

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

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**FORM 8-K**

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**CURRENT REPORT**  
**Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): **August 9, 2018**

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**PQ Group Holdings Inc.**

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**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**001-38221**  
(Commission  
File Number)

**81-3406833**  
(I.R.S. Employer  
Identification No.)

**300 Lindenwood Drive**  
**Valleybrooke Corporate Center**  
**Malvern, Pennsylvania**

(Address of principal executive offices)

**19355**  
(Zip Code)

**(610) 651-4400**  
(Registrant's telephone number, including area code)

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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))

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.

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**Item 2.02 Results of Operations and Financial Condition.**

On August 9, 2018, PQ Group Holdings Inc. issued a press release announcing the reporting of its financial results for the quarter ended June 30, 2018. A copy of the press release is furnished with this Current Report on Form 8-K as Exhibit 99.1 and is incorporated herein by reference.

The information in this Current Report on Form 8-K (including the exhibit attached hereto) shall not be deemed “filed” for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that Section. The information in this Current Report on Form 8-K (including the exhibit attached hereto) shall not be deemed incorporated by reference into any filing or other document under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing or document.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press release issued by PQ Group Holdings Inc. announcing financial results for the quarter ended June 30, 2018

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**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.

PQ GROUP HOLDINGS INC.

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(Registrant)

Date: August 9, 2018    By    /s/ MICHAEL CREWS

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Michael Crews

Executive Vice President and Chief Financial Officer

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## EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
99.1	<a href="#">Press release issued by PQ Group Holdings Inc. announcing financial results for the quarter ended June 30, 2018</a>

**PQ Group Holdings Reports Solid Second Quarter 2018; Reaffirms 2018 Outlook for Sales, Adjusted EBITDA and Free Cash Flow  
- Strong underlying demand trends drive double-digit sales growth**

- Sales up 11.7% to \$434.7 million
- Net income of \$15.8 million or Diluted EPS of \$0.12; Adjusted Net Income of \$37.2 million or Adjusted Diluted EPS of \$0.28
- Adjusted EBITDA up 5.0% to \$128.9 million for an Adjusted EBITDA margin of 26.6%
- 2018 outlook reaffirmed: Sales of \$1,545 million to \$1,575 million; Adjusted EBITDA of \$470 million to \$490 million; and Free Cash Flow of \$120 million to \$140 million
- On track for debt paydown in second half 2018

**MALVERN, PA., August 9, 2018** -- PQ Group Holdings Inc. (NYSE:PQG) (“PQ” or the “Company”) reported results for the three months ended June 30, 2018. Sales of \$434.7 million increased 11.7% from the same period in 2017, driven by higher sales in both business segments. Net income was \$15.8 million or diluted EPS of \$0.12 as compared to a net loss of \$1.6 million or diluted loss per share of \$0.02 for the same period in 2017.

Adjusted Net Income improved to \$37.2 million or diluted adjusted EPS of \$0.28 from Adjusted Net Income of \$15.3 million or diluted adjusted EPS of \$0.15 for the same period in 2017 largely driven by higher adjusted EBITDA coupled with lower interest expense. Adjusted EBITDA was \$128.9 million, a 5.0% increase largely attributed to the Performance Materials & Chemicals business segment and the Zeolyst Joint Venture.

“Our solid second quarter performance demonstrates the strength of our competitive positions and diverse product portfolio, which enable us to capture the underlying strong demand growth trends in nearly all of our end markets,” commented Jim Gentilcore, Executive Chairman of PQ. “We remain on track with our outlook for strong free cash flow generation with a primary focus on deleveraging in the second half of 2018.”

*The financial results and outlook include non-GAAP financial measures. These non-GAAP measures are more fully described and are reconciled from the respective measures determined under GAAP in “Presentation of Non-GAAP Financial Measures” and the attached appendix tables.*

### **Environmental Catalysts & Services Segment Results (“EC&S”)**

Sales of \$129.4 million increased 4.4% versus the same period in 2017 primarily on pass-through of higher costs in Refining Services and strong performance in polyolefin catalysts offset by lower chemical catalysts sales. Net sales from the Zeolyst Joint Venture rose by 61.5% to \$49.5 million, benefiting from continued strong demand growth for hydrocracking catalysts. Adjusted EBITDA of \$64.9 million was up 0.9%, which was largely driven by increased volumes from hydrocracking catalysts. Offsetting this were lower sales of chemical catalysts due to timing of customer orders coupled with timing of maintenance costs, including turnarounds. Adjusted EBITDA margin of 36.3% was down from the same period in 2017 due to the timing of maintenance costs and pass-through of higher raw material costs.

