

Second Quarter 2024

August 1, 2024 —11 a.m. ET



YOUR CATALYST FOR POSITIVE CHANGE™

Legal Discussion

Forward-Looking Statements

Some of the information contained in this presentation, the conference call during which this presentation is reviewed and any discussions that follow 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 future results of operations, financial condition, liquidity, prospects, growth, strategies, capital allocation programs (including our share repurchase program), product and service offerings, expected demand trends, our third quarter 2024 financial outlook and full year 2024 financial 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, including tariffs and trade disputes, currency exchange rates, effects of inflation and other factors, including those described in the sections titled "Risk Factors" and "Management's 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. Any forward-looking statement made by us in this presentation, the conference call during which this presentation is reviewed and any discussions that follow speaks only as of the date on which it is made. 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.

Non-GAAP Financial Measures

This presentation includes certain non-GAAP financial measures, including Adjusted EBITDA, Adjusted EBITDA Margin, Adjusted Net Income, Free Cash Flow, Adjusted Free Cash Flow, Adjusted Diluted Income per share, Net Debt Leverage Ratio, Adjusted Net Income, Adjusted Diluted Income Per Share and Cash Conversion, which are provided to assist in an understanding of our business and its performance. These non-GAAP financial measures should be considered only as supplemental to, and not as superior to, financial measures prepared in accordance with GAAP. Non-GAAP financial measures should be read only in conjunction with consolidated financials prepared in accordance with GAAP. Reconciliations of non-GAAP measures to the relevant GAAP measures are provided in the appendix of this presentation. In reliance upon the unreasonable efforts exemption provided under Item 10(e)(1)(i)(B) of Regulation S-K, 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. Because this information is uncertain, the Company is unable to address the probable significance of the unavailable information, which could be material to future results.



Legal Discussion

Supply Share and Industry Information

Certain statistical information used in this presentation is based on independent industry publications, reports by research firms or other published independent sources. Some statistical information is also based on our good faith estimates which are derived from management's knowledge of our industry and such independent sources referred to above. Certain supply share statistics, ranking and industry information included in this presentation, including the size of certain markets and our estimated supply share position and the supply share positions of our competitors, are based on management estimates. These estimates have been derived from our management's knowledge and experience in the industry and end uses into which we sell our products, as well as information obtained from surveys, reports by research firms, our customers, distributors, suppliers trade and business organizations and other contacts in the industries into which we sell our products. We believe these data to be accurate as of the date of this presentation. However, this information may prove to be inaccurate because this information cannot always be verified with complete certainty due to the limitations on the availability and reliability of raw data, the voluntary nature of the data gathering process and other limitations and uncertainties. Unless otherwise noted, all of our supply share position and industry information presented in this presentation herein is an approximation based on management's knowledge and is based on our, or, in the case supply share position information excludes volume attributable to manufacturers who produce primarily for their own consumption. In addition, references to various end uses into which we sell our products are based on how we define the end uses for our products.

Zeolyst Joint Venture

Zeolyst International and Zeolyst C.V. (our 50% owned joint ventures that we refer to collectively as the "Zeolyst Joint Venture"), are accounted for as an equity method investment in accordance with GAAP. The presentation of the Zeolyst Joint Venture's sales in this presentation represents 50% of the sales of the Zeolyst Joint Venture. We do not record sales by the Zeolyst Joint Venture as revenue and such sales are not consolidated within our results of operations. However, our adjusted EBITDA reflects our share of the earnings of the Zeolyst Joint Venture that have been recorded as equity in net income from affiliated companies in our consolidated statements of income for such periods and includes Zeolyst Joint Venture adjustments on a proportionate basis based on our 50% ownership interest. Accordingly, our adjusted EBITDA margins are calculated including 50% of the sales of the Zeolyst Joint Venture for the relevant periods in the denominator.



Key Messages - Second Quarter 2024



Sales volume up across Ecoservices businesses with high refinery utilization supporting strong demand for regeneration services.



Advanced Silicas sales increased on higher sales of niche custom catalysts.



Sales for the Zeolyst Joint Venture decreased on lower sales of catalyst materials used in sustainable fuel production and emission control applications.



