# Albemarle Corporation

**Investor Presentation** 

May 2019



# **Forward-Looking Statements**

Some of the information presented in this presentation, the earnings conference call and discussions that follow, including, without limitation, information related to outlook and guidance, conversion capacity, production volumes, proposed joint ventures, market trends, pricing, expected growth, earnings and demand for our products, tax rates, dividends, cash flow generation, capital projects, electric vehicle demand, economic trends and all other information relating to matters that are not historical facts may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Actual results could differ materially from the views expressed.

Factors that could cause actual results to differ materially from the outlook expressed or implied in any forward-looking statement include, without limitation: changes in economic and business conditions; changes in financial and operating performance of our major customers and industries and markets served by us; the timing of orders received from customers; the gain or loss of significant customers; competition from other manufacturers; changes in the demand for our products or the end-user markets in which our products are sold; limitations or prohibitions on the manufacture and sale of our products; availability of raw materials; increases in the cost of raw materials and energy, and our ability to pass through such increases to our customers; changes in our markets in general; fluctuations in foreign currencies; changes in laws and government regulation impacting our operations or our products; the occurrence of regulatory actions, proceedings, claims or litigation; the occurrence of cybersecurity breaches, terrorist attacks, industrial accidents, natural disasters or climate change; the inability to maintain current levels of product or premises liability insurance or the denial of such coverage; regulatory approvals and the satisfaction of other closing conditions with respect to pending acquisitions; political unrest affecting the global economy, including adverse effects form terrorism or hostilities; political instability affecting our manufacturing operations or joint ventures; changes in accounting standards; the inability to achieve results from our global manufacturing cost reduction initiatives as well as our ongoing continuous improvement and rationalization programs; changes in the jurisdictional mix of our earnings and changes in tax laws and rates; changes in monetary policies, inflation or interest rates that may impact our ability to raise capital or increase our cost of funds, impact the performance of our pension fund investments and increase our pension expense and funding obligations; volatility and uncertainties in the debt and equity markets; technology or intellectual property infringement, including cyber-security breaches, and other innovation risks; decisions we may make in the future; the ability to successfully execute, operate and integrate acquisitions and divestitures; and the other factors detailed from time to time in the reports we file with the SEC, including those described under "Risk Factors" in our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q. These forward-looking statements speak only as of the date of this presentation. We assume no obligation to provide any revisions to any forward-looking statements should circumstances change, except as otherwise required by securities and other applicable laws.



#### **Non-GAAP Financial Measures**

It should be noted that Adjusted net income attributable to Albemarle Corporation ("Adjusted earnings"), Adjusted diluted earnings per share attributable to Albemarle Corporation, Adjusted effective income tax rates, segment operating profit, segment income, pro-forma net sales, net sales excluding the impact of foreign exchange translation ("ex FX"), EBITDA, Adj. EBITDA by operating segment, EBITDA margin, Adj. EBITDA margin, pro-forma Adj. EBITDA, pro-forma Adj. EBITDA excluding the impact of foreign exchange translation ("ex FX"), Adj. EBITDA margin excluding the impact of foreign exchange translation ("ex FX"), net debt to Adj. EBITDA, gross debt to Adj. EBITDA, free cash flow, and Adjusted free cash flow are financial measures that are not required by, or presented in accordance with, accounting principles generally accepted in the United States, or GAAP. These measures are presented here to provide additional useful measurements to review our operations, provide transparency to investors and enable period-to-period comparability of financial performance. The Company's chief operating decision maker uses these measures to assess the ongoing performance of the Company and its segments, as well as for business and enterprise planning purposes.

A description of these and other non-GAAP financial measures that we use to evaluate our operations and financial performance, and reconciliation of these non-GAAP financial measures to the most directly comparable financial measures calculated and reported in accordance with GAAP, can be found in the Appendix to this presentation. The Company does not provide a reconciliation of forward looking non-GAAP financial measures to the most directly comparable financial measures calculated and reported in accordance with GAAP, as the Company is unable to estimate significant non-recurring or unusual items without unreasonable effort. The amounts and timing of these items are uncertain and could be material to the Company's results calculated in accordance with GAAP.



### **Albemarle Snapshot**

Founded	1887
Global Employees	~5,600
Countries <sup>1</sup>	~100
Dividend Yield <sup>2</sup>	2.0%
Market Cap <sup>3</sup>	\$7.7B

#### **Financial Highlights**

Twelve Months Ended March 31, 2019

Net Sales	\$3.4B
Net Income <sup>4</sup>	\$695M
Adj. EBITDA	\$984M
Adj. EBITDA Margin	29%

■ Lithium

Catalysts

All Other

■ Bromine Specialties

#### **Net Sales by Segment**

Twelve Months Ended March 31, 2019

36%



<sup>&</sup>lt;sup>1</sup>Based on destinations of FY2018 product sales.

<sup>&</sup>lt;sup>2</sup>\$72.61 closing price as of May 9th, 2019; annualized dividend of \$1.47 per share announced February 26, 2019. <sup>3</sup>\$72.61 closing price as of May 9th, 2019; 105,950 million shares outstanding as of March 31, 2019.