### **Performance Materials & Chemicals Segment Results (“PM&C”)**

Sales of \$306.2 million increased 15.1% and Adjusted EBITDA of \$73.4 million increased 10.5% from the same period in 2017, largely on higher volumes from the Sovitec acquisition and ThermoDrop® in Performance Materials and higher demand for sodium silicates in Performance Chemicals. Adjusted EBITDA margin was 24.0%.

### **Cash Flows and Balance Sheet**

For the six months ended June 30, 2018, cash flows from operating activities increased to \$50.1 million, as compared to \$21.8 million for the same period in 2017. This increase was due largely to improved business performance and lower cash interest. As is seasonally typical, the second half of 2018 is expected to generate the Company’s strongest cash flows.

At June 30, 2018, the Company had cash and cash equivalents of \$52.6 million and total gross debt outstanding of \$2,287.7 million. The Company has a \$1 billion notional interest rate cap with rates ranging from 2.0% to 3.0% to mitigate interest rate volatility through July 2020.

### **2018 Financial Outlook**

The Company reaffirms its 2018 guidance as below:

- Sales of \$1,545 million to \$1,575 million, up 5% to 7%
- Adjusted EBITDA of \$470 million to \$490 million, up 4% to 8%
- Depreciation and Amortization of \$185 million to \$190 million, up from \$175 million to \$185 million, and excludes \$12 million to \$14 million for 50% share in Zeolyst Joint Venture
- Interest expense of \$120 million to \$130 million
- Capital expenditures of \$150 million to \$155 million
- Effective tax rate of approximately 30%, up from mid-20% range, excluding the non-cash impact of tax reform
- Free cash flow of \$120 million to \$140 million

**Conference Call and Webcast Details**

On Thursday, August 9, 2018, PQ management will review the results during a conference call and audio-only webcast scheduled for 10:00 a.m. Eastern Daylight Time.

Conference Call: Investors may listen to the conference call live via telephone by dialing 1 (877) 883-0383 (domestic) or 1 (412) 902-6506 (international) and use the participant code 4630215.

Webcast: An audio-only live webcast of the conference call and presentation materials can be accessed at <http://investor.pqcorp.com>.

A replay of the conference call/webcast will be made available at <http://investor.pqcorp.com/events-presentations>.

**Investor Contact:**

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**About PQ Group Holdings Inc.**

PQ Group Holdings Inc. is an integrated global provider of specialty catalysts, specialty materials and chemicals, and services. Our environmental catalysts and services business is a leading global innovator and producer of catalysts for the refinery, emissions control, and petrochemical industries and is also a leading provider of catalyst recycling services to the North American refining industry. Our performance materials and chemicals business is a silicates and specialty materials producer with leading supply positions for the majority of our products sold in North America, Europe, South America, Australia and Asia (excluding China) serving diverse and growing end uses such as personal and industrial cleaning products, fuel efficient tires, surface coatings, and food and beverage products.

**Presentation of Non-GAAP Financial Measures**

In addition to the results provided in accordance with U.S. generally accepted accounting principles (“GAAP”) throughout this press release, the Company has provided non-GAAP financial measures—Adjusted EBITDA, Adjusted EBITDA margin, free cash flow, Adjusted net income, Adjusted earnings per share and Adjusted diluted earnings per share—which present operating results on a basis adjusted for certain items. The Company uses these non-GAAP financial measures for business planning purposes and in measuring its performance relative to that of its competitors. The Company believes that these non-GAAP financial measures are useful financial metrics to assess its operating performance from period-to-period by excluding certain items that the Company believes are not representative of its core business. These non-GAAP financial measures are not intended to replace, and should not be considered superior to, the presentation of the Company’s financial results in accordance with GAAP. The use of the terms Adjusted EBITDA, Adjusted EBITDA margin, free cash flow, Adjusted net income, Adjusted earnings per share and Adjusted diluted earnings per share may differ from similar measures reported by other companies and may not be comparable to other similarly titled measures. Adjusted EBITDA, free cash flow, Adjusted net income, Adjusted earnings per share and Adjusted diluted earnings per share are reconciled from the respective measures under GAAP in the appendix below.