Maintaining balanced capital allocation strategy - Q2'24 share repurchases of \$5 million. Announced equity investment in Pajarito Powder, LLC to expand advanced materials capabilities.



Strengthened balance sheet through amendment of Term Loan, reducing the interest rate spread and extending maturity to June of 2031.



Key Highlights

Q2 2024 Key Highlights

\$183 Mln

GAAP Sales Q2 2024

\$57 Mln

Adj. EBITDA Q2 2024¹

27%

Adj. EBITDA Margin Q2 2024^{1,2}



3.3X

Net Debt Leverage Ratio^{1,4}

72%

Cash Conversion^{1,3} \$156 Mln

Liquidity⁵



- 1. See Appendix for Reconciliations of non-GAAP measures
- 2. Adjusted EBITDA margin calculation includes proportionate 50% share of sales from the Zeolyst Joint Venture
- 3. For TTM period ended June 30, 2024. Cash Conversion = (Adjusted EBITDA Capex)/Adjusted EBITDA)
- 4. Net Debt Leverage Ratio = (Total debt Cash and cash equivalents) / Adjusted EBITDA
- 5. Liquidity = \$83 million of Cash and Cash equivalents + Availability on revolving ABL facility of \$72 million



Demand Trends and Drivers

	End Use	Key Products	2024 Demand Indicator	Anticipated Demand Drivers
	REGEN & TREATMENT SERVICES	Regeneration For Alkylation & Waste Treatment		Refinery utilization expected to remain ~91% through 2024 due to healthy alkylate margins and the summer gasoline blend shift. Gasoline production is estimated to grow by ~2% in 2H vs. 1H.
Ecoservices	INDUSTRIAL	Virgin Sulfuric Acid for Industrial, Mining & Automotive		Engineered plastics forecasted for growth as global conditions improve, with stable auto sales YoY. Copper demand remains robust due to North American projects, Chlor-Alkali demand is strong, supported by exports.
	отнек	Catalyst Activation / Sulfur Products		Strong growth demand for ex-situ catalyst activation.
Catalysts	POLYMERS	Polyethylene & Niche Custom Catalysts		Global growth 2-3% YOY, North American demand strong and exports continue, Chinese demand tepid, and low utilization rates in Europe.
જ	SSION	Catalyst for Hydrocracking		Global diesel demand expected to increase ~1% YoY; US production stable but growing rapidly as export market cools off
iced Materials	FUELS / EMI	Emission Control Catalyst		Global demand for heavy-duty vehicles is slowing due to high interest rates, changing regulations, and a weak Euro market.
Advanced	CLEAN	Catalyst for Sustainable Fuels		Despite a fourfold increase in renewables production since 2021, demand has cooled due to a decrease in RINs and project delays.
				Cautiously



Second Quarter 2024 Financial Performance



Financial Performance - Q2 2024

Second Quarter Financial Results

(\$ in millions)	Second Quarter 2024	Second Quarter 2023	\$ Change	% Change
Ecovyst Sales	182.8	184.1	(1.3)	(0.7)
Zeolyst Joint Venture Sales	29.0	44.7	(15.7)	(35.1)
Net Income	8.3	26.1	(17.8)	(68.2)
Net Income Margin (%)	4.5	14.2		NM
Adjusted EBITDA ¹	56.9	79.3	(22.4)	(28.2)
Adjusted EBITDA Margin ^{1,2} (%)	26.8	34.7		(790 bps)

(\$ in millions)	\$ Change	% Change
Sales Change Factors ³	(1.3)	(0.7)
Volume	15.5	8.4
Price (ex sulfur pass-through)	(13.8)	(7.5)
Price impact of sulfur pass-through	(3)	(1.6)