### 2018 was another step towards strategy announced in 2017

#### Grow



#### Invest in Lithium to meet market demand

- Lithium grew adj. EBITDA 19% (FY 2018 vs FY 2017)
- La Negra III / IV expansion 4Q 2020/ 1Q 2021 commissioning
- Started Xinyu II commissioning process
- Commenced site work at Kemerton
- Extended a number of critical long-term agreements at 2018 price levels

#### Maintain



# Strengthen and make the most of Bromine, Catalysts and other mature businesses

- Bromine and Catalysts each contributed double digit adj. EBITDA growth<sup>1</sup>
- SAYTEX® CP-2000 (tetrabrom) expansion at JBC

# Build on manufacturing excellence and integration successes to drive efficiencies

• Implemented first of four deployments on new SAP system

### 2018 was another step towards strategy announced in 2017

#### Assess

4 Invest



#### Active and continuous assessment of our portfolio of businesses

Completed sale of Polyolefin Catalyst & Components

#### Opportunities to accelerate and strengthen strategy

- Definitive agreement to form Lithium Hydroxide JV with Mineral Resources Limited
- Exercised option on Antofalla resource in Argentina and completed drilling program at Kings Mountain

#### Invest



#### Maintain a disciplined approach to capital allocation

- \$145 million in dividends; 24th consecutive year of increases
- Completed \$500 million in share buybacks
- \$700 million in CapEx for returns at least 2x cost of capital

# **Leadership Across Businesses Is Driven By Core Strengths**

	Lithium Bromine Specialti		Catalysts	
Global Ranking	#1	#2	#2	
Adj. EBITDA¹	\$515M	\$297M	\$276M	
Adj. EBITDA Margin¹	42%	32%	25%	
Key Competitors	SQM THE WORLDWIDE BURNESS FORMULA	LANXESS ICL	The Chemical Company  LANXESS  Energistry Chemistry  Akzonobel	
Advantages	Globally Diversified, Low Cost Resources; Leading Processing and Application Expertise; Customer Relationships	Globally Diversified, Low Cost Resources; Integrated Product Portfolio	Leading Technology and Application Expertise; Product Stewardship; Customer Relationships	

### **Bromine Specialties Snapshot**

#### **Annual Financials**

Twelve Months Ended March 31, 2019

Net Sales \$941M

Adj. EBITDA \$297M

Adj. EBITDA Margin 32%

#### **Characteristics**

- Mineral extraction and processing
- Low-cost position on global cost curve
- Vertically integrated
- Stable and sustainable cash flow

#### **Applications**



- Flame retardants for electronics and construction materials
- Completion fluids for oilfield
- Industrial water treatment
- Plastic and synthetic rubber
- Ag and pharma synthesis

#### **Business Environment**

- Stable flame retardants demand across electronics, construction and automotive
- Current completion fluid weakness due to oil prices, with a favorable and long-term outlook
- Excess bromine capacity is limited to few suppliers

Advantaged Position. Stable End Markets. Strong Sustainable Cash Flow.

## **Catalysts Snapshot**

Annual Financials		Characteristics			
Twelve Months Ended March 31, Net Sales Adj. EBITDA Adj. EBITDA Margin	Adj. EBITDA \$276M		<ul> <li>Leading positions in FCC and HPC catalysts</li> <li>Technology and applications knowledge</li> <li>Focused on value creation for refiners</li> <li>Long-term, collaborative customer relationships</li> <li>High barriers-to-entry</li> <li>Strong free cash flow¹ generation with growth</li> <li>Safety, scale and technical service</li> </ul>		
Fluid Cracking Catalysts (FCC)	Clean Fuels Technology (CFT)		Polymer Catalyst Solutions (PCS)		
<ul><li>FCC Catalyst</li><li>Cracks oil feedstock</li><li>Makes gasoline</li><li>Makes propylene</li></ul>	<ul> <li>HPC Catalyst</li> <li>Removes sulfur and contaminants</li> <li>Makes clean diesel</li> <li>Makes clean oil-feedstock</li> </ul> Alkylation & Isomerization Catalyst		PCS Polymers Rubbers Pharma Synthesis Coatings		

Leadership in FCC and HPC catalysts with High Margin Business with High Barriers-to-Entry

### **Lithium Snapshot**

#### **Annual Financials**

Twelve Months Ended March 31, 2019

Net Sales \$1,222M

Adj. EBITDA \$515M

Adj. EBITDA Margin 42%

#### **Applications**

- Energy storage (Batteries)
- Glasses and Ceramics
- Greases and Lubricants
- Pharmaceutical Synthesis
- Polyolefins and Elastomers



#### **Characteristics**

- Mining and specialty chemicals capability
- Vertically integrated from natural resource to specialty performance products
- Low cost position globally

