Rockwood Holdings, Inc.
Form 10-K
March 04, 2014

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2013

Or

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

Commission file number 001-32609

Rockwood Holdings, Inc.

(Exact name of Registrant as specified in its charter)

Delaware	**52-2277366**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

100 Overlook Center, Princeton, New Jersey 08540

(Address of principal executive offices) (Zip Code)

(609) 514-0300

(Registrant s telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, par value $0.01 per share	New York Stock Exchange

Securities registered pursuant to section 12(g) of the Act:

None

(Title of class)

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes x No o

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No x

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of Registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer, and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer x	Accelerated filer o

Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold as of June 30, 2013 was $4,131,358,194.

As of February 28, 2014, there were 74,066,123 outstanding shares of common stock, par value $0.01 per share, of the Registrant.

DOCUMENTS INCORPORATED BY REFERENCE

The definitive proxy statement relating to the registrant s Annual Meeting of Stockholders, to be held on May 9, 2014, is incorporated by reference in Part III to the extent described therein.

TABLE OF CONTENTS

FORM 10-K

		Page No.
PART I		
Item 1	Business	3
Item 1A	Risk Factors	19
Item 1B	Unresolved Staff Comments	27
Item 2	Properties	28
Item 3	Legal Proceedings	30
Item 4	Mine Safety Disclosures	30
PART II		
Item 5	Market for Registrant s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	30
Item 6	Selected Financial Data	31
Item 7	Management s Discussion and Analysis of Financial Condition and Results of Operations	33
Item 7A	Quantitative and Qualitative Disclosures about Market Risk	54
Item 8	Financial Statements and Supplementary Data	56
Item 9	Change in and Disagreements with Accountants on Accounting and Financial Disclosure	108
Item 9A	Controls and Procedures	108
Item 9B	Other Information	111
PART III		
Item 10	Directors, Executive Officers and Corporate Governance	111
Item 11	Executive Compensation	111
Item 12	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	111
Item 13	Certain Relationships and Related Transactions, and Director Independence	111
Item 14	Principal Accounting Fees and Services	111
PART IV		
Item 15	Exhibits, Financial Statement Schedules	112

PART I

Forward-Looking Statements

This document contains forward-looking statements. Forward-looking statements within the context of the Private Securities Litigation Reform Act of 1995 are not statements of historical fact and may involve a number of risks and uncertainties. Forward-looking statements give our current expectations or forecasts of future events and estimates of amounts not yet determinable. We have used the words anticipate, estimate, expect, project, intend, plan, believe, predict, could, may and other words and terms of similar meaning, including references to ass this report to identify forward-looking statements. These forward-looking statements are made based on expectations and beliefs concerning future events affecting us and are subject to uncertainties and factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control, that could cause our actual results to differ materially from those expressed in or implied by these forward-looking statements. In particular, these factors include, among other things:

- our business strategy;
- our ability to complete our previously announced divestiture;
- our uses of the cash and cash equivalents from the completed divestitures or expected to be completed divestiture;
- the prospects of, and our outlook for, our businesses;
- changes in the general economic conditions in Europe and North America and in other locations in which we currently do business;
- competitive pricing or product development activities affecting demand for our products;
- technological changes affecting production of our materials;
- fluctuations in interest rates, exchange rates and currency values;
- availability and pricing of raw materials;
- governmental and environmental regulations and changes in those regulations;
- fluctuations in energy prices;
- changes in the end-use markets in which our products are sold;
- hazards associated with chemicals manufacturing;
- our ability to access capital markets;
- our high level of indebtedness;
- risks associated with negotiating, consummating and integrating acquisitions;

- risks associated with competition and the introduction of new competing products, especially from the Asia-Pacific region;
- risks associated with international sales and operations; and
- risks associated with information security.

You should keep in mind that any forward-looking statements made by us in this document or elsewhere speak only as of the date on which we make them. New risks and uncertainties come up from time to time, and it is impossible for us to predict these events or how they may affect us. We disclaim any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Item 1. Business.

Unless we indicate otherwise or the context otherwise requires, any references to we, our, us, the Company or Rockwood refer to Rockwood Holdings, Inc. and its consolidated subsidiaries. Rockwood Holdings, Inc. is a Delaware corporation incorporated in September 2000.

Unless otherwise noted, all balance sheet related items as of December 31, 2013 which are denominated in Euros are converted at the December 31, 2013 exchange rate of 1.00 = $1.3743. For the years ended December 31, 2013, 2012 and 2011, the average rate of exchange of the Euro to the U.S. dollar is $1.3285, $1.2864 and $1.3923, respectively.

General

Rockwood is a leading global developer, manufacturer and marketer of technologically advanced and high value-added specialty chemicals used for industrial and commercial purposes. Rockwood is a leading integrated and low cost global producer of lithium and lithium compounds for use in things such as lithium ion batteries for hybrid and electric vehicles, electronic devices, as well as pharmaceutical applications, among other things, and is also the second largest global producer of surface treatment products and services for metal processing, including for use in the automotive and aerospace industries.

During 2013, we sold our Advanced Ceramics segment and Clay-based Additives business, and entered into a definitive agreement to sell our Titanium Dioxide Pigments, Color Pigments and Services, Timber Treatment Chemicals, Rubber/Thermoplastics Compounding and Water Chemistry businesses (the TiO2 Pigments and Other Businesses). The sale of the TiO2 Pigments and Other Businesses is expected to close during the first half of 2014. There can be no assurance that this transaction will be completed in a timely manner, if at all. As of December 31, 2013, all three of these transactions met the criteria for being reported as discontinued operations, and thus, our consolidated financial statements have been reclassified to reflect discontinued operations for these transactions for all periods presented. As a result of these completed and expected divestitures, we operate in two reportable segments: (1) Lithium and (2) Surface Treatment. See Item 8. Financial Statements and Supplementary Data - Note 2, Discontinued Operations, in the accompanying consolidated financial statements for further details of these transactions.

Our products consist primarily of inorganic chemicals and solutions. They are often customized to meet the complex needs of our customers and to enhance the value of their end products by improving performance, providing essential product attributes, lowering costs and/or making them more environmentally friendly. We generally compete in niche markets in a wide range of end-use markets, including metal treatment and general industry, automotive, life sciences (pharmaceutical markets), chemicals and plastics, aerospace, and electronics and telecommunications.

We have a number of growth prospects, such as lithium battery applications and pharmaceutical applications in our Lithium business and aerospace products, new technologies in general industry and emerging markets in our Surface Treatment business. Our high margins, diverse customer and end-use market base, capital discipline and ongoing productivity improvements provide us with a platform to capitalize on market growth opportunities.

We operate globally, manufacturing our products for our continuing operations in 33 facilities in 17 countries and selling our products and providing our services to more than 50,000 customers, including some of the world s preeminent companies. For a geographic description of the origin of our net sales and location of our long-lived assets, see Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information, in the accompanying consolidated financial statements.

We believe our products are generally critical to our customers products performance, but account for a small percentage of the total cost of their products.

We operate our businesses that are our continuing operations through the following two reportable business segments: (1) Lithium and (2) Surface Treatment. The following table sets forth for each segment net sales and the percentage of our net sales for the year ended December 31, 2013, as well as our principal products and our principal end-use markets. For financial information about each segment, see Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information.

	2013 Net Sales			
Segment	**$ in Millions**	**% of Total**	**Principal Products**	**Principal End-Use Markets**
Lithium	$ 479.4	35%	• Lithium compounds and chemicals	• Life sciences (pharmaceutical synthesis and polymers) • Polymerization initiators for elastomers

					• Batteries for hybrid and electric vehicles and electronic devices
Surface Treatment	$	770.2	56%	• Metal surface treatment chemicals including corrosion protection/ prevention oils • Maintenance chemicals	• Automotive pre-coating metal treatment and car body pre-treatment • Steel and metal working • Aircraft industry
Corporate and other (a)	$	128.2	9%	• Natural and synthetic metal sulfides • Wafer recycling and repair	• Disc brakes • Semiconductors manufacturing
	$	1,377.8	100%		

(a) Primarily represents our metal sulfides business, as well as our European wafer reclaim business.

Diverse Customer and End-Use Market Base. We have more than 50,000 customers worldwide that cover a wide variety of industries and geographic areas. We operate a geographically diverse business, with 53% of our net sales in 2013 generated from shipments to customers in Europe, 21% to North America (predominantly the United States), 16% to Asia and 10% to the rest of the world. No customer accounted for more than 3% of such net sales, and our top ten customers represented only approximately 15% of such net sales. Our largest end-use market, metal treatment and general industry, which includes a broad range of industrial end-markets, including household appliances, manufacturing, can producers, heating, ventilation, aluminum finishing and other diverse end-markets, represented approximately 30% of such net sales. The following chart provides a breakdown of our 2013 net sales by end-use markets:

Reportable Segments - Continuing Operations

The following describes each of our reportable segments, as well as the principal products or principal divisions within each segment.

Lithium (35% of 2013 net sales)

Our Lithium segment operates under the *Rockwood Lithium* brand name and develops lithium chemicals for a wide range of industries and end markets. We believe that our Lithium business is the leading global producer of lithium products, specialty lithium compounds and chemicals and advanced metal-based specialty chemicals. Our Lithium segment generated net sales of $479.4 million, $474.4 million and $456.5 million for the years ended December 31, 2013, 2012 and 2011, respectively. See Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information, for additional financial information regarding our Lithium segment.

Our Lithium segment develops and manufactures a broad range of basic lithium compounds, including lithium carbonate, lithium hydroxide, lithium chloride, and value-added lithium specialties and reagents, including butyllithium and lithium aluminum hydride. Lithium is a key component in products and processes used in a variety of applications and industries, which range from lithium batteries, high performance greases, thermoplastic elastomers for car tires, rubber soles and plastic bottles to intermediates in the pharmaceutical industry. We operate our lithium business along the following five business divisions reflecting its core end-markets: (1) Lithium Salts; (2) Special Salts; (3) Butyllithium/Lithium Metal; (4) Battery Products and (5) Lithium Specialties.

In addition to developing and supplying lithium compounds, we provide technical service, including the handling and use of reactive lithium products. We also offer our customers recycling services for lithium containing by-products resulting from synthesis with organolithium products, lithium metal and other reagents. We plan to continue to focus on the development of new products and applications. Currently, we are in the process of developing lithium compounds for several near to medium-term, new and potentially high growth products for various applications, such as pharmaceuticals and batteries for electric vehicles.

Our Lithium segment also develops and manufactures advanced metal-based specialty chemicals under its Special Metals business division. Special Metals develops and manufactures cesium products for the chemical and pharmaceutical industries and zirconium, barium and titanium products for various pyrotechnical applications, including airbag igniters. In order to further strengthen our competitive position in the metal-based specialty chemicals market, we are focused on the production of new variations of cesium products in the chemicals industry, the pharmaceuticals industry, the defense industry and for use in catalytic applications. We also continuously monitor our customers industries for potential new applications for our products. In addition, we expect to expand our business by penetrating growth markets such as India and China.

Currently, our Lithium segment obtains lithium brine which we use to produce our lithium products through evaporation in the Salar de Atacama, Chile and Silver Peak, Nevada. In the future, as described below, we expect that our Lithium segment will also obtain lithium from a lithium mine in Australia.

Description of the Salar de Atacama, Chile and Silver Peak, Nevada

Our mineral rights with respect to the Salar de Atacama in Chile consist exclusively of our right to extract lithium brine pursuant to a long-term contract with the Chilean government, originally entered into in January 1975 by one of our predecessors and subsequently amended and restated. Our contract with the Chilean government will remain in effect until the date on which we have produced and sold 200,000 metric tons of lithium in any of its forms from the Salar de Atacama. As of December 31, 2013, the remaining amount of lithium we were permitted to sell under the contract equaled approximately 125,000 metric tons of total lithium. The size of the area at the Salar de Atacama covered by our claims is approximately 16,700 hectares. We currently own the land on which we operate our extracting facility at the Salar de Atacama and our processing facility in La Negra. However, the ownership of the land at the Salar de Atacama will revert to the Chilean government once we have sold all amounts of lithium remaining under our contract with the Chilean government (the ownership of the land and fixed assets in La Negra will remain unchanged). In connection with our operations at the Salar de Atacama, we have been granted a permit to pump specified amounts of water. We have also been granted a permit to use the public roads to access the Salar de Atacama and, together with other companies that operate in the region, contribute financially to maintain such roads.

The Salar de Atacama is a salt flat, the largest in Chile, located in the Atacama desert in northern Chile, which is the driest place on the planet and thus has an extremely high annual rate of evaporation and extremely low annual rainfall. Our extraction through evaporation process works as follows: snow in the Andes Mountains melts and flows underground into underground pools of water containing brine, which generally have high concentrations of lithium. We then pump the water containing brine above ground through a series of pumps and wells into a network of large evaporation ponds. Over the course of approximately eighteen months, the desert sun evaporates the water causing other salts to precipitate, leaving behind concentrated lithium brine. If weather conditions are not favorable, the evaporation process may be prolonged. After we obtain the lithium brine, we process the lithium brine extracted from the Salar de Atacama into lithium carbonate and lithium chloride at a plant in nearby La Negra, Chile.

Our mineral rights in Silver Peak, Nevada consist exclusively of our right to extract lithium brine pursuant to a settlement agreement with the U.S. government, originally entered into in June 1991 by one of our predecessors. Pursuant to this agreement, we have rights to all of the lithium that we can remove economically. We or our predecessors have been operating at the Silver Peak site since 1966. Our Silver Peak site covers a surface of approximately 15,301 acres, 10,826 acres of which we own through a subsidiary. The remaining acres are owned by the U.S. government from whom we lease the land pursuant to a lease agreement which is renewed annually. In connection with our operations at Silver Peak, we have been granted by the U.S. government rights to pump water in the Clayton Wash Basin area.

We extract lithium brine through the same evaporation process we use in the Salar de Atacama and the evaporation process at Silver Peak takes substantially the same time as at the Salar de Atacama. We process the lithium brine extracted from our Silver Peak site into lithium carbonate at our plant in Silver Peak. However, our extraction process at Silver Peak involves different considerations from our operations in Chile because there is more variability in conditions, and future extraction depends upon factors such as weather, flow rate of water, hydrology of the Clayton Basin, lithium concentrations in the water and recoverable yield.

Lithium Reserves at the Salar de Atacama, Chile and Silver Peak, Nevada

We do not have an estimate of the proven and/or probable lithium reserves at the Salar de Atacama in Chile. Instead, we rely on the reserve information published by the U.S. Geological Survey, which is approximately 7.5 million metric tons of lithium for all of Chile. Based on this survey, given that the only running lithium operations in Chile are at the Salar de Atacama, we believe the reserve number reflects the total estimated lithium reserve in the Salar de Atacama. Furthermore, based on the area of our claims pursuant to our lithium brine contract with the Chilean government, we estimate the reserves covered by our claims at the Salar de Atacama would be approximately 1.2 million metric tons of lithium. This reserve number is significantly in excess of approximately 125,000 metric tons of lithium that we are permitted to extract at the Salar de Atacama pursuant to our contract.

We do not have an estimate of the proven and/or probable lithium reserves at our site in Silver Peak, Nevada that complies with Industry Guide 7. The U.S. Geological Survey has published reserve information which shows approximately 38,000 metric tons of lithium for all of the United States. Given that the only running lithium operations in the United States are at Silver Peak, Nevada, we believe the reserve number reflects the total estimated lithium reserve at Silver Peak. Our own reserve estimate at Silver Peak is substantially similar to the reserve number published by the U.S. Geological Survey (approximately 35,000 metric tons). Our own reserve estimate is determined based principally on a depletion study conducted by a third party in 2011. Our own reserve estimate is based upon assumptions about the weather, flow rate of water, hydrology of the Clayton Basin, lithium concentrations in the water and recoverable yield as well as the price of lithium, which impacts whether it is economical to recover the lithium based upon the above factors. There can be no assurance that we will be able to extract all of the estimated reserves.

Lithium Carbonate Production Capacity at the Salar de Atacama, Chile and Silver Peak, Nevada

The lithium industry typically measures lithium and lithium compounds in terms of lithium carbonate or lithium carbonate equivalents and as a result, we believe lithium carbonate is the most meaningful measure to reflect our production and capacity. In addition, lithium carbonate is the basis for all further later stage processing. During the fiscal year ended December 31, 2013, we produced approximately 23,800 metric tons of lithium carbonate at our La Negra facility. Based on our 2013 production levels, we believe that the amount of lithium brine we extract from the Salar de Atacama pursuant to our contract with the Chilean government could support the current levels of lithium production for approximately 25 years. Assuming certain operating conditions are satisfied, our annual lithium carbonate production capacity is estimated to be approximately 27,000 metric tons at our La Negra facility.

During the fiscal year ended December 31, 2013, we produced approximately 4,600 metric tons of lithium carbonate at our Silver Peak facility. Based on our 2013 production levels, we believe that the amount of lithium brine we can economically extract from our Silver Peak, Nevada site pursuant to our contract with the U.S. government could support the current levels of lithium carbonate production for approximately 21 years. Assuming certain operating conditions are satisfied, our annual lithium carbonate production capacity is estimated to be approximately 6,000 metric tons at our Silver Peak facility. However, no assurance can be given that the indicated levels of production of lithium carbonate at either Silver Peak or La Negra will be realized.

Production Facilities

We extract lithium through solar evaporation of our ponds at the Salar de Atacama, Chile and Silver Peak, Nevada. In addition, we use fuel gases and electricity as our source of power at the Salar de Atacama, La Negra and Silver Peak facilities. From time to time, we experience interruptions in the supply of electricity to our Silver Peak facilities, but we do not believe these interruptions materially impact our operations.

As of December 31, 2013, the combined net asset value (which equals the historical cost less accumulated depreciation and amortization) of our extracting facility at the Salar de Atacama and our processing facility in La Negra, Chile was approximately $284 million and the net asset value of our extracting and processing facility in Silver Peak, Nevada was approximately $13 million.