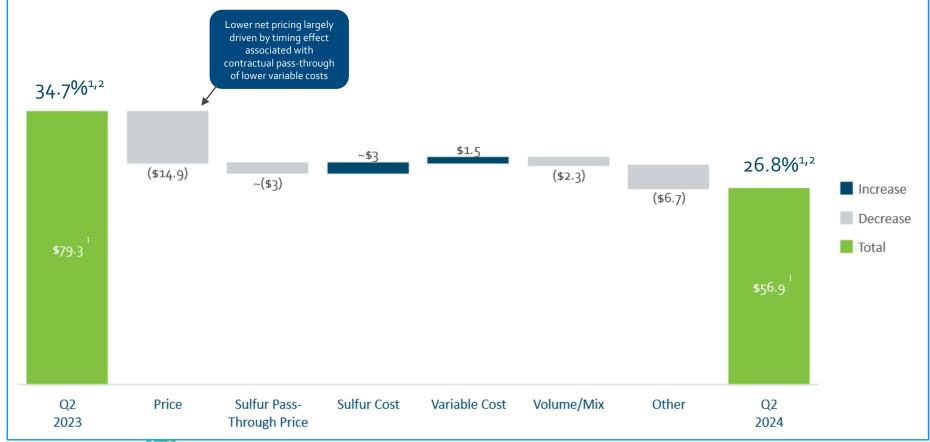
^{1.} See Appendix for Reconciliations of non-GAAP measures

Adjusted EBITDA margin calculation includes proportionate 50% share of sales from the Zeolyst Joint Venture
 Sales Change Factors exclude the Zeolyst Joint Venture

Adjusted EBITDA Bridge - Q2 2024



- Decrease in Q2 '24 Adjusted EBITDA primarily driven by:
 Lower net pricing associated with the timing and contractual pass-through effect of lower variable costs, and
 An increase in planned turnaround and maintenance costs





^{1.} See Appendix for Reconciliations of non-GAAP measures

Ecoservices - Q2 2024 Financial Performance

(\$ in millions)	Second Quarter 2024	Second Quarter 2023	\$ Change	% Change
Sales	153.9	158.1	(4.2)	(2.7)
Adjusted EBITDA ¹	49.7	60.1	(10.4)	(17.3)
Adjusted EBITDA Margin¹ (%)	32.3	38.0		(570) bps

Highlights

- Volume up with high refinery utilization and favorable alkylate economics contributing to strong demand for regeneration services.
- Lower Adjusted EBITDA driven by unfavorable net pricing associated with pass-through of lower variable costs, including energy, and higher planned turnaround and maintenance costs, partially offset by higher sales volume
- Adjusted EBITDA margin of 32.3%, down 570 basis points reflecting the unfavorable net pricing and higher costs associated with planned turnaround and maintenance activity.

Advanced Materials & Catalysts - Q2 2024 Financial Performance

(\$ in millions)	Second Quarter 2024	Second Quarter 2023	\$ Change	% Change
Advanced Silicas Sales	28.9	26.0	2.9	11.2
Zeolyst Joint Venture Sales	29.0	44.7	(15.7)	(35.1)
Adjusted EBITDA ¹	14.7	25.4	(10.7)	(42.1)
Adjusted EBITDA Margin ^{1,2} (%)	25.4	35.9		(10.5)

Highlights

- Advanced Silicas sales increased on higher sales of niche custom catalysts
- Zeolyst Joint Venture sales decreased on lower sales of catalyst materials used in sustainable fuel production and emission control applications
- Lower Adjusted EBITDA and Adjusted EBITDA margin reflects lower sales within the Zeolyst Joint Venture, partially offset by higher sales volume in Advanced Silicas

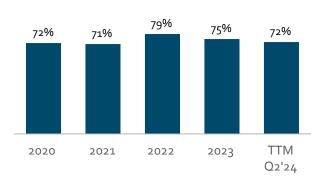


^{1.} See Appendix for Reconciliations of non-GAAP measures

Cash & Leverage

Strong Cash Conversion Provides for Capital Allocation Flexibility

Cash Conversion¹



Cash Generation

- Continued strong cash flow from operations
- Available liquidity of \$156 million³ as of June 30, 2024

Share repurchase authorization

- Originally \$450 million/4 years
- Returned capital to shareholders via \$137 million of share repurchases in 2022 and \$79 million in 2023
- During Q2'24, repurchased ~552 thousand shares at an average of \$9.05 per share for a total of \$5 million
- Approximately \$230 million remaining under share repurchase authorization