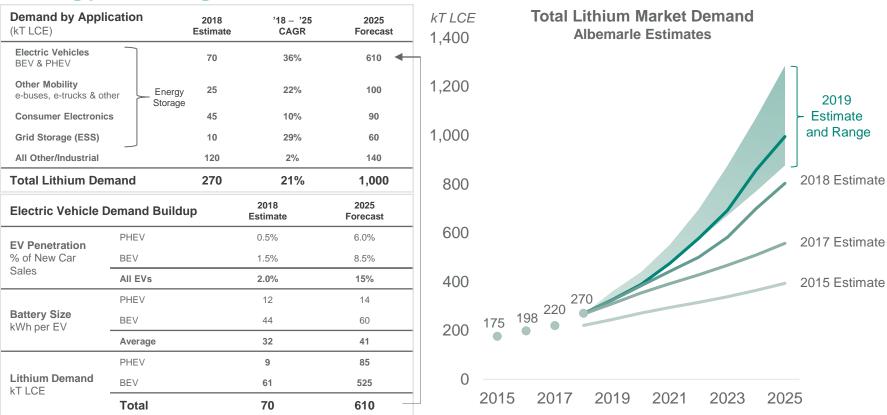
#### **Business Environment**

- Volume growth driven by energy storage
- Public policy accelerating e-mobility / renewables
- Battery cost declining / performance improving
- Long-term supply agreements becoming industry standard

Best-In-Class Resources Coupled with Derivatives Expertise Are Differentiators



# **Energy Storage Continues to Drive Lithium Demand**

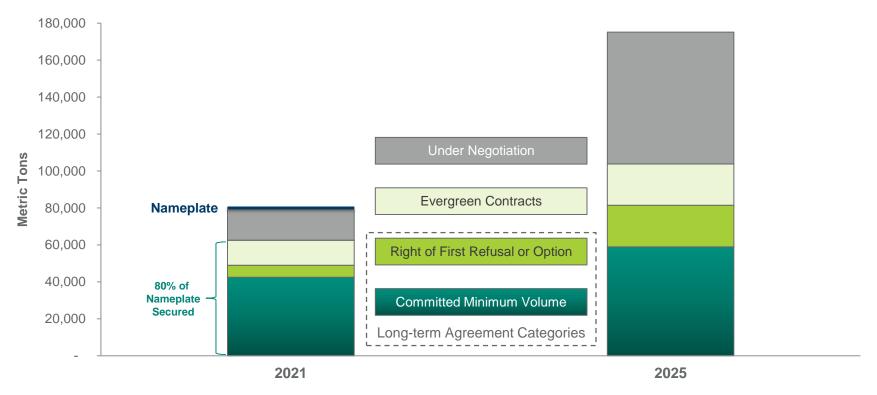


Lithium Intensity: 0.95 and 0.93 kg LCE/kWh in 2018 and 2025, respectively; New Car Sales: 95 and 109 million in 2018 and 2025, respectively



### **Lithium Hydroxide Under Contract**

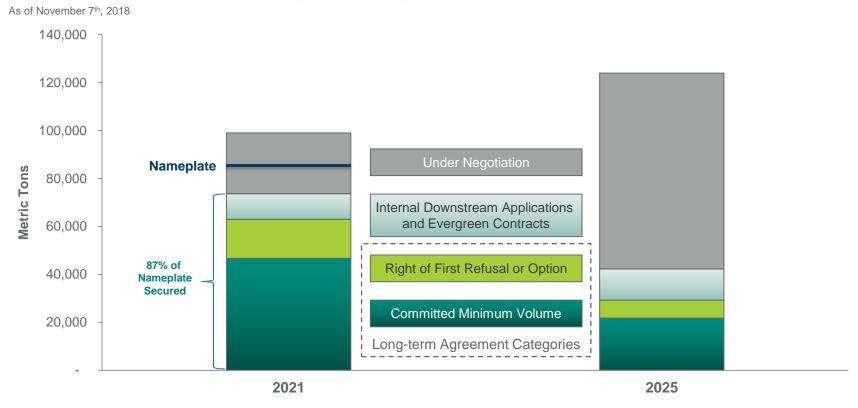
As of November 7th, 2018



2021 and 2025 sales price for Committed Minimum Volume is equal to or greater than the 2018 average selling price



#### **Lithium Carbonate Under Contract**



2021 and 2025 sales price for Committed Minimum Volume is equal to or greater than the 2018 average selling price

#### **Lithium Contract Definitions**

**Committed Minimum Volume:** The minimum volume that customer has committed to purchase under long-term agreement.

**Right of First Refusal (ROFR):** If customer has demand above the **Committed Minimum Volume**, it must offer that volume to Albemarle. Albemarle has the option, but is not required, to supply this volume.

**Option:** Customer demand above the **Committed Minimum Volume** and **ROFR** categories. Albemarle has the option, but is not required, to supply this volume.

**Evergreen Contracts:** One to two-year contracts with customers (the majority for use in greases, ceramics and lubricants) with evergreen provisions, many of which have already extended beyond their initial term. Contracts with evergreen provisions are automatically renewed (rolled over) after the then expiring term until cancelled by either party.

**Internal Downstream Applications:** Lithium volume that is converted by Albemarle to downstream derivatives such as lithium hydroxide, butyl lithium, lithium metal and lithium halides.