The Company is not able to provide a reconciliation of the Company's non-GAAP financial guidance to the corresponding GAAP measures without unreasonable effort because of the inherent difficulty in forecasting and quantifying certain amounts necessary for such a reconciliation such as certain non-cash, nonrecurring or other items that are included in net income and EBITDA as well as the related tax impacts of these items and asset dispositions/acquisitions and changes in foreign currency exchange rates that are included in cash flow, due to the uncertainty and variability of the nature and amount of these future charges and costs.

### **Zeolyst Joint Venture**

The Company's zeolite catalysts product group operates through its Zeolyst Joint Venture, which is accounted for as an equity method investment in accordance with GAAP. The presentation of the Zeolyst Joint Venture's total net sales represents 50% of the total net sales of the Zeolyst Joint Venture. The Company does not record sales by the Zeolyst Joint Venture as revenue and such sales are not consolidated within the Company's results of operations. However, the Company's Adjusted EBITDA reflects the share of earnings of the Zeolyst Joint Venture that have been recorded as equity in net income from affiliated companies in the Company's consolidated statements of operations for such periods and includes Zeolyst Joint Venture adjustments on a proportionate basis based on the Company's 50% ownership interest. Accordingly, the Company's Adjusted EBITDA margins are calculated including 50% of the total net sales of the Zeolyst Joint Venture for the relevant periods in the denominator.

### **Note on Forward-Looking Statements**

Some of the information contained in this press release constitutes "forward-looking statements." Forward-looking statements can be identified by words such as "anticipates," "intends," "plans," "seeks," "believes," "estimates," "expects," "projects" and similar references to future periods. Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Examples of forward-looking statements include, but are not limited to, statements regarding our results of operations, financial condition, liquidity, prospects, growth, strategies, product and service offerings and 2018 outlook. Our actual results may differ materially from those contemplated by the forward-looking statements. We caution you, therefore, against relying on any of these forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to, regional, national or global political, economic, business, competitive, market and regulatory conditions, currency exchange rates and other factors, including those described in the sections titled "Risk Factors" and "Management Discussion & Analysis of Financial Condition and Results of Operations" in our filings with the SEC, which are available on the SEC's website at [www.sec.gov](http://www.sec.gov). These forward-looking statements speak only as of the date of this release. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by applicable law.



**PQ GROUP HOLDINGS INC. AND SUBSIDIARIES**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**

	Three months ended June 30,			Six months ended June 30,		
	2018	2017	% Change	2018	2017	% Change
	<i>(in millions, except percentages, share and per share amounts)</i>					
Sales	\$ 434.7	\$ 389.3	11.7 %	\$ 800.9	\$ 722.2	10.9 %
Cost of goods sold	326.3	281.8	15.8 %	614.4	532.1	15.5 %
Gross profit	108.4	107.5	0.8 %	186.5	190.1	(1.9)%
Selling, general and administrative expenses	43.5	35.3	23.2 %	84.1	70.1	20.0 %
Other operating expense, net	15.9	17.0	(6.5)%	25.2	27.3	(7.7)%
Operating income	49.0	55.2	(11.2)%	77.2	92.7	(16.7)%
Equity in net (income) from affiliated companies	(13.7)	(8.7)	57.5 %	(25.5)	(14.6)	74.7 %
Interest expense, net	27.2	48.2	(43.6)%	56.4	95.0	(40.6)%
Debt extinguishment costs	—	—		5.9	—	
Other expense, net	5.7	14.4	(60.4)%	10.6	16.1	(34.2)%
Income (loss) before income taxes and noncontrolling interest	29.8	1.3	NM	29.8	(3.8)	NM
Provision for income taxes <sup>(1)</sup>	13.6	3.0	NM	13.1	0.1	NM
Effective tax rate	45.8%	224.9%		44.0%	(2.5)%	
Net income (loss)	16.2	(1.7)	NM	16.7	(3.9)	NM
Less: Net income (loss) attributable to the noncontrolling interest	0.4	(0.1)	NM	0.7	0.1	NM
Net income (loss) attributable to PQ Group Holdings Inc.	\$ 15.8	\$ (1.6)	NM	\$ 16.0	\$ (4.0)	NM
Net earnings (loss) per share:						
Basic earnings (loss) per share	\$ 0.12	\$ (0.02)		\$ 0.12	\$ (0.04)	
Diluted earnings (loss) per share	\$ 0.12	\$ (0.02)		\$ 0.12	\$ (0.04)	
Weighted average shares outstanding:						
Basic	133,222,463	104,015,815		133,188,303	103,981,851	
Diluted	134,209,740	104,015,815		134,047,362	103,981,851	

