sufficient to fund the repayment of the current portion of the debt. The Company's debt agreements contain various covenants, which a failure to comply with, including not making a payment when required, could cause the Company to be at risk of default which would have a material impact on the Company's operations. Under the terms of its purchase agreement with Quaker Chemical Corporation ("Quaker"), see Note 2, the Company is not permitted to change the current debt structure without the agreement of Quaker.

On August 1, 2019, the Company completed its combination with Quaker Chemical Corporation ("Quaker"), whereby Quaker acquired all of the issued and outstanding shares of Houghton from Gulf Houghton Lubricants, Ltd. in accordance with the share purchase agreement dated April 4, 2017. In conjunction with the acquisition, and pursuant to the terms of the Company's debt agreements, funds from the transaction were used to repay all amounts outstanding under the Company's third-party debt agreements, alleviating substantial doubt about the Company's ability to continue as a going concern.

Recent Accounting Standards

The leasing guidance, *Leases*, (ASU 2016-02, ASU 2018-01, ASU 2018-10, ASU 2018-11, ASU 2018-20) will increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The guidance is effective for the Company for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. The Company is currently evaluating this guidance and has not determined the impact it may have on the Company's condensed consolidated financial statements nor decided upon the method of adoption.

The revenue guidance, *Revenue from Contracts with Customers*, (ASU 2014-09, ASU 2015-14, ASU 2016-08, ASU 2016-10, ASU 2016-12, ASU 2016-20 and ASU 2017-10) is effective for the Company for annual periods beginning after December 15, 2018 and interim periods within annual periods beginning after December 15, 2019. The guidance can be adopted by the Company using either a full retrospective or modified retrospective approach, with early adoption prohibited. The Company will adopt the modified retrospective approach and does not expect a material impact to the Company's condensed consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, *Simplifying the Test for Goodwill Impairment*, to simplify the subsequent measurement of goodwill and eliminate the Step 2 from the goodwill impairment test. Under the amendments in this Update, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. A public business entity should adopt the amendments in this update for its annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. The Company is currently evaluating ASU 2017-04 and will assess the impact on future goodwill impairment tests.

In February 2017, the FASB issued ASU 2017-05, *Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20)*. This guidance clarifies the scope an application of ASC 610-20, which was issued with the new revenue recognition standard, on the sale or transfer of nonfinancial assets to noncustomers. This guidance applies to nonfinancial assets, including real estate, ship and intellectual property. The new guidance is effective for the Company upon the adoption of the new revenue standard, which is for annual periods beginning after December 15, 2018. The Company is currently evaluating ASU 2017-05 and has not determined the impact it may have on its condensed consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820), Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement*, which eliminates, adds and modifies certain disclosure requirements for fair value measurements. The guidance also modifies certain disclosure requirements for nonpublic entities to make them less burdensome. The guidance is effective for all entities for fiscal years beginning after December 15, 2019, and interim periods within those years. Entities are permitted to early adopt the entire standard or only the provisions that eliminate or modify the requirements. The Company is currently evaluating ASU 2018-13 and has not determined the impact it may have on its condensed consolidated financial statements.

In August 2018, the FASB issued ASU 2018-14, *Compensation – Retirement Benefits – General (Subtopic 715-20, Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefits Plans*, which eliminates requirements for certain disclosure that are no longer considered cost beneficial and requires new ones that the FASB considers more pertinent for employers that sponsor defined benefit pension and/or other postretirement benefit plans. The guidance is effective for public companies for fiscal years ending after December 15, 2020. Early adoption is permitted. The Company is currently evaluating ASU 2018-14 and has not determined the impact it may have on its condensed consolidated financial statements.

In October 2018, the FASB issued ASU 2018-17, *Consolidation (Topic 810), Targeted Improvements to Related Party Guidance for Variable Interest Entities*, which created a new private company accounting alternative that replaces the previous alternative. The new guidance requires an entity to consider indirect interests held through related parties under common control on a proportionate basis to evaluate decision-making fees. This guidance is effective for public companies for fiscal years beginning after December 15, 2019, including interim periods within those years. Early adoption is permitted. All entities are required to apply the guidance retrospectively with a cumulative-effect adjustment to retained earnings at the beginning of the earliest period presented. The Company does not expect this guidance to have a material impact on its condensed consolidated financial statements.

In November 2018, the FASB issued ASU 2018-18, *Collaborative Arrangements (Topic 808), Clarifying the Interaction between Topic 808 and Topic 606*, which amended ASC 808 and ASC 606 to clarify that transactions in a collaborative arrangements should be accounted for under ASC 606 when the counterparty is a customer for a distinct good or service. This guidance is effective for public companies for fiscal years beginning after December 15, 2019, and interim periods in those years. Entities are required to apply the amendments retrospectively to the date they initially applied ASC 606, and they may elect to do so either for all contracts or only for contracts that are not at the date they initially applied ASC 606. The Company does not expect this guidance to have a material impact to its condensed consolidated financial statements.

2. Business Acquisitions and Divestitures

Quaker Chemical Corporation's Proposed Acquisition of Houghton

On April 4, 2017, Quaker executed a definitive agreement for the purchase of Houghton. Under the terms of the agreement, Houghton shareholders will receive \$172,500 of cash and a 24.5% ownership in the combined company, representing approximately 4,300,000 of newly issued Quaker shares. In addition, the Company's debt will be repaid in conjunction with the transaction closing.

On August 1, 2019, the Company completed its combination with Quaker Chemical Corporation ("Quaker"), whereby Quaker acquired all of the issued and outstanding shares of Houghton from Gulf Houghton Lubricants, Ltd. in accordance with the share purchase agreement dated April 4, 2017. The final purchase consideration was comprised of: (i) approximately \$170,800 in cash; and (ii) the issuance of approximately 4,300,000 shares of common stock of Quaker with par value of \$1.00, comprising 24.5% of the common stock of Quaker at closing.

The Company received regulatory approvals from the European Commission ("EC") during the second quarter of 2019 and the U.S. Federal Trade Commissions ("FTC") in July 2019. The approvals from the FTC and the EC required the concurrent divestiture of certain steel and aluminum product lines of Houghton, which were sold on August 1, 2019 for approximately \$37,000 in cash. The final remedy agreed with the EC and the FTC was consistent with the Company's previous expectation that the total divested product lines would be approximately 3% of the combined company's revenue.

3. Stock-based Compensation

Stock Option Plan

Stock options have been provided under two plans. The GH Plan was in effect from October 16, 2013 through June 26, 2015, when the Company conducted an exchange offer which allowed holders of GH stock options and SARS to exchange their options for a like number of share options in Houghton. In conjunction with the exchange, the Board of Directors approved the Houghton Plan.

In 2015, the Company demonstrated the intent for allowing net cash settlements of stock-based awards as well as the removal of the six-month waiting period for recipients of stock-based awards. This intent triggered a modification to liability accounting for stock-based compensation, which requires the outstanding options and SARS to be measured at fair value as of the grant date and re-measured at fair value at the end of each reporting period. Compensation expense associated with service awards is recognized over the requisite service period, while performance based options are recognized over the performance period based upon achievement of targets.

The following table provides stock-based compensation expense for the three and six months ended:

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Stock-based compensation expense	\$ 52	\$ 52	\$ 75	\$ 784
Deferred tax benefit	\$ (11)	\$ (10)	\$ (16)	\$ (160)

As of June 30, 2019, there was approximately \$138 of expected future pre-tax stock-based compensation expense related to non-vested service stock options outstanding, which is expected to be recognized over the remaining period of 0.86 years. Performance options and SARS were fully vested as of June 30, 2019. These expected future expenses were calculated assuming no change in fair value. Given that the stock options are deemed a liability instrument, a change in fair value will result in a corresponding change to future pre-tax stock-based compensation expense.

4. Other Expenses

Other Operating (Income) Expense

Other operating income was \$203 for the three months ended June 30, 2019. This related to a \$218 release of a severance accrual for a former Finance Manager based on a legal settlement offset by other corporate activities.

Other operating income was \$187 for the six months ended June 30, 2019. This related to a \$218 release of a severance accrual for a former Finance Manager based on a legal settlement offset by other corporate activities.

Other operating expenses were \$168 for the three months ended June 30, 2018. This primarily consisted of \$139 related to strategic headcount reductions with the remainder related to other corporate activities.

Other operating expenses were \$288 for the six months ended June 30, 2018. This primarily consisted of \$235 related to strategic headcount reductions with the remainder related to other corporate activities.

Other (Expense) Income, net

Other expense was \$1,176 for the three months ended June 30, 2019. This primarily consisted of \$1,342 in foreign currency transaction losses offset by \$127 of pension income and other corporate activities.