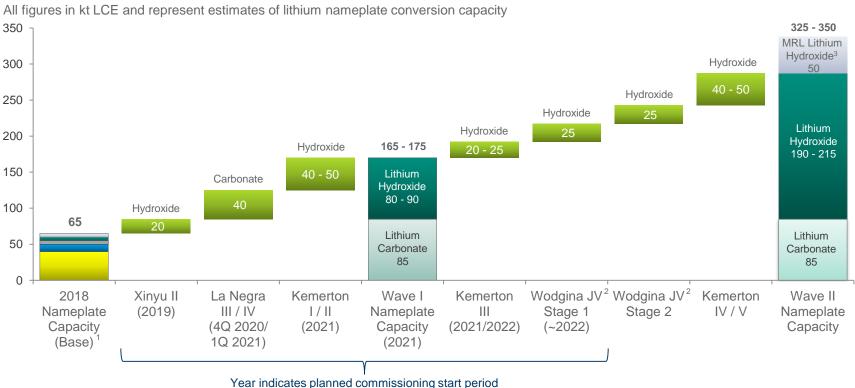
### **Chile Regulatory Environment and Status**

	Chile Environmental Superintendent (SMA)	Chile's Economic Development Agency (CORFO)	The Chilean Nuclear Energy Commission (CCHEN)
Regulatory Authority	Enforces operating permit that defines brine pump rate at the Salar de Atacama	Authorizes production of lithium	Authorizes sales of lithium
Permits and Agreements	January 2016 Permit: Allows Albemarle to pump brine at an annual average rate of 442 liters per second by the end of 2018. This permit expires in 2044.	Original Agreement: 0.6 million LCE remaining as of January 2017 January 2017 Amendment: Provides Albemarle with authorization to produce an incremental 1.4 million MTs LCE March 2018 Amendment: If Albemarle elects to build Chile V / VI, allows Albemarle to produce an incremental 1.4 million MTs LCE	January 2017 Authorization: Authorizes sale of lithium production quota granted by CORFO in January 2017 Amendment.  March 2018: Simultaneous with March 2018 CORFO Amendment, Albemarle submitted request to increase the lithium sales authorization  September 2018: CCHEN rejected March 2018 submission  November 2018: Albemarle working with CCHEN to address concerns prior to resubmission
Estimated Annual Volume through 2043 (MTs LCE per year)	80,000 at current lithium yield; SMA enforces brine pump rate, not lithium production quota	80,0001; increases up to 145,0001 if Albemarle builds Chile V / VI	80,000 <sup>1</sup> with current authorization; would increase up to 145,000 <sup>1</sup> when new submission is approved

Albemarle has the permits, agreements and authorizations in place to produce and sell at least 80,000 MTs annually through 2043



# Wave I & II Conversion Capacity Plan



<sup>&</sup>lt;sup>3</sup>Represents MRL 50% share of Wodgina JV that ALB would have 100% marketing responsibility for upon transaction closing.



<sup>&</sup>lt;sup>1</sup>Conversion capacity does not include approximately 10 kt LCE of technical grade spodumene to non-battery applications.

<sup>&</sup>lt;sup>2</sup>Represents ALB 50% share of Wodgina JV capacity, subject to transaction closing.

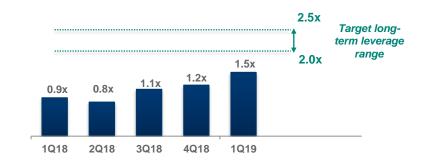
#### **Cash Flow and Net Debt**

Three Months Ended March 31				
(\$ in millions)	<u>2019</u>	2018		
Net Cash from Operations	\$55	\$122		
Less: Capital Expenditures	(216)	(132)		
Add Back: Pension Contributions	4	4		
Free Cash Flow	(\$157)	(\$6)		

 Capital expenditures for Q1 on track with full year guidance of \$800 - \$900 million due to ramp on Kemerton, continued build out of La Negra and start of the Salar yield improvement.

Selected Financial Metrics			
(\$ in millions)	(as of 03/31/2019)		
Dividends Paid (YTD):	\$35		
Dividend Growth (Y/Y) <sup>1</sup> :	10%		
Cash Balance:	\$465		
Gross Debt <sup>2</sup> :	\$1,820		

#### Net Debt to Adj. EBITDA<sup>3</sup>



**▲** ALBEMARLE®

<sup>&</sup>lt;sup>1</sup>Represents annual increase in dividend per share.

<sup>&</sup>lt;sup>2</sup>Excludes JV debt not guaranteed by Company.

<sup>&</sup>lt;sup>3</sup>Gross Debt to Adj. EBITDA and Net Debt to Adj. EBITDA ratios are based on the bank covenant definition. See appendix for reconciliations.