Net Debt Leverage Ratio²



Leverage Ratio and Debt Profile

- Strong cash generation capability has provided for historic reduction in leverage, limited by recent share repurchases
- Increase in Net Debt Leverage Ratio at 6/30/2024 reflected lower TTM Adjusted EBITDA and cash deployed for share repurchases and Term Loan amendment, with no increase in gross debt
- During the second guarter of 2024, amended and extended Term Loan, reducing interest rate margin and extending maturity to June 2031
- No maintenance covenants on leverage
- Interest rate caps limit rate exposure, with weighted average cost of debt of approximately 5.5%



- 2. Net Debt Leverage Ratio = (Total debt Cash and cash equivalents) / Adjusted EBITDA. See Appendix for Reconciliations of non-GAAP measures
- 3. Liquidity = \$83 million of Cash and Cash equivalents + Availability on revolving ABL facility of \$72 million



Ecovyst 2024 Outlook

(\$ in millions, except per share)	2023 Actual
Sales ¹	\$691
Zeolyst Joint Venture Sales	\$157
Adjusted EBITDA ²	\$260
Free Cash Flow ²	\$72
Capital Expenditures	\$65
Interest Expense	\$45
Depreciation & Amortization	
Ecovyst	\$85
Zeolyst Joint Venture	\$13
Effective Tax Rate	
Adjusted Net Income	
Adjusted Diluted Income per share	

Prior 2024 Outlook	Revised 2024 Outlook
\$715 - \$755	\$700 - \$740
\$145 - \$165	\$115 - \$135
\$255 - \$275	\$230 - \$245
\$85 - \$105	\$75 - \$85
\$70 - \$80	\$70 - \$80
\$45 - \$55	\$48 - \$52
\$85 - \$95	\$88 - \$92
\$12 - \$14	\$12 - \$14
mid 20% range	mid 20% range
	\$53 to \$74
	\$0.45 to \$0.63

Q3 2024 Outlook						
Adjusted EBITDA ²	\$58 to \$65					
Adjusted Net Income	\$14 to \$21					
Adjusted Diluted Income per share	\$0.12 to \$0.18					

• Relative to 2023, the pass-through effect of changes in sulfur costs on 2024 Sales is expected to be largely immaterial



GAAP sales only; Excludes proportionate 50% share of the Zeolyst Joint Venture sales
 See Appendix for Reconciliations of non-GAAP measures

Summary



Expect demand fundamentals for regeneration, treatment services and catalyst activation to remain positive for balance of the year, expect sales of virgin sulfuric acid to be up in 2024, but cautious about macro-economic headwinds in the second half of 2024.



Focused on manufacturing efficiencies and cost controls as we expect lower demand fundamentals for catalyst materials used for sustainable fuels and emission control applications.



Continued focus on strategic execution and growth, as evidenced by Pajarito Powder investment.



Expect year-over-year increased free cash flow generation in 2024 to provide for capital allocation flexibility.





Annual Segment Sales, Adjusted EBITDA and Margins

	Trailing Twelve Months Ended				
	(TTM)		Year Ended	December 31,	
(\$ in millions, except %)	June 30, 2024	2023	2022	2021	2020
Sales:					
Ecoservices	584.5	584.8	702.5	500.5	401.9
Advanced Silicas	104.9	106.3	117.7	110.7	94.0
Total sales	689.4	691.1	820.2	611.2	495-9
Zeolyst Joint Venture sales	142.3	156.5	132.6	131.3	128.6
Adjusted EBITDA1:					
Ecoservices	194.3	200.0	227.8	177.7	157.2
Advanced Materials & Catalysts	69.4	81.9	78.0	88.0	74.5
Unallocated corporate expenses	(23.6)	(22.0)	(29.0)	(38.1)	(39.1)
Total Adjusted EBITDA	240.1	259.9	276.8	227.6	192.6
Adjusted EBITDA Margin¹:					
Ecoservices	33.2%	34.2%	32.4%	35.5%	39.1%
Advanced Materials & Catalysts	28.1%	31.2%	31.2%	36.4%	33.5%
Total Adjusted EBITDA Margin ^{1,2}	28.9%	30.7%	29.0%	30.7%	30.8%