Subsequently, in other locations in the United States, Germany, Taiwan and India, we further process the lithium carbonate and lithium chloride into lithium hydroxide, organo-metallics and special salts, depending on the specific product. Specifically, we use lithium carbonate to produce: (i) technical and battery grade lithium hydroxide, including high-purity lithium hydroxide for advanced transportation batteries, at our Kings Mountain facility in North Carolina, which is a state-of-the-art lithium hydroxide plant that commenced production in August 2012; (ii) butyllithium and specialty products at our facility in New Johnsonville, Tennessee; (iii) butyllithium, lithium chloride, specialty products, lithium-hydrides, cesium and special metals at our facility in Langelsheim in Germany; (iv) butyllithium at our facility in Taichung in Taiwan; and (v) butyllithium at our facility in Gujarat, India. In addition, we use third party processors to produce lithium metal from lithium chloride, which we then process lithium metal into other specialty products at our facilities.

In total, our Lithium segment operates a total of seven plants in five countries. With the exception of the Gujarat property in India, we own all of these facilities. In addition, in the first quarter of 2012, we began construction of a new 20,000 metric ton lithium carbonate plant at our La Negra, Chile facility. We expect the construction of the plant to be completed in the second quarter of 2014 and the commencement of production (which requires start-up, commission and certification of product quality by our customers) to commence thereafter. We consider the condition of our plants and equipment to be suitable and adequate for the businesses we conduct, and we maintain our plants and equipment regularly.

Lithium Extraction By-Products: Potash and Bischofite

In addition, we extract a precursor of potash and bischofite as a by-product of our lithium extraction activities at our facilities at the Salar de Atacama, Chile and Silver Peak, Nevada, but we produce potash and bischofite only at the Salar de Atacama. Pursuant to our contract with the Chilean government, we are required to make an annual royalty payment to the Chilean government in an amount equal to 3% of sales for any potash sold at the Salar de Atacama. During the fiscal year ended December 31, 2013, we produced approximately 148,500 dry metric-tons of potash and approximately 472,000 metric tons of bischofite from the Salar de Atacama. During the year ended December 31, 2013, we paid royalties of approximately $1.2 million related to our potash sales. The annual capacity of the potash plant at the Salar de Atacama is approximately 170,000 dry metric tons. Our annual bischofite production capacity is determined principally by our pumping rate during such year. The sale of bischofite is not material to our results of operations.

Talison

In December 2013, we entered into definitive agreement, which is filed as an exhibit to this Report, with Tianqi Group HK Co., Limited, a wholly-owned subsidiary of Chengdu Tianqi Group Co., Ltd., to acquire a 49% interest in Windfield Holdings Pty Ltd, which directly owns 100% of the equity of Talison Lithium Pty Ltd, a company incorporated in Australia (Talison). Talison, through its wholly-owned subsidiaries, owns and operates a lithium mine in Greenbushes, Western Australia and mines lithium ore, which is then milled and processed to separate lithium concentrate from the rest of the ore. Talison currently sells the lithium concentrate to third parties who further process the concentrate into lithium carbonate and lithium chloride. Talison has a leading position in the growing Chinese lithium concentrates market and produces two categories of lithium concentrates: (i) technical-grade lithium concentrates which have low iron content for use in the manufacture of glass, ceramics and heat-proof cookware; and (ii) a high-yielding chemical-grade lithium concentrate, which is used to produce lithium chemicals which form the basis for manufacture of lithium-ion batteries for laptop computers, mobile phones, electric bicycles and electric vehicles.

The acquisition of a 49% interest in Talison is currently expected to close in the first half of 2014, subject to receipt of the regulatory approvals. We cannot assure that this acquisition will close in a timely manner or at all.

Upon completion of the acquisition of a 49% interest in Talison, we plan on entering into a lithium concentrate distribution agreement with Talison Lithium Australia Pty Ltd (Talison Australia), a subsidiary of Talison. Pursuant to such distribution agreement, we will have an exclusive distribution right for a period of at least 20 years for technical grade lithium concentrate produced by Talison Australia on a worldwide basis excluding China. In addition, we will enter into a chemical grade lithium concentrate off-take agreement with Talison Australia pursuant to which we will be entitled to up to 50% of Talison Australia s production of chemical grade lithium concentrate also for at least 20 years.

According to the National Instrument 43-101 Technical Report, titled Greenbushes Lithium Operations, Located in Western Australia- Australia, dated December 21, 2012, prepared by certain qualified persons (as such term is defined under National Instrument 43-101), which is publicly available, the Talison mine has approximately 61.5 million metric tons of proven and probable reserves of spodumene (a lithium-bearing mineral), with an average grade of 2.8% lithium oxide. Using these figures, the lithium reserves of the Talison mine are estimated to be approximately 800,000 metric tons of lithium or approximately 4.3 million metric tons of lithium carbonate equivalents.

Principal Business Divisions

Lithium

Lithium Salts. We develop and manufacture basic lithium compounds, which serve a wide range of industries and applications, and potash. Our products include: (1) lithium carbonate, which is used as a fluxing agent for enamels, glass and ceramic production to lower process temperature in aluminum electrolysis, and as a cement additive for construction applications; (2) lithium hydroxide, which is principally used in high performance greases for automotive and industrial applications; (3) lithium nitrate, which is principally used in the rubber industry; (4) lithium chloride, which is principally used in gas and air treatment; and (5) potash, which we produce as a by-product of the lithium brine production at our salar in Chile.

*Special Salts.*We develop and manufacture products that are specialties within the salts business including: (1) lithium phosphate which is used as a catalyst for chemical reactions; (2) lithium bromide, which is traditionally used for air conditioning applications and (3) lithium carbonate pharmaceutical grade, which is used in pharmaceutical applications in the United States and Europe.

Butyllithium/Lithium Metal. Butyllithium is used as a polymerization initiator for synthetic rubber and thermoplastic elastomers and as a reagent for the synthesis of active pharmaceutical ingredients and agrochemicals. Lithium metal is used in organic synthesis processes, primarily in the area of steroid chemistry and vitamins. Generally, these products require a high degree of handling, transport and application know-how and customer service due to their high reactivity. We benefit from being a major supplier with butyllithium manufacturing and/or handling facilities in the United States, Germany, Taiwan and India.

Battery Products. We develop and manufacture lithium products for electronic applications, mainly for the primary (disposable) and secondary (rechargeable) battery industries. Our major product is battery grade lithium carbonate, which is the main component used in the production of thin, lightweight lithium-ion batteries. Lithium-ion-based batteries are used extensively in consumer electronics, such as mobile phones, camcorders, laptops and power tools. Our other products are battery grade lithium hydroxide, which has become more important for the development of high-performance lithium-ion batteries, and battery grade lithium metal, which is used as anode material for primary batteries. We are currently introducing a new generation of conductive lithium salts to the battery market, which we believe has the potential to drive significant growth in the future. We also expect increased demand for lithium products as a result of increased demand for longer-life lithium-based batteries in electric and hybrid electric automobiles.

Lithium Specialties. We develop and manufacture lithium compounds and other products for life science applications, such as special reagents for the synthesis of drug intermediates as well as for the flavor and fragrances industry. The principal products in this business division are lithium aluminum hydride and lithium amides. We also produce various other compounds which include lithium metal, grignard reagents and alkoxides. Our research and development team often works closely with research and development departments of pharmaceutical companies, especially in the European market, in order to develop products and solutions tailored for their needs. In addition, several variations of our lithium specialties are designed to produce liquid crystals for flat screens.

Metal-based Specialty Chemicals

Special Metals. We develop and manufacture a unique range of products based on special metal compounds derived from cesium, zirconium, titanium, barium and rubidium. These products are used in highly specialized, technology-driven end-applications such as X-ray diagnostic systems and airbags, and serve various end-markets, such as chemical, pharmaceutical, metallurgical, automotive, electronics and pyrotechnical industries.

Competition

Lithium. We believe the global lithium market consists of numerous producers and a number of other small producers mainly from China. We believe that we are a leading global provider of lithium compounds. While we offer a diverse range of products from basic lithium compounds to specialty lithium compounds, FMC Corporation offers mainly specialty lithium compounds, and Sociedad Quimica y Minera de Chile S.A. (SQM), Galaxy Resources Limited and Canada Lithium offer a more limited product line focused on basic lithium compounds. Competition in this market is based on product quality, reliability of products and customer service.

Metal-based Specialty Chemicals. We believe that in the metal-based specialty chemicals business, we hold a leading market position in its niche markets. Key competitors include Cabot Corporation and Sigma-Aldrich Corporation. Competition is based on product quality and product diversity.

Customers

Our Lithium segment serves approximately 1,500 customers worldwide in its lithium and special metal business. Lithium s customers include Bayer CropScience (a division of Bayer AG), Syngenta AG, Umicore S.A., Samsung SDI Co. Ltd. and Royal DSM N.V.

Surface Treatment (56*% of 2013 net sales*)

Our Surface Treatment segment operates under the *Chemetall* brand name and develops and manufactures metal surface treatment products and services for a wide range of industries and end markets. Our Surface Treatment segment generated net sales of $770.2 million, $723.2 million and $743.2 million for the years ended December 31, 2013, 2012 and 2011, respectively. See Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information, for additional financial information regarding our Surface Treatment segment.

We believe that our Surface Treatment segment is a leading global supplier of surface treatment products and solutions. Surface Treatment s products are used for a variety of applications and serve the automotive, aerospace and general industrial markets, including steel and metal-working industries. This business line supplies more than 5,000 different products, many of which are based on proprietary formulations and extensive application know-how, to approximately 50,000 customers and operates in over 20 countries for production, warehousing or research and development. Surface Treatment operates in the following core end-markets: Automotive Technologies and Components, Cold Forming and Coil, General Industry (including Aluminum Finishing) and Aerospace Technologies.

We develop and supply products and solutions for the chemical pre-treatment of metals and other substrates, some of which are customized for individual customers and applications. Our products and solutions are critical to many areas of the metal processing industry because they protect metals from corrosion, facilitate forming and machining, allow parts to be optimally prepared for the painting process where paint adhesion is critical and ensure good coating adhesion. Other products are used in the cleaning and maintenance of aircraft. As an integrated part of the business, we also offer a full range of customer services, including process control and analysis of chemical baths at clients facilities.

Surface Treatment competes in markets characterized by significant barriers to entry, proprietary manufacturing technologies and know-how, demanding product-handling requirements, rigorous product quality and performance standards and specifications and longstanding service-intensive customer relationships. In order to remain competitive, we are focused on developing new products, improving process technologies, expanding our customer base, and broadening our technology capabilities in existing and new markets through internal research and development and bolt-on acquisitions. In recent years, we have expanded our production in India and built a new state-of-the-art plant in Michigan in the United States, and consolidated our United States production sites into the Michigan plant. These investments have helped us meet the increasing demand for our product portfolio. In 2013, we began expansion of our Singapore production facility to help fulfill the growing demand in this region, as well as to increase our product portfolio. We also are involved with a number of research and development projects with industrial partners and scientific institutes on a regular basis that help us fulfill our needs for more cost efficient and environmentally compatible technologies. As a result, new products and improved technologies were launched in recent years and more are expected in the future.

To further strengthen our market position in Asia, in July 2013, we acquired the remaining 50% interest of our joint venture in India. The results of the former India joint venture were fully consolidated as of such date. This business focuses on automotive and other pre-treatment technologies. In addition, to further strengthen our market position in the coil coatings and general industry markets, in 2013, we completed two smaller bolt-on acquisitions in Germany.

The core end-markets that Surface Treatment operates in are as follows:

Automotive Technologies and Components. We provide surface treatment products and solutions for automotive original equipment manufacturers (OEMs), including an entire range of products and services for use in the paint shop step of car-body and automotive component manufacture. The products and services we provide typically represent a low percentage of total car body production costs, but have high value in terms of corrosion protection and surface quality. Major applications include car-body treatment (zinc-phosphating), paint coagulation and cleaning and pre-treatment of automotive components such as aluminum wheels. Our services typically include intensive process control and chemical management in the customer s production processes. We are in the process of implementing replacements for zinc-phosphate globally, and believe that this represents an attractive growth area in this market. We compete for the growth of this segment in the emerging markets through our joint ventures in China, as well as with our 100%-owned entity in India.

Cold Forming and Coil. We provide products and services used to facilitate the cold forming of tubes, wire drawing and cold extrusion of metal. We provide products and services used in forming, cleaning and the pre-treating of metal sheets used in the production of steel and aluminum coil.

General Industry. General industry includes the largest number of customers among the Surface Treatment businesses. We offer a range of products and services to a broad range of industrial end-markets that have metal surface treatment applications, including cleaning, activation, conversion coating and final rinsing. Our products include cleaners, iron phosphates, coolants, paint strippers and flocculants. We have also expanded our product range in North America and China, by adding products in the field of metalworking fluids. Over the last few years, we have introduced a new generation of iron-phosphating products in the U.S. market, which we expect will provide growth in the next few years, and began offering silane or oxsilan-based systems. The markets for General Industry include household appliances manufacturing, can producers, heating, ventilation, aluminum finishing and other diverse end-markets. In addition, we produce specialty products, which are similar to metal surface treatment products, but are used on glass substrates for glass manufacturers, including specialty cleaners, polishing products, cutting oils and cooling lubricants.

Aerospace Technologies. We provide products and services for aerospace OEMs, airlines and maintenance companies. Aerospace Technologies focuses on four major application areas: cleaning; corrosion protection; maintenance chemicals; and sealants. Cleaning products are used for the interior and exterior cleaning of airplanes and range from daily cleaning to complete aircraft overhaul. Corrosion protection products include waxes used to protect airframes. Maintenance chemicals for aircraft engines and turbines include high performance cleaners and products for non-destructive testing of engines, and aircraft sealants provide high technology sealing solutions for airplanes and are expected to contribute to growth in the next few years. In the last few years, we introduced new low-density sealants in the market place.

Competition

We believe we are a leader in the global metal surface treatment market. Our competitors include Henkel AG & Co. KGaA, Nihon Parkerizing Co., Ltd., PPG Industries, Inc. and Nippon Paint Co., Ltd. Competition in this market is based primarily on customer service, product quality and technological capabilities.

Customers

Surface Treatment serves a large customer base that varies widely among product groups and industries served. Surface Treatment s largest customers include ArcelorMittal, Daimler AG, European Aeronautic Defence and Space Company (EADS) N.V., Ford, Renault-Nissan and Volkswagen AG. Specifically, with respect to Surface Treatment s four core end-markets:

- Automotive Technologies and Components business division serves approximately 300 customers, primarily global OEMs, and approximately 1,000 small to large customers in the components markets;
- Cold Forming and Coil business division serves approximately 1,000 mid-size to large customers;
- General Industry business division serves approximately 45,000 small to large customers in a broad range of industries worldwide; and
- Aerospace Technologies business division serves approximately 4,000 small to large customers worldwide.

Corporate and other ***(9% of 2013 net sales)***

The Corporate and other classification primarily includes the results of operations of the metal sulfides business. Our Corporate and other segment generated net sales of $128.2 million, $126.2 million and $154.4 million for the years ended December 31, 2013, 2012 and 2011, respectively. See Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information, for additional financial information regarding our Corporate and other segment.

Metal Sulfides

Metal Sulfides develops and manufactures natural and synthetic metal sulfides used in brake pads, clutch facings, cutting and grinding wheels, and lubricants. In order to further strengthen our competitive position in the metal-based specialty chemicals market, we are focused on the production of new variations of synthetic metal sulfides. We also continuously monitor our customers industries for potential new applications for our products. In addition, we expect to expand our business by penetrating growth areas such as India and China.

We expect that demand for synthetic metal sulfides will increase the transition from natural sulfides to synthetic sulfides spurred in part by higher performance of synthetic sulfides, environmental concerns and the transition from drum to disk brakes in Asia and the Americas. We believe further opportunities for growth exist from the use of the newly developed metal sulfides as solid lubricants or as additives for plastics.

This business division supplies the friction, abrasives and lubricant industry. Friction stabilizers enhance the power and performance of brake pads and clutch facings and primarily serve the automotive supplier industry. Abrasive additives improve performance and wear of resin bonded cut-off and grinding wheels. Solid lubricants are used by grease and lubricating paste manufacturers as additives for specialized high-performance applications. The demand for metal sulfides is driven primarily by the demand in the automotive supplier industry.

Competition

We believe that in the metal-sulfides business, we hold a leading market position in its niche markets. We have a leading position in friction materials and are the only supplier offering a full product range of friction stabilizers and abrasive additives based on metal sulfides. Key competitors include: Dow Corning Corporation, Catalise Industria e Comercio de Metals Ltda and Nachmann S.r.I. Competition in the metal-sulfides markets is based on product quality and product diversity.

Customers

Metal sulfides serves approximately 300 customers worldwide and its customers include all of the friction manufacturers supplying to the original equipment manufacturer (OEM) and original equipment service (OES) market segment.

Discontinued Operations

As described above, in September 2013, we entered into an agreement to sell the TiO2 Pigments and Other Businesses, the principal ones of which are described below. This transaction is expected to close during the first half of 2014. There can be no assurance that this transaction will be completed in a timely manner, if at all.

Titanium Dioxide Pigments

Our Titanium Dioxide Pigments segment operates under the *Sachtleben* brand name and is a leading producer of high quality chemical products with a unique range of small inorganic particles that add significant value to customers products and reduce the cost of customers production processes. Titanium Dioxide Pigments comprises two business lines: (1) Titanium Dioxide; and (2) Functional Additives.

Titanium Dioxide

Our Titanium Dioxide business line is a leading producer of specialty grade titanium dioxide (TiO2), serving a wide variety of customers in the synthetic fibers, plastics, paints, packaging inks, coatings, cosmetics, pharmaceuticals and paper industries. TiO2 is a fine white powder that derives its value from its unparalleled whitening strength and opacifying ability, which is commonly referred to as hiding power. Our Titanium Dioxide segment s principal products include TiO2 in anatase grade, TiO2 in rutile grade and titanium specialties. This segment also provides recycling services for sulfuric waste acid.

There are two ways of producing TiO2: the sulfate process and the chloride process. The chloride process permits production of only rutile TiO2 and is primarily suited for large volume production of standard TiO2 grades. We believe most of the globally installed TiO2 capacity uses the chloride process as opposed to the sulfate process. Unlike the chloride process, the sulfate process is capable of producing both the rutile and anatase grade of TiO2. We employ the sulfate process for TiO2 production and thus, the output from most of the globally installed TiO2 production capacity does not compete with our anatase products.