<sup>(1)</sup> Net of a \$3.2 million and \$3.6 million provision for GILTI for the three and six months ended June 30, 2018, respectively, and a \$1.1 million provisional adjustment for the impact of the U.S. Tax Cuts and Job Act of 2017 for the three and six months ended June 30, 2018.

**PQ GROUP HOLDINGS INC. AND SUBSIDIARIES**  
**CONDENSED CONSOLIDATED BALANCE SHEETS**  
(in millions, except share and per share amounts)

	June 30, 2018	December 31, 2017
<b>ASSETS</b>		
Cash and cash equivalents	\$ 52.6	\$ 66.2
Receivables, net	242.0	193.5
Inventories	268.4	262.4
Prepaid and other current assets	39.0	26.9
Total current assets	602.0	549.0
Investments in affiliated companies	477.3	469.3
Property, plant and equipment, net	1,217.0	1,230.4
Goodwill	1,260.3	1,306.0
Other intangible assets, net	759.6	786.1
Other long-term assets	98.3	74.7
Total assets	\$ 4,414.5	\$ 4,415.5
<b>LIABILITIES</b>		
Notes payable and current maturities of long-term debt	\$ 54.1	\$ 45.2
Accounts payable	139.7	149.3
Accrued liabilities	76.4	93.9
Total current liabilities	270.2	288.4
Long-term debt, excluding current portion	2,193.8	2,185.3
Deferred income taxes	197.7	189.3
Other long-term liabilities	113.5	120.6
Total liabilities	2,775.2	2,783.6
Commitments and contingencies		
<b>EQUITY</b>		
Common stock (\$0.01 par); authorized shares 450,000,000; issued shares 135,143,229 and 135,244,379 on June 30, 2018 and December 31, 2017, respectively; outstanding shares 135,139,716 and 135,244,379 on June 30, 2018 and December 31, 2017, respectively	1.4	1.4
Preferred stock (\$0.01 par); authorized shares 50,000,000; no shares issued or outstanding on June 30, 2018 and December 31, 2017	—	—
Additional paid-in capital	1,662.8	1,655.1
Accumulated deficit	(16.8)	(32.8)
Treasury stock, at cost; shares 3,513 and 0 on June 30, 2018 and December 31, 2017, respectively	(0.1)	—
Accumulated other comprehensive income (loss)	(12.2)	4.3
Total PQ Group Holdings Inc. equity	1,635.1	1,628.0
Noncontrolling interest	4.2	3.9
Total equity	1,639.3	1,631.9
Total liabilities and equity	\$ 4,414.5	\$ 4,415.5