### **Disciplined Capital Allocation Strategy – Our Priorities**

Invest for Growth, Maintain Flexibility and Deliver Shareholder Value

### Invest for Growth in High Return Projects

 Strategically grow Lithium

# Disciplined M&A Strategy

 Must support or accelerate our strategy

### Maintain Investment Grade Rating

 Long-term Net Debt to Adjusted EBITDA<sup>1</sup> Target: 2.0x – 2.5x

### Fund Dividend Growth

 Increase dividend annually: 24 consecutive years since going public in 1994

#### Repurchase Shares

 When excess balance sheet capability available

# Albemarle Is Well Positioned to Maximize Long-Term Shareholder Value Creation

- Multi-year journey has resulted in a more focused and growth-oriented portfolio underpinned by energy efficiency macro drivers
- Clear strategy with the people, cash generation and resources necessary to execute the strategy
- Experienced and focused management team with clear deliverables
- 4 Actively managing our portfolio in a disciplined and focused manner to drive shareholder value
- 5 Strong balance sheet and disciplined approach to capital allocation with focus on highest returns (reinvestment, strategic acquisitions and returns to shareholders)

# Appendix A

Guidance as per Q1 2019 Earnings Released May 8, 2019



### Full Year 2019 Business Guidance vs 2018

As of May 8, 2019

Business Unit	Prior Outlook	Updated Outlook	Business Environment			
Lithium	•	•	<ul> <li>Adj. EBITDA growth expected to be in the high teens vs prior year</li> <li>Favorable outlook driven by volume growth and flat to inflationary price increases</li> <li>Increased costs related to plant startups and tolled volumes; expect adj. EBITDA margins to remain above 40%</li> </ul>			
Bromine Specialties	<b>*</b>	•	<ul> <li>Adj. EBITDA growth expected to be up mid to high single digits on a percentage basis</li> <li>Outlook driven by stable demand across portfolio and improving second half expectations</li> <li>Historically, Bromine segment impacted earliest and most negatively by economic slowdown</li> </ul>			
Catalysts <sup>1</sup>	<b>*</b>	<b>*</b>	<ul> <li>Adj. EBITDA expected to be flat vs prior year on a pro-forma<sup>1</sup> basis</li> <li>PCS headwind of \$11 million adj. EBITDA in 2019 from loss of customer contract</li> <li>Refining Catalysts adj. EBITDA expected to be up mid single digit, excluding 2018 one-time settlements of ~\$9 million</li> </ul>			



Better than 2018; re from Prior Outlook



Flat vs 2018

### Full Year 2019 Guidance vs 2018

As of May 8, 2019

	FY 2018	FY 2018 Pro-forma <sup>1</sup>	FY 2019 Guidance	2019 Guidance vs FY 2018 Pro-Forma <sup>1</sup>
Net Sales	\$3.37B	\$3.35B	\$3.65B - \$3.85B	9% – 15%
Adjusted EBITDA	\$1,007M	\$996M	\$1,070M - \$1,140M	7% – 14%
Adjusted EBITDA Margin	30%	30%	29% – 31%	
Adjusted Diluted EPS	\$5.48	\$5.43	\$6.10 - \$6.50	12% – 20%
Net Cash from Operations	\$546M	\$535M	\$700M - \$800M	40% – 50%
Capital Expenditures	\$700M	\$700M	\$800M - \$900M	

#### **FY Guidance is unchanged**

# Additional Inputs for 2019 Plan

(\$ in millions)

	FY 2018	FY 2019 Estimate	Comments
Depreciation and amortization	\$201	\$210 – \$215	
Adjusted effective income tax rate	21.6%	22% – 24%	Geographic mix results in higher tax rate YoY
Corporate Costs	\$112	\$115 – \$120	YoY increase due to low bonus payout in 2018
Interest and financing expenses	\$52	\$40 – \$50	
Weighted-average common shares outstanding – diluted	109M	~107M	YoY decrease due to \$500 million in share buybacks in 2018



# Appendix B

Non-GAAP Reconciliations and Supplemental Information



### **Definitions of Non-GAAP Measures**

Non-GAAP Measure	Description
Adjusted net income	Net income attributable to Albemarle Corporation before non-recurring, other unusual and non-operating pension and OPEB.
Pro-forma adjusted net income	Net income attributable to Albemarle Corporation before non-recurring, other unusual and non-operating pension and OPEB items, and the net impact of the divested business.
Adjusted diluted EPS	Diluted EPS before non-recurring, other unusual and non-operating pension and OPEB.
Pro-form adjusted diluted EPS	Diluted EPS before non-recurring, other unusual and non-operating pension and OPEB items, and the net impact of the divested business.
EBITDA	Net income attributable to Albemarle Corporation before interest and financing expenses, income taxes, and depreciation and amortization.
Adjusted EBITDA	EBITDA before non-recurring, other unusual and non-operating pension and OPEB.
Pro-forma adjusted EBITDA	Adjusted EBITDA before the net impact of EBITDA of the divested business.
Pro-forma Net Sales	Net Sales before the impact of Net Sales from the divested business.
Adjusted Effective Income Tax Rate	Reported effective income tax rate before the tax impact of non-recurring, other unusual and non-operating pension and OPEB items.



# Adjusted Net Income - Pro-forma

#### Three Months Ended

	March 31,		
(\$ in thousands)	2019		2018
Net income attributable to Albemarle Corporation	\$ 133,569	\$	131,760
Add back:			
Non-operating pension and OPEB items (net of tax)	(569)		(1,866)
Non-recurring and other unusual items (net of tax)	 (2,012)	15,319	
Adjusted net income attributable to Albemarle Corporation	130,988		145,213
Pro-forma: Net impact of income from divested business (net of tax)	 		(8,355)
Pro-forma adjusted net income attributable to Albemarle Corporation	\$ 130,988	\$	136,858
Adjusted diluted earnings per share	\$ 1.23	\$	1.30
Pro-forma adjusted diluted earnings per share	\$ 1.23	\$	1.22
Weighted-average common shares outstanding – diluted	106,356		111,867

See above for a reconciliation of adjusted net income and pro-forma adjusted net income, the non-GAAP financial measures, to Net income attributable to Albemarle Corporation, the most directly comparable financial measure calculated and reported in accordance with GAAP.