We believe that we have a competitive advantage in fiber anatase production and special sophisticated anatase applications based on our strong technological capabilities, long-term customer relationships and extensive test runs with regular monitoring of product and process parameters. Although it represents a negligible part of the fiber material cost, TiO2 application know-how and a longstanding application track record of homogeneous anatase crystals, both of which avoid production interruptions and excessive wear or breakdown of our customers equipment, are critical to our customers. We intend to focus our rutile business on selected markets and applications and to further develop our titanium specialties business. We expect this segment to benefit from sales of newly introduced nano-particle titanium dioxide pigments that are used to provide ultraviolet light protection for cosmetics, plastics and coatings.

In July 2012, our Sachtleben titanium dioxide venture acquired certain business assets, primarily inventory and other production assets, of crenox GmbH, a German titanium dioxide producer from the insolvency administrator. This acquisition further enhanced Sachtleben s position as a leading global supplier of high-quality titanium dioxide pigments.

Principal Products

TiO2 in Anatase Grade. We develop and manufacture high quality anatase TiO2 pigments. These pigments are sold primarily to the global synthetic fiber industry, as well as paper, food and pharmaceutical industries. We believe our anatase pigment, sold under the brand name *Hombitan*, is a leading global-selling TiO2 product for applications in the synthetic fiber industry.

TiO2 in Rutile Grade. We develop and manufacture rutile TiO2 pigments, which are mainly used in special applications such as selected coatings, paints, packaging inks, plastics and laminated paper production processes. In this product area, we are geographically focused on the European market. Rutile-based TiO2 pigments generally possess performance characteristics different from anatase-based pigments. Rutile-based pigments significantly improve the weatherability and durability of polymer products by providing protection against yellowing and preventing embrittlement of the material. Our rutile grades are state of the art products and are used in applications with high technical requirements.

Titanium Specialties. Our titanium specialties products primarily include nano-particles, which are exceptionally fine-particled, transparent and easy-to-use pigment formulations that are used across a large and diverse range of applications in small volumes. For example, the specialty grade TiO2 products are used as UV-absorbers in sun protection cosmetics. In addition, the new nano-particles form the basis for innovative wood-protection products and innovative color variations by the paints and coatings industry. Other uses include catalysts, gas cleansing, photocatalysts and intermediates for special ceramics.

Competition

Titanium Dioxide Pigments key competitors include: (1) Fuji Titanium Industry Co., Ltd. and Kronos Worldwide, Inc. for anatase-based TiO2; (2) DuPont Titanium Technologies, Cristal Global, Tronox Incorporated and Huntsman LLC for rutile-based TiO2; and (3) Tayca Corporation, Ishihara Corporation and Evonik Degussa for TiO2 specialties. Competition in the markets in which Titanium Dioxide competes is generally based on technological capabilities, product quality, price in rutile grade and customer service.

Customers

Titanium Dioxide Pigments customers include leading manufacturers of paints, such as Akzo Nobel Coatings, Inc., PPG Industries, Inc., BASF Group and E.I. duPont de Nemours and Company; printing inks such as Sun Chemical Corporation, Flint Group and Siegwerk Druckfarben AG; fibers, such as Nan Ya Plastics Corporation and Invista Inc.; plastics, such as Ampacet Corporation and Ineos Group Limited; and paper, such as Munksjo Inc. and Papierfabrik August Koehler AG.

Functional Additives

Our Functional Additives business line is a leading global manufacturer of barium-based and zinc-based inorganic fine white pigments and additives. The main function of these products is to improve brilliance of colors and shine of coatings, improve the mechanical strength of plastic parts and prevent degradation due to exposure to light. Our Functional Additives business line serves diverse end-markets, including the plastics industry, the coatings industry and the pharmaceutical industry.

Principal Products

Barium-based Additives. We produce highly dispersed powders of barium sulfate and are the largest global producer of precipitated synthetic barium sulfates (Blanc Fixe). We provide a unique range of barium-based additives customized for applications in coatings, plastic, colorants, lubricants, PVC stabilizers and thermoplastics, fibers and paper to improve optical, chemical and mechanical properties. We also produce an X-ray-grade barium sulfate used as a contrast agent in medical applications, such as X-rays for the stomach and intestine area.

Zinc-based Additives. We believe we are also a leading producer of pure zinc sulfide pigments, mainly used in glass fiber reinforced plastic parts and coatings and a leading supplier of Lithopone, a white zinc sulfide pigment which is used in plastics and coatings.

Competition

Key competitors for barium-based additives include Solvay S.A., Gruppo Chimico Dalton S.p.A., Sakai Chemical Industry Co., Ltd. and Chinese barium-producers. Key competitors for zinc-based additives include Chinese Lithopone producers. Competition in the functional additives market is primarily based on application know-how, brand recognition, product quality and, to a certain extent, price.

Customers

Functional Additives customers include E.I. duPont de Nemours and Company, Ampacet Corporation, BASF Group, Akzo Nobel Coatings, Inc. and A. Schulman, Inc.

Color Pigments and Services

The Color Pigments and Services business line is a global producer of synthetic iron-oxide and other inorganic pigments in a wide range of yellow, red, orange, ultramarine blue, black, manganese violet or blended shades, and serves the construction, paints and coatings, plastics, and specialty application markets with powder, granular and liquid grades. Color Pigments and Services focuses on developing and manufacturing high value-added inorganic pigments. The business also offers a number of unique pigment dispensing systems. The Color Pigments and Services business line has been driven by product innovation, our brand names and our customer and technical service, including customer-specific color blending.

We announced that we will build an advanced technology production facility in Augusta, Georgia for the synthesis of iron-oxide pigments. This plant is expected to supply the highest quality color pigments to North American customers, to strengthen customer service and to reduce lead time and improve product development potential. This plant is estimated to be completed in early 2015.

Principal Products

Construction Color Pigments and Services. We develop and manufacture principally iron-oxide pigments for manufacturers of construction products for use in the coloring of concrete products, including paving stones, bricks, concrete blocks, roofing tiles, stucco and mortar. Color Pigments and Services major U.S. brand is *Davis Colors* and its other key brands include *Granufin/Granumat, Hydrotint, Mix-Ready* and *Chameleon*. *Granufin* is a unique, dry, microgranulated pigment that combines the flow characteristics of a liquid with the storage and handling advantages of a powder. The *Granumat* dispensing system offers a variety of configurations and features designed to accommodate the varying requirements and budgets of concrete product manufacturers. *Granufin* pigments and the *Granumat* system improve product handling and color consistency for our customers. Our *Chameleon* system, which works in combination with our liquid pigments, automatically weighs, blends and conveys colors into a ready-mix truck using a standard personal computer and custom-developed Windows-based software.

Paints, Coatings and Colorants. We also develop and manufacture color pigments for the paints, coatings, plastics, paper and rubber end-use markets including our brands *Ferroxide, Trans-oxide, Solaplex* , *Solarox* and *Colourplex*. We produce a wide variety of pigments for these markets that include synthetic iron-oxides, corrosion inhibitor pigments, complex inorganic color pigments and process natural pigments such as burnt umbers and siennas. The largest application for these products is colorant used in architectural, industrial and special purpose paints and coatings. Color, ease of dispersion and chemical stability are the primary characteristics of our products, which can be used in a wide variety of both solvent and water-borne systems. We believe that a number of our products are considered industry standards in the markets in which we compete, such as our Mapico yellow and Copperas red pigments for architectural and industrial applications and our heat-stable tans, which can tolerate applications requiring high-temperature processing, such as plastic compounding and roofing granules. Solarox is a new generation of iron-oxide pigments that enable surfaces to self-clean, reduce air pollution and inhibit microbial growth. We have successfully patented the product in Europe and North America and expect greater recognition and demand as climate warming initiatives gain traction.

Specialties. Our iron-oxide pigments are also used in a wide variety of specialty applications such as toner for large printers and copiers, security inks used to print bank notes, catalysts for styrene production and cosmetics. Each of these markets requires specialized pigments with unique properties which are often as important as the coloring characteristics. For example, printer toners require specific magnetic properties whereas pigments used in cosmetics require color and purity.

Competition

We believe that there are a significant number of producers of iron-oxide pigments across the globe at both the pigment synthesis and finishing levels with whom we compete. We believe these producers include Lanxess AG, Cathay Pigments Group, Interstar Materials Inc. and Shanghai Yipin Pigments Co., Ltd. as well as other producers in Japan and China. Competition in this segment is based on customer service, product attributes, such as product form and quality, and price. Product quality is critical in the higher end of the business on which Color Pigments and Services focuses, as inconsistent product quality can have an adverse impact on the color consistency of the end-product.

Customers

Color Pigments and Services key customers include Akzo Nobel, Oldcastle (CRH plc), The Sherwin-Williams Company, Evonik Degussa GmbH, and W.R. Grace & Co., each of which has been our customer for at least ten years. Color Pigments and Services customer base is highly fragmented.

Timber Treatment Chemicals

The Timber Treatment Chemicals business line is a manufacturer of wood protection products primarily in North America and Europe, and we market these products through our joint venture formed in 2007 with The Dow Chemical Company. Wood protection products enhance the performance of wood by increasing its longevity through protection from decay and fungal or insect attack. Our specialty timber chemicals also add water repellency, fire retardancy, mold inhibition and other properties to wood products. Timber Treatment Chemicals products include wood protection products based on our alkaline copper quaternary, or ACQ technology, which was awarded the Environmental Protection Agency (EPA) Presidential Green Chemistry Challenge Award in 2002; *Ecolife*, our new non-metallic wood preservative technology; copper azole; and chromated copper arsenate, or CCA. In 2008, we introduced our newest *Ecolife* system which utilizes a high-performance non-metallic preservative with enhanced environmental benefits. Introductory commercialization began in 2008, and in 2012, we began to see a positive impact from this technology. We expect *Ecolife* to take advantage of market desire for non-metallic wood protection products and the growth potential in the development and commercialization of the next generation of wood protection products. Other products include Clearwood, our wood protection product for wood windows and doors, as well as a range of specialty additives with fire retardant, water repellent or moldicide properties. Applications for our products include wood protection products used for decking, fencing, playground equipment, garden furniture, house construction materials, utility poles, and other wood constructions.

In addition, Timber Treatment Chemicals provides a broad range of technical expertise and services to its customers. In particular, Timber Treatment Chemicals works closely with its customers to assist them in reducing the total cost of their manufacturing process by supplying timber treatment chemicals as well as treatment equipment along with technical support. We believe that Timber Treatment Chemicals is a leading provider in North America and Asia of new generation alternative timber treatment chemicals, such as ACQ and *Ecolife*, which provide enhanced environmental benefits, as they do not contain chrome or arsenic. Many of our Timber Treatment products are registered pesticides and subject to extensive regulation.

Our Timber Treatment Chemicals business also manufactures inorganic chemicals such as nitrates and chlorides for various industrial applications including chemicals that are added to concrete as curing accelerants and corrosion inhibitors, chemicals that are used for odor control in water treatment, galvanizing fluxes, micronutrients, pesticides and catalysts used in the manufacture of textile resins.

Principal Products

We develop and manufacture a broad range of wood protection products, fire retardant and specialty chemicals for use in residential and industrial wood applications. In addition, we provide treatment equipment, which facilitates the handling and treatment of wood and chemicals, and we provide comprehensive technical support services to our customers. Timber Treatment Chemicals key brands include *Ecolife, Preserve, Preserve Plus, Ultrawood, D-Blaze, Clearwood* and *SupaTimber.*

We also develop and manufacture inorganic metallic chemicals for certain specialty markets. These include zinc chloride-based products, other chlorides, and a range of nitrates and other chemicals. Some of these products are manufactured using by-products from other large chemical companies.

Competition

We believe that our Timber Treatment Chemicals business is one of the leading manufacturers of wood protection products in North America, along with Lonza Group Ltd. and Osmose, Inc. Other competitors, particularly in Europe, are BASF Group, Kurt Obermeier GmbH & Co. KG and Rutgers AG. Competition for wood protection products is mainly based on price, customer support services, innovative technology and product range. In the inorganic chemicals market, we operate in niche areas, and therefore have few competitors overall. Competition in the inorganic chemicals market is mainly based on quality, customer support services and price.

Customers

Timber Treatment Chemicals sells its products primarily to wood processors who pressure-treat wood. Major customers include Allweather Wood, LLC., C.M. Tucker Lumber Companies, LLC., Envirofor Preservers Ltd., Georgia-Pacific Corporation, Jeld-Wen, Inc., Koshii Preserving Co. Ltd., Land and Sea Forest Products of Pennsylvania Corporation, Spartanburg Forest Products, Inc., Sunbelt Forest Products Corporation, and Sundre Forest Products, Ltd. Customers of our inorganic chemicals product line include Evonik Degussa GmbH, Rohm and Haas Company (a subsidiary of The Dow Chemical Company), Nalco, An Ecolab Company and W.R. Grace & Co. Most of these companies have been our customers for at least ten years.

Raw Materials

We purchase raw materials and chemical intermediates from a large number of third parties. Major requirements for our key raw materials and energy are typically satisfied pursuant to contractual agreements and/or medium- or long-term relationships with suppliers. We are generally not dependent on any one supplier for a major part of our raw material requirements, but for the most part, certain important raw materials are obtained from a few major suppliers. In general, where we have limited sources of raw materials, we have developed contingency plans to minimize the effect of any interruption or reduction in supply, such as sourcing from different facilities, multiple suppliers or utilizing alternative formulations.

Temporary shortages of raw materials may occasionally occur and cause temporary price increases. In recent years, these shortages have not resulted in unavailability of raw materials. However, the continuing availability and price of raw materials are affected by unscheduled plant interruptions occurring during periods of high demand, domestic and world market and political conditions, as well as the direct or indirect effect of governmental regulations. During periods of high demand, our raw materials are subject to significant price fluctuations, and, such fluctuations may have an adverse impact on the results of operations of our business. The impact of any future raw material shortages on our business as a whole or in specific geographic regions or in specific business lines cannot be accurately predicted.

Continuing Operations

We have a broad raw material base with the cost of no single raw material representing more than 7% of our cost of products sold in 2013. Raw materials constituted approximately 58% of our 2013 cost of products sold. The table below lists the key raw materials in 2013 (in terms of dollars) for our continuing operations recorded in cost of products sold and the principal products for which the materials were used.

Raw Material	Segment/Category	Products
Tin	Corporate and other	Metal sulfides
Phosphoric Acid	Surface Treatment	Metal surface treatment
Sodium Carbonate	Lithium	Lithium carbonate
Antimony Sulfide	Corporate and other	Metal sulfides
N-Butylchloride	Lithium	Butyllithium
Potassium Hydroxide	Surface Treatment	Metal surface treatment

Tin is used in our Corporate and other category in the production of metal sulfides and is purchased from five suppliers under annual supply agreements. Prices of tin are tied to market conditions.

Phosphoric acid and potassium hydroxide are used in our Surface Treatment segment for metal treatment chemicals and are purchased from multiple global sources. Currently, there are no long-term purchase contracts for these raw materials.

Sodium carbonate is a key raw material used in our Lithium segment to produce lithium carbonate and is used at our production facilities in La Negra, Chile and Silver Peak, Nevada. Sodium carbonate is sourced from two suppliers, each under two long-term contracts that expire at the end of 2014 with prices tied to market conditions.

Antimony sulfide is used in our Corporate and other category in the production of metal sulfides and is purchased from a number of sources. Prices of antimony sulfide are tied to market conditions.

N-butylchloride is used for the production of butyllithium at our facilities in Langelsheim, Germany, Taichung, Taiwan and New Johnsonville, United States. n-butylchloride is sourced under two long-term contracts that expire at the end of 2015 with prices tied to market conditions.

In addition, lithium brine is a primary raw material for all lithium chemicals but does not appear in the above table because our cost of this raw material is low (in terms of dollars). Lithium brine is found in only a small number of locations in the world, including most significantly for us, the Atacama Desert in Chile. As described above under Reportable segments Continuing Operations Lithium Description of

the Salar de Atacama, Chile and Silver Peak, Nevada, we have a long-term contract with the Chilean government to extract lithium brine in the Atacama Desert in Chile; we believe our Chilean contract provides us with a secure long-term access to lithium. We also extract lithium brine at our site in Silver Peak, Nevada pursuant to a settlement agreement with the U.S. government. In addition, there are a limited number of producers in the world of lithium metal from which we can source our lithium metal requirements. Specifically, we provide lithium chloride to certain producers who toll manufacture lithium metal for us. One of such toll manufacturers experienced production issues in early 2014. Any disruption at this facility could adversely affect our ability to meet market demand for these products, our relationships with our customers and our results of our operations.

Discontinued Operations

The table below lists the key raw materials in 2013 (in terms of dollars) for our discontinued operations of our TiO2 Pigments and Other Businesses and the principal products for which the materials were used.

Raw Material	Business	Products
Titanium-bearing slag	Titanium Dioxide Pigments	Titanium Dioxide
Ilmenite	Titanium Dioxide Pigments	Titanium Dioxide
Copper	Timber Treatment Chemicals	Wood protection products
Phosphoric acid	Timber Treatment Chemicals	Wood protection products
Zinc/Zinc oxide	Titanium Dioxide Pigments/Color Pigments and Services	Zinc-based pigments, zinc phosphate and tan iron-oxide
Iron-oxide	Color Pigments and Services	Iron-oxide pigments

Titanium-bearing slag and ilmenite are the most important raw materials used in the production of specialty grade titanium dioxide in our Titanium Dioxide Pigments business. We purchase titanium-bearing slag primarily from two suppliers on a long-term basis under contracts that expire at the end of 2014 and 2015. We purchase ilmenite from three suppliers under long-term contracts that expire at the end of 2015.

Copper is used in our Timber Treatment Chemicals business. We purchase copper, a commodity, from several sources. Prices for our copper purchases are tied to market conditions.

Phosphoric acid is used in our Timber Treatment Chemicals business for wood protection and is purchased from various global sources. Currently, there are no long-term purchase contracts for this raw material.

Zinc is used in our Titanium Dioxide Pigments business to produce zinc-based pigments and is purchased from a number of suppliers under long-term contracts. Zinc oxide is used in our Color Pigments and Services business in the production of tan iron-oxide and zinc phosphate and is purchased from multiple suppliers. There are no long-term zinc oxide purchase contracts in our Color Pigments & Services business.

Iron-oxide is used in the Color Pigments and Services business and is purchased from suppliers in China as a supplement to our iron-oxide production. Historically, we have received iron-oxide from multiple sources and have not experienced any significant supply shortages.