^{*} Rounding discrepancies may arise when rounding results from dollars (in thousands) to dollars (in millions)



^{1.} See Appendix for Reconciliations of non-GAAP measures

^{2.} Totals include corporate costs

Ecoservices: North American Leader in Sulfuric Acid Recycling and Related Services with Key Competitive Position in Gulf Coast and California

ANTICIPATED FUTURE GROWTH FACTORS

- Existing customer re-contracting, and favorable alkylate fundamentals expected to drive growth for regeneration services
- Rising virgin acid consumption for electrification and green infrastructure enabling materials mining
- Increasing demand for sustainable waste solutions from industrials benefiting Treatment Services
- Accelerating off site Catalyst Activation demand from sustainable fuels producers and traditional refineries



UNRIVALED SUPPLY INFRASTRUCTURE

- Managing end to end supply chain & customer inventories
- Production redundancy in key refining locations enables the highest degree of reliability

FAVORABLE CUSTOMER POSITIONS

- Long-term contracts with cost passthrough
- Typically, 100% of supply for customer sites
- Take-or-pay and capacity reservation fees



Advanced Materials & Catalysts: Global Leader in Tailored Catalyst Solutions

ANTICIPATED FUTURE GROWTH FACTORS

- Preferred technology and increasing product offerings for strengthening & light weighting of materials projected to drive growth in polyethylene catalysts
- Growing demand for sustainable fuels
- New product launches supporting the ongoing product development and collaboration with customers, including plastic recycling



FLEXIBLE MANUFACTURING NETWORK

- Improved manufacturing network efficiencies
- Continued debottlenecking production capacity for sold out product lines

FAVORABLE CUSTOMER POSITIONS

- Historical growth higher than market with existing polyethylene customers
- Strong growth in custom catalysts; diversified across multiple chemical processes
- Collaborating on multiple product development projects for new offerings in sustainable fuels and materials and recycling of polymers



Quarterly Segment Sales, Adjusted EBITDA and Margins

	Three Mon	ths Ended	Six Months Ended	Three Mon	ths Ended	Six Months Ended
(\$ in millions, except %)	March 31, 2024	June 30, 2024	June 30, 2024	March 31, 2023	June 30, 2023	June 30, 2023
Sales:						
Ecoservices	141.6	153.9	295.6	137.8	158.1	295.8
Advanced Silicas	18.9	28.9	47.8	23.1	26.0	49.2
Total sales	160.5	182.8	343-4	160.9	184.1	345.0
Zeolyst Joint Venture sales	23.5	29.0	52.5	22.1	44.7	66.8
Adjusted EBITDA:1						
Ecoservices	41.5	49.7	91.2	36.8	60.1	96.9
Advanced Materials & Catalysts	11.1	14.7	25.8	13.0	25.4	38.4
Unallocated corporate expenses	(7.1)	(7.5)	(14.6)	(6.9)	(6.2)	(13.1)
Total Adjusted EBITDA	45∙5	56.9	102.4	42.9	79-3	122.2
Adjusted EBITDA Margin¹:						
Ecoservices	29.3%	32.3%	30.9%	26.7%	38.0%	32.8%
Advanced Materials & Catalysts	26.2%	25.4%	25.7%	28.8%	35.9%	33.1%
Total Adjusted EBITDA Margin ^{1,2}	24.7%	26.8%	25.9%	23.4%	34.7%	29.7%

^{*} Rounding discrepancies may arise when rounding results from dollars (in thousands) to dollars (in millions)



^{1.} See Appendix for Reconciliations of non-GAAP measures

^{2.} Totals include corporate costs

Sales and Adjusted EBITDA Major Change Factors

Sales

	Three Months Ended June 30, 2024					
Sales (in \$ millions and %)	Ecovyst		Ecoservices		Advanced Silicas	
Sales:	\$	%	\$	%	\$	%
Volume	15.5	8.4	12.8	8.1	2.7	10.4
Price/Mix	(16.8)	(9.1)	(17.0)	(10.8)	0.2	0.8
Sales Change	(1.3)	(0.7)	(4.2)	(2.7)	2.9	11.2