# **EBITDA and Adjusted EBITDA - Pro-forma**

		Three Months Ended								
		March 31,								
(\$ in thousands)		2019								
Net income attributable to Albemarle Corporation	\$	133,569	\$	131,760						
Add back:										
Interest and financing expenses		12,586		13,538						
Income tax expense		37,514		20,361						
Depreciation and amortization		49,283		50,330						
EBITDA	·	232,952		215,989						
Non-operating pension and OPEB items		(583)		(2,197)						
Non-recurring and other unusual items		(6,502)		34,926						
Adjusted EBITDA		225,867		248,718						
Pro-forma: Net impact of adjusted EBITDA from divested business		_		(10,872)						
Pro-forma adjusted EBITDA	\$	225,867	\$	237,846						
Net sales	\$	832,064	\$	821,629						
Pro-forma: Net impact of net sales from divested business		_		(27,082)						
Pro-forma net sales	\$	832,064	\$	794,547						
EBITDA margin		28.0%		26.3%						
Adjusted EBITDA margin		27.1%		30.3%						
Pro-forma adjusted EBITDA margin		27.1%		29.9%						

See above for a reconciliation of EBITDA, adjusted EBITDA, and pro-forma adjusted EBITDA, the non-GAAP financial measures, to Net income attributable to Albemarle Corporation, the most directly comparable financial measure calculated and reported in accordance with GAAP.

See above for a reconciliation of pro-forma net sales, the non-GAAP financial measure, to net sales, the most directly comparable financial measure calculated and reported in accordance with GAAP.



### Adjusted EBITDA - by Segment (three months ended March 31)

(\$ in thousands)	Lithium	Br	omine Specialties	Catalysts Reportable Segments Total		Reportable Catalysts Segments Total		All Other		Corporate	Co	onsolidated Total
Three months ended March 31, 2019:												
Net income (loss) attributable to Albemarle Corporation	\$ 93,169	\$	67,480	\$ 47,859	\$	208,508	\$	5,206	\$	(80,145)	\$	133,569
Depreciation and amortization	22,092		11,117	12,212		45,421		2,037		1,825		49,283
Non-recurring and other unusual items	355		_	_		355		_		(6,857)		(6,502)
Interest and financing expenses	_		_	_		_		_		12,586		12,586
Income tax expense	_		_	_		_		_		37,514		37,514
Non-operating pension and OPEB items	_		_	_		_		_		(583)		(583)
Adjusted EBITDA	\$ 115,616	\$	78,597	\$ 60,071	\$	254,284	\$	7,243	\$	(35,660)	\$	225,867
Three months ended March 31, 2018:												
Net income (loss) attributable to Albemarle Corporation	\$ 108,334	\$	59,536	\$ 55,660	\$	223,530	\$	1,760	\$	(93,530)	\$	131,760
Depreciation and amortization	24,065		10,433	12,170		46,668		2,102		1,560		50,330
Non-recurring and other unusual items	(1,385)		_	_		(1,385)		_		36,311		34,926
Interest and financing expenses	_		_	_		_		_		13,538		13,538
Income tax expense	_		_	_		_		_		20,361		20,361
Non-operating pension and OPEB items	_			_				_		(2,197)		(2,197)
Adjusted EBITDA	\$ 131,014	\$	69,969	\$ 67,830	\$	268,813	\$	3,862	\$	(23,957)	\$	248,718
Pro-forma: Net impact of adjusted EBITDA from divested business	_		_	(10,872)		(10,872)		_		_		(10,872)
Pro-forma adjusted EBITDA	\$ 131,014	\$	69,969	\$ 56,958	\$	257,941	\$	3,862	\$	(23,957)	\$	237,846

See above for a reconciliation of adjusted EBITDA on a segment basis, the non-GAAP financial measure, to Net income attributable to Albemarle Corporation ("earnings"), the most directly comparable financial measure calculated and reporting in accordance with GAAP.