Intellectual Property

Our business is dependent to a large extent on our intellectual property rights, including patents and other intellectual property, trademarks and trade secrets. We believe that our intellectual property rights play an important role in maintaining our competitive position in a number of the markets we serve. We rely on technological know-how and formulation and application expertise in many of our manufacturing processes in order to develop and maintain our market positions. Where appropriate, we protect our new technology, applications and manufacturing processes by seeking patent protection. We have more than 3,500 patents and patent applications for our continuing operations in key strategic markets worldwide, reflecting our commitment to invest in technology and covering many aspects of our products and processes for making those products. We also own and register in multiple jurisdictions numerous trade names and trademarks applicable to our business and products which we believe are important to our business. In addition, we have entered into agreements, pursuant to which we license intellectual property from third parties for use in our business and we license certain intellectual property to third parties. We also develop intellectual property with third parties as discussed below in Research and Development.

Research and Development

We are committed to further investing in our businesses through research and development. Our research and development costs were approximately 2% of our net sales in 2013, which include certain expenses related to modifications and improvements in current products. We allocate our research and development resources selectively based on the needs and requirements of each business line to develop innovative products. Research and development costs are charged to expense, as incurred. Such costs were $22.6 million, $22.1 million and $17.6 million for the years ended December 31, 2013, 2012 and 2011, respectively.

The objective of our research and development effort is to develop innovative chemistries and technologies with applications relevant within targeted key markets. Research and development efforts are generally focused on both process development, which is the stage at which products move from development to manufacturing, and new product development. Each business line, however, also has selected long-term strategic projects with the aim to develop new competencies and technologies. For example, our Lithium business has set up a pilot plant for the recycling of lithium ion batteries.

Each of our business lines manages its own research and development effort and has separate research and development facilities dedicated to its specific area. However, where technologically feasible, advances and findings are shared between business lines to foster greater cross-fertilization of ideas and applications. In certain cases, we conduct research and development efforts with third parties, including universities, customers and other entities. We endeavor to obtain ownership of or license to, on terms favorable to us, the intellectual property developed with a third party.

International Operations

The following table presents net sales based on geographic area (attributed based on seller s location):

	Year ended December 31,		
($ in millions)	**2013**	**2012**	**2011**
Net sales:			
Germany	$ 395.4	$ 354.7	$ 380.0
Rest of Europe	365.9	352.0	392.4
United States	298.3	282.2	260.6
Chile	86.8	105.9	96.3
Rest of World	231.4	229.0	224.8
	$ 1,377.8	$ 1,323.8	$ 1,354.1

See Item 7, Management s Discussion and Analysis of Financial Condition and Results of Operations, for further details.

The following table presents the net book value of our long-lived assets located in the regions indicated:

($ in millions)	As of December 31, 2013	2012	2011
Long-lived assets (a):			
Germany	$ 285.2	$ 270.1	$ 258.3
Chile	283.8	177.4	138.3
Rest of Europe	82.5	83.1	79.0
United States	134.8	137.3	127.0
Rest of World	56.5	51.7	52.9
	$ 842.8	$ 719.6	$ 655.5

(a) Long-lived assets represent property, plant and equipment, net as presented in the consolidated balance sheets.

Sales and Marketing

We sell our products and services globally primarily through our direct sales forces, although we also sell through distributors in some of our business lines, such as in certain parts of our Surface Treatment and Metal Sulfides businesses. Each of our direct sales forces is responsible for marketing only one business line, and is administered pursuant to policies established by the management of that business line. Within each business line, the direct sales force is organized based on geographic regions, end-use applications or sub-business line divisions. As of February 1, 2014, our total in-house sales forces consisted of approximately 1,100 personnel worldwide.

Our direct sales forces interact with our customers to provide both purchasing advice and technical assistance. In general, our sales forces arrange and coordinate contact between our customers and our research and development or technical personnel to provide quality control and new product solutions. In both of our segments, many sales managers have a chemical engineering background with advanced degrees and significant technical experience in applying our products, and they play a critical role in developing client relationships and acquiring new clients. Our close interaction with our customers and tailored solutions have allowed us to develop and maintain strong customer relationships as well as focus our sales efforts on those customers who we believe will provide us with higher profit margins in recognition of our superior products, service and technical support.

Sales in each of our business lines are generally made on a purchase order basis. However, longer-term arrangements have been established with certain key customers.

Our marketing strategy is generally aimed at working directly with customers to gauge the success of our products, evaluating the need for improvements in product and process technology, and identifying opportunities to develop new product solutions for our customers and their end-use markets. We also use media activities, lectures and tradeshows as part of our sales and marketing efforts.

FDA Regulation

We are subject to regulation by the FDA with respect to certain products produced, marketed and sold by our Lithium segment, which includes pharmaceutical intermediates. Foreign, state, local and other authorities also may regulate us and our products. Regulatory agencies have established requirements that apply to the design, manufacture and marketing of pharmaceutical products. We sell our pharmaceutical intermediates to other companies that also may be regulated by such authorities.

Premarket Approval. While we are not required to seek FDA approvals for our pharmaceutical intermediates, the customers to whom we supply such products may be subject to FDA approval requirements prior to testing a new drug on humans as well as marketing a new drug for commercial use in the United States. Our customers with FDA approval for a finished drug may also be required to obtain FDA approval of design, manufacturing or labeling changes to the pharmaceutical intermediates used in their finished products.

Post-Market Compliance Requirements. Once on the market, drug manufacturers are subject to numerous post-market regulations.

If we or our customers violate FDA or other governmental regulatory requirements during either the pre- or post-marketing stages, there may be various adverse consequences. For example, in the United States, the FDA has the authority to impose fines, injunctions, and civil penalties; recall or seize products; impose operating or import restrictions, partial suspension or total shutdown of production; delay its approval or refuse to grant approval of new products; or withdraw the submission of the approved product from the market.

Safety, Health and Environmental Matters

See Item 8. Financial Statements and Supplementary Data - Note 18, Commitments and Contingencies, for a discussion of our safety, health and environmental matters.

Employees

As of February 1, 2014, we had approximately 3,500 employees, with 56% located in Europe, 17% in the United States and the remaining 27% located in the rest of the world. Of our employees, approximately one-fourth are subject to collective bargaining agreements or other similar arrangements.

We observe local customs, legislation and practice in labor relations and, where applicable, in negotiating collective bargaining agreements. Management believes that its relations with employees and their representatives are good. We have not suffered any material work stoppages or strikes in our worldwide operations in the last five years.

Available Information

Rockwood Holdings, Inc. files annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (the SEC). You may read and copy any documents we file at the SEC s public reference room at Room 1580, 100 F Street, N.E., Washington D.C. 20549. Please call the SEC at 1-800-SEC-0330 for information on the public reference room. The SEC maintains a website that contains annual, quarterly and current reports, proxy statements and other information that issuers file electronically with the SEC. The SEC s website is *www.sec.gov*.

The Company s website is *www.rocksp.com*. We have made available, free of charge through our website, our annual report on Form 10-K, and will make available our quarterly reports on Form 10-Q and current reports on Form 8-K, as well as any amendments to those reports filed or furnished pursuant to the Securities Exchange Act of 1934 (the Exchange Act) as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The Company s proxy statement will be available when filed with the SEC.

From time to time, Rockwood may use its web site as a channel of distribution of material company information. Financial and other material information regarding the Company is routinely posted on and accessible at *http://www.rockwoodspecialties.com/rock_english/news/compnews.asp.* In addition, you may automatically receive email alerts and other information about Rockwood by enrolling your email by visiting the Rockwood Holdings, Inc. Alert Form section at *http://www.rockwoodspecialties.com/rock_english/ir/alertform.asp.* The foregoing information regarding our website and its content is for convenience only. The content of our website is not deemed to be incorporated by reference into this report and should not be deemed to have been filed with the SEC.

Item 1A. Risk Factors.

You should carefully consider these risk factors in evaluating our business. In addition to the following risks, there may also be risks that we do not yet know of or that we currently think are immaterial that may also affect our business, potentially material. If any of the following risks occur, our business, results of operations, cash flows or financial condition could be adversely affected.

Leverage Our available cash and access to additional capital may be limited by our leverage.

We are leveraged and have significant debt service obligations. As of December 31, 2013, we had $1,295.4 million of indebtedness outstanding and total equity of $3,049.2 million. Our indebtedness is constituted principally by $1,250.0 million of 4.625% Senior Notes due in 2020 (2020 Notes) issued by the Company s indirect 100% owned subsidiary, Rockwood Specialties Group, Inc. (RSGI) in September 2012. The 2020 Notes are jointly and severally, and fully and unconditionally guaranteed on a senior unsecured basis by Rockwood and certain of RSGI s existing and future 100% owned domestic subsidiaries. The 2020 Notes pay interest at a rate of 4.625% per annum semi-annually on April 15 and October 15 of each year and mature on October 15, 2020.

This level of indebtedness could have important negative consequences, including:

- we may have difficulty obtaining financing in the future for working capital, capital expenditures, acquisitions or other purposes;

- we will need to use a substantial portion of our available cash flow to pay interest and principal on our debt, which will reduce the amount of money available to finance our operations and other business activities;

- our debt level increases our vulnerability to general economic downturns and adverse industry conditions;

- our debt level could limit our flexibility in planning for, or reacting to, changes in our business and in our industry in general;

- our substantial amount of debt and the amount we need to pay to service our debt obligations could place us at a competitive disadvantage compared to our competitors that have less debt; and

- our failure to comply with the financial and other restrictive covenants in our debt instruments which, among other things, require us to maintain specified financial ratios, limit our ability to incur debt, pay dividends and sell assets, could result in an event of default that, if not cured or waived, could cause our lenders to terminate commitments under our debt agreements, declare all amounts, including accrued interest, due and payable, and enforce their rights in respect of collateral.

Our cash interest expense for the year ended December 31, 2013 was $77.9 million. Our debt service for 2014, which represents estimated scheduled cash interest payments and expected principal payments of our long-term debt, is expected to be $70.8 million. See Item 7, Management s Discussion and Analysis of Financial Condition and Results of Operations Liquidity and Capital Resources Liquidity for years beyond 2014.

Additional Borrowings Available Despite our leverage, we and our subsidiaries may be able to incur more indebtedness. This could exacerbate the risks described above, including our ability to service our indebtedness.

We and our subsidiaries may be able to incur substantial additional indebtedness in the future. Although the indenture governing the 2020 Notes contains restrictions on the incurrence of additional indebtedness, such restrictions are subject to a number of qualifications and exceptions, and under certain circumstances indebtedness incurred in compliance with such restrictions could be substantial. For example, although the indenture prohibits us from incurring additional indebtedness unless we satisfy a fixed-charge coverage ratio, which is the ratio of Adjusted EBITDA (as defined therein) to fixed charges (as defined therein), in each case for the most recently ended four fiscal quarters, on a pro forma basis of at least 2.00 to 1, there are a number of permitted exceptions, including among others, an amount of indebtedness under a credit facility up to an amount not to exceed the greater of: i) $2,250.0 million and ii) an amount such that the pro forma net secured leverage ratio shall not exceed 2.50 to 1. To the extent new debt is added to our debt levels, the substantial leverage risks described above would increase.

Restrictive Covenants in Our Debt Instruments Our debt instruments contain a number of restrictive covenants which may limit our ability to finance future operations or capital needs or engage in other business activities that may be in our interest.

The indenture governing the 2020 Notes impose, and the terms of any future indebtedness may impose, operating and other restrictions on us. Such restrictions will affect, and in many respects limit or prohibit, among other things, our ability to take certain actions. See Item 8. Financial Statements and Supplementary Data - Note 10, Long-Term Debt, for further details. The restrictive covenants contained in the indenture governing the 2020 Notes limit our ability, and the ability of our restricted subsidiaries, to, among other things, incur or guarantee additional indebtedness, pay dividends or make other equity distributions or repurchase capital stock, make investments or other restricted payments, create liens, transfer or sell assets, restrict dividends or other payments to us, engage in certain transactions with certain affiliates, and merge or consolidate with other companies or sell substantially all of our assets.

In addition, under the indenture governing the 2020 Notes, if we do not reinvest the net proceeds of our completed divestitures in accordance with the terms of the indenture within 450 days of such divestitures, we will be required to make an offer to purchase all or a portion of the 2020 Notes at a repurchase price equal to 100% of the principal amount plus accrued and unpaid interest. The amount of any such repurchases will depend upon the amount of net proceeds available after reinvestment and our noteholders decision to accept or reject the offer to purchase. We may not have sufficient cash or sources of liquidity to complete such offer to repurchase.

In the event of default under the indenture governing the 2020 Notes, the noteholders could elect to declare the principal amount of all of the notes outstanding, together with accrued and unpaid interest, to be immediately due and payable. If RSGI were unable to repay or otherwise refinance the 2020 Notes when due, our domestic subsidiaries, that guaranteed the 2020 Notes may be required to satisfy those obligations.

Economic Uncertainty Downturns in certain industries and general economic conditions could adversely affect our profitability and liquidity.

In the event another economic downturn or recession or disruption in the capital markets occurs, our results of operations, cash flows and financial position could be materially and adversely affected. Under such circumstances, the demand for our products could decrease, which would adversely affect our results of operations. In addition, our products are used in certain industries, such as the automotive industry. Prolonged downturns or bankruptcies in one or more industries could severely reduce demand for our products. For example, a downturn in the automotive industry, particularly in Europe, may adversely affect the results of operations of our Surface Treatment segment. In addition, a downturn in demand for products containing lithium batteries may adversely affect the results of operations of our Lithium segment. Moreover, if the value of one or more of our businesses deteriorates, we may be required to record additional impairment charges that could adversely affect our results of operations. If we are unable to successfully anticipate or respond to changing economic conditions, our results of operations and financial position may be materially and adversely affected.

Further, another economic downturn or recession or market disruption in the capital and credit markets may adversely impact the value of our pension plan assets, our results of operations, our statement of changes in stockholders equity and our liquidity. For example, we have several pension plans located in Germany, the United Kingdom and the United States. Our funding obligations could change significantly based on the investment performance of the pension plan assets and changes in actuarial assumptions for local statutory funding valuations. Any deterioration of the capital markets or returns available in such markets may negatively impact our pension plan assets and increase our funding obligations for one or more of these plans and negatively impact our liquidity. We cannot predict the impact of this or any further market disruption on our pension funding obligations.

Risks Associated with Acquisitions and Divestitures We may not be able to complete our expected to be closed divestiture of the TiO2 Pigments and Other Businesses or proposed acquisitions, including the expected acquisition of a 49% interest in Talison, nor successfully integrate acquisitions we may undertake in the future.

We may not be able to complete the divestiture of businesses that we consider non-core businesses. For example, we entered into a definitive agreement to sell our TiO2 Pigments and Other Businesses in September 2013. This transaction, which is expected to close during the first half of 2014, is subject, among other things, to the approval of the European Commission. We cannot predict whether the antitrust authorities will approve such transaction.

We may not be able to complete the expected acquisition of a 49% interest in Talison. This transaction, which is expected to close during the first half of 2014, is subject to receipt of the regulatory approvals. We cannot assure that this acquisition will close in a timely manner or at all.

The process of combining or acquiring businesses with Rockwood involves risks. We may face difficulty integrating the new operations, technologies, products and services of future acquisitions or combinations, and may incur unanticipated expenses related to such transactions. The difficulties of combining operations may be magnified by integrating personnel with differing business backgrounds and corporate cultures. Failure to successfully manage and integrate acquisitions with our existing operations could lead to the potential loss of customers of the acquired business, the potential loss of employees who may be vital to the new operations, the potential loss of business opportunities or other adverse consequences that could affect our financial condition and results of operations. Even if integration occurs successfully, failure of any future acquisition or combination to achieve levels of anticipated sales growth, profitability or productivity comparable with those achieved by our existing operations, or otherwise not perform as expected, may adversely impact our financial condition and results of operations. In addition, certain acquisitions may trigger regulations designed to monitor competition and would therefore require regulatory approval. We cannot predict whether such authorities will approve or we would be able to complete any acquisitions we seek to accomplish in the future.

Raw Materials Fluctuations in costs of our raw materials or our access to supplies of our raw materials could adversely affect our results of operations.

In general, raw material costs account for a high percentage of our total costs of products sold. In 2013, raw materials constituted approximately 58% of our cost of products sold and in particular, tin, which is used in our Metal Sulfides business, represented 7% of our cost of products sold. We generally purchase raw materials based on supply agreements linked to market prices and therefore our results of operations are subject to short-term fluctuations in raw materials prices. Any fluctuations in key raw material prices limit our ability to accurately forecast future raw material costs and hence our profitability.

Many of the raw materials we use are commodities, and the price of each can fluctuate widely for a variety of reasons, including changes in availability, major capacity additions or reductions or significant facility operating problems. Historically, there have been some price increases we have not been able to pass through to our customers. This trend may continue in the future.

In addition, each of sodium carbonate and n-butylchloride is (i) a key raw material used to produce lithium products in our Lithium segment, (ii) one of our largest raw materials (in terms of dollars) and (iii) sourced from two suppliers. In each case, if either of our two suppliers is unable to meet its obligations under our present supply agreement or we are unable to enter into new supply arrangements on competitive terms when our existing supply arrangements expire, we may be forced to pay higher prices to obtain these raw materials. In addition, a significant portion of our lithium metal raw material requirements are processed at a single location of a supplier. This supplier experienced production issues in early 2014. Any disruption at this facility could adversely affect our ability to meet market demand for these products, our relationships with our customers and our results of operations.

There are limited sources of certain key raw materials such as lithium brine and cesium. For example, lithium brine is found in only a small number of locations around the world. Furthermore, certain of our raw materials, such as cesium and lithium brine, are sourced from countries where political, economic and social conditions may be subject to instability. In addition, one of our key raw materials, lithium brine, requires processing and a period of gestation before it can be used to produce lithium compounds. In the event there is an increase in market demand for lithium products, or of unfavorable weather conditions at the lithium ponds, as we experienced in Chile in in early 2013, we may not be able to respond to such market demand on a timely basis. In addition, we cannot predict whether we will obtain additional rights to extract lithium resources or lithium brine. Any interruption of supply or any price increase of raw materials could result in our inability to meet demand for our products, loss of customer goodwill and higher costs of producing our products.

Dividends and Stock Repurchases There can be no guarantee that we will continue to declare dividends or repurchase our stock.