**PQ GROUP HOLDINGS INC. AND SUBSIDIARIES**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(in millions)

	Six months ended June 30,	
	2018	2017
Cash flows from operating activities:		
Net income (loss)	\$ 16.7	\$ (3.9)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation	68.9	58.0
Amortization	26.6	25.2
Acquisition accounting valuation adjustments on inventory sold	1.6	0.9
Amortization of deferred financing costs and original issue discount	3.1	4.3
Debt extinguishment costs	3.8	—
Foreign currency exchange loss	11.8	16.4
Pension and postretirement healthcare benefit expense	0.6	2.1
Pension and postretirement healthcare benefit funding	(4.0)	(3.6)
Deferred income tax provision (benefit)	3.1	(5.3)
Net loss on asset disposals	5.9	2.9
Stock compensation	7.6	2.8
Equity in net (income) from affiliated companies	(25.5)	(14.6)
Dividends received from affiliated companies	15.9	15.1
Other, net	(4.1)	(1.9)
Working capital changes that provided (used) cash:		
Receivables	(54.3)	(44.0)
Inventories	(9.9)	2.0
Prepays and other current assets	(3.6)	(1.4)
Accounts payable	1.0	(7.4)
Accrued liabilities	(15.1)	(25.8)
Net cash provided by operating activities	50.1	21.8
Cash flows from investing activities:		
Purchases of property, plant and equipment	(66.1)	(60.6)
Investment in affiliated companies	—	(5.0)
Loan receivable under the New Markets Tax Credit Arrangement	—	(6.2)
Business combinations, net of cash acquired	(1.0)	(41.6)
Other, net	0.8	0.5
Net cash used in investing activities	(66.3)	(112.9)
Cash flows from financing activities:		
Draw down of revolver	123.9	250.0
Repayments of revolver	(114.8)	(185.0)
Issuance of long-term debt	1,267.0	8.8
Debt issuance costs	(6.4)	—
Repayments of long-term debt	(1,264.7)	(6.2)
Distributions to noncontrolling interests	(0.2)	(0.8)
Repurchase of common shares	(0.1)	—
Net cash provided by financing activities	4.7	66.8
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(1.8)	(5.4)
Net change in cash, cash equivalents and restricted cash	(13.3)	(29.7)
Cash, cash equivalents and restricted cash at beginning of period	67.2	85.1
Cash, cash equivalents and restricted cash at end of period	\$ 53.9	\$ 55.4

**Appendix Table A-1: Reconciliation of Net Income (Loss) to Adjusted EBITDA**

	Three months ended June 30,		Six months ended June 30,	
	2018	2017	2018	2017
(in millions)				
<b>Reconciliation of net income (loss) attributable to PQ Group Holdings Inc. to Segment Adjusted EBITDA</b>				
Net income (loss) attributable to PQ Group Holdings Inc.	\$ 15.8	\$ (1.6)	\$ 16.0	\$ (4.0)
Provision for income taxes	13.6	3.0	13.1	0.1
Interest expense, net	27.2	48.2	56.4	95.0
Depreciation and amortization	47.0	42.6	95.5	83.2
EBITDA	103.6	92.2	181.0	174.3
Joint venture depreciation, amortization and interest <sup>(a)</sup>	2.6	2.9	5.9	5.5
Amortization of investment in affiliate step-up <sup>(b)</sup>	1.7	1.7	3.3	5.3
Amortization of inventory step-up <sup>(c)</sup>	—	—	1.6	0.9
Debt extinguishment costs	—	—	5.9	—
Net loss on asset disposals <sup>(d)</sup>	4.8	2.6	5.9	2.9
Foreign currency exchange loss <sup>(e)</sup>	6.8	14.4	11.8	16.4
Non-cash revaluation of inventory, including LIFO	0.1	—	5.0	2.5
Management advisory fees <sup>(f)</sup>	—	1.3	—	2.5
Transaction and other related costs <sup>(g)</sup>	0.3	3.0	0.7	4.3
Equity-based and other non-cash compensation	3.8	1.2	7.6	2.8
Restructuring, integration and business optimization expenses <sup>(h)</sup>	2.4	1.4	3.5	3.1
Defined benefit pension plan cost <sup>(i)</sup>	(0.4)	0.7	0.1	1.4
Other <sup>(i)</sup>	3.2	1.4	4.5	2.1
Adjusted EBITDA	128.9	122.8	236.8	224.0
Unallocated corporate expenses	9.4	7.9	17.0	15.6
Total Segment Adjusted EBITDA	\$ 138.3	\$ 130.7	\$ 253.8	\$ 239.6