### Adjusted EBITDA - Margin by Segment (three months ended March 31)

(\$ in thousands)	Lithium	Bromine Specialties			5	Reportable Segments Total		All Other	Consolidated Total		
Three months ended March 31, 2019:											
Net sales	\$ 291,886	\$ 249,052	\$	251,648	\$	792,586	\$	39,478	\$	832,064	
Net income (loss) attributable to Albemarle Corporation	31.9%	27.1%		19.0%		26.3%		13.2%		16.1%	
Depreciation and amortization	7.6%	4.5%		4.9%		5.7%		5.2%		5.9%	
Non-recurring and other unusual items	0.1%	-%		-%		—%		-%		(0.8)%	
Interest and financing expenses	-%	-%		-%		-%		-%	1.5%		
Income tax expense	—%	—%		-%	—%			-%	4.5%		
Non-operating pension and OPEB items	-%	-%		-%		-%		-%		(0.1)%	
Adjusted EBITDA Margin	39.6%	31.6%		23.9%		32.1%		18.3%		27.1%	
Three months ended March 31, 2018:											
Net sales	\$ 298,032	\$ 225,639	\$	260,717	\$	784,388	\$	37,165	\$	821,629	
Pro-forma: Net impact of net sales from divested business				(27,082)		(27,082)	_			(27,082)	
Pro-forma net sales	\$ 298,032	\$ 225,639	\$	233,635	\$	757,306	\$	37,165	\$	794,547	
Net income (loss) attributable to Albemarle Corporation	36.3%	26.4%		21.3%		28.5%		4.7%		16.0%	
Depreciation and amortization	8.1%	4.6%		4.7%		5.9%		5.7%		6.1%	
Non-recurring and other unusual items	(0.5)%	—%		—%		(0.2)%		-%		4.3%	
Interest and financing expenses	-%	-%		—%		—%		-%		1.7%	
Income tax expense	—%	—%		—%		—%		-%		2.5%	
Non-operating pension and OPEB items	_%_	_%		-%		-%		_%		(0.3)%	
Adjusted EBITDA Margin	44.0%	31.0%		26.0%		34.3%		10.4%		30.3%	
Pro-forma Adjusted EBITDA Margin	44.0%	31.0%		24.4%		34.1%		10.4%		29.9%	

See above for adjusted EBITDA margin, a non-GAAP financial measure defined as adjusted EBITDA divided by net sales. See slide 20 for the related reconciliation of adjusted EBITDA on a segment basis, the non-GAAP financial measure, to Net income attributable to Albemarle Corporation ("earnings"), the most directly comparable financial measure calculated and reporting in accordance with GAAP.

### Adjusted EBITDA - Continuing Operations (twelve months ended)

	Twelve Months Ended									
(\$ in thousands)		Mar 31, 2018		Jun 30, 2018		Sep 30, 2018		Dec 31, 2018		Mar 31, 2019
Continuing Operations										
Net income attributable to Albemarle Corporation	\$	135,397	\$	334,525	\$	345,600	\$	693,562	\$	695,371
Depreciation and amortization		202,188		203,540		203,352		200,698		199,651
Non-recurring and other unusual items (excluding items associated with interest expense)		101,914		(113,484)		(109,373)		(90,112)		(131,540)
Interest and financing expenses		60,375		59,093		56,289		52,405		51,453
Income tax expense		440,207		497,179		511,851		144,826		161,979
Non-operating pension and OPEB items		(17,259)		(18,410)		(19,577)		5,285		6,899
Adjusted EBITDA	\$	922,822	\$	962,443	\$	988,142	\$	1,006,664	\$	983,813
Pro-forma: Net impact of adjusted EBITDA from divested businesses		(41,287)		(31,521)		(21,028)		(10,872)		_
Pro-forma Adjusted EBITDA	\$	881,535	\$	930,922	\$	967,114	\$	995,792	\$	983,813
Net Sales	\$	3,171,542	\$	3,288,158	\$	3,311,040	\$	3,374,950	\$	3,385,385
Pro-forma: Net impact of Net Sales from divested business		(106,013)		(80,282)		(53,306)		(27,082)		_
Pro-forma Net Sales	\$	3,065,529	\$	3,207,876	\$	3,257,734	\$	3,347,868	\$	3,385,385
Pro-forma Adjusted EBITDA Margin		29%		29%		30%		30%		299

See above for a reconciliation of adjusted EBITDA and pro-forma adjusted EBITDA, the non-GAAP financial measures, to Net income attributable to Albemarle Corporation, the most directly comparable financial measure calculated and reported in accordance with GAAP.

See above for a reconciliation of pro-forma net sales, the non-GAAP financial measure, to net sales, the most directly comparable financial measure calculated and reported in accordance with GAAP.