In February 2013, our board of directors increased the quarterly cash dividend to $0.40 per share, and, in August 2013, our board of directors increased our quarterly cash dividend again to $0.45 per share. In November 2013, our board of directors authorized a new share repurchase program for shares of common stock up to $500 million expected to be completed over two years. Any determination to continue to declare cash dividends on our common stock or to repurchase our common stock will be based primarily upon our financial condition, results of operations and capital requirements, including for capital expenditures and acquisitions, the price of our common stock in the

case of the repurchase program, and our board of directors continuing determination that the repurchase program and the declaration of the dividends are in the best interests of our stockholders and are in compliance with all laws and agreements applicable to the Company. For example, the indenture governing the 2020 Notes limits the ability of RSGI to make payments to Rockwood for regular cash quarterly dividends on our common stock, subject to certain exceptions, including, among others, RSGI s ability to make payments to Rockwood in an amount not to exceed $0.45 per share per quarter. Similarly, the indenture governing the 2020 Notes limits the ability of RSGI to make payments to Rockwood to repurchase shares of our common stock, subject to certain exceptions, including, among others, RSGI s ability to make payments to Rockwood in an amount not to exceed $250.0 million in any calendar year. There can be no assurance that we will complete the amount of purchases over the timeframe and in the amount announced. In the event we do not declare a quarterly dividend or we discontinue share repurchases, our stock price could be adversely affected.

Currency Fluctuations Because a significant portion of our operations is conducted in foreign currencies, fluctuations in currency exchange rates may adversely impact our financial condition and results of operations and may affect the comparability of our results between financial periods.

Our operations are conducted by subsidiaries in many countries. The results of their operations and financial condition are reported in their functional currency, generally their local currency, and are then translated into U.S. dollars at the applicable exchange rates for inclusion in our consolidated financial statements. The exchange rates between some of these currencies and the dollar in recent years have fluctuated significantly and may continue to do so in the future. A significant portion of our net sales and cost of products sold is denominated in Euros. Approximately 50% of our 2013 net sales were derived from subsidiaries whose local currency is the Euro. This increases the impact of the fluctuation of the Euro against the U.S. dollar.

We also incur currency transaction risk whenever we enter into either a purchase or sale transaction using a currency other than the local currency of the transacting entity. We may not be able to effectively manage our currency translation and/or transaction risks, and as a result, volatility in currency exchange rates may have a material adverse effect on the carrying value of our debt and results of operations.

Regulation of Our Raw Materials, Products and Facilities Our business could be adversely affected by regulation to which our raw materials, products and facilities are subject.

Some of the raw materials we handle, and our products and facilities, are subject to government regulation. These regulations affect the manufacturing processes, handling, uses and applications of our products. In addition, some of our products contain raw materials, such as lithium hydride, tetrahydrofuran, antimony sulfide, copper compounds, chromic acid, silica and zinc chromate that are deemed hazardous materials in certain situations. The use and handling of these materials is regulated and some of these regulations require product registrations, which also are subject to renewal and potential revocation. These regulations and changes to the current regulatory framework under which we operate may affect our ability to market certain chemicals we produce. In addition, some of these products, such as lithium metal, have significant restrictions on our ability to transport them via certain types of carriers.

There is also a risk that key raw materials or one or more of our products may be found to have, or be recharacterized as having, a toxicological or health-related impact on the environment or on our customers or employees. If such a finding or recharacterization occurs, the relevant raw materials or products, including products of our customers incorporating our products, may be recalled or banned or we may incur increased costs in order to comply with new regulatory requirements. Change in regulations, or their interpretation, may also affect the marketability of certain of our products. We cannot predict how these and other findings from regulatory agencies may affect our cash flows or results of operations.

Manufacturing Hazards Hazards associated with chemical manufacturing could adversely affect our results of operations.

Due to the nature of our business and those of some of our key suppliers, we are exposed to the hazards associated with chemical manufacturing and the related storage and transportation of raw materials, products and wastes in our manufacturing facilities or our distribution centers and those of our suppliers, such as fires, explosions and accidents. In addition, our manufacturing facilities and distribution centers, and those of our suppliers, are subject to natural disasters, such as earthquakes, tornadoes, hurricanes and typhoons. These hazards and natural disasters could lead to an interruption or suspension of operations and have an adverse effect on the productivity and profitability of a particular manufacturing facility or on our company as a whole. Other hazards include piping and storage tank leaks and ruptures, mechanical failure, employee exposure to hazardous substances, chemical spills and other discharges or releases of toxic or hazardous substances or gases. These hazards may cause personal injury and loss of life, damage to property and contamination of the environment, which could lead to government fines or work stoppage injunctions and lawsuits by injured persons. There are some products that we manufacture at only one location, such as zirconium and cesium-based products. Any such incidents at this location could adversely affect our ability to supply such products and our results of operations.

Energy Costs Fluctuations in energy costs could have an adverse effect on our results of operations.

Energy purchases in 2013 constituted approximately 3% of Rockwood s cost of products sold. Fluctuations in the price of energy limit our ability to accurately forecast future energy costs and consequently our profitability. Rising energy costs may increase our raw material costs and negatively impact our customers and the demand for our products. These risks will be heightened if our customers or production facilities are in locations experiencing severe energy shortages. For example, our lithium facility in Chile has experienced a shortage of natural gas in the past due to the Argentine government s decision to ration its supply of natural gas to Chile. If energy prices fluctuate significantly, or we experience severe energy shortages, our business or results of operations may be adversely affected.

Environmental, Health and Safety Regulations Compliance with extensive environmental, health and safety laws could require material expenditures or changes in our operations.

Our operations are subject to extensive environmental, health and safety laws and regulations at national, international and local levels in numerous jurisdictions. In addition, our production facilities and a number of our distribution centers require numerous operating permits that are subject to renewal. Due to the nature of these requirements and changes in our operations, our operations may exceed limits under permits or we may not have the proper permits to operate our operations. In addition, the nature of the chemicals industry exposes us to risks of liability under these laws and regulations due to the production, storage, transportation, disposal and sale of chemicals and materials that can cause contamination or personal injury if released into the environment. In 2013, 2012 and 2011, our capital expenditures for safety, health and environmental matters (SHE) for continuing operations were $6.0 million, $23.1 million and $13.9 million, respectively, excluding costs to maintain and repair pollution control equipment. For 2014, we estimate capital expenditures for continuing operations for compliance with SHE laws for continuing operations to be at similar levels as 2013.

Compliance with environmental laws generally increases the costs of manufacturing, the cost of registration/approval requirements, the costs of transportation and storage of raw materials and finished products, as well as the costs of the storage and disposal of wastes, and could have a material adverse effect on our results of operations. We may incur substantial costs, including fines, damages, criminal or civil sanctions and remediation costs, or experience interruptions in our operations, for violations arising under these laws or permit requirements. Furthermore, environmental laws are subject to change and have tended to become stricter over time. Such changes in environmental laws or their interpretation, or the enactment of new environmental laws, could result in materially increased capital expenditures and compliance costs. For example, proposed regulation related to greenhouse gases and carbon dioxide emissions, such as the cap and trade requirements, and potential revisions to the Toxic Control Substances Act, could materially and adversely impact our results of operations.

In addition, the discovery of contamination arising from historical industrial operations at some of our former and present properties has exposed us, and in the future may continue to expose us, to cleanup obligations and other damages. For example, soil and groundwater contamination is known to exist at several of our facilities. At December 31, 2013, the potential range of exposure for remediation liabilities (excluding reclamation obligations) is from $26.7 million and $46.9 million.

Indemnities We may be subject to indemnity claims and liable for other payments relating to properties or businesses we have divested.

In connection with the sale of certain properties and businesses, we have agreed to indemnify the purchasers for certain types of matters, such as certain breaches of representations and warranties, taxes and certain environmental matters.

With respect to environmental matters, the discovery of contamination arising from properties that we have divested may expose us to indemnity obligations under the sale agreements with the buyers of such properties or cleanup obligations and other damages under applicable environmental laws. For example, we agreed to indemnify the buyer of our former plastic compounding business for certain environmental liabilities related to such business. In addition, we agreed to indemnify the buyer of our former Clay-based Additives business for certain pre-closing environmental matters for a period of fifteen years after the closing related to one of the businesses sites, subject to certain deductibles and cost sharing. In connection with the sale of the TiO2 Pigments and Other Businesses, we also agreed to indemnify the purchaser for pre-closing environmental matters at certain sites; retain certain other operating sites and lease them to the purchaser for a period of up to ten years; and indemnify the purchaser for certain off-site environmental matters prior to the closing.

In addition to the environmental matters described above in connection with the sale of the TiO2 Pigments and Other Businesses, prior to the closing, we agreed to make all payments in respect of the ongoing construction of a production facility in Augusta, Georgia in accordance with the construction project and to use commercially reasonable efforts to ensure that construction continues in accordance with certain benchmarks. In connection with this project, we agreed to certain performance objectives upon the commencement of production at the Augusta, Georgia plant upon completion in early 2015 and agreed to indemnify the purchaser for any capital costs incurred by the purchaser to attain those objectives in excess of certain amounts. Construction of a large chemical operation is subject to risk and uncertainties, including the ability to complete the project on a timely basis and in accordance with the estimated budget for such project. In addition, commencement of production also requires start-up, commissioning and certification of product quality, which all may impact the timely completion and cost of such project.

We may not have insurance coverage for such indemnity obligations or cash flows to make such indemnity or other payments. Further, we cannot predict the nature of and the amount of any indemnity or other obligations we may have to the applicable purchaser. Such payments may be costly and may adversely affect our financial condition and results of operations.

Product Liability Due to the nature of our business and products, we may be liable for damages arising out of product liability claims.

The sale of our products involves the risk of product liability claims. Also, because many of our products are integrated into our customers products, we may be requested to participate in, or fund in whole or in part the costs of, a product recall conducted by a customer. For example, some of our businesses, including those within our Surface Treatment segment, supply products to customers in the automotive industry. In the event one of these customers conducts a product recall that it believes is related to one of our products, we may be asked to participate in or fund in whole or in part such a recall.

Our customers often require our subsidiaries to represent that our products conform to certain product specifications provided by our customers. Any failure to comply with such specifications could result in claims or legal action against our subsidiaries.

We may be subject to future claims with regard to potential lawsuits and we may not be able to avoid significant product liability exposure. A successful product liability claim or series of claims against us for which we are not otherwise indemnified or insured could materially increase our operating costs or prevent such operating subsidiary from satisfying its financial obligations. We may not have sufficient cash flow from operations or assets to pay a judgment resulting from a product liability claim or product recall, if any, for which there is no or inadequate insurance coverage. Any such judgment or product recall could materially increase our operating costs or prevent such operating subsidiary from satisfying its financial obligations and adversely impact our results of operations or financial condition.

Product Liability Due to the nature of our business and products, we may be liable for damages arising out of certain indemnity claims.

We may be subject to indemnity claims for product liability lawsuits relating to products we have sold. For example, our Surface Treatment segment s subsidiary that formerly manufactured and distributed sealants for insulating glass has been named as a defendant in several lawsuits relating to alleged defective manufacturing of those products. The plaintiffs in these actions are claiming damages of approximately 30.0 million including interest. This subsidiary may be required to pay indemnity claims, mainly based upon re-glazing costs. Our insurance may not cover such claims and, in such a case, our subsidiary may not have sufficient cash flow from operations to pay these claims. Indemnity claims related to these or other matters could adversely affect our financial condition or results of operations.

FDA Regulation Some of our manufacturing processes and facilities and pharmaceutical customers are subject to regulation by the FDA or similar foreign agencies. These requirements could adversely affect our results of operations.

Some of our manufacturing processes and facilities and pharmaceutical customers are subject to regulation by the FDA or similar foreign agencies. Regulatory requirements of the FDA are complex. Any failure to comply with them could subject us and/or our customers to fines, injunctions, civil penalties, lawsuits, recall or seizure of products, total or partial suspension of production, denial of government approvals, withdrawal of marketing approvals and criminal prosecution. Any of these actions could adversely impact our net sales, undermine goodwill established with our customers, damage commercial prospects for our products and materially and adversely affect our results of operations.

In addition, certain products we produce, such as certain lithium compounds manufactured by our Lithium segment used in pharmaceutical intermediaries are subject to FDA regulation. The FDA may take three years or longer to grant premarket approval of our customers new products, if at all. Further, our competitors may seek pre-market approval for products that compete with our products.

Competition Our industry is highly competitive. The end-use markets in which we compete are also highly competitive. This competition may adversely affect our results of operations.

We face significant competition from major international producers as well as smaller regional competitors. Our most significant competitors include major chemicals and materials manufacturers and diversified companies, a number of which have revenues and capital resources exceeding ours. In addition, our products, such as lithium, are facing increasing competition from market participants in China.

Within the end-use markets in which we compete, competition between products is intense. Substitute products also exist for many of our products. Therefore, we face substantial risk that certain events, such as new product development by our competitors, changing customer needs, production advances for competing products, price changes in raw materials and products, our failure to secure patents or the expiration of patents, could result in declining demand for our products as our customers switch to substitute products or undertake manufacturing of such products on their own. If we are unable to develop, produce or market our products to effectively compete against our competitors, our results of operations may materially suffer.

We believe that our customers are increasingly looking for strong, long-term relationships with a few key suppliers that help them improve product performance, reduce costs, or support new product development. To satisfy these growing customer requirements, our competitors have been consolidating within product lines through mergers and acquisitions. We may also need to invest and spend more on research and development and marketing costs to strengthen existing customer relationships, as well as attract new customers. Our indebtedness could limit our flexibility to react to these industry trends and our ability to remain competitive.

Product Innovation If we are not able to continue our technological innovation and successful commercial introduction of new products, our profitability could be adversely affected.

Our industries and the end-use markets into which we sell our products experience periodic technological change and product improvement. Manufacturers periodically introduce new generations of products or require new technological capacity to develop customized products. Our future growth will depend on our ability to gauge the direction of the commercial and technological progress in all key end-use markets and

upon our ability to fund and successfully develop, manufacture and market products in such changing end-use markets. For example, the market for advanced battery storage devices that use our lithium products is rapidly changing. We will have to continue to identify, develop, market and in certain cases, secure regulatory approval for innovative products on a timely basis to replace or enhance existing products in order to maintain our profit margins and our competitive position. We may not be successful in developing new products and/or technology, either alone or with third parties, or licensing intellectual property rights from third parties on a commercially competitive basis. Our new products may not be accepted by our customers or may fail to receive regulatory approval. If we fail to keep pace with the evolving technological innovations in our end-use markets on a competitive basis, our business, financial condition and results of operations could be adversely affected.

Dependence on Intellectual Property If our intellectual property were copied by competitors, or if they were to develop similar intellectual property independently, our results of operations could be negatively affected.

Our success depends to a significant degree upon our ability to protect and preserve our intellectual property rights, which rights we own or use pursuant to licenses granted to us by third parties. The confidentiality and patent assignment agreements we enter into with most of our key employees and third parties to protect the confidentiality, ownership and use of intellectual property may be breached, may not be enforceable, or may provide for joint ownership or ownership by a third party. In addition, we may not have adequate remedies for a breach by the other party, which could adversely affect our intellectual property rights. The use of our intellectual property rights or intellectual property similar to ours by others or our failure to protect such rights could reduce or eliminate any competitive advantage we have developed, adversely affecting our net sales. If we must sue to protect, defend or enforce our intellectual property rights, any suits or proceedings could result in significant costs and diversion of company resources and management attention, and we may not prevail in such action. We are periodically involved in actions related to misappropriation of our intellectual property by former employees. In addition, when our patents expire, competitors or new market entrants may manufacture products substantially similar to our products previously protected by a patent.

We conduct research and development activities with third parties and license certain intellectual property rights from third parties and we plan to continue to do so in the future. We endeavor to license or otherwise obtain intellectual property rights on terms favorable to us. However, we may not be able to license or otherwise obtain intellectual property rights on such terms or at all. Our inability to license or otherwise obtain such intellectual property rights could have a material adverse effect on our ability to create a competitive advantage and create innovative solutions for our customers, which will adversely affect our net sales and our relationships with our customers.

The steps we take to protect our intellectual property may not provide us with any competitive advantage and may be challenged by third parties. We have been subject to oppositions of our patents and trademarks by third parties before regulatory bodies in certain jurisdictions. The cost to defend our intellectual property may be substantial and our failure to defend these patents or registered trademarks may limit our ability to protect the intellectual property rights that these applications were intended to cover. In addition, a failure to obtain and defend our trademark registrations may impede our marketing and branding efforts and competitive position. A failure to protect our intellectual property rights could have a material adverse effect on demand for our products and our net sales.

Risk of Intellectual Property Litigation Our products or processes may infringe the intellectual property rights of others, which may cause us to pay unexpected litigation costs or damages or prevent us from selling our products.

Although it is our intention to avoid infringing or otherwise violating the intellectual property rights of others, our processes and products may infringe or otherwise violate the intellectual property rights of others. We may be subject to legal proceedings and claims, including claims of alleged infringement by us or our licensees of the patents, trademarks and other intellectual property rights of third parties. Intellectual property litigation is expensive and time-consuming, regardless of the merits of any claim, and could divert our management s attention from operating our businesses. If we were to discover or be notified that our processes or products potentially infringe or otherwise violate the intellectual property rights of others, we may need to obtain licenses from these parties or substantially re-engineer our products and processes in order to avoid infringement. We might not be able to obtain the necessary licenses on acceptable terms, or at all, or be able to re-engineer our products successfully. Moreover, if we are sued for infringement and lose the suit, we could be required to pay substantial damages and/or be enjoined from using or selling the infringing products or technology. Any of the foregoing could cause us to incur significant costs and prevent us from selling our products.

International Operations As a global business, we are exposed to local business risks in different countries which could have a material adverse effect on our financial condition or results of operations and the value of our common stock.