Six Months Ended June 30, 2024								
Ecovyst		Ecoservices		Adva Sili	nced cas			
\$	%	\$ %		\$	%			
31.4	9.8	33.1	11.2	(1.7)	(3.5)			
(33.0)	(10.3)	(33.3)	(11.3)	0.3	0.6			
(1.6)	(0.5)	(0.2)	(0.1)	(1.4)	(2.9)			

Adjusted EBITDA

	Three Months Ended June 30, 2024						
Adj. EBITDA (in \$ millions and %)	Ecovyst		Ecoservices		Advanced Materials & Catalysts		
Adj EBITDA:	\$	%	\$	%	\$	%	
Volume/Mix	(2.2)	(2.8)	8.1	13.5	(10.3)	(40.6)	
Price ¹	(14.9)	(18.8)	(14.0)	(23.3)	(0.9)	(3.5)	
Variable Cost ¹	1.5	1.9	1.5	2.5	_	_	
Currency	0.3	0.4	_	_	0.3	1.2	
Other	(7.1)	(9.0)	(6.0)	(10.0)	0.2	0.8	
Adj EBITDA Change	(22.4)	(28.3)	(10.4)	(17.3)	(10.7)	(42.1)	

Six Months Ended June 30, 2024								
Ecov	Ecovyst		Ecoservices		nced rials & lysts			
\$	%	\$	%	\$	%			
7.4	6.1	17.2	17.8	(9.8)	(25.5)			
(25.8)	(21.1)	(25.3)	(26.1)	(0.5)	(1.3)			
13.8	11.3	13.8	14.2	_	_			
0.4	0.3	_	_	0.4	1.0			
(15.6)	(12.8)	(11.4)	(11.8)	(2.7)	(7.0)			
(19.8)	(16.2)	(5.7)	(5.9)	(12.6)	(32.8)			

^{1.} Excludes the sulfur cost pass-through impact reflected in price and the associated sulfur cost reflected in variable cost; \$3 million and \$8 million for the three and six months ended June 30, 2024



Reconciliation of Net Income to Adjusted EBITDA

	Three Months Ended	TTM		Year Ended			
(\$ in millions, except %)	June 30, 2024	June 30, 2024	December 31, 2023	December 31, 2022	December 31, 2021	December 31, 2020	
Reconciliation of net income to Adjusted EBITDA							
Net income	8.3	56.1	71.2	69.8	1.8	54.3	
Provision (benefit) for income taxes	3.1	5.4	10.8	24.9	12.1	(52.1)	
Interest expense, net	12.9	52.0	44.7	37.2	37.0	50.4	
Depreciation and amortization	21.6	86.9	84.6	79.2	79.7	76.9	
EBITDA	45.9	200.4	211.3	211.1	130.6	129.5	
Joint venture depreciation, amortization and interest ^(a)	3.2	13.1	13.4	16.0	15.6	14.7	
Amortization of investment in affiliate step-up(b)	0.9	5.7	6.4	6.4	6.5	6.6	
Debt extinguishment costs	4.6	4.6	_	_	26.9	25.0	
Net loss on asset disposals ^(c)	_	2.4	4.1	3.6	5.7	4.7	
Foreign currency exchange (gain) loss ^(d)	(0.1)	_	(1.3)	1.4	4.7	(5.3)	
LIFO (benefit) expense ^(e)	(1.5)	(1.6)	3.5	(0.2)	(1.9)	(5.3)	
Transaction and other related costs ^(f)	0.1	0.6	3.0	7.0	2.0	1.1	
Equity-based compensation	3.8	14.4	16.0	20.6	31.8	17.2	
Restructuring, integration and business optimization expenses $^{(g)}$	0.2	1.0	2.7	11.6	3.0	2.0	
Other ^(h)	(0.2)	(0.5)	0.8	(0.7)	2.7	2.4	
Adjusted EBITDA ¹	56.9	240.1	259.9	276.8	227.6	192.6	