**Descriptions to PQ Non-GAAP Reconciliations**

- (a) We use Adjusted EBITDA, Adjusted Net Income, and Adjusted Basic and Diluted EPS as performance measures to evaluate our financial results. Because our Environmental Catalysts and Services segment includes our 50% interest in our Zeolyst Joint Venture, we include an adjustment for our 50% proportionate share of depreciation, amortization and interest expense of our Zeolyst Joint Venture.
- (b) Represents the amortization of the fair value adjustments associated with the equity affiliate investment in our Zeolyst Joint Venture as a result of the combination of the businesses of PQ Holdings Inc. and Eco Services Operations LLC in May 2016 (the "Business Combination"). We determined the fair value of the equity affiliate investment and the fair value step-up was then attributed to the underlying assets of our Zeolyst Joint Venture. Amortization is primarily related to the fair value adjustments associated with inventory, fixed assets and intangible assets, including customer relationships and technical know-how.
- (c) As a result of the Sovitec acquisition and the Business Combination, there was a step-up in the fair value of inventory, which is amortized through cost of goods sold in the statement of operations.

- (d) We do not have a history of significant asset disposals. However, when asset disposals occur, we remove the impact of net gain/loss of the disposed asset because such impact primarily reflects the non-cash write-off of long-lived assets no longer in use.
- (e) Reflects the exclusion of the negative or positive transaction gains and losses of foreign currency in the income statement primarily related to the Euro denominated term loan (which was settled as part of the February 2018 term loan refinancing) and the non-permanent intercompany debt denominated in local currency translated to U.S. dollars.
- (f) Reflects consulting fees paid to CCMP and affiliates of INEOS for consulting services that include certain financial advisory and management services. These payments ceased upon the closing of our initial public offering.
- (g) Relates to certain transaction costs described in our condensed consolidated financial statements as well as other costs related to several transactions that are completed, pending or abandoned and that we believe are not representative of our ongoing business operations.
- (h) Includes the impact of restructuring, integration and business optimization expenses which are incremental costs that are not representative of our ongoing business operations, including severance for a reduction in force and post-merger integration costs.
- (i) Represents adjustments for defined benefit pension plan costs in our statement of operations. More than two-thirds of our defined benefit pension plan obligations are under defined benefit pension plans that are frozen, and the remaining obligations primarily relate to plans operated in certain of our non-U.S. locations that, pursuant to jurisdictional requirements, cannot be frozen. As such, we do not view such expenses as core to our ongoing business operations.
- (j) Other costs consist of certain expenses that are not core to our ongoing business operations, including environmental remediation-related costs associated with the legacy operations of our business prior to the Business Combination, capital and franchise taxes, non-cash asset retirement obligation accretion and the initial implementation of procedures to comply with Section 404 of the Sarbanes-Oxley Act. Included in this line-item are rounding discrepancies that may arise from rounding from dollars (in thousands) to dollars (in millions).

**Appendix Table A-2: Reconciliation of Net Income to Adjusted Net Income<sup>(1)</sup>**

	Three months ended June 30,					
	2018			2017		
	Pre-tax	Tax expense (benefit)	After-tax	Pre-tax	Tax expense (benefit)	After-tax
	(in millions)					
Net income (loss) before non-controlling interest	\$ 29.8	\$ 13.6	\$ 16.2	\$ 1.3	\$ 3.0	\$ (1.7)
Less: Net income attributable to non-controlling interest			0.4			(0.1)
Net income (loss) attributable to PQ Group Holdings Inc.			15.8			(1.6)
Amortization of investment in affiliate step-up <sup>(b)</sup>	1.7	0.7	1.0	1.7	0.8	0.9
Net loss on asset disposals <sup>(d)</sup>	4.8	1.7	3.1	2.6	1.2	1.4
Foreign currency exchange loss <sup>(c)</sup>	6.8	1.6	5.2	14.4	4.9	9.5
Non-cash revaluation of inventory, including LIFO	0.1	0.1	—	—	—	—
Management advisory fees <sup>(f)</sup>	—	—	—	1.3	0.6	0.7
Transaction and other related costs <sup>(g)</sup>	0.3	0.1	0.2	3.0	1.3	1.7
Equity-based and other non-cash compensation	3.8	1.3	2.5	1.2	0.6	0.6
Restructuring, integration and business optimization expenses <sup>(h)</sup>	2.4	0.8	1.6	1.4	0.7	0.7
Defined benefit pension plan cost <sup>(i)</sup>	(0.4)	(0.1)	(0.3)	0.7	0.3	0.4
Other <sup>(j)</sup>	3.2	1.2	2.0	1.4	0.4	1.0
Adjusted Net Income, including non-cash GILTI tax			31.1			15.3
Impact of non-cash GILTI tax <sup>(2)</sup>		5.0	5.0		—	—
Impact of tax reform <sup>(3)</sup>		1.1	1.1		—	—
Adjusted Net Income <sup>(1)</sup>			<u>\$ 37.2</u>			<u>\$ 15.3</u>
Adjusted Net Income per share:						
Basic income per share			\$ 0.28			\$ 0.15
Diluted income per share			\$ 0.28			\$ 0.15
Weighted average shares outstanding:						
Basic			133,222,463			104,015,815
Diluted			134,209,740			104,015,815