We have significant operations in many countries, including manufacturing facilities, research and development facilities, sales personnel and customer support operations. Currently, we operate, or others operate on our behalf, facilities in countries such as Brazil, Chile, China, India, Mexico, Singapore, South Africa, Taiwan and Turkey. Of our total net sales in 2013 of $1,377.8 million, approximately 79% were generated by shipments to customers in countries outside North America. Our operations are affected directly and indirectly by global regulatory, economic and political conditions, including:

- new and different legal and regulatory requirements in local jurisdictions;
- managing and obtaining support and distribution for local operations;

- increased costs of, and decreased availability of raw materials, transportation or shipping;
- credit risk and financial conditions of local customers and distributors;
- potential difficulties in protecting intellectual property;
- risk of nationalization of private enterprises by foreign governments;
- potential imposition of restrictions on investments;
- potentially adverse tax consequences, including imposition or increase in withholding and other taxes on remittances, repatriation or other payments by subsidiaries;
- capital controls; and
- local political, economic and social conditions, including the possibility of hyperinflationary conditions and political instability in certain countries.

In addition, our facilities may be targets of terrorist activities that could result in full or partial disruption of the activities of such facilities. We may not succeed in developing and implementing policies and strategies to counter the foregoing factors effectively in each location where we do business. Our failure to do so could limit our ability to sell products, compete or receive payments for products sold in such locations.

Furthermore, our subsidiaries are subject to rules and regulations related to anti-bribery prohibitions of the U.S. and other countries and export controls and economic embargoes, violations of which may carry substantial penalties. For example, export control and economic embargo regulations limit the ability of our subsidiaries to market, sell, distribute or otherwise transfer their products or technology to prohibited countries or persons. Failure to comply with these regulations could subject our subsidiaries to fines, enforcement actions and/or have an adverse effect on our reputation and the value of our common stock. In addition, we are subject to the Dodd-Frank Wall Street Reform and Consumer Protection Act and the Health Care and Education Reconciliation Act of 2010 and the cost of compliance may adversely impact our results of operations.

Information Security The security of our information technology systems could be compromised, which could adversely affect our ability to operate.

We depend on information technology to enable us to operate efficiently and interface with customers, as well as maintain financial accuracy and efficiency. Our information technology capabilities are delivered through a combination of internal and outsourced service providers. If we do not allocate and effectively manage the resources necessary to build and sustain the proper technology infrastructure, we could be subject to transaction errors, processing inefficiencies, the loss of customers, business disruptions, or the loss of or damage to our intellectual property through security breach. As with all large systems, our information systems could be penetrated by outside parties intent on extracting information, corrupting information, or disrupting business processes. Our systems have in the past been and likely will in the future be subject to hacking attempts. Unauthorized access could disrupt our business operations and could result in the loss of assets and have a material adverse effect on our business, financial condition, or results of operations.

Our business involves the use, storage, and transmission of information about our employees, vendors and customers. The protection of such information, as well as our information, is critical to us. The regulatory environment surrounding information security and privacy is increasingly demanding, with the frequent imposition of new and constantly changing requirements. Our subsidiaries also, from time to time, export sensitive customer data and technical information to recipients outside the U.S. Breaches of our security measures or the accidental loss, inadvertent disclosure, or unapproved dissemination of proprietary information or sensitive or confidential data about us or our customers, including the potential loss or disclosure of such information or data as a result of fraud or other forms of deception, could expose us, our customers, or the individuals affected to a risk of loss or misuse of this information, could result in litigation and potential liability for us, damage our reputation, or otherwise harm our business, financial condition or results of operations.

Retention of Key Personnel If we lose certain key personnel or are unable to hire additional qualified personnel, we may not be able to execute our business strategy.

Our success depends, in part, upon the continued services of our highly skilled personnel involved in management, research, production, sales and distribution, and, in particular, upon the efforts and abilities of our executive officers and key employees. We may not be able to retain such key personnel on acceptable terms or at all. Furthermore, if we lose the service of any executive officers or key employees, we may not be able to execute our business strategy. We do not have key-person life insurance covering any of our employees.

Relations with Employees We are subject to stringent labor and employment laws in certain jurisdictions in which we operate, and our relationship with our employees could deteriorate, which could adversely impact our operations.

A majority of our full-time employees are employed outside the United States, particularly in Germany where many of our businesses are located. In certain jurisdictions where we operate, particularly in Germany, labor and employment laws are relatively stringent and, in many cases, grant significant job protection to certain employees, including rights on termination of employment. In addition, in certain countries where we operate, including Germany, our employees are members of unions or are represented by a works council as required by law. We are often required to consult and seek the consent or advice of these unions and/or respective works councils. These regulations and laws coupled with the requirement to consult with the relevant unions or works councils could significantly limit our flexibility in managing costs and responding to market changes.

Furthermore, with respect to our employees that are subject to collective bargaining arrangements or similar arrangements (approximately one-fourth of our full-time employees as of February 1, 2014), we may not be able to negotiate labor agreements on satisfactory terms and actions by our employees may disrupt our business. In addition, in order to close any facilities in which a union is organized, we have to negotiate a termination of any collective bargaining agreement and any severance obligations with such union. If any of our workers were to engage in a strike, work stoppage, sabotage or other slowdown, we could experience a significant disruption of our operations and/or higher ongoing labor costs. In addition, if our other employees were to become unionized, we could experience a significant disruption of our operations and/or higher ongoing labor costs.

Tax Liabilities If GEA Group Aktiengesellschaft (formerly known as mg technologies ag) or Degussa UK Holdings, Ltd. fail to satisfy their contractual obligations, we may be subject to increased tax exposure resulting from pre-acquisition periods.

Under the terms of certain purchase agreements, third party sellers have agreed to substantially indemnify us for tax liabilities pertaining to the pre-acquisition periods. To the extent such companies fail to indemnify or satisfy their obligations, or if any amount is not covered by the terms of the indemnity, earnings could be negatively impacted in future periods through increased tax expense.

Net Loss We have experienced losses in the past and may experience losses in the future and cannot be certain that our net operating loss carryforwards will continue to be available to offset our tax liability.

We have incurred net losses in the past and we may incur net losses in the future. As of December 31, 2013, we had deferred tax assets of $155.8 million related to worldwide net operating and capital loss carryforwards. Additionally, at December 31, 2013, we had a total valuation allowance of $18.5 million related to net operating loss deferred tax assets and deferred tax assets related to cumulative temporary differences. If our operating performance deteriorates in the future in certain tax jurisdictions, we may be unable to realize these net operating loss carryforwards and we may be required to record an additional valuation allowance.

Anticipated Capital Expenditures Our required capital expenditures may exceed our estimates.

Our capital expenditures for continuing operations, net of government grants, for the year ended December 31, 2013, 2012 and 2011 were $172.3 million, $140.8 million and $112.0 million, respectively, which consisted of expenditures to maintain and improve existing equipment and substantial investments in new equipment. For example, we are working on new production capacity for lithium carbonate at our facility at La Negra, Chile. We expect to finish mechanical completion in the second quarter of 2014 and commence production thereafter. Commencement of production requires start-up, commission and certification of product quality by our customers, which may impact the expected timing of sales of product from such facility. Construction of large chemical operations is subject to numerous risks and uncertainties, including, among others, the ability to complete the project on a timely basis and in accordance with the estimated budget for such project and our ability to estimate future demand for our products. We cannot guarantee that we will be able to obtain rights to extract amounts of lithium in addition to those to which we are entitled to under our existing contract with the Chilean government or additional rights for lithium in other locations.

Capital expenditures for continuing operations for 2014 are expected to be at similar levels as 2013. Future capital expenditures may be significantly higher, depending on the investment requirements of each of our business lines, and may also vary substantially if we are required to undertake actions to compete with new technologies in our industry. We may not have the capital necessary to undertake these capital investments. If we are unable to do so, we may not be able to effectively compete in some of our markets.

Conflict Minerals New regulations related to conflict minerals may increase our costs and adversely affect our business.

The SEC has promulgated final rules pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act regarding disclosure of the use of tin, tantalum, tungsten and gold, known as conflict minerals, included in components of products either manufactured by public companies or for which public companies have contracted to manufacture. These new rules require due diligence to determine whether such

minerals originated from the Democratic Republic of Congo (the DRC) or an adjoining country and whether such minerals helped finance the armed conflict in the DRC. The first conflict minerals report required by the new rules is due by May 31, 2014 and annually thereafter. At this time, we have determined that certain of our products contain the specified minerals, and we have developed a process to enable us to identify where such minerals originated. We expect to incur costs associated with complying with these disclosure requirements, including costs related to determining the sources of the specified minerals used in our products. In addition, the implementation of these rules could adversely affect the sourcing, supply and pricing of materials used in our products. Our customers may require our products be free of conflict minerals, and our revenues and margins may be harmed if we are unable to provide assurances to our customers that our products are DRC conflict free (generally, the product does not contain conflict minerals originating in the DRC or an adjoining country that directly or indirectly finance or benefit specified armed groups) or to procure conflict free minerals at a reasonable price, or at all, or are unable to pass through any increased costs associated with meeting these demands. We also may face reputational challenges if the due diligence procedures we implement do not enable us to verify the origins of all conflict minerals or to determine that any conflict minerals used in products we manufacture or in products manufactured by others for us are DRC conflict-free.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We have global operations, serving customers worldwide. To service our customers efficiently, we maintain 33 operating manufacturing facilities in 17 countries for our continuing operations with a strategy of global, regional and local manufacturing to optimize our service offering and minimize production cost to our customers. In addition, our discontinued operations operate 26 facilities in 7 countries. We believe these facilities are suitable and adequate for their intended use. The table below presents summary information with respect to these operating facilities:

Segment in the case of Continuing Operations (or business in the case of Discontinued Operations)	Country	Locations	Leased/Owned	Major Applications/Industry
Continuing Operations:				
Lithium				
	Chile	La Negra	Owned	Lithium carbonate and lithium chloride
		Salar de Atacama (1)	Owned	Lithium brine and potash
	Germany	Langelsheim (2)	Owned	Butyllithium, lithium chloride, specialty products, lithium hydrides, cesium, and special metals
	Taiwan	Taichung	Owned	Butyllithium
	India	Gujarat	Leased	Butyllithium
	United States	Kings Mountain, NC	Owned	Technical and battery grade lithium hydroxide
		New Johnsonville, TN	Owned	Butyllithium and specialty products
		Silver Peak, NV	Owned	Lithium-carbonate
Surface Treatment				
	Australia	Bayswater North	Owned	General Industry, aerospace, and other pre-treatment technologies
	Brazil	Jundiai/São Paulo	Owned	Automotive and other pre-treatment technologies
	China	Changchun (JV)	Leased	Automotive and other pre-treatment technologies
		Chongqing (JV)	Leased	Automotive and other pre-treatment technologies
		Shanghai (JV)	Leased	Automotive and other pre-treatment technologies
		Nanjing (JV)	Leased	Automotive, cold forming and other pre-treatment technologies
	France	Sens	Owned	Automotive and other pre-treatment technologies
		Soissons	Owned	Aerospace
	Germany	Mönchengladbach	Owned	General industry
		Langenfeld	Leased	General industry
		Langelsheim (2)	Owned	Automotive technologies, other pre-treatment technologies and aerospace (sealants)
		Willstatt	Leased	Coil coating
	India	Chennai	Owned	Automotive and other pre-treatment technologies
		Pune	Owned	Automotive and other pre-treatment technologies
	Italy	Giussano	Owned	Automotive and other pre-treatment technologies
		Roveredo in Piano	Leased	General industry

Mexico	El Marqués, Querétaro	Leased	Automotive technologies, other pre-treatment technologies and aerospace
New Zealand	Auckland	Leased	General Industry, aerospace, and other pre-treatment technologies

	Singapore	Singapore	Leased	Aerospace and other pre-treatment technologies
	South Africa	Boksburg	Owned	Automotive and other pre-treatment technologies
	Spain	Canovelles	Owned	Automotive and other pre-treatment technologies
	Turkey	Cayirova-Kocaeli	Owned	Automotive and other pre-treatment technologies
	United States	Blackman Township, MI	Owned	General industry, automotive and other pre-treatment technologies
		La Mirada, CA	Leased	Pre-treatment technologies and aerospace
Corporate and other				
Wafer Reclaim	France	Greasque	Owned	Wafer reclaim
Metal Sulfides	Austria	Arnoldstein	Leased	Metal sulfides
Discontinued Operations:				
Titanium Dioxide Pigments	Finland	Pori	Owned	Plastics, paints, packaging inks, coatings and paper
	Germany	Duisburg (3)	Owned	Titanium Dioxide - Fibers, plastics, paints, coatings and paper Functional Additives - Coatings, plastics, fibers, paper, pharmaceuticals, PVC stabilizers and glass fiber reinforced plastics
		Uerdingen	Leased	Plastics, paints, coatings and paper
Color Pigments and Services	China	Shenzhen	Owned	Coatings and construction
		Taicang	Owned	Coatings and specialties
	France	Comines	Owned	Coatings
	Germany	Hainhausen	Owned	Construction and coatings
		Walluf	Owned	Construction and coatings
	Italy	Turin	Owned	Coatings, specialties and construction
	United Kingdom	Birtley	Owned	Driers
		Kidsgrove	Owned	Coatings and specialties
		Sudbury	Owned	Coatings and specialties
	United States	Beltsville, MD	Owned	Coatings, specialties and construction
		Cartersville, GA	Owned	Construction
		East St. Louis, IL	Owned	Specialties
		Easton, PA	Owned	Coatings, specialties and construction
		King of Prussia, PA	Owned	Construction
		Los Angeles, CA	Owned	Coatings, specialties and construction
		St. Louis, MO	Owned	Coatings, specialties and construction
Timber Treatment Chemicals	United States	Freeport, TX	Owned	Construction and other industrial markets
		Harrisburg, NC	Owned	Wood protection products and treatment
		Valdosta, GA	Owned	Wood protection products and treatment
Water Chemistry	Germany	Duisburg (3)	Owned	Flocculants
		Ibbenbueren	Leased	Flocculants
		Schwarzheide	Leased	Flocculants
Rubber Compounds	Italy	Azeglio	Owned	Rubber compounds

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(1) Ownership of the land at the Salar de Atacama will revert to the Chilean government once we have sold all remaining amounts under our contract with the Chilean government pursuant to which we extract lithium brine in Chile

(2) This facility is shared by both the Lithium segment and the Surface Treatment segment.

(3) This facility is shared by the Titanium Dioxide Pigments business and the Water Chemistry business.

Item 3. Legal Proceedings.

We are involved in legal proceedings from time to time in the ordinary course of our business, including with respect to product liability, intellectual property and environmental matters. In addition, we may be required to make indemnity payments in connection with certain product liability and environmental claims. See Item 1, Business, and Item 1A, Risk Factors, Indemnities We may be subject to indemnity claims and liable for other payments relating to properties or businesses we have divested ; Product Liability Due to the nature of our business and products, we may be liable for damages arising out of product liability claims ; and Product Liability Due to the nature of our business and products, we may be liable for damages arising out of certain indemnity claims. However, we do not believe that there is any other individual, governmental, legal proceeding or arbitration that is likely to have a material adverse effect on our financial condition, results of operations or cash flows. We cannot predict the outcome of any litigation or the potential for future litigation. See also Item 8. Financial Statements and Supplementary Data - Note 18, Commitments and Contingencies.

Inspector General Subpoena

In February 2010, a subsidiary of the Company received a subpoena from the Inspector General of the Department of Defense (DOD) seeking information related to a product in the Timber Treatment Chemicals business in the Performance Additives segment. In June 2012, the United States government filed a notice of election indicating that it would not intervene at that time and the court ordered the complaint to be unsealed. The complaint was served on the Company in November 2012 by Osmose, Inc. (Osmose), a competitor of our Timber Treatment business, and alleges that our subsidiary misrepresented properties of certain fire retardants in relation to a military specification for such products. In March 2013, Osmose filed an amended complaint. In May 2013, the Company s subsidiary filed a motion to dismiss the action. In January 2014, the United States District Court for the Western District of New York granted the Company s motion and dismissed all claims with prejudice. Osmose did not appeal this matter.

Item 4. Mine Safety Disclosures

The information concerning mine safety violations or other regulatory matters required by Section 1503 (a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K (17 CFR 229.104) is included in Exhibit 95.1 of this annual report.

PART II

Item 5. Market for Registrant s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

The Company s common stock is traded on the New York Stock Exchange under the ticker symbol ROC. As of February 28, 2014, there were approximately 40 holders of record of the Company s common stock.

In June 2012, the Company s board of directors initiated a quarterly cash dividend. The following table summarizes the Company s quarterly common stock information for the last two years:

	Market Prices		Per Share Dividend Declared
	High	**Low**	
2013			
Fourth	$ 74.67	$ 62.37	$ 0.45
Third	69.60	62.86	0.45
Second	68.96	59.04	0.40
First	65.77	49.99	0.40
2012			
Fourth	$ 50.29	$ 42.02	$ 0.35
Third	52.33	40.52	0.35
Second	56.99	41.19	0.35
First	57.00	39.36	

Rockwood s operations are conducted through its subsidiaries and its ability to make payments on any obligations it may have is dependent on the earnings and the distribution of funds from its subsidiaries. As a result, we are dependent upon cash dividends and distributions and other transfers from our subsidiaries to make dividend payments on our common stock. The amounts available to us to pay cash dividends are restricted by our subsidiaries debt agreements. The indenture governing the 2020 Notes limits the ability of RSGI to make payments to Rockwood for regular cash quarterly dividends on our common stock, subject to certain exceptions, including, among others, RSGI s ability to make payments to Rockwood in an amount not to exceed $0.45 per share.

Any decision to declare and pay dividends in the future will be made at the discretion of our board of directors and will depend on, among other things, our results of operations, cash requirements, financial condition, contractual restrictions and other factors that our board of directors may deem relevant. See further discussion in liquidity section of Item 7, Management s Discussion and Analysis of Financial Condition and Results of Operations.

Issuer Purchases of Equity Securities

There were no sales of unregistered equity securities by the Company during the fiscal year ended December 31, 2013.

In January 2013, we announced that our board of directors authorized the Company to repurchase shares of our common stock up to an aggregate amount of $400 million. This share repurchase program was completed in September 2013. During fiscal year 2013, we repurchased 6.2 million of our outstanding shares at a cost of approximately $400 million. There were no repurchases of our common stock during the fourth quarter of 2013 under either share repurchase program. In November 2013, our board of directors authorized a new share repurchase program for shares of our common stock up to $500 million expected to be completed over two years. The indenture governing the 2020 Notes limits the ability of RSGI to make payments to Rockwood for common stock repurchases subject to certain exceptions, including, among others, RSGI s ability to make payments to Rockwood in an amount not to exceed $250.0 million in any calendar year. See Item 1A. Risk Factors - Dividends and Stock Repurchases There can be no guarantee that we will continue to declare dividends or repurchase our stock.