### Adjusted EBITDA - by Segment (twelve months ended)

	Twelve Months Ended													
(\$ in thousands)		Mar 31, 2018		Jun 30, 2018		Sep 30, 2018	Dec 31, 2018			Mar 31, 2019				
Lithium														
Net income attributable to Albemarle Corporation	\$	373,712	\$	409,185	\$	409,753	\$	428,212	\$	413,047				
Depreciation and amortization		92,879		95,744		96,798		95,193		93,220				
Non-recurring and other unusual items		11,223		(698)		(1,635)		7,368		9,108				
Adjusted EBITDA		477,814		504,231		504,916		530,773		515,375				
Net Sales		1,100,688		1,174,430		1,176,120		1,228,171		1,222,025				
Adjusted EBITDA Margin		43%		43%		43%	6 43%			42%				
Bromine Specialties														
Net income attributable to Albemarle Corporation	\$	219.681	\$	227.615	\$	241.822	\$	246,509	\$	254,453				
Depreciation and amortization	Ψ	40.701	Ψ	40.059	Ψ	40.501	Ψ	41.607	Ψ	42.291				
Adjusted EBITDA		260,382		267,674		282,323		288,116	_	296,744				
Net Sales		861,591		878,160		897,853		917,880		941,293				
Adjusted EBITDA Margin		30%		30%		31%	31%			32%				
Catalysts														
Net income attributable to Albemarle Corporation	\$	229,359	\$	456,252	\$	458,897	\$	445,604	\$	437,803				
Depreciation and amortization		53,855		53,342		51,655		49,131		49,173				
Non-recurring and other unusual items		(1,250)		(219,955)		(218,705)		(210,428)		(210,428)				
Adjusted EBITDA		281,964		289,639		291,847		284,307		276,548				
Pro-forma: Net impact of adjusted EBITDA from divested business		(41,287)		(31,521)		(21,028)		(10,872)						
Pro-forma Adjusted EBITDA		240,677		258,118		270,819		273,435		276,548				
Net Sales		1,074,731		1,101,442		1,107,987		1,101,554		1,092,485				
Pro-forma: Net impact of net sales from divested business		(106,013)		(80,282)		(53,306)		(27,082)						
Pro-forma Net Sales		968,718		1,021,160		1,054,681		1,074,472		1,092,485				
Pro-forma Adjusted EBITDA Margin		25%		25%		26%		25%		25%				

See above for a reconciliation of adjusted EBITDA and pro-forma adjusted EBITDA on a segment basis, the non-GAAP financial measures, to Net income attributable to Albemarle Corporation ("earnings"), the most directly comparable financial measure calculated and reporting in accordance with GAAP.

See above for a reconciliation of pro-forma net sales on a segment basis, the non-GAAP financial measure, to net sales, the most directly comparable financial measure calculated and reported in accordance with GAAP.



# **Adjusted EBITDA supplemental**<sup>1</sup>

(\$ in thousands)	 Twelve Months Ended	Three Months Ended				hs Ended					
	Mar 31, 2019		Mar 31, 2019		Dec 31, 2018		Sep 30, 2018		Jun 30, 2018		
Adjusted EBITDA	\$ 983,813	\$	225,867	\$	264,302	\$	235,082	\$	258,562		
Net income attributable to noncontrolling interests	56,369		17,957		16,453		13,734		8,225		
Equity in net income of unconsolidated investments (net of tax)	(103,768)		(35,181)		(27,537)		(22,081)		(18,969)		
Dividends received from unconsolidated investments	34,987		3,034		24,621		2,749		4,583		
Consolidated EBITDA	\$ 971,401	\$	211,677	\$	277,839	\$	229,484	\$	252,401		
Total Long Term Debt (as reported)	\$ 1,819,588										
Off balance sheet obligations and other	 72,700										
Consolidated Funded Debt	\$ 1,892,288										
Less Cash	465,274										
Consolidated Funded Net Debt	\$ 1,427,014										
Consolidated Funded Debt to Consolidated EBITDA Ratio	1.9										
Consolidated Funded Net Debt to Consolidated EBITDA Ratio	1.5										

<sup>&</sup>lt;sup>1</sup> This supplemental is for net-debt-to-adjusted EBITDA ratio based on the bank covenant definition.



### **Diluted EPS**

#### Three Months Ended

		March 31,				
	2	2019		2018		
Diluted earnings per share attributable to Albemarle Corporation	\$	1.26	\$	1.18		
Add back:						
Non-operating pension and OPEB items (net of tax)		(0.01)		(0.02)		
Non-recurring and other unusual items (net of tax)						
Acquisition and integration related costs		0.04		0.02		
Gain on sale of property		(0.08)		_		
Legal accrual		_		0.12		
Environmental accrual		_		0.11		
Other		(0.01)		_		
Discrete tax items		0.03		(0.11)		
Total non-recurring and other unusual items		(0.02)		0.14		
Adjusted diluted earnings per share <sup>1</sup>	\$	1.23	\$	1.30		

<sup>&</sup>lt;sup>1</sup>Totals may not add due to rounding



### **Effective Tax Rate**

and equ	ity in net income of		Income tax expense	Effective income tax rate
\$	153,859	\$	37,514	24.4%
	(7,085)		(4,504)	
\$	146,774	\$	33,010	22.5%
\$	138,609	\$	20,361	14.7%
	32,729		19,276	
\$	171,338	\$	39,637	23.1%
	and equ	\$ 138,609 32,729	\$ 153,859 \$ (7,085) \$ 146,774 \$	### style="background-color: blue;"> ### style="

See above for a reconciliation of the adjusted effective income tax rate, the non-GAAP financial measure, to the effective income tax rate, the most directly comparable financial measure calculated and reporting in accordance with GAAP.



# **Equity Income and Noncontrolling Interest**

	Three Months Ended March 31,										
		2	019		_	2	018				
(\$ in thousands)	Equity Income		_	Noncontrolling Interest	Equity Income			Noncontrolling Interest			
Lithium	\$	29,370	\$	_	\$	16,190	\$	_			
Bromine Specialties		_		(17,939)		_		(7,149)			
Catalysts		5,811		_		4,487		_			
Corporate		_		(18)		_		(16)			
Total Company	\$	35,181	\$	(17,957)	\$	20,677	\$	(7,165)			





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