	Six months ended June 30,					
	2018			2017		
	Pre-tax	Tax expense (benefit)	After-tax	Pre-tax	Tax expense (benefit)	After-tax
	(in millions)					
Net income (loss) before non-controlling interest	\$ 29.8	\$ 13.1	\$ 16.7	\$ (3.8)	\$ 0.1	\$ (3.9)
Less: Net income attributable to non-controlling interest			0.7			0.1
Net income (loss) attributable to PQ Group Holdings Inc.			16.0			(4.0)
Amortization of investment in affiliate step-up <sup>(b)</sup>	3.3	1.1	2.2	5.3	2.3	3.0
Amortization of inventory step-up <sup>(c)</sup>	1.6	0.5	1.1	0.9	0.4	0.5
Debt extinguishment costs	5.9	1.8	4.1	—	—	—
Net loss on asset disposals <sup>(d)</sup>	5.9	2.0	3.9	2.9	1.3	1.6
Foreign currency exchange loss <sup>(e)</sup>	11.8	3.7	8.1	16.4	6.6	9.8
Non-cash revaluation of inventory, including LIFO	5.0	1.6	3.4	2.5	1.1	1.4
Management advisory fees <sup>(f)</sup>	—	—	—	2.5	1.1	1.4
Transaction and other related costs <sup>(g)</sup>	0.7	0.2	0.5	4.3	1.9	2.4
Equity-based and other non-cash compensation	7.6	2.5	5.1	2.8	1.2	1.6
Restructuring, integration and business optimization expenses <sup>(h)</sup>	3.5	1.2	2.3	3.1	1.4	1.7
Defined benefit pension plan cost <sup>(i)</sup>	0.1	—	0.1	1.4	0.6	0.8
Other <sup>(j)</sup>	4.5	1.8	2.7	2.1	0.9	1.2
Adjusted Net Income, including non-cash GILTI tax			49.5			21.4
Impact of non-cash GILTI tax <sup>(2)</sup>		7.5	7.5		—	—
Impact of tax reform <sup>(3)</sup>		1.1	1.1		—	—
Adjusted Net Income <sup>(1)</sup>			<u>\$ 58.1</u>			<u>\$ 21.4</u>
Adjusted Net Income per share:						
Basic income per share			\$ 0.44			\$ 0.21
Diluted income per share			\$ 0.43			\$ 0.21
Weighted average shares outstanding:						
Basic			133,188,303			103,981,851
Diluted			134,047,362			103,981,851

See Appendix Table A-1 for Descriptions to PQ Non-GAAP Reconciliations in the table above.

- (1) We define Adjusted Net Income as net income (loss) attributable to PQ Group Holdings adjusted for non-operating income or expense and the impact of certain non-cash or other items that are included in net income (loss) that we do not consider indicative of our ongoing operating performance. Adjusted Net Income is presented as a key performance indicator as we believe it will enhance a prospective investor's understanding of our results of operations and financial condition. Adjusted Net Income may not be comparable with net income or adjusted net income as defined by other companies.
- (2) Amount represents the impact to tax expense associated with the Global Intangible Low Taxed Income ("GILTI") provisions of the Tax Cuts and Jobs Act of 2017 ("TCJA"). Beginning January 1, 2018, GILTI results in taxation of "excess of foreign earnings," which is defined as amounts greater than a 10% rate of return on applicable foreign tangible asset basis. The Company is required to record an incremental tax provision impact with respect to GILTI as a result of having historical U.S. Net Operating Loss ("NOL") amounts to offset the GILTI taxable income inclusion. This NOL utilization precludes us from recognizing foreign tax credits ("FTCs") which would otherwise help offset the tax impacts of GILTI. No FTCs will be recognized with respect to GILTI until our cumulative NOL balance has been exhausted. Because the GILTI provision does not impact our cash taxes (given available U.S. NOLs), and given that we expect to recognize FTCs to offset GILTI impacts once the NOLs are exhausted, we do not view this item as a component of core operations.
- (3) Represents the provisional adjustment for the impact of the TCJA recorded in net income.