Stock Performance Graph

The following graph compares the performance through December 31, 2013 of a hypothetical $100 investment made on December 31, 2008 in (a) our common stock, (b) the S&P 500 Index ® and (c) the S&P Supercomposite Specialty Chemicals Index (S15SPCH).

Item 6. Selected Financial Data.

The following selected consolidated financial data of the Company s five most recent years ended December 31, 2013 should be read in conjunction with Item 7, Management s Discussion and Analysis of Financial Condition and Results of Operations and Item 8, Financial Statements and Supplementary Data. The Statement of Operations data set forth below with respect to the three years in the period ended December 31, 2013 and the Balance Sheet data as of December 31, 2013 and 2012, are derived from the Company s audited financial statements included elsewhere in this document. The Statement of Operations data for the years ended December 31, 2010 and 2009 and the Balance Sheet data as of December 31, 2011, 2010 and 2009 are derived from audited consolidated financial statements not included herein. All periods presented have been reclassified to account for the sale of the plastic compounding business in 2011, the sale of the Advanced Ceramics and Clay-based Additives businesses in 2013, and the sale of the TiO2 Pigments and Other Businesses that is expected to close during the first half of 2014, as discontinued operations. In addition, all prior periods presented have been reclassified to account for the impact of the accounting records that were falsified at a single location within the Color Pigments and Services business of our former Performance Additives segment. For the years ended December 31, 2012, 2011 and 2010, net income and earnings per share on a diluted basis was reduced by $4.3 million ($0.05 per share), $11.9 million ($0.15 per share) and $8.0 million ($0.10 per share), respectively. For the year ended December 31, 2009, net income was increased by $0.2 million. The effect of these adjustments was a cumulative reduction in total equity of $34.0 million, $29.0 million, $18.6 million and $11.2 million as of December 31, 2012, 2011, 2010 and 2009, respectively. See Note 20, Immaterial Corrections, for further details.

($ in millions, except per share data; shares in thousands)	Year ended December 31, 2013	2012	2011	2010	2009
Statement of operations data:					
Net sales:					
Lithium	$ 479.4	$ 474.4	$ 456.5	$ 397.1	$ 357.3
Surface Treatment	770.2	723.2	743.2	662.0	564.0
Corporate and other	128.2	126.2	154.4	119.4	89.9
Total net sales	1,377.8	1,323.8	1,354.1	1,178.5	1,011.2
Gross profit	618.0	586.7	581.3	513.1	428.3
Operating income	210.6	194.9	181.8	136.0	123.6
Amounts attributable to Rockwood Holdings, Inc. shareholders:					
Income (loss) from continuing operations	$ 55.4	$ 232.9	$ 70.2	$ 86.4	$ (44.5)
Income from discontinued operations	1,604.5	146.3	329.2	145.0	65.8
Net income	$ 1,659.9	$ 379.2	$ 399.4	$ 231.4	$ 21.3
Basic earnings (loss) per share attributable to Rockwood Holdings, Inc. shareholders:					
Earnings (loss) from continuing operations	$ 0.73	$ 3.00	$ 0.92	$ 0.81	$ (0.60)
Earnings from discontinued operations, net of tax	21.17	1.88	4.30	2.28	0.89
Basic earnings per share	$ 21.90	$ 4.88	$ 5.22	$ 3.09	$ 0.29
Diluted earnings (loss) per share attributable to Rockwood Holdings, Inc. shareholders:					
Earnings (loss) from continuing operations	$ 0.72	$ 2.91	$ 0.88	$ 0.78	$ (0.60)
Earnings from discontinued operations, net of tax	20.73	1.83	4.12	2.18	0.89
Diluted earnings per share	$ 21.45	$ 4.74	$ 5.00	$ 2.96	$ 0.29
Dividends declared per share of common stock	$ 1.70	$ 1.05	$	$	$
Other data:					
Capital expenditures (1)	$ 172.3	$ 140.8	$ 112.0	$ 46.7	$ 49.0
Adjusted EBITDA from continuing operations (2)	323.3	321.1	284.0	234.9	224.0

($ in millions)	As of December 31, 2013	2012	2011	2010	2009
Balance sheet data:					
Cash and cash equivalents	$ 1,522.8	$ 1,266.1	$ 315.2	$ 316.1	$ 264.0
Property, plant and equipment, net	842.8	719.6	655.5	607.4	630.7
Total assets	5,532.3	6,013.6	4,580.8	4,723.4	4,793.0
Total long-term debt, including current portion	1,295.4	2,219.8	1,410.8	1,839.9	2,116.3
Total equity	3,049.2	1,875.7	1,629.4	1,322.7	1,129.5

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(1) Net of government grants of $2.2 million, $9.4 million and $16.0 million for the years ended December 31, 2013, 2012 and 2011, respectively.

(2) Consolidated EBITDA as adjusted (Adjusted EBITDA) is used in our debt agreements to determine compliance with financial covenants and our ability to engage in certain activities, such as incurring additional debt and making certain payments. In addition to covenant compliance, our management also uses Adjusted EBITDA to assess our operating performance and to calculate performance-based cash bonuses and determine whether certain performance-based stock options vest, as both such bonuses and options are tied to Adjusted EBITDA targets. Adjusted EBITDA contains other charges and gains, for which we believe adjustment is permitted under our former senior secured credit agreement, as described under Item 7, Management s Discussion and Analysis of Financial Condition and Results of Operations Factors Which Affect Our Results of Operations Other Charges and Credits and Note Regarding Non-GAAP Financial Measures.

32

The following table sets forth a reconciliation of net income attributable to Rockwood Holdings, Inc. to Adjusted EBITDA from continuing operations for the periods indicated:

	Year ended December 31,				
($ in millions)	2013	2012	2011	2010	2009
Net income attributable to Rockwood Holdings, Inc. shareholders	$ 1,659.9	$ 379.2	$ 399.4	$ 231.4	$ 21.3
Net income (loss) attributable to noncontrolling interest - discontinued operations	1.0	14.7	40.6	9.1	(3.8)
Net income	1,660.9	393.9	440.0	240.5	17.5
Income tax (benefit) provision	(10.0)	(124.8)	15.3	(88.0)	5.0
Loss (income) from discontinued operations, net of tax	65.0	(161.0)	(250.5)	(154.1)	(62.0)
Gain on sale of discontinued operations, net of tax	(1,670.5)		(119.3)		
Income (loss) from continuing operations before taxes	45.4	108.1	85.5	(1.6)	(39.5)
Interest expense, net	82.3	64.5	83.1	135.2	152.4
Depreciation and amortization	93.5	89.3	88.0	85.4	87.2
Restructuring and other severance costs	17.5	35.3	11.4	2.7	6.9
Systems/organization establishment expenses	2.2	2.0	0.8	1.0	0.8
Acquisition and disposal costs	8.9	(2.1)	0.3	1.1	0.2
Loss on early extinguishment/modification of debt	15.5	12.0	16.6	1.6	26.6
Asset write-downs and other	4.1	0.3	0.9	8.4	2.1
Gain on previously held equity interest	(16.0)				
Foreign exchange loss (gain) on financing activities, net	67.1	10.3	(3.2)	1.3	(15.5)
Other	2.8	1.4	0.6	(0.2)	2.8
Total Adjusted EBITDA from continuing operations	$ 323.3	$ 321.1	$ 284.0	$ 234.9	$ 224.0

Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations.

This discussion contains forward-looking statements that involve numerous risks and uncertainties. Our actual results could differ materially from those discussed in the forward-looking statements as a result of these risks and uncertainties, including those set forth under Item 1, Business Forward-Looking Statements and Item 1A, Risk Factors. You should read the following discussion and analysis together with Item 6, Selected Financial Data, our consolidated financial statements and the notes to those statements that appear elsewhere in this Annual Report. Amounts may not recalculate due to rounding differences.

Executive Summary

We are a global developer, manufacturer and marketer of technologically advanced and high value-added specialty chemicals. We serve more than 50,000 customers across a wide variety of industries and geographic areas. Prior to the completed and expected to be completed divestitures described below, we operated through five reportable segments: Lithium, Surface Treatment, Performance Additives, Titanium Dioxide Pigments and Advanced Ceramics. As a result of these completed and expected to be completed divestitures, we operate through two reportable segments: (1) Lithium and (2) Surface Treatment. We are focused on growth, productivity, cost reduction, margin expansion, divestiture of

non-core businesses, bolt-on acquisitions and increasing stockholder value.

In early 2013, we announced our plans to strategically evaluate our businesses. As a result:

- In March 2013, we prepaid all of the outstanding borrowings under the former Titanium Dioxide Pigments facility agreement in the aggregate amount of 394.5 million ($512.4 million).

- In June 2013, we entered into a definitive agreement to sell CeramTec, our former Advanced Ceramics segment, and completed this transaction in August 2013, for cash proceeds of $2.0 billion and a gain, net of tax, of $1,164.2 million.

- In July 2013, we entered into a definitive agreement to sell our Clay-based Additives business, which was part of the Performance Additives segment, and completed this transaction in October 2013, for cash proceeds of $626.6 million and a gain, net of tax, of $506.3 million.

- In September 2013, we entered into a definitive agreement to sell our Titanium Dioxide Pigments, Color Pigments and Services, Timber Treatment Chemicals, Rubber/Thermoplastics Compounding and Water Chemistry businesses (the TiO2 Pigments and Other Businesses) for $1.325 billion, including the assumption of $225 million in pension obligations. This transaction is expected to close during the first half of 2014, following the receipt of regulatory approvals.

- Our consolidated financial statements have been reclassified to reflect discontinued operations for Advanced Ceramics, Clay-based Additives and the TiO2 Pigments and Other Businesses for all periods presented. See Note 2, Discontinued Operations, for further details.

- In the third quarter of 2013, we repaid all of our outstanding borrowings in the aggregate amount of $924.2 million, under the term loans of our senior secured credit facility.

- In December 2013, we entered into definitive agreement to acquire a 49% interest in Talison Lithium Pty Ltd. (Talison) through a joint venture with Chengdu Tianqi Industry Group (Tianqi). This transaction is expected to close during the first half of 2014, following receipt of regulatory approvals. See further details in Item 1. Business, and in the liquidity section of this management s discussion and analysis of financial condition and results of operations section.

- In 2013, we repurchased shares of our common stock in the aggregate amount of approximately $400 million.

The following table is a summary of our financial highlights:

($ in millions, except per share amounts)	Year ended December 31, 2013	2012
Net sales	$ 1,377.8	$ 1,323.8
Net income from continuing operations	55.4	232.9
Adjusted EBITDA from continuing operations	323.3	321.1
Adjusted EBITDA from continuing operations margin	23.5%	24.3%
Diluted earnings per share from continuing operations attributable to Rockwood Holdings, Inc. shareholders	$ 0.72	$ 2.91

Results

Total net sales were higher in 2013 compared to the same period in the prior year primarily in our Surface Treatment segment on higher volumes, particularly for automotive OEM, general industrial and aerospace applications, higher selling prices, as well as the acquisition of the remaining 50% interest in a previously unconsolidated joint venture in India. Net sales were also higher in our Lithium segment on higher volumes, primarily of lithium carbonate, lithium chloride and lithium hydroxide. This was partially offset by lower volumes and selling prices of potash and lower volumes of battery products.

Adjusted EBITDA from continuing operations was up in 2013 compared to the same period in the prior year primarily due to the higher net sales in our Surface Treatment segment, partially offset by higher variable compensation costs and decreased volumes and selling prices of potash in our Lithium segment.

Net income from continuing operations and diluted earnings per share from continuing operations were lower in 2013 compared to the same period in the prior year from a $150.0 million reversal of our federal valuation allowance on net federal deferred tax assets in 2012 and higher foreign exchange losses on financing activities in 2013. This was partially offset by a gain recorded as a result of revaluing a previously held unconsolidated equity interest to fair value and the increased net sales noted above.

Factors Which Affect Our Results of Operations

Our Markets

Because the businesses in our segments generally serve many unrelated end-use markets, we discuss the principal market conditions on a segment basis rather than a consolidated basis for our continuing operations. The principal market conditions in our segments and regions in which we operate that impacted our results of operations during the periods presented and in future periods include the following:

Lithium

- Demand for our lithium carbonate products is generally driven by demand in industrial applications, the aluminum business, the battery industry, glass ceramics and cement. Sales of lithium products specifically used in life science applications depend on the trends in drug development and growth in pharmaceuticals and agrochemicals markets, as well as generic competition. In 2012, net sales were up primarily from increased selling prices, as well as higher volumes of lithium carbonate used in battery applications and lithium specialties, partially offset by a decline in lithium carbonate technical grade and potash volumes. In 2013, net sales were up primarily from higher volumes of lithium carbonate, lithium chloride and lithium hydroxide, as well as increased selling prices, partially offset by lower volumes and selling prices of potash and lower volumes of battery products.

- We expect net sales in 2014 to approximate 2013 levels from higher volumes for lithium carbonate and lithium hydroxide primarily for battery applications, with the potential for lower volumes of butyllithium. We expect the potash market to continue to be weak. Adjusted EBITDA is expected to be higher in 2014 as a result of the expected impact of the Talison joint venture which is expected to close in the first half of 2014, partially offset by lower selling prices. See Item 1. Business, for further discussion of the expected acquisition of a 49% interest in Talison.

Surface Treatment

- Demand for Surface Treatment products generally follows the activity levels of metal processing manufacturers, including the automotive, steel and aerospace industries, as well as products sold to general industry markets, including household appliances, manufacturing, can producers, heating, ventilation and aluminum finishing. In 2012, net sales were down slightly from lower volumes in Europe across most markets, partially offset by higher selling prices and increased volumes in the U.S. and Asia. In 2013, net sales were up primarily from higher automotive OEM, general industrial and aerospace applications, as well as higher selling prices, as well as the acquisition of the remaining 50% interest in the previously unconsolidated joint venture in India. We expect net sales growth in 2014 primarily from increased volumes across most markets, particularly in General Industry and Automotive, as well as higher selling prices.

Global Exposure

We operate a geographically diverse business, with 53% of our net sales in 2013 generated from shipments to customers in Europe, 21% to North America (predominantly the United States), 16% to Asia and 10% to the rest of the world. For a geographic description of the origin of our net sales and location of our long-lived assets, see Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information.

We have sold to customers in more than 60 countries during this period. Currently, our continuing operations serve our diverse and extensive customer base with 33 manufacturing facilities in 17 countries. Consequently, we are exposed to global economic and political changes, particularly currency fluctuations that could impact our profitability and demand for our products.

Our sales and production costs are mainly denominated in U.S. dollars or Euros. Our results of operations and financial condition have been historically impacted by the fluctuation of the Euro against our reporting currency, the U.S. dollar. For the year ended December 31, 2013, the average exchange rate of the Euro against the U.S. dollar was higher compared to 2012. As a result, our net sales, gross profit and operating income were positively impacted. Historically, however, our operating margins have not been significantly impacted by currency fluctuations because, in general, sales and costs of products sold are generated or incurred in the same currency, subject to certain exceptions.

The foreign currency effect is the translation impact of the change in the average rate of exchange of another currency to the U.S. dollar for the applicable period as compared to the preceding period. The impact relates primarily to the conversion of the Euro to the U.S. dollar. Unless otherwise noted, all balance sheet items as of December 31, 2013 which are denominated in Euros are converted at the December 31, 2013 exchange rate of 1.00 = $1.3743. For the years ended December 31, 2013, 2012 and 2011, the average rate of exchange of the Euro to the U.S. dollar is $1.3285, $1.2864 and $1.3923, respectively.

Raw Materials

Raw materials constituted approximately 58% of our 2013 cost of products sold. We have a broad raw material base, with the cost of no single raw material representing more than 7% of our cost of products sold in 2013. Nonetheless, the significant price fluctuations our raw materials have experienced in the past during periods of high demand have had an adverse impact on our results of operations. In 2013, higher raw material costs in a number of businesses had an unfavorable impact on our results of operations. We cannot accurately predict the impact of any future price increases for raw materials or any raw material shortages on our business as a whole or in specific geographic regions. In addition,

we may not be able to pass on raw material price increases to our customers. See details of our key raw materials (in terms of dollars) in Item 1, Business Raw Materials.

Energy Costs

In 2013, energy purchases represented approximately 3% of our cost of products sold, and were lower in 2013 compared to the same period in the prior year on lower natural gas prices in Europe and North America. In 2014, we expect energy costs to increase slightly primarily due to higher sales volumes, as well as price increases.

Income Taxes

As of December 31, 2013, we have U.S. federal and foreign corporate tax loss carryforwards (excluding state and local amounts) of $436.5 million, of which $0.3 million expire through 2018, $2.4 million expire through 2023, $307.0 million expire through 2032 and $126.8 million which have no current expiration date. We have $8.4 million of federal capital loss carryforwards which expire in 2014. In addition, we have state and local tax loss carryforwards of $201.7 million, of which $1.5 million expire through 2018, $65.3 million expire through 2028 and $134.9 million expire in years 2029 through 2033. We also have state capital loss carryforwards of $64.0 million, of which $8.4 million expire in 2014 and $55.6 million expire in 2016.

Other Charges and Credits

During the periods presented, we incurred certain other charges that included systems/organization establishment expenses, restructuring and other severance costs, foreign exchange gains and losses, acquisition and disposal costs, asset write-downs and other and a loss on early extinguishment/modification of debt. See Items excluded from Adjusted EBITDA section in Note 3, Segment Information, for a discussion of other charges and credits recorded in the years ended December 31, 2013, 2012 and 2011.

Note Regarding Non-GAAP Financial Measures

A non-GAAP financial measure is generally defined by the SEC as one that purports to measure historical or future financial performance, financial position or cash flows but excludes or includes amounts that would not be so adjusted in the most comparable U.S. GAAP measure. From time to time in this management s discussion and analysis, we disclose non-GAAP financial measures, primarily Adjusted EBITDA, as defined below.