 ^{1.} For additional information with respect to each adjustment, see appendix "Descriptions for reconciliations of Non-GAAP financial measures"
 * Rounding discrepancies may arise when rounding results from dollars (in thousands) to dollars (in millions)

Reconciliation of Net Income to Adjusted EBITDA

	Three Mon	ths Ended	TTM		Three Months Ended			Twelve Months Ended
(\$ in millions, except %)	March 31, 2024	June 30, 2024	June 30, 2024	March 31, 2023	June 30, 2023	September 30, 2023	December 31, 2023	December 31, 2023
Reconciliation of net income (loss) to Adjusted EBITDA								
Net income (loss)	1.2	8.3	56.1	(1.5)	26.1	16.6	30.0	71.2
Provision (benefit) for income taxes	1.2	3.1	5.4	0.9	8.8	7.9	(6.8)	10.8
Interest expense, net	13.4	12.9	52.0	9.9	9.2	11.8	13.9	44.7
Depreciation and amortization	21.9	21.6	86.9	20.2	21.0	21.3	22.1	84.6
EBITDA	37.7	45.9	200.4	29.5	65.1	57.6	59.2	211.3
Joint venture depreciation, amortization and interest ^(a)	3.3	3.2	13.1	3.6	3.2	3.3	3.3	13.4
Amortization of investment in affiliate step-up(b)	1.6	0.9	5.7	1.6	1.6	1.6	1.6	6.4
Debt extinguishment costs	_	4.6	4.6	_	_	_	_	_
Net loss on asset disposals ^(c)	0.6	_	2.4	1.2	1.1	1.0	0.8	4.1
Foreign currency exchange loss (gain) ^(d)	0.2	(0.1)	_	(0.7)	(0.4)	0.8	(0.9)	(1.3)
LIFO (benefit) expense ^(e)	(1.1)	(1.5)	(1.6)	1.4	1.1	_	1.0	3.5
Transaction and other related costs ^(f)	0.1	0.1	0.6	1.4	1.2	0.2	0.2	3.0
Equity-based compensation	3.7	3.8	14.4	4.1	5.0	3.5	3.4	16.0
Restructuring, integration and business optimization expenses ^(g)	0.2	0.2	1.0	1.0	1.1	0.3	0.3	2.7
Other ^(h)	(0.8)	(0.2)	(0.5)	(0.2)	0.3	(0.4)	0.9	0.8
Adjusted EBITDA ¹	45-5	56.9	240.1	42.9	79-3	67.9	69.8	259.9
EBITDA Adjustments by Line Item								
EBITDA	37-7	45-9	200.4	29.5	65.1	57.6	59.2	211.3
Cost of goods sold	(1.9)	(2.3)	(4.8)	0.6	0.3	(0.8)	0.2	0.4
Selling, general and administrative expenses	3.7	3.8	14.5	4.1	5.0	3.5	3.5	16.1
Other operating expense, net	1.0	0.5	5.8	4.1	3.7	1.8	2.5	12.1
Equity in net (income) from affiliated companies	1.6	0.9	5.7	1.6	1.6	1.6	1.6	6.4
Other (income) expense, net ²	0.2	4.9	5-5	(0.6)	0.4	0.9	(0.5)	0.2
Joint venture depreciation, amortization and interest ^(a)	3.2	3.2	13.0	3.6	3.2	3.3	3.3	13.4
Adjusted EBITDA	45.5	56.9	240.1	42.9	79-3	67.9	69.8	259.9



For additional information with respect to each adjustment, see appendix "Descriptions for reconciliations of Non-GAAP financial measures"

^{2.} Other (income) expense, net includes debt extinguishment costs

* Rounding discrepancies may arise when rounding results from dollars (in thousands) to dollars (in millions)