Other income was \$258 for the six months ended June 30, 2019. This primarily consisted of \$52 in foreign currency transaction losses, \$16 in machinery and vehicle retirement, and \$228 of pension income, offset by \$94 in Board of Director fees.

Other income was \$5 for the three months ended June 30, 2018. This primarily consisted \$472 of pension income, offset by \$356 in foreign currency transaction losses.

Other expense was \$123 for the six months ended June 30, 2018. This primarily consisted of \$875 in foreign currency transaction losses and \$100 of Board of Director fees, offset by \$924 of pension income.

5. Restructuring

Restructuring expenses are related to corporate activities that are planned and controlled by management and materially change the scope of the applicable business or the manner in which the business is conducted.

The following table summarizes restructuring charges:

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Facility closing costs	3	-	6	10
Total	\$ 3	\$ -	\$ 6	\$ 10

6. Income Taxes

The Company's effective income tax rate for the three months ended June 30, 2019 was 415.6%, compared to (204.5)% for the three months ended June 30, 2018. The Company's effective tax rate was primarily driven by the tax limitations on interest expense enacted as part of the U.S. tax reform law, tax on foreign earnings net of foreign tax credits, and the mix of income among tax jurisdictions. The change in the effective income tax rate for three months ended June 30, 2019, compared to three months ended June 30, 2018, was primarily due to the mix of income among tax jurisdictions and losses incurred during the three months ended June 30, 2019. The effective income tax rate is impacted by the decreased income (loss) which acts to magnify the impact of income tax expense adjustments.

The Company's effective income tax rate for the six months ended June 30, 2019 was 276.0%, compared to 38.2% for the six months ended June 30, 2018. The change in the effective income tax rate for six months ended June 30, 2019, compared to six months ended June 30, 2018, was primarily due to the mix of income among tax jurisdictions, changes to the interest expense limitation enacted as part of the U.S. tax reform, and losses incurred during the six months ended June 30, 2019. The effective income tax rate is impacted by the decreased income (loss) which acts to magnify the impact of income tax expense adjustments.

7. Accounts Receivable, net

Accounts receivable at June 30, 2019 and December 31, 2018 were \$163,732 and \$157,997, respectively, which were offset by an allowance for doubtful accounts of \$4,271 and \$4,284, respectively.

Total expense related to the reserve for doubtful accounts for the three and six months ended June 30, 2019 were \$50 and \$112, respectively. Expense related to the reserve for doubtful accounts for the three and six months ended June 30, 2018 was \$238 and \$630, respectively.

8. Inventories

The Company's total inventory consists of the following:

	June 30, 2019	December 31, 2018
Raw materials	\$ 35,096	\$ 34,359
Work in process	288	292
Finished goods	52,906	52,786
Total	<u>\$ 88,290</u>	<u>\$ 87,437</u>

9. Prepaid Expense and Other Assets

The Company's prepaid expense and other current assets consisted of the following:

	June 30, 2019	December 31, 2018
Prepaid expense	\$ 4,276	\$ 4,183
Total refundable taxes	8,300	3,787
Marketable securities	10,674	11,577
Current deposits	1,061	939
Other current assets	2,600	3,568
Total	<u>\$ 26,911</u>	<u>\$ 24,054</u>

10. Property, Plant and Equipment

Property, plant and equipment are comprised of the following:

	June 30, 2019	December 31, 2018
Land and buildings	\$ 50,475	\$ 49,813
Machinery and equipment	84,984	81,582
Construction in progress	4,371	4,967
	<u>\$ 139,830</u>	<u>\$ 136,362</u>
Less: Accumulated depreciation	(65,707)	(60,538)
Total	<u>\$ 74,123</u>	<u>\$ 75,824</u>

Depreciation expense, including depreciation on assets under capital leases, are as follows:

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Depreciation Expense	\$ 2,649	\$ 2,822	\$ 5,283	\$ 5,583

11. Goodwill, Intangible Assets and Other Long-lived assetsGoodwill

The changes in the carrying amount of Goodwill are as follows:

Balance as of December 31, 2018	\$	260,583
Currency translation adjustments		302
Balance as of June 30, 2019	\$	<u>260,885</u>

Intangible Assets

Intangible assets are comprised of the following:

	Gross Carrying Amount		Accumulated Amortization	
	June 30, 2019	December 31, 2018	June 30, 2019	December 31, 2018
Customer relationships	\$ 488,801	\$ 488,004	\$ (239,716)	\$ (220,489)
Technological know-how	57,906	57,906	(24,859)	(22,818)
Trade name (Houghton)	21,115	21,115	-	-
Trade name (Products)	1,530	1,530	(587)	(552)
Non-Compete Covenants	510	510	(306)	(255)
Total	<u>\$ 569,862</u>	<u>\$ 569,065</u>	<u>\$ (265,468)</u>	<u>\$ (244,114)</u>

Amortization expense was \$10,585 and \$21,116 for the three and six months ended June 30, 2019 and \$10,957 and \$22,197 for the three and six months ended June 30, 2018, respectively. Amortization expense is recorded within Selling, general and administrative expense within the Company's Consolidated Statements of Operations.

As of June 30, 2019, expected amortization expense for each of the next five years and thereafter is as follows:

2019 (remainder)	20,523
2020	41,639
2021	41,639
2022	41,639
2023	41,639
Thereafter	96,200
Total	<u>\$ 283,279</u>

12. Other Current Liabilities

Other current liabilities consist of the following:

	June 30, 2019	December 31, 2018
Other accrued expense	\$ 5,715	\$ 6,169
Non-employee commissions	870	908
Accrued environmental costs	1,859	1,813
Accrued professional fees	4,560	4,374
Deferred revenue	1,458	1,010
Other accrued taxes	6,692	7,764
Accrued restructuring and other costs	1,133	1,489
Accrued income taxes	-	2,668
Other	767	484
	<u>\$ 23,054</u>	<u>\$ 26,679</u>

13. Financing Activities

Credit Arrangements and Short-term Debt

Short-term debt consists of borrowings under unsecured bank lines of credit and discounting facilities. The bank lines of credit were not collateralized and the discounting facilities were collateralized by the underlying accounts receivable. The total available under these facilities are as follows:

	June 30, 2019	December 31, 2018
Capacity	\$ 18,570	\$ 18,586
Outstanding borrowed	8,431	10,904
Unused capacity	<u>\$ 10,139</u>	<u>\$ 7,682</u>
Weighted-average interest rate	4.79%	4.79%

Long-Term Debt Facilities

Long-term debt is comprised of the following:

	June 30, 2019	December 31, 2018
2012 Senior Credit Facilities		
First Lien U.S. Term Loans	\$ 425,425	\$ 427,700
First Lien Dutch Term Loans	78,767	87,271
Second Lien U.S. Term Loans	200,000	200,000
Revolving Facilities	-	-
	<u>704,192</u>	<u>714,971</u>
Less: Debt discounts	(960)	(1,414)
Less: Debt issuance costs	(2,721)	(4,494)
2012 Senior Credit Facilities, net	<u>700,511</u>	<u>709,063</u>
Less: Current portion of long-term debt	(501,250)	(510,540)
Total long-term debt	<u>\$ 199,261</u>	<u>\$ 198,523</u>

Senior Credit Facilities

On December 20, 2012, in connection with the GH Transaction, the Company entered into credit facilities ("2012 Senior Credit Facilities") which included the first and second lien facilities. The first lien consisted of \$455,000 in U.S. dollar denominated Term Loans ("First Lien U.S. Term Loan"), €100,000 in euro-denominated Term Loans ("First Lien Dutch Term Loan"), and dollar and multicurrency revolving facilities with a net capacity of \$50,000 ("Revolving Credit Facility"). The second lien facility consisted of \$200,000 in U.S. Term Loans ("Second Lien U.S. Term Loan").

Borrowings under the 2012 Senior Credit Facilities provide for a selection of interest rates, at the option of the Company, based upon the prevailing LIBOR or prime rate, plus applicable margin, subject to a 1.25% floor. In addition to paying interest on outstanding principal under the First Lien U.S. Term Loans, Dutch Term Loan, and Second Lien U.S. Term Loan, the Company pays a commitment fee to the lenders under the 2012 Revolving Credit Facility in respect of unutilized commitments. Commitment fees paid to the lender were \$45 and \$92 for the three and six months ended June 30, 2019, respectively, and \$34 and \$79 for the three and six months ended June 30, 2018, respectively. The line of credit is subject to normal terms related to default and change of control.

Subject to voluntary prepayments, the Company is required to pay 0.25% of the funded initial principal balances on the First Lien U.S. Term Loans and Dutch Term Loans quarterly through the maturity date, at which time the remaining aggregate principal balance is due. The revolving credit facility matures in September 2019. The First Lien U.S. Term Loan and First Lien Dutch Term Loan mature in December 2019. The Second Lien U.S. Term Loan matures in December 2020.

The net proceeds from the 2012 Senior Credit Facilities were used to repay the 2011 Senior Credit Facility, with the balance of the borrowings used to fund the GH Transaction. In conjunction with obtaining the 2012 Senior Credit Facilities, the Company capitalized debt issuance costs of \$22,557 in the period ended December 31, 2012. The Company also capitalized \$10,111 of debt discount, in the period ended December 31, 2012, related to the 2012 Senior Credit Facilities.

During May 2013, the Company amended the 2012 Senior Credit Facilities, which resulted in a reduction in the interest rates applicable to the First Lien U.S. and Dutch Term Loans of 1.25% and Revolving Credit Facility of 0.25%. Also, the LIBOR floor following the amendment was 1.00% in the case of the First Lien U.S. Term Loan and the First Lien Dutch Term Loan and 1.25% in the case of the Second Lien U.S. Term Loan. The Company paid fees of \$6,672 in connection with this amendment. The Company accounted for the amendment in accordance with accounting guidance for debt modifications and extinguishments. Accordingly, amendment fees of \$5,834 were capitalized and third party fees of \$838 were expensed as Interest expense. Capitalized fees will be amortized through the debt maturity in 2019.

During July 2015, the Company amended its 2012 Senior Credit Facilities primarily to make guarantor, covenant and other verbiage changes. In conjunction with the amendment, the Company incurred a 0.25% increase in the interest rate margin on its First Lien and Second Lien Term Loans. The Company also incurred approximately \$1,921 in amendment fees paid at closing to the lenders and approximately \$1,149 in attorney, arrangement and accounting fees. The other terms and conditions of the credit facilities, discussed herein, were unchanged. The Company accounted for the amendment in accordance with accounting guidance for debt modifications and extinguishments. Therefore the amendment fees of \$1,921 were capitalized as additional debt issuance costs with all other fees being expensed as Interest expense. Capitalized fees will be amortized through the debt maturity in 2019.

In March 2017, the Company amended its 2012 Revolving Credit Facilities to extend the maturity date from December 2017 to September 2019. The extended facility was reduced to a total capacity of \$41,000, which took effect in December 2017. No other changes were made to the terms of the agreement. In connection with this amendment, the Company paid fees of \$182. The Company accounted for the amendment in accordance with accounting guidance for debt modifications and extinguishments. The Company considered the limited changes presented by the amendment and reviewed the old and new lenders on a creditor by creditor basis and determined that the amendment was a modification. Accordingly, amendment fees of \$182 were capitalized as debt issuance costs. Capitalized fees will be amortized through the debt maturity in 2019.

The Company is required to make mandatory repayments on the first and second lien loans based upon a 1% loan amortization rate. Additional payments are required if net proceeds from asset sales exceed \$5,000 individually or \$10,000 cumulatively per annum. Further additional payments are required per annum based on an excess cash flow calculation that adjusts net income for working capital and other items, 50% of the calculated amount must be used to make a payment on the debt. Mandatory repayments may be deferred due to voluntary prepayments. Covenants include requirements for quarterly reporting to the lenders regarding compliance based upon interest and leverage ratios, reporting of environmental matters exceeding \$15,000, limitation on dividend amounts, certain limitations on additional indebtedness, and restrictions on asset sales in excess of \$35,000.

The Company has unused capacity under the Revolving Credit Facility of \$36,969, net of bank letters of credit of \$4,031 as of June 30, 2019 and December 31, 2018, respectively.

The interest rates on the 2012 Senior Credit Facilities, as amended, were as follows:

	June 30, 2019	December 31, 2018
First Lien U.S. Term Loan	5.69%	5.59%
Revolving Credit Facility	6.32%	6.32%
First Lien Dutch Term Loan	4.75%	4.75%
Second Lien U.S. Term Loan	10.94%	10.84%

The 2012 Senior Credit Facilities permitted HII Holding Corporation to make up to \$25,000 in dividends or distributions to its shareholders. As of June 30, 2019, HII Holding Corporation had paid \$25,000 in dividends to its shareholders. Beyond this \$25,000, the 2012 Senior Credit Facilities prevent HII Holding Corporation from paying any dividends or making any distributions except to the extent of HII Holding Corporation's excess cash flow (as defined per the agreement) that is not required by the terms of the 2012 Senior Credit Facilities to be applied to the mandatory prepayment of outstanding first lien term loans under the 2012 Senior Credit Facilities and only if at such time HII Holding Corporation satisfies a first lien leverage ratio test on a pro forma basis after giving effect to such dividend or distribution.

As of June 30, 2019 and December 31, 2018, the Company was in compliance with its financial covenants. The Company also pledged as collateral to its lenders substantially all U.S. assets, specific Non-U.S. assets and stock of certain subsidiaries.

14. Employee Benefit Plans

The Company has defined benefit pension plans ("Pension Plans") covering certain U.S. salaried and hourly employees ("U.S. Plans") as well as certain employees in the United Kingdom, France and Germany ("Non-U.S. Plans"). The U.S. Plans provide benefits based on an employee's years of service and compensation received for the highest five consecutive years of earnings. The Company made the decision to freeze benefits for non-union employees as of March 31, 2009 for the U.S. Plans. The Non-U.S. Plans provide benefits based on a formula of years of service and a percentage of compensation which varies among the Non-U.S. Plans. The Company made the decision to freeze its United Kingdom Non-U.S. plan benefits as of May 1, 2013. The Company's funding policy is consistent with funding requirements of applicable government laws and regulations.

The components of net pension expense are as follows:

	U.S. Plans			
	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
	Net pension income (expense):			
Expected return on net assets	\$ 792	\$ 899	\$ 1,585	\$ 1,797
Service cost-benefits earned during period	(11)	(15)	(22)	(30)
Interest cost on projected benefit obligation	(795)	(745)	(1,590)	(1,490)
Amortization of Prior Service Cost	(2)	(2)	(4)	(5)
	<u>\$ (16)</u>	<u>\$ 137</u>	<u>\$ (31)</u>	<u>\$ 272</u>

	Non-U.S. Plans			
	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
	Net pension income (expense):			
Expected return on net assets	\$ 849	\$ 912	\$ 1,664	\$ 1,817
Service cost-benefits earned during period	(21)	(24)	(43)	(46)
Interest cost on projected benefit obligation	(570)	(521)	(1,134)	(1,052)
Recognized Actuarial Loss	(147)	(71)	(293)	(144)
	<u>\$ 111</u>	<u>\$ 296</u>	<u>\$ 194</u>	<u>\$ 575</u>

With the adoption of ASU 2017-07, all components of pension expense, not including service costs, are reported in Other (expense) income, net.

The Company made the following contributions to its Pension Plans:

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
	U.S. Plans	\$ 318	\$ 326	\$ 605
Non-U.S. Plans	\$ 574	\$ 611	\$ 1,161	\$ 1,237

The Company expects to contribute an additional \$694 to the U.S. Plan and \$1,151 to the Non U.S. Plans in 2019.

Multiemployer Benefit Plans

The Company contributes to a multiemployer defined benefit pension plan under terms of the collective bargaining union contracts. The Company's contribution rate to the multiemployer pension plan is specified in the collective bargaining union contracts and contributions are made to the plan based on its union employee payroll. While the Company may also have additional liabilities imposed by law as a result of its participation in the multiemployer defined benefit pension plan, there is no liability as of June 30, 2019. The Employee Retirement Income Security Act of 1974, as amended by the Multi-Employer Pension Plan Amendments Act of 1980, imposes certain contingent liabilities upon an employer who is a contributor to a multiemployer pension plan if the employer withdraws from the plan or the plan is terminated or experiences a mass withdrawal.

The Pension Protection Act of 2006 (the PPA) also added special funding and operational rules generally applicable to plan years beginning after 2007 for multiemployer plans that are classified as “endangered”, “seriously endangered” or “critical” status based on a multitude of factors (including, for example, the plan’s funded percentage, cash flow position and whether the plan is projected to experience a minimum funding deficiency).

Plans in the “endangered”, “seriously endangered” or “critical” status classifications must adopt measures to improve their funded status through a funding improvement or rehabilitation plan which may require additional contributions from employers (which may take the form of a surcharge on benefit contributions) and/or modifications to retiree benefits. The plan to which the Company contributes is in “critical” status. The amount of additional funds that the Company may be obligated to contribute to the plan in the future cannot be estimated as such amounts will be likely based on future levels of work that require the specific use of those union employees covered by the plan, and the amount of that future work and the number of affected employees that may be needed cannot reasonably be estimated.

The following table contains a summary of the Company’s participation in multiemployer defined benefit pension plans. The most recent PPA zone status available relates to the plan’s fiscal year-end 2018.

Pension Fund	Employer Identification Number	PPA Zone Status	FIP/RP Status	Contributions for the three months ended June 30, 2019	Contributions for the six months ended June 30, 2019	Expiration Date of Collective Bargaining Contracts
Cleveland Bakers and Teamsters Pension Fund	34-0904419-001	Red	Implemented	\$ 33	\$ 62	05/01/2022

15. Other Non-Current Liabilities

Other non-current liabilities consists of the following:

	June 30, 2019	December 31, 2018
Unrecognized tax benefits	\$ 8,578	\$ 8,204
Deferred compensation	2,240	2,562
Stock-based compensation liability	29,722	29,874
Other liabilities	180	180
Total	\$ 40,720	\$ 40,820

Unrecognized tax benefits are generated when there are differences between tax positions taken in a tax return and amounts recognized in the financial statements. Tax benefits are recognized in the financial statements when it is more-likely-than-not that a tax position will be sustained upon examination. See Note 6, Income Taxes.

16. Accumulated Other Comprehensive Loss

The cumulative balance of each component of other comprehensive (loss) income and the income tax effects allocated to each component are as follows:

	Currency translation adjustments	Defined benefit pension plans	Total
Balance at December 31, 2017	\$ (89,685)	\$ (11,213)	\$ (100,898)
Other comprehensive loss before reclassifications	(18,308)	-	(18,308)
Balance at June 30, 2018	\$ (107,993)	\$ (11,213)	\$ (119,206)
Other comprehensive loss before reclassifications	(5,784)	(3,992)	(9,776)
Related tax amounts	885	538	1,423
Balance at December 31, 2018	\$ (112,892)	\$ (14,667)	\$ (127,559)
Other comprehensive loss before reclassifications	(846)	-	(846)
Balance at June 30, 2019	\$ (113,738)	\$ (14,667)	\$ (128,405)

Reclassifications of pension and other post-retirement actuarial items out of AOCI are included in the computation of net periodic benefit cost.

17. Related Party Transactions

The Company has related party transactions with sales and purchases to and from certain affiliates. For the three and six months ended June 30, 2019, related party sales were \$108 and \$294, respectively and related party purchases were \$72 and \$172, respectively. For the three and six months ended June 30, 2018, related party sales were \$343 and \$502, respectively and related party purchases were \$212 and \$307, respectively. At June 30, 2019 and December 31, 2018 amounts payable to affiliated companies for these transactions were \$8 and \$14, respectively.

The Company also provides management services to certain affiliates, including technical services, blending and packaging, corporate advice and project management. Amounts outstanding and included in accounts receivable at June 30, 2019 and December 31, 2018 were \$92 and \$168, respectively.

In addition, there are various management service agreements with certain affiliates. Total management fees incurred by the Company relating to these agreements amounted to \$0 and \$500, respectively, for the three months ended June 30, 2019 and 2018 and \$0 and \$1,000 for the six months ended June 30, 2019 and 2018. These management fees are included under Selling, general and administrative expenses. Services performed relate to promotional and corporate governance services. At June 30, 2019 and December 31, 2018, there were no affiliate management fees outstanding.

18. Commitments and Contingencies

The Company participates in certain payments in connection with environmental consent orders related to certain hazardous waste cleanup activities under the U.S. Federal Superfund statute and also has obligations to perform certain cleanup activities related to properties currently or previously owned. The Company has made accruals for these costs as well as costs associated with other environmental issues of which it is aware. The Company continually evaluates its obligations related to such matters and has estimated the range of costs to be between \$1,859 and \$3,286. As of June 30, 2019 and December 31, 2018, the Company had accrued \$1,859 and \$1,813, respectively, for these activities. These accruals are included under Other current liabilities. The Company paid \$29 and \$15 during the three months ended June 30, 2019 and 2018, respectively, and \$64 and \$129 during the six months ended June 30, 2019 and 2018, respectively, for such activities. The Company continually evaluates its obligations related to such matters and updates estimates as necessary.

Due to the nature of the Company's activities, it is also, at times, subject to pending and threatened legal actions that arise out of the ordinary course of business. The Company continually evaluates its obligations to such matters. In the opinion of management, based in part upon advice of legal counsel, the disposition of any such matters is not expected to have a material effect on the Company's results of operations, financial condition or cash flows.

Under the GH Holdings, Inc. Severance and Change in Control Plan for Senior Management ("Severance Plan"), certain members of executive management are eligible to receive severance benefits. Under the Severance Plan, certain employees are eligible for severance pay if employment is terminated by the Company for any reason other than cause, death or disability, or upon resignation of the employee for good reason. Eligibility also requires that the termination date not occur at any time during the change in control period. Severance pay provides an eligible employee with an amount equal to twelve months of annual base salary plus a pro rata portion of the employee's targeted annual bonus. In addition, a continuation of eligibility to participate in the Company's medical benefits plans. The Severance Plan also provides for change in control severance to certain eligible employees if employment is terminated by the Company during a change in control period or if employment is terminated by the Company for any reason other than cause, death or disability, or by the employee on account of good reason. Change in control severance pay provides each eligible employee with an amount equal to eighteen months of the eligible employee's base salary plus the employee's target annual bonus, paid in a lump sum on or after the 30th day that follows the employee's termination date. The employee is also eligible for continued participation in the Company's medical benefit plans for eighteen months immediately following termination. The estimated cost of the change in control severance of \$5,193 does not represent an accounting liability of the Company as of June 30, 2019 due to the severance being contingent upon future events, including completion of potential transactions and termination of employment, and therefore is not reflected in the Company's Statement of Operations, Cash Flows or Financial Position.

The Company will incur certain liabilities upon the finalization of its purchase by Quaker. The Company will owe \$8,000 to RBC Capital Markets, LLC (“RBC”) for investment banking services provided to the Company during the transaction. If the purchase is not completed, then RBC will receive a termination fee equal to 10% of the break-up fee or any other termination fee received by the Company, payable in cash when such fee is received by the Company. Similarly, a success fee is owed to Mayer Brown LLP, once the transaction is complete, for attorney services provided to the Company during the transaction. The success fee will equal 10% of either actual time incurred or the maximum aggregate fee payable in light of negotiated fee caps, whichever is lower. If the purchase is not completed, and the Company receives a termination fee or cost reimbursement, Mayer Brown, LLP will receive payment in full for all actual time incurred, without discount. As of June 30, 2019 and December 31, 2018, the Company had accrued \$1,525 and \$1,327, respectively, for transaction-related legal costs.

The Company approved incentive awards of \$8,496 from a cash pool, which includes awards for multiple milestones and are contingent upon multiple future events, including future service and completion of potential transactions. Due to the contingencies, the pool does not represent an accounting liability of the Company as of June 30, 2019 and, therefore, is not reflected in the Company’s Statement of Operations, Cash Flows or Financial Position.

The Company had letters of credit outstanding of \$4,031 as of June 30, 2019 and December 31, 2018, respectively, which guarantee funding of certain activities, some of which are still under negotiation with regulators. These letters of credit reduce the capacity under the 2012 Revolving Credit Facility (see Note 13).

Local laws and regulations in certain countries require that the Company obtain letters of credit or bank guarantees in connection with certain legal proceedings and general business purposes. These letters of credit or bank guarantee do not represent accounting liabilities of the Company and; therefore, are not reflected in the Company’s Statement of Operations, Cash Flows or Balance Sheets. The amount of these letters of bank guarantee was \$2,624 and \$2,554 as of June 30, 2019 and December 31, 2018, respectively.

19. Subsequent Events

The Company’s management has evaluated all activity of the Company through August 29, 2019 and concluded that there were no subsequent events required to be reflected in the Company’s condensed consolidated financial statements or notes as required by standards for accounting disclosure of subsequent events.

**UNAUDITED PRO FORMA CONDENSED COMBINED
FINANCIAL STATEMENTS**

On April 4, 2017, Quaker Chemical Corporation (the “**Company**”) entered into a Share Purchase Agreement (the “**Share Purchase Agreement**”) for the acquisition of the outstanding share capital (the “**Houghton Shares**”) of Global Houghton Ltd., an exempted company incorporated under the laws of the Cayman Islands (“**Houghton**”), with Gulf Houghton Lubricants, Ltd., an exempted company incorporated under the laws of the Cayman Islands (“**Gulf Houghton**”), Houghton, certain members of the management of Houghton (the “**Management Sellers**,” and collectively with Gulf Houghton, the “**Sellers**”) and Gulf Houghton, as agent for the Sellers (the “**Sellers’ Representative**”). On August 1, 2019, the parties consummated the acquisition of Houghton (the “**Combination**”) and the other transactions contemplated by the Share Purchase Agreement, substantially pursuant to the terms and conditions set forth in the Share Purchase Agreement. The Share Purchase Agreement was filed with the Securities and Exchange Commission (the “**Commission**”) as an exhibit to the Company’s Current Report on Form 8-K filed on April 5, 2017, and is incorporated by reference as an exhibit to the Company’s latest Annual Report on Form 10-K. Following the Combination, we commenced referring to the Company as “Quaker Houghton.”

Included herein are the unaudited pro forma condensed combined financial statements, which are not necessarily indicative of what our financial position or results of operations actually would have been had we completed the Combination and related financing transactions at the dates indicated. In addition, the unaudited pro forma condensed combined financial information does not purport to project the future financial position or operating results of the Company after closing of the Combination (the “**Closing**”). The pro forma information is based on the assumptions, adjustments and eliminations described in the accompanying notes to the unaudited pro forma condensed combined financial statements, which form an integral part of the statements.

The following unaudited pro forma condensed combined financial statements combine the historical consolidated financial statements of the Company and the historical financial statements of Houghton adjusted to give effect to the impact of the Combination and related financing transactions. The unaudited pro forma condensed combined balance sheet presents the combined financial position giving effect to the Combination and related financing transactions as if they had occurred on June 30, 2019. The unaudited pro forma condensed combined statements of income for the six months ended June 30, 2019 and for the twelve months ended December 31, 2018 present the combined results of operations as if the Combination and related financing transactions had occurred on January 1, 2018. These unaudited pro forma condensed combined financial statements have been prepared in accordance with Regulation S-X Article 11.

These unaudited pro forma condensed combined financial statements should be read in connection with:

- Separate historical financial statements of the Company as of and for the year ended December 31, 2018, which are incorporated by reference to its Annual Report on Form 10-K, as amended, for the year ended December 31, 2018;
 - Separate historical financial statements of Houghton as of and for the year ended December 31, 2018 included elsewhere in this Form 8-K/A;
 - Separate historical financial statements of the Company as of and for the six months ended June 30, 2019, which are incorporated by reference to its Quarterly Report on Form 10-Q for the six months ended June 30, 2019; and
 - Separate historical financial statements of Houghton as of and for the six months ended June 30, 2019 included elsewhere in this Form 8-K/A.
-

Quaker Chemical Corporation
Unaudited Pro Forma Condensed Combined Balance Sheet
As of June 30, 2019
(Dollars in thousands)

	<u>Quaker</u>	<u>Houghton</u>	<u>Financing Pro Forma Adjustments Note 3</u>	<u>Combination Pro Forma Adjustments Note 4</u>	<u>Pro Forma Condensed Combined</u>
Assets					
Current assets					
Cash and cash equivalents	\$ 86,355	\$ 41,827	\$ 901,094	a \$ (848,824)	c \$ 180,452
Accounts receivable, net	210,347	159,461	—	8,690	a/l 378,498
Inventories, net	94,485	88,290	—	10,538	d 193,313
Prepaid expenses and other current assets	20,992	27,128	(961)	d (10,568)	a 36,591
Total current assets	412,179	316,706	900,133	(840,164)	788,854
Property, plant and equipment, net	82,623	74,123	—	72,001	e 228,747
Right of use lease assets	24,828	—	—	15,000	b 39,828
Goodwill	83,296	260,885	—	422,808	f 766,989
Intangible assets, net	59,855	304,394	—	449,148	g 813,397
Investments in associated companies	21,362	39,137	—	—	60,499
Non-current deferred tax assets	7,948	219	—	—	8,167
Other assets	32,439	740	8,195	c —	41,374
Total assets	\$ 724,530	\$ 996,204	\$ 908,328	\$ 118,793	\$ 2,747,855
Liabilities and Equity					
Current liabilities					
Short-term borrowings and current portion of long-term debt	\$ 676	\$ 509,681	\$ 37,500	b \$ (501,250)	h \$ 46,607
Accounts and other payables	93,886	80,573	—	(1,815)	l 172,644
Accrued compensation	16,396	19,398	—	—	35,794
Other current liabilities	42,230	23,054	(6,307)	e 24,429	b/i 83,406
Total current liabilities	153,188	632,706	31,193	(478,636)	338,451
Long-term debt	11,788	199,261	877,135	b (199,261)	h 888,923
Long-term lease liabilities	19,192	—	—	12,000	b 31,192
Non-current deferred tax liabilities	7,781	42,352	—	111,654	m 161,787
Other non-current liabilities	74,620	67,640	—	(29,723)	p 112,537
Total liabilities	266,569	941,959	908,328	(583,966)	1,532,890
Mezzanine Equity					
Redeemable stock purchase shares	—	9,267	—	(9,267)	k —
Equity					
Common stock	13,338	31	—	4,298	k 17,667
Capital in excess of par value	97,602	302,785	—	481,933	k 882,320
Retained earnings (accumulated deficit)	424,448	(128,640)	—	96,597	k 392,405
Treasury stock	—	(793)	—	793	k —
Accumulated other comprehensive loss	(78,881)	(128,405)	—	128,405	k (78,881)
Total shareholders' equity	456,507	44,978	—	712,026	1,213,511
Noncontrolling interest	1,454	—	—	—	1,454
Total equity	457,961	44,978	—	712,026	1,214,965
Total liabilities and equity	\$ 724,530	\$ 996,204	\$ 908,328	\$ 118,793	\$ 2,747,855

The accompanying notes are an integral part of the unaudited pro forma condensed combined financial statements.

Quaker Chemical Corporation
Unaudited Pro Forma Condensed Combined Statements of Income
Twelve months ended – December 31, 2018
(Dollars in thousands, except per share data)

	<u>Quaker</u>	<u>Houghton</u>	<u>Financing Pro Forma Adjustments Note 3</u>	<u>Combination Pro Forma Adjustments Note 4</u>		<u>Pro Forma Condensed Combined</u>
Net sales	\$ 867,520	\$ 862,456	\$ —	\$ (57,826)	a/l/n	\$ 1672,150
Cost of goods sold	555,206	580,023	—	(32,680)	a/e/l/n	1,102,549
Gross Profit	312,314	282,433	—	(25,146)		569,601
Selling, general and administrative expenses	207,872	227,515	—	(14,716)	a/e/g/n	420,671
Combination and other acquisition-related expenses	16,661	—	—	(16,661)	a/j	—
Restructuring	—	81	—	—		81
Other operating expenses	—	418	—	—		418
Operating income	87,781	54,419	—	6,231		148,431
Other (expense) income, net	(642)	(1,389)	—	33	a/j	(1,998)
Interest expense	(6,158)	(56,354)	(32,311)	56,354	a/h	(38,469)
Interest income	2,117	—	—	112	a	2,229
Income (loss) before taxes and equity in net income of associated companies	83,098	(3,324)	(32,311)	62,730		110,193
Taxes on income before equity in net income of associated companies	25,050	2,824	(6,785)	13,173	m/n	34,262
Income (loss) before equity in net income of Associated companies	58,048	(6,148)	(25,526)	49,557		75,931
Equity in net income of associated companies	1,763	5,702	—	—		7,465
Net income (loss)	59,811	(446)	(25,526)	49,557		83,396
Less: Net income attributable to noncontrolling interest	338	—	—	—		338
Net income (loss) attributable to Quaker Houghton	<u>\$ 59,473</u>	<u>\$ (446)</u>	<u>\$ (25,526)</u>	<u>\$ 49,557</u>		<u>\$ 83,058</u>
Weighted average common shares:						
Basic	13,268			4,329	o	17,597
Diluted	13,305			4,329	o	17,634
Earnings per share:						
Basic	\$ 4.46					\$ 4.72
Diluted	\$ 4.45					\$ 4.71

The accompanying notes are an integral part of the unaudited pro forma condensed combined financial statements.

Quaker Chemical Corporation
Unaudited Pro Forma Condensed Combined Statements of Income
Six months ended – June 30, 2019
(Dollars in thousands, except per share data)

	<u>Quaker</u>	<u>Houghton</u>	<u>Financing Pro Forma Adjustments Note 3</u>	<u>Combination Pro Forma Adjustments Note 4</u>		<u>Pro Forma Condensed Combined</u>
Net sales	\$ 417,079	\$ 403,491	\$ —	\$ (29,768)	a/l/n	\$ 790,802
Cost of goods sold	266,151	270,478	—	(18,930)	a/e/l/n	517,699
Gross Profit	150,928	133,013	—	(10,838)		273,103
Selling, general and administrative expenses	101,481	107,231	—	(6,577)	a/e/g/n	202,135
Combination and other acquisition-related expenses	9,087	—	—	(9,087)	a/j	—
Restructuring	—	6	—	—		6
Other operating expenses	—	(187)	—	—		(187)
Operating income	40,360	25,963	—	4,826		71,149
Other (expense) income, net	(592)	258	—	77	a	(257)
Interest expense	(2,497)	(27,869)	(16,672)	27,869	a/h	(19,169)
Interest income	988	—	—	105	a	1,093
Income (loss) before taxes and equity in net income of associated companies	38,259	(1,648)	(16,672)	32,877		52,816
Taxes on income before equity in net income of associated companies	9,729	(4,548)	(3,501)	6,904	m/n	8,584
Income (loss) before equity in net income of Associated companies	28,530	2,900	(13,171)	25,973		44,232
Equity in net income of associated companies	1,019	2,741	—	—		3,760
Net income (loss)	29,549	5,641	(13,171)	25,973		47,992
Less: Net income attributable to noncontrolling interest	114	—	—	—		114
Net income (loss) attributable to Quaker Houghton	<u>\$ 29,435</u>	<u>\$ 5,641</u>	<u>\$ (13,171)</u>	<u>\$ 25,973</u>		<u>\$ 47,878</u>
Weighted average common shares:						
Basic	13,298			4,329	o	17,627
Diluted	13,345			4,329	o	17,674
Earnings per share:						
Basic	\$ 2.21					\$ 2.72
Diluted	\$ 2.20					\$ 2.71

The accompanying notes are an integral part of the unaudited pro forma condensed combined financial statements.

**NOTES TO THE UNAUDITED PRO FORMA CONDENSED
COMBINED FINANCIAL STATEMENTS**

Note 1 – Description of transaction and basis of presentation

On August 1, 2019, the Company completed the Combination with Houghton, whereby the Company acquired all of the issued and outstanding shares of Houghton from Gulf Houghton in accordance with the Share Purchase Agreement dated April 4, 2017. The aggregate consideration was comprised of: (i) \$170.8 million in cash; (ii) the issuance of approximately 4.3 million shares of common stock of the Company with par value of \$1.00, comprising 24.5% of the outstanding common stock of the Company at Closing; and (iii) the Company's refinancing of approximately \$660 million of Houghton's net indebtedness at Closing, not including cash proceeds from the divestiture, described below.

The historical condensed combined financial statements have been adjusted in the unaudited pro forma condensed combined financial information to give effect to pro forma events that are 1) directly attributable to the Combination and related financing transactions, 2) factually supportable and 3) with respect to the unaudited pro forma condensed combined statements of income, expected to have a continuing impact on the combined results following the Combination.

The unaudited pro forma condensed combined financial statements are not necessarily indicative of what our financial position or results of operations actually would have been had we completed the Combination and related financing transactions at the dates indicated. In addition, the unaudited pro forma condensed combined financial information does not purport to project the future financial position or operating results of the Company after the Closing. The pro forma information is based on the assumptions, adjustments and eliminations described in the accompanying notes to the unaudited pro forma condensed combined financial statements. The pro forma adjustments are preliminary and are subject to change as more information becomes available and after final analysis of fair values of tangible and intangible assets acquired and liabilities assumed are complete. A final determination of the fair value for certain assets and liabilities will be completed as soon as the information necessary to complete the analysis is obtained, but no later than one year from the acquisition date. Differences between all preliminary estimates included herein and the final acquisition accounting may occur and these differences could be material.

Note 2 – Purchase Price

The Combination will be accounted for using the acquisition method of accounting in accordance with Accounting Standards Codification Topic 805 Business Combinations ("ASC 805"), which requires, among other things, that the assets acquired and liabilities assumed be recognized at their acquisition date fair values, with any excess of the consideration transferred over the estimated fair values of the identifiable net assets acquired recorded to goodwill. In addition, ASC 805 established that the common stock issued to effect the Combination be measured at the date the Combination is completed at the then-current market price for such shares.

The following is an estimate of the consideration paid by the Company (in millions):

Cash transferred to Houghton shareholders	\$ 170.8
Cash paid to extinguish Houghton historical debt obligations	704.2
Fair value of common stock issued as consideration ⁽¹⁾	789.1
Total value of consideration transferred	<u>\$ 1,664.1</u>

(1) Amount was determined based on the 4.3 million shares issued at the closing price per share of Quaker Chemical Corporation common stock of \$182.27 on August 1, 2019.

**NOTES TO THE UNAUDITED PRO FORMA CONDENSED
COMBINED FINANCIAL STATEMENTS**

The following is a summary of the preliminary estimated fair values of the net assets acquired (in millions):

Cash and cash equivalents	\$ 78.6
Accounts receivable, net	170.0
Inventories, net	98.8
Prepaid expenses and other assets	16.6
Deferred tax assets	0.2
Property, plant and equipment	146.1
Right of use lease assets	15.0
Investments in associated companies	39.1
Other assets	0.7
Intangible assets	753.5
Total assets	1,318.6
Short term borrowing	8.4
Accounts payable, accrued expenses and other current liabilities	125.9
Deferred tax liabilities	154.0
Long-term lease liabilities	12.0
Other non-current liabilities	37.9
Net assets	980.4
Goodwill	\$ 683.7

The preliminary purchase price allocation has been completed based on limited information and the Company will not have sufficient information to make final allocations until after the valuations are completed. The final determination of the purchase price allocation is anticipated to be completed as soon as practicable. The valuations of the acquired assets and liabilities will include, but not be limited to, inventory, property, plant and equipment, customer relationships, formulations, tradenames, trademarks and brand names, other intellectual property, other intangible assets. The valuation will consist of physical appraisals, discounted cash flow analyses, and other appropriate valuation techniques to determine the fair value of the assets acquired and the liabilities assumed.

The pro forma purchase price allocation is subject to further adjustment as additional information becomes available and analyses completed. The final allocation of amounts to assets acquired and liabilities assumed in the Combination could differ materially from the preliminary amounts presented in these unaudited pro forma condensed combined financial statements. A decrease in the fair value of assets acquired or an increase in the fair value of liabilities assumed from the preliminary valuations presented in these unaudited pro forma condensed combined financial statements would likely result in a dollar-for-dollar corresponding increase in the amount of goodwill that will result from the Combination. In addition, if the value of the acquired assets is higher than the preliminary indication, it may result in higher amortization and depreciation expense than is presented in these unaudited pro forma condensed combined financial statements.

Note 3 – Financing Pro forma adjustments

In connection with the Combination, the Company initially secured \$1.15 billion in commitments from Bank of America Merrill Lynch and Deutsche Bank to fund the purchase considerations and to provide additional liquidity, which was replaced with a syndicated bank agreement (the “**New Credit Facility**”) with a group of lenders that became effective at Closing. The New Credit Facility is comprised of: (i) a \$400.0 million multicurrency revolver; (ii) a \$600.0 million USD term loan; and (iii) a \$150.0 million EUR equivalent term loan, each with a five-year maturity from the date the New Credit Facility became effective. At Closing, the Company borrowed approximately \$750.0 million under the term loans available in the New Credit Facility and approximately \$180 million under the multicurrency revolver, with the remaining capacity under the revolver of approximately \$220 million for additional liquidity.

Both the USD and EUR equivalent term loans have quarterly principal amortization during their respective five-year maturities, with 5.0% amortization of the principal balance due in years 1 and 2, 7.5% in year 3, and 10.0% in years 4 and 5, with the remaining principal amounts due at maturity. As a result, the Company has recorded current portion of long-term debt related to the term loans of \$37.5 million at Closing. In addition, the Company does not have any material short-term borrowings at Closing, except an \$8.4 million short-term borrowing under an unsecured bank line of credit that Houghton previously used for certain working capital purposes. Based on the terms of the New Credit Facility and current market interest rates, the Company currently estimates its annual interest cost will be in the range of 3.4% to 3.6%. The Company used an interest rate of approximately 3.5% to estimate the Company’s pro forma interest expense going forward.

The Company incurred \$23.6 million in debt issuance costs in conjunction with the New Credit Facility. These debt issuance costs were capitalized as deferred financing costs and will be amortized over the five year life of the underlying debt instrument.

**NOTES TO THE UNAUDITED PRO FORMA CONDENSED
COMBINED FINANCIAL STATEMENTS**

The financing related pro forma adjustments included in the unaudited pro forma condensed combined balance sheet and statements of income are as follows:

- (a) The adjustment to cash in connection with the financing is as follows (in millions):

Proceeds from new borrowings	\$ 930.0
Less: Cash paid for accrued ticking fees related to the New Credit Facility capital commitment through the Closing	(6.3)
Less: Cash paid for fees related to term loan borrowings	(15.4)
Less: Cash paid for fees related to multicurrency revolver borrowings	(7.2)
Pro forma adjustment to cash	<u>\$ 901.1</u>

- (b) The adjustment to debt in connection with the financing is as follows (in millions):

Borrowings under New Credit Facility	\$ 930.0
Less: Capitalized fees related to term loan borrowings	(15.4)
Pro forma adjustment to total debt	<u>914.6</u>
Less: Current portion of long-term debt	(37.5)
Pro forma adjustment to long-term debt	<u>\$ 877.1</u>

- (c) Represents \$8.2 million of debt issuance costs allocated to the revolver, including \$1.0 million previously incurred and paid for and recorded within prepaid expenses and other current assets as noted in (d) below.
- (d) Represents \$1.0 million of debt issuance costs previously incurred and paid for and recorded within prepaid expenses and other current assets which were reclassified to capitalized debt issuance costs allocated to the revolver.
- (e) Represents the elimination of Quaker's ticking fees accrued and incurred to maintain the New Credit Facility's capital commitment prior to the Closing. The ticking fees were paid at closing.
- (f) Given the assumed debt and estimated costs associated with the Combination, the preliminary pro forma adjustments reflect the estimated interest expense to be incurred by the Company as a result of the new borrowings as follows (in millions):

	Interest expense for the year ended December 31, 2018	Interest expense for the six months ended June 30, 2019
Reversal of historical Quaker interest expense on its previous credit facility replaced with the New Credit Facility at the Closing	\$ (2.1)	\$ (0.5)
Reversal of historical Quaker accrued ticking fees associated with the New Credit Facility capital commitment prior to the Closing	(3.5)	(1.7)
Amortization of capitalized deferred financing costs related to new Borrowings	4.7	2.4
Estimated interest expense on new borrowings from the Combination ¹	33.2	16.5
Pro forma adjustment	<u>\$ 32.3</u>	<u>\$ 16.7</u>

1. A change of 1/8% (12.5 basis points) in the interest rate would result in a \$1.2 million change in annual interest expense.

- (g) Represents the estimated income tax impact of the financing transaction based on the United States ("U.S.") federal statutory tax rate of 21%. This rate does not reflect either Quaker or Houghton's current or future effective tax rate, which include other tax items, such as state and foreign taxes, as well as other tax charges or benefits, and does not take into account any historical or possible future tax events that may impact the combined company.

**NOTES TO THE UNAUDITED PRO FORMA CONDENSED
COMBINED FINANCIAL STATEMENTS**

Note 4 – Combination Pro forma adjustments

Pro forma adjustments are necessary to reflect the financial statements of the Company and Houghton on a combined basis. The pro forma adjustments included in the unaudited pro forma condensed combined balance sheet and statements of income are as follows:

- (a) The Company has made certain reclassifications to conform Houghton’s historical condensed combined financial statement presentation to that of the Company, or to reflect the alignment of Houghton’s accounting policies to the Company’s. This includes: (i) a reclassification of \$10.6 million from Prepaid expenses and other current assets to Accounts receivable, net related to the classification of certain foreign notes receivable; (ii) a reclassification of \$1.0 million and \$0.1 million for the year ended December 31, 2018 and the six months ended June 30, 2019, respectively, from Net sales to Other (expense) income, net related to the classification of the receipt of third-party license fees;; (iii) a reclassification of \$4.1 million and \$1.0 million for the year ended December 31, 2018 and the six months ended June 30, 2019, respectively, from Selling, general and administrative expenses (“SG&A”) to cost of goods sold (“COGS”) related to the classification of environmental, health and safety, operations and supply chain expenses; (iv) a reclassifications of \$6.7 million and \$3.8 million for the year ended December 31, 2018 and the six months ended June 30, 2019, respectively, from SG&A to Combination and other acquisition-related expenses; and (v) a reclassification of \$0.1 million for the year ended December 31, 2018 and the six months ended June 30, 2019, respectively, from Interest expense, net to Interest income.
- (b) The Company has made adjustments and given pro forma effect to certain accounting standard updates adopted by the Company but not yet adopted by Houghton. This includes the impact of the adoption of Accounting Standards Codification Topic 842 - Leases to Houghton’s assumed leases, resulting in a preliminary estimated fair value of acquired right of use lease assets of \$15.0 million, assumed short-term lease liabilities of \$3.0 million recorded within other current liabilities and long-term lease liabilities of \$12.0 million. While the Company’s implementation of this lease accounting guidance for Houghton’s adoption is still on-going, based on all current available information, the Company estimates that its right of use assets and associated lease liabilities will be approximately \$10 million to \$20 million as of Closing.
- (c) The adjustment to cash in connection with the Combination is as follows (in millions):

Cash received by Houghton from sale of Divested Businesses	\$ 36.8
Less: Cash transferred to Houghton shareholders	(170.8)
Less: Cash paid to extinguish Houghton historical debt obligations	(704.2)
Less: Cash paid for transaction fees	(10.6)
Pro forma adjustment to cash	<u>\$ (848.8)</u>

- (d) Reflects the preliminary estimated fair value adjustment to inventory acquired in the Combination. As raw materials inventory was assumed to be at market value, the adjustment is primarily related to finished goods inventory. The preliminary fair value of finished goods inventory acquired in the Combination was determined based on an analysis of estimated future selling prices, costs of disposal, and gross profit on disposal costs. The Company will recognize the increased value of inventory in cost of sales as the inventory is sold, which the Company expects to occur within three months after Closing. As there is no continuing impact of the inventory adjustment to the Company’s results, the cost of sales associated with the increased inventory value is not included in the unaudited pro forma condensed combined income statements.

**NOTES TO THE UNAUDITED PRO FORMA CONDENSED
COMBINED FINANCIAL STATEMENTS**

- (e) Represents the adjustment to record property, plant and equipment at the preliminary fair market value and to record depreciation expense related to the change in fair value. The amounts assigned to property, plant and equipment, the estimated useful lives, and the estimated depreciation expense related to the property, plant and equipment acquired are as follows (in millions):

	Preliminary fair value	Estimated weighted average life (years)	Depreciation expense for the year ended December 31, 2018	Depreciation expense for the six months ended June 30, 2019
Land	\$ 11.9	—	\$ —	\$ —
Buildings and improvements	43.6	25	1.7	0.9
Machinery and equipment	74.1	10	7.6	3.8
Furniture and fixtures	3.7	8	0.5	0.2
Information technology	8.4	4	2.1	1.1
Construction in progress	4.4	10	0.4	0.2
Total	146.1		12.3	6.2
Less: Houghton historical net property, Plant and equipment and depreciation expense	74.1		10.8	5.3
Pro forma adjustment	\$ 72.0		\$ 1.5	\$ 0.9

Depreciation expense has been estimated based upon the nature of activities associated with the property, plant and equipment to be acquired. Therefore, for purposes of these unaudited pro forma condensed combined financial statements, the Company has \$0.9 million and \$0.6 million of estimated increases in depreciation expense in COGS and SG&A, respectively, for the year ended December 31, 2018; and \$0.5 million and \$0.4 million, respectively, for the six months ended June 30, 2019. With other assumptions held constant, a 10% change in the fair value of property, plant and equipment would increase or decrease pro forma depreciation expense by approximately \$1.2 million for the year ended December 31, 2018 and \$0.6 million for the six months ended June 30, 2019.

- (f) Reflects the preliminary estimated adjustment to goodwill as a result of the Combination. Goodwill represents the excess of the consideration transferred over the preliminary fair value of the assets acquired and liabilities assumed as described in Note 2. The goodwill will not be amortized, but instead will be tested for impairment annually and whenever events and circumstances have occurred that may indicate a possible impairment exists. In the event management determines that the value of goodwill has become impaired, the Company will incur an accounting charge for the amount of the impairment during the period in which the determination is made. The goodwill is attributable to the expected synergies of the combined business operations, new growth opportunities, and the acquired assembled and trained workforce of Houghton. The goodwill is not expected to be deductible for tax purposes.

The preliminary pro forma adjustment to goodwill is calculated as follows (in millions):

Preliminary purchase price	\$ 1,664.1
Less: Fair value of net assets to be acquired	980.4
Total estimated goodwill	683.7
Less: Houghton historical goodwill	260.9
Pro forma adjustment	\$ 422.8

**NOTES TO THE UNAUDITED PRO FORMA CONDENSED
COMBINED FINANCIAL STATEMENTS**

- (g) Reflects the pro forma impact of recording the acquired identifiable intangible assets at their preliminary fair market value and the related additional amortization expense. The preliminary amounts assigned to the identifiable intangible assets, the estimated useful lives, and the estimated amortization expense related to these identifiable assets are as follows (in millions):

	Preliminary fair value	Estimated weighted average life (years)	Amortization expense for the year ended December 31, 2018	Amortization expense for the six months ended June 30, 2019
Customer relationships	\$ 532.8	15	\$ 35.5	\$ 17.8
Formulations and technical know-how	150.7	15	10.0	4.9
Trade names and trademarks	52.7	—	—	—
Brand names	15.1	—	—	—
Non-compete agreements	2.2	2	1.1	0.6
Total	753.5		46.6	23.3
Less: Houghton historical intangible assets and amortization expense	304.4		43.6	21.2
Pro forma adjustment	\$ 449.1		\$ 3.0	\$ 2.1

The Company has reflected the estimated additional amortization expense of \$3.0 million and \$2.1 million in SG&A for the year ended December 31, 2018 and the six months ended June 30, 2019, respectively. With other assumptions held constant, a 10% change in the fair value of amortizable intangible assets would increase or decrease pro forma amortization expense by approximately \$4.7 million for the year ended December 31, 2018 and \$2.4 million for the six months ended June 30, 2019.

The estimated fair value of amortizable intangible assets was based on reasonable estimates, however, the fair values assigned should be considered preliminary and these amounts will ultimately be updated upon the completion of a full valuation being performed on Houghton as of the Closing. The estimated fair value of the finite-lived intangible assets is expected to be amortized on a straight-line basis over their estimated useful lives. The amortizable useful lives reflect the periods over which the assets are expected to provide material economic benefit. Specific to the life of the customer relationships and formulations and technical know-how, the lives were determined after consideration of the Company's historical customer and product attrition patterns. The Company's preliminary evaluations have indicated that there is relatively low turnover in Houghton's customers and products and management does not expect that these general patterns will change in the future. The Company estimates that the lives of Houghton's trade names, trademarks and brand names reflect substantial periods over which they are expected to maintain influence in the market and, therefore, these assets were assigned indefinite lives for amortization purposes. They will not be amortized, but instead will be tested at least annually for impairment. The non-compete agreements will be amortized over the period agreed to in the Share Purchase Agreement.

- (h) Represents the elimination of Houghton's historical debt obligations that were repaid in conjunction with the Combination on August 1, 2019 and the related Houghton historical interest expense incurred during the year ended December 31 2018 and six months ended June 30, 2019.
- (i) Represents \$21.4 million of transaction related costs incurred and accrued, but not paid at the time of the Closing.
- (j) The Company incurred transaction related costs during the year ended December 31, 2018 for Quaker and Houghton of \$16.7 million and \$6.7 million, respectively, and \$9.1 million and \$3.8 million for the six months ended June 30, 2019, respectively. During the year ended December 31, 2018, the Quaker amount includes a \$0.6 million elimination of "Other (expense) income, net". The remaining costs for both Quaker and Houghton were eliminated from "Combination and other acquisition-related expenses" for each period presented.
- (k) Represents the elimination of Houghton's historical equity-related balances. In addition, reflects the issuance of approximately 4.3 million shares of common stock of the Company at Closing. Also, Houghton had mezzanine equity related to certain stock purchases considered redeemable, certain treasury shares and existing accumulated other comprehensive income, which were eliminated at Closing and adjusted to reflect such in the June 30, 2019 unaudited pro forma condensed combined balance sheet.

The unaudited pro forma adjustment to Common stock is calculated as follows (in millions):

Common stock from the Combination (4.3 million shares issued at par value of \$1.00)	\$ 4.3
Plus: Houghton's historical common stock	(0.0)
Pro forma adjustment	<u>\$ 4.3</u>

**NOTES TO THE UNAUDITED PRO FORMA CONDENSED
COMBINED FINANCIAL STATEMENTS**

The unaudited pro forma adjustment to Capital in excess of par value is calculated as follows (in millions):

Capital in excess of par value from the Combination (4.3 million shares issued at \$182.27, less common stock)	\$ 784.7
Plus: Houghton's historical capital in excess of par value	(302.8)
Pro forma adjustment	<u>\$ 481.9</u>

The unaudited pro forma adjustment to Retained earnings (accumulated deficit) is calculated as follows (in millions):

Non-capitalized Quaker one-time estimated financing related costs, net of tax benefits	\$ (32.0)
Plus: Houghton's historical accumulated deficit	128.6
Pro forma adjustment	<u>\$ 96.6</u>

Retained earnings (accumulated deficit) was reduced for estimated transaction costs incurred to facilitate the Closing of approximately \$32.0 million. These estimated transaction costs have been excluded from the unaudited pro forma condensed combined statements of income as they reflect charges directly attributable to the Combination that will not have an ongoing impact. The Company will incur significant additional costs and make associated cash payments to integrate Quaker and Houghton and to begin realizing the Combination's total anticipated cost synergies, which are not included in the pro forma financials.

- (l) Represents the elimination of intercompany transactions between Quaker and Houghton as if they were combined affiliates. Adjustments to the unaudited pro forma condensed combined statements of income consist of the elimination of \$1.4 million and \$0.6 million for the year ended December 31, 2018 and the six months ended June 30, 2019, respectively, from COGS and net sales. Adjustments to the unaudited pro forma condensed combined balance sheet consist of the elimination of \$1.9 million and \$1.8 million from Accounts receivable, net and Accounts and other payables, respectively.
- (m) Represents the estimated deferred income tax liability to be recorded by the Company as part of the accounting for the Combination, based on the U.S. federal statutory tax rate of 21%. Such rate was multiplied by the preliminary fair value adjustments made to inventory, property, plant and equipment, and intangible assets acquired to derive the total incremental deferred tax liabilities. To date, Quaker has not identified any existing deferred tax assets or liabilities currently existing on Houghton's balance sheet that would need to be eliminated or adjusted to fair value, but may after integration efforts and continued diligence.

For purposes of the unaudited pro forma condensed combined statements of income and the deferred income tax liability noted above, the U.S. federal statutory tax rate of 21% has been used in the adjustments for all periods presented. This rate does not reflect either Quaker or Houghton's current or future effective tax rate, which include other tax items, such as state and foreign taxes, as well as other tax charges or benefits, and does not take into account any historical or possible future tax events that may impact the combined company. Fair value and other adjustments effective as of the Closing of the Combination could also be different based on factors including, but not limited to, tax rates, valuation differences, further information on taxes by jurisdiction, or other factors.

- (n) In connection with obtaining approval of the Combination, pursuant to requirements of regulatory authorities in the U.S. and the European Union, immediately prior to the Closing, Houghton divested certain products and related assets of it and certain of its subsidiaries (the "**Divestiture**") to subsidiaries of the French multinational corporation Total S.A. (the "**Buyer**"), including certain steel and aluminum rolling oil product lines (collectively, the "**Divested Business**") for an aggregate purchase price of approximately \$37 million, which is subject to certain customary adjustments for transactions of this nature. In connection with the Divestiture, the Company agreed to certain non-solicitation provisions in respect of the employees and independent contractors of the Buyer and the Divested Business and in respect of the customers and suppliers of the Divested Business, in each case for a period of five years after the Closing, subject to certain exceptions. The Divested Business is reflected in the historical financial information of Houghton, but due to the fact that it was not acquired by Quaker as part of the Combination an adjustment is required to eliminate the results of the Divested Businesses from the historical Houghton amounts. In addition, the balance sheet impact of the divested businesses was immaterial outside of the cash inflow which is reflected in the approximate \$37 million cash pro forma adjustment, described above.

**NOTES TO THE UNAUDITED PRO FORMA CONDENSED
COMBINED FINANCIAL STATEMENTS**

The unaudited pro forma adjustments related to the Divested Business is as follows:

	For the year ended December 31, 2018	For the six months ended June 30, 2019
Net sales	\$ 52,571	\$ 25,660
Cost of goods sold	33,078	16,362
Gross Profit	19,493	9,298
Selling, general and administrative expenses	7,623	3,645
Combination and other acquisition-related expenses	—	—
Restructuring	—	—
Other operating expenses	—	—
Operating income	11,870	5,653
Other income, net	—	—
Interest expense	—	—
Interest income	—	—
Income before taxes and equity in net income of associated companies	11,870	5,653
Taxes on income before equity in net income of associated companies	2,493	1,187
Income before equity in net income of associated companies	9,377	4,466
Equity in net income of associated companies	—	—
Net income	9,377	4,466
Less: Net income attributable to noncontrolling interest	—	—
Net income attributable to Quaker Houghton	<u>\$ 9,377</u>	<u>\$ 4,466</u>

- (o) The unaudited pro forma condensed combined basic and diluted earnings per share for the period presented are calculated based on pro forma net income (loss) attributable to Quaker Houghton divided by the basic and diluted weighted average number of common shares outstanding. The pro forma condensed combined shares outstanding for each period are based on Quaker's historical basic and diluted shares outstanding for the year ended December 31, 2018 and the six months ended June 30, 2019 adjusted to reflect the 4.3 million shares issued as part of considerations as if they were outstanding as of January 1, 2018.
- (p) Represents the elimination of a \$29.7 million liability related to equity compensation that Houghton owed certain previous management shareholders but was settled by the seller prior to the closing of the Combination.