Definition of Adjusted EBITDA

The presentation of consolidated Adjusted EBITDA contained in this Report is calculated using the definition set forth in our former senior secured credit agreement and the indenture governing the 2020 notes and reflects management s interpretations thereof. Adjusted EBITDA, which is referred to under our former senior secured credit agreement as Consolidated EBITDA, is defined in our former senior secured credit agreement as consolidated earnings (which, as defined in our former senior secured credit agreement equals income (loss) before the deduction of income taxes of Rockwood Specialties Group, Inc. and the Restricted Subsidiaries (as such term is defined in our former senior secured credit agreement), excluding extraordinary items) plus:

- interest expense;
- depreciation expense;
- amortization expense, including amortization of deferred financing fees;
- extraordinary losses and non-recurring charges;
- non-cash charges;
- losses on asset sales;
- restructuring charges or reserves (including severance, relocation costs and one-time compensation charges and costs relating to the closure of facilities);
- any expenses or charges incurred in connection with any issuance of debt or equity securities;

- any fees and expenses related to permitted acquisitions;
- any deduction for noncontrolling interest expense; and
- items arising in connection with CCA litigation related to our Timber Treatment Chemicals business;

less:

- extraordinary gains and non-recurring gains;
- non-cash gains; and
- gains on asset sales,

in all cases, subject to certain exclusions.

For presentation purposes within this Report, we use the computation set forth in our former senior secured credit agreement as a basis which reflects management s interpretations thereof. Management has determined that stock-based compensation costs, which are non-cash charges, will not be an adjustment in calculating Adjusted EBITDA as these costs will be an ongoing recurring cost to the Company. These costs are recorded in selling, general and administrative expenses in the consolidated statements of operations.

The calculation of Adjusted EBITDA under the indenture governing our 2020 Notes is generally consistent with the calculation of Adjusted EBITDA in our former senior secured credit agreement. We believe our former senior secured credit agreement is the appropriate computation of Adjusted EBITDA because it is the definition we have used historically so it allows for consistency in our calculations and comparability between reporting periods.

Management s Uses

We use Adjusted EBITDA to assess our operating performance. We believe this financial measure is helpful in highlighting trends in our overall business because the items excluded in calculating Adjusted EBITDA have been deemed by management to have little or no bearing on our day-to-day operating performance. It is also the most significant criterion in our calculation of performance-based cash bonuses.

We also use Adjusted EBITDA on a consolidated basis as a liquidity measure. We believe this financial measure on a consolidated basis is important in analyzing our liquidity because the indenture governing the 2020 Notes contains a debt incurrence covenant based on Adjusted EBITDA. For example, the indenture prohibits us from incurring additional indebtedness, unless we satisfy on a pro forma basis a fixed-charge ratio, which is the ratio of Adjusted EBITDA to fixed charges, in each case for the most recently ended four fiscal quarters, of at least 2.00 to 1, subject to certain exceptions, which include, among others, an amount of indebtedness under a credit facility up to an amount not to exceed the greater of: i) $2,250.0 million and ii) an amount such that the net secured leverage ratio (which is also calculated using Adjusted EBITDA) shall not exceed 2.50 to 1. Consequently, Adjusted EBITDA is critical to our assessment of our liquidity.

We also use Adjusted EBITDA on a segment basis as the primary measure used by our chief operating decision maker, our Chief Executive Officer, to evaluate the ongoing performance of our reportable segments and reporting units. On a segment basis, we define Adjusted EBITDA as operating income excluding depreciation and amortization, certain non-cash gains and charges, certain other special gains and charges determined by our senior management to be non-recurring gains and charges and certain items deemed by our senior management to have little or no bearing on the day-to-day operating performance of our business segments and reporting units. The adjustments made to operating income directly correlate with the adjustments to net income in calculating Adjusted EBITDA on a consolidated basis pursuant to the indenture governing the 2020 Notes, which reflects management s interpretations thereof. Adjusted EBITDA on a segment basis is also the most significant criterion in our calculation of performance-based cash bonuses for our segments.

Limitations

Adjusted EBITDA has limitations as an analytical tool, and should not be viewed in isolation and is not a substitute for U.S. GAAP measures of earnings and cash flows. Material limitations associated with making the adjustments to our earnings and cash flows to calculate Adjusted EBITDA, and using this non-GAAP financial measure as compared to the most directly comparable U.S. GAAP financial measures, include:

- the cash portion of interest expense, net, income tax provision (benefit), and restructuring as well as non-recurring charges related to securities issuance, acquisition and disposition activities, and systems/organization establishment, generally represent charges (gains) which may significantly affect funds available to use in our operating, investing and financing activities;

- non-operating foreign exchange gains (losses), although not immediately affecting cash used in investing activities, may affect the amount of funds needed to service our debt if those currency impacts remain in place as we meet our future principal repayment obligations; and

- depreciation, amortization, non-cash (gains) charges and impairment charges, though not directly affecting our current cash position, represent the wear and tear and/or reduction in value of the plant, equipment and intangible assets which permit us to manufacture and/or market our products; these items may be indicative of future needs for capital expenditures, for development or acquisition of intangible assets or relevant trends causing asset value changes.

An investor or potential investor may find any one or all of these items important in evaluating our performance, results of operations, financial position and liquidity. Management compensates for the limitations of using non-GAAP financial measures by using them only to supplement our U.S. GAAP results to provide a more complete understanding of the factors and trends affecting our business. Adjusted EBITDA is not an alternative to net income (loss) or income (loss) from continuing operations before taxes or operating income or cash flows from operating activities as calculated and presented in accordance with U.S. GAAP. You should not rely on Adjusted EBITDA as a substitute for any such U.S. GAAP financial measures. We strongly urge you to review the reconciliations of Adjusted EBITDA to U.S. GAAP financial measures and other financial information, in each case included elsewhere in this Annual Report. We also strongly urge you not to rely on any single financial measure to evaluate our business. Our measure of Adjusted EBITDA may not be comparable to those of other companies.

Results of Operations

Our net sales consist of sales of our products, net of sales discounts, product returns and allowances. In addition, net sales include shipping and handling costs billed to customers. Sales are primarily made on a purchase order basis.

Our cost of products sold consists of variable and fixed components. Our variable costs are proportional to volume and consist principally of raw materials, packaging and related supplies, certain energy costs, and certain distribution costs including inbound, outbound, and internal shipping and transfer costs. Our fixed costs are not significantly impacted by production volume and consist principally of certain fixed manufacturing costs and other distribution network costs, including warehousing. Fixed manufacturing costs comprise headcount-related costs and overhead, including depreciation, periodic maintenance costs, purchasing and receiving costs, inspection costs and certain energy costs.

Our selling, general and administrative expenses include research and development costs, sales and marketing, divisional management expenses and corporate services including cash management, legal, benefit plan administration and other administrative and professional services.

Immaterial Corrections

During the financial closing period for the third quarter of 2013, we determined, after a formal investigation, that management at a single location in Italy within the Color Pigments and Services business of our former Performance Additives segment (reported in discontinued operations effective September 2013 - see Note 2, Discontinued Operations, for further details) had falsified accounting records supporting certain asset, liability and income statement balances, beginning in 2007. We have evaluated the identified amounts and concluded that they were not material individually or in the aggregate to any of our previously issued annual and interim financial statements, including the presentation of the Color Pigments and Services business as discontinued operations. Although we have determined the amounts individually and in the aggregate are not material to prior periods, in accordance with authoritative accounting literature on considering the effects of misstatements in prior years when quantifying misstatements in the current year, the financial statements included herein have been adjusted to correct for the impact of these items.

As a result, we have revised our previously reported operating results to reflect certain immaterial adjustments, primarily related to cost of products sold. These adjustments reduced previously reported operating income by $6.0 million and $13.0 million and net income by $4.3 million ($0.05 per share on a diluted basis) and $11.9 million ($0.15 per share on a diluted basis) for the years ended December 31, 2012 and 2011, respectively. See Note 20, Immaterial Corrections, for further details.

Actual Results of Operations

The following table presents the major components of our operations on an actual basis and Adjusted EBITDA (the reconciliation to net income (loss) is set forth in Reconciliation of Net Income (Loss) Attributable to Rockwood Holdings, Inc. to Adjusted EBITDA for the years ended December 31, 2013, 2012 and 2011), including as a percentage of net sales, for the periods presented. See Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information, for segment information and a reconciliation to income (loss) from continuing operations before taxes to Adjusted EBITDA on a segment basis.

($ in millions)	Year ended December 31, 2013	2012	2011
Statement of operations data:			
Net sales:			
Lithium	$ 479.4	$ 474.4	$ 456.5
Surface Treatment	770.2	723.2	743.2
Corporate and other	128.2	126.2	154.4
Total net sales	1,377.8	1,323.8	1,354.1
Gross profit	618.0	586.7	581.3
	44.9%	44.3%	42.9%
Selling, general and administrative expenses	401.8	356.2	387.2
	29.2%	26.9%	28.6%
Gain on previously held equity interest	(16.0)		
Restructuring and other severance costs	17.5	35.3	11.4
Asset write-downs and other	4.1	0.3	0.9
Operating income (loss):			
Lithium	122.5	110.8	125.6
	25.6%	23.4%	27.5%
Surface Treatment	147.9	113.2	108.8
	19.2%	15.7%	14.6%
Corporate and other	(59.8)	(29.1)	(52.6)
Total operating income	210.6	194.9	181.8
Other expenses, net:			
Interest expense, net	(82.3)	(64.5)	(83.1)
Loss on early extinguishment/modification of debt	(15.5)	(12.0)	(16.6)
Foreign exchange (loss) gain on financing activities, net	(67.1)	(10.3)	3.2
Other, net	(0.3)		0.2
Other expenses, net	(165.2)	(86.8)	(96.3)
Income from continuing operations before taxes	45.4	108.1	85.5
Income tax (benefit) provision	(10.0)	(124.8)	15.3
Income from continuing operations	55.4	232.9	70.2
(Loss) income from discontinued operations, net of tax	(65.0)	161.0	250.5
Gain on sale of discontinued operations, net of tax	1,670.5		119.3
Net income	1,660.9	393.9	440.0
Net income attributable to noncontrolling interest - discontinued operations	(1.0)	(14.7)	(40.6)
Net income attributable to Rockwood Holdings, Inc. shareholders	$ 1,659.9	$ 379.2	$ 399.4
Adjusted EBITDA from continuing operations:			
Lithium	$ 181.8	$ 181.9	$ 170.2
	37.9%	38.3%	37.3%
Surface Treatment	174.3	155.2	151.0
	22.6%	21.5%	20.3%
Corporate and other	(32.8)	(16.0)	(37.2)
Total Adjusted EBITDA from continuing operations (a)	$ 323.3	$ 321.1	$ 284.0

(a) This amount does not include $270.3 million, $453.2 million and $567.0 million for the years ended December 31, 2013, 2012 and 2011, respectively, of Adjusted EBITDA from discontinued operations.

Year ended December 31, 2013 compared to year ended December 31, 2012

Overview

Net sales increased $54.0 million, or 4.1%, from the prior year primarily due to higher volumes of $35.2 million, primarily in our Surface Treatment segment of $31.8 million, as well as higher volumes of $4.4 million in our Lithium segment. Higher selling prices of $17.3 million, primarily in our Surface Treatment segment, also had a favorable effect on net sales. See further discussion by segment below.

Operating income increased $15.7 million, or 8.1%, from the prior year primarily due to lower restructuring and severance costs of $17.8 million, higher selling prices of $17.3 million, the gross margin impact of higher sales volumes of $16.6 million and the gain of $16.0 million recorded in 2013 as a result of revaluing our equity interest to fair value related to the acquisition of the remaining 50% interest in the previously unconsolidated Surface Treatment joint venture in India. This was partially offset by higher corporate costs of $30.7 million, primarily for higher variable compensation, acquisition-related costs and costs related to facilities to be retained in the expected sale of the TiO2 Pigments and Other Businesses, higher selling, general and administrative costs in our Surface Treatment segment of $9.3 million, higher manufacturing costs of $5.7 million, higher depreciation and amortization costs of $4.2 million and increased asset write-downs of $3.8 million.

Adjusted EBITDA from continuing operations increased $2.2 million, or 0.7%, from the prior year primarily due to higher selling prices of $17.2 million, the gross margin impact of higher sales volumes of $16.4 million and the impact of currency changes of $3.1 million. This was partially offset by higher corporate costs of $16.8 million, primarily for higher variable compensation costs, higher selling, general and administrative costs in our Surface Treatment segment of $9.3 million and higher manufacturing costs of $5.7 million.

Net income from continuing operations decreased $177.5 million, or 76.2%, from the prior year primarily due to a $150.0 million reversal in 2012 of a federal valuation allowance on net deferred tax assets (see further details below and in Item 8. Financial Statements and Supplementary Data Note 11, Income Taxes) and increased foreign exchange losses on financing activities of $56.8 million, partially offset by the reasons noted above.

Income from discontinued operations, net of tax, decreased $226.0 million from the prior year to a loss of $65.0 million in 2013 primarily from lower selling prices of titanium dioxide pigments of $184.2 million, acquisition and disposal costs of $65.1 million related to professional fees incurred for the sale of the Advanced Ceramics, Clay-based Additives and the TiO2 and Other Businesses and an estimated loss, net of tax, of $98.0 million in connection with the sale of the TiO2 Pigments and Other Businesses. This was partially offset by the impact of higher volumes of titanium dioxide pigments of $93.1 million, as well as lower raw material costs of $23.7 million, particularly for slag and ilmenite.

The gain on sale of discontinued operations, net of tax, of $1,670.5 million recorded in 2013 is comprised of the gain on sale, net of tax, of the Advanced Ceramics segment of $1,164.2 million and the gain on sale, net of tax, of the Clay-based Additives business of $506.3 million.

Net income attributable to Rockwood Holdings, Inc. shareholders increased $1,280.7 million to $1,659.9 million in 2013 compared with the same period in the prior year due to the reasons noted above.

Net sales

Lithium. Net sales increased $5.0 million, or 1.1%, from the prior year primarily on increased volumes of $4.4 million and increased selling prices of $1.2 million. Higher volumes from lithium carbonate, lithium chloride and lithium hydroxide were partially offset by lower volumes and selling prices of potash and lower volumes of battery products. The impact of currency changes of $0.7 million had an unfavorable impact on net sales.

Surface Treatment. Net sales increased $47.0 million, or 6.5%, from the prior year primarily from higher volumes of $31.8 million, particularly driven by automotive OEM, general industrial and aerospace applications, and the impact of acquisitions of $15.1 million, primarily the acquisition of the remaining 50% interest in a previously unconsolidated joint venture in India, as well as higher selling prices of $16.6 million.

Gross profit

Gross profit increased $31.3 million, or 5.3%, from the prior year due to higher selling prices of $17.3 million and the impact of higher sales volumes of $16.6 million, partially offset by higher manufacturing costs of $5.7 million. Gross profit as a percentage of net sales were 44.9% and 44.3% for the years ended December 31, 2013 and 2012, respectively.

Selling, general and administrative (SG&A) expenses

SG&A expenses increased $45.6 million, or 12.8%, from the prior year primarily due to higher Corporate SG&A costs of $30.7 million, particularly, variable compensation costs, acquisition-related costs and costs related to facilities to be retained in the expected sale of the TiO2 Pigments and Other Businesses, as well as increased general and administrative costs in our Surface Treatment segment of $9.3 million related to increased sales. SG&A expenses as a percentage of net sales were 29.2% and 26.9 % for the years ended December 31, 2013 and 2012, respectively.

Restructuring and other severance costs

Restructuring and other severance costs decreased $17.8 million, or 50.4% from the prior year primarily due to the write-down of machinery and equipment of $12.0 million in connection with the closure of a Lithium manufacturing facility in the United States in 2012 and the write-off of a trade name of $10.3 million in the Lithium segment related to the reorganization of our former Specialty Chemicals segment in 2012. This was partially offset by increased restructuring and other severance costs of $4.4 million recorded in our Lithium segment primarily related to the closure of the Lithium manufacturing facility in the United States. See Note 16, Restructuring And Other Severance Costs, for further details.

Gain on previously held equity interest

The gain on previously held equity interest of $16.0 million recorded in 2013 relates to the revaluation of the Company s equity interest to fair value as a result of the acquisition of the remaining 50% interest in the previously unconsolidated India joint venture in our Surface Treatment segment.

Asset write-downs and other

Asset write-downs and other were $4.1 million and $0.3 million for the years ended December 31, 2013 and 2012, respectively. The $4.1 million recorded in 2013 is primarily related to the termination of a geothermal energy project at the Silver Peak, Nevada lithium facility.

Operating income

Lithium. Operating income increased $11.7 million, or 10.6%, from the prior year primarily due to lower restructuring and other severance costs of $17.9 million, particularly from the write-down of machinery and equipment in 2012 related to the closure of a Lithium manufacturing facility in the United States and the write-off of a trade name in 2012 related to the reorganization of the former Specialty Chemicals segment, lower energy costs of $3.2 million and lower selling, general and administrative costs of $2.8 million. This was partially offset by higher raw material costs of $4.3 million, asset write-downs of $3.9 million related to the termination of a geothermal energy project at our Silver Peak, Nevada lithium facility and the gross margin impact of sales volumes of $3.8 million, primarily related to lower potash sales.

Surface Treatment. Operating income increased $34.7 million, or 30.7%, from the prior year primarily due to the gross margin impact of higher sales volumes of $18.1 million, higher selling prices of $16.6 million and the gain on previously held equity interest of $16.0 million related to the previously unconsolidated joint venture in India. This was partially offset by higher selling, general and administrative costs of $9.3 million, higher miscellaneous manufacturing costs of $4.2 million and an unfavorable product mix of $3.7 million.

Corporate and other. Operating loss increased $30.7 million to $59.8 million in 2013 primarily due to higher variable compensation costs of $8.0 million, higher acquisition and disposal costs of $7.5 million and higher costs of $7.5 million incurred in connection with facilities retained as part of the sale of the TiO2 Pigments and Other Businesses.

Other income (expenses)

Interest expense, net. Interest expense, net increased $17.8 million, or 27.6%, from the prior year primarily due to higher interest of $42.5 million from the issuance of $1.25 billion of the 2020 Notes in September 2012, partially offset by lower interest of $14.9 million related to the repayment of all of the outstanding borrowings under the senior secured credit facility in September 2013 and lower interest of $9.1 million from the repayment of the 2014 Notes in March 2012.

Loss on early extinguishment/modification of debt. For the year ended December 31, 2013, in connection with the repayment of all outstanding borrowings under the senior secured credit facility in September 2013, we recorded a charge of $15.5 million consisting of the write-off of deferred financing costs of $10.3 million and fees of $5.2 million, primarily the cost of a