Descriptions for reconciliation of Non-GAAP financial measures

- (a) We use Adjusted EBITDA as a performance measure to evaluate our financial results. Because our Advanced Materials & Catalysts segment includes our 50% interest in the Zeolyst Joint Venture, we include an adjustment for our 50% proportionate share of depreciation, amortization and interest expense of the Zeolyst Joint Venture.
- (b) Represents the amortization of the fair value adjustments associated with the equity affiliate investment in the Zeolyst Joint Venture as a result of the combination of the businesses of PQ Holdings Inc. and Eco Services Operations LLC in May 2016. We determined the fair value of the equity affiliate investment and the fair value step-up was then attributed to the underlying assets of the Zeolyst Joint Venture. Amortization is primarily related to the fair value adjustments associated with intangible assets, including customer relationships and technical know-how.
- (c) 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.
- (d) Reflects the exclusion of the foreign currency transaction gains and losses in the statements of income related to the non-permanent intercompany debt denominated in local currency translated to U.S. dollars.
- (e) Represents non-cash adjustments to the Company's LIFO reserves for certain inventories in the U.S. that are valued using the LIFO method, effectively reflecting the results as if these inventories were valued using the FIFO method, which we believe provides a means of comparison to other companies that may not use the same basis of accounting for inventories.
- (f) Relates to certain transaction costs, including debt financing, due diligence and other costs related to transactions that are completed, pending or abandoned, that we believe are not representative of our ongoing business operations.
- (g) Includes the impact of restructuring, integration and business optimization expenses, which are incremental costs that are not representative of our ongoing business operations.
- (h) Other consists of adjustments for items that are not core to our ongoing business operations. These adjustments include environmental remediation and other legal costs, expenses for capital and franchise taxes, and defined benefit pension and postretirement plan (benefits) costs, for which our obligations are under plans that are frozen. Also included in this amount are adjustments to eliminate the benefit realized in cost of goods sold of the allocation of a portion of the contract manufacturing payments under the five-year agreement with the buyer of the Performance Chemicals business to the financing obligation under the failed sale-leaseback. Included in this line-item are rounding discrepancies that may arise from rounding from dollars (in thousands) to dollars (in millions).



Adjusted Free Cash Flow

(\$ in millions)	Full Year 2023	Six months ended June 30, 2024
Net cash provided by operating activities	137.6	46.4
Less: Purchases of property, plant and equipment ¹	65.3	36.6
Free Cash Flow	72.3	9.8
Cash paid for debt financing costs included in cash from operating activities	_	4.6
Adjusted Free Cash Flow	72.3	14.4

(\$ in millions)	Full Year 2023	Six months ended June 30, 2024
Included in net cash provided by operating activities are the following supplemental cash items:		
Cash paid for taxes	22.4	16.4
Cash paid for interest ²	42.1	33.2

- 1. Excludes the Company's proportionate 50% share of capital expenditures from the Zeolyst Joint Venture
- 2. Shown net of capitalized interest and includes the cash received or paid on interest rate cap agreements
- * Rounding discrepancies may arise when rounding results from dollars (in thousands) to dollars (in millions)



Cash Conversion & Leverage

Cash Conversion

(\$ in millions, except %)	2020	2021	2022	2023	TTM Q2 2024
Adjusted EBITDA	192.6	227.6	276.8	259.9	240.1
Less: Capex ¹	54.5	66.4	59.5	65.3	66.2
Cash Conversion	138.1	161.2	217.5	194.6	173.9
Cash Conversion %2	72%	71%	79%	75%	72%

Net Debt Leverage Ratio

(\$ in millions, except %)	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024
Total debt	882.0	879.8	877.5	875.3	873.0
Less: Cash and cash equivalents	29.2	38.3	88.4	103.1	83.3
Net debt	852.8	841.5	789.1	772.2	789.7
Net income	67.4	62.7	71.2	73-9	56.1
Adjusted EBITDA	266.8	259.3	259.9	262.5	240.1
Net Debt to Net Income Ratio	12.7X	13.4X	11.1X	10.4X	14.1X
Net Debt Leverage Ratio	3.2X	3.2X	3.ox	2.9X	3.3×



^{1.} Capex for cash conversion includes 50% of spend for the Zeolyst Joint Venture 2. Cash Conversion % = (Adjusted EBITDA – Capex)/(Adjusted EBITDA)