**Appendix Table A-3: Business Segment Sales and Adjusted EBITDA**

	Three months ended June 30,			Six months ended June 30,		
	2018	2017	% Change	2018	2017	% Change
(in millions, except percentages)						
<b>Sales:</b>						
EC&S	\$ 129.4	\$ 124.0	4.4%	\$ 246.6	\$ 235.3	4.8 %
PM&C	306.2	266.1	15.1%	556.0	488.7	13.8 %
Corporate	(0.9)	(0.8)	12.5%	(1.7)	(1.8)	(5.6)%
<b>Total sales</b>	<u>\$ 434.7</u>	<u>\$ 389.3</u>	<u>11.7%</u>	<u>\$ 800.9</u>	<u>\$ 722.2</u>	<u>10.9 %</u>
Zeolyst Joint Venture Sales	\$ 49.5	\$ 30.7	61.5%	\$ 87.9	\$ 63.4	38.7 %
<b>Adjusted EBITDA:</b>						
EC&S	\$ 64.9	\$ 64.3	0.9%	\$ 123.3	\$ 120.7	2.2 %
PM&C	73.4	66.4	10.5%	130.5	118.9	9.8 %
Corporate	(9.4)	(7.9)	19.0%	(17.0)	(15.6)	9.0 %
<b>Total Adjusted EBITDA</b>	<u>\$ 128.9</u>	<u>\$ 122.8</u>	<u>5.0%</u>	<u>\$ 236.8</u>	<u>\$ 224.0</u>	<u>5.7 %</u>
<b>Adjusted EBITDA Margin:</b>						
EC&S <sup>(1)</sup>	36.3%	41.6%		36.9%	40.4%	
PM&C	24.0%	25.0%		23.5%	24.3%	
<b>Total Adjusted EBITDA Margin<sup>(1)</sup></b>	<u>26.6%</u>	<u>29.2%</u>		<u>26.6%</u>	<u>28.5%</u>	

<sup>(1)</sup> Adjusted EBITDA margin calculation includes proportionate 50% share of sales from the Zeolyst Joint Venture.



**Appendix Table A-4: Free Cash Flow**

	Six months ended June 30,	
	2018	2017
	(in millions)	
Net cash provided by operating activities	\$ 50.1	\$ 21.8
Less:		
Purchases of property, plant and equipment <sup>(1)</sup>	(66.1)	(60.6)
Free cash flow <sup>(2)</sup>	<u>\$ (16.0)</u>	<u>\$ (38.8)</u>
Net cash used in investing activities <sup>(3)</sup>	\$ (66.3)	\$ (112.9)
Net cash provided by financing activities	\$ 4.7	\$ 66.8

<sup>(1)</sup> Excludes the Company's proportionate 50% share of capital expenditures from the Zeolyst joint venture.

<sup>(2)</sup> We define free cash flow as net cash provided by operating activities less purchases of property, plant and equipment. Free cash flow is a non-GAAP financial measure that we believe will enhance a prospective investor's understanding of our ability to generate additional cash from operations, and is an important financial measure for use in evaluating our financial performance. Our presentation of free cash flow is not intended to replace, and should not be considered superior to, the presentation of our net cash provided by operating activities determined in accordance with GAAP. Additionally, our definition of free cash flow is limited, in that it does not represent residual cash flows available for discretionary expenditures, due to the fact that the measure does not deduct the payments required for debt service and other contractual obligations or payments made for business acquisitions. Therefore, we believe it is important to view free cash flow as a measure that provides supplemental information to our condensed consolidated statements of cash flows.

<sup>(3)</sup> Net cash used in investing activities includes purchases of property, plant and equipment, which is also included in our computation of free cash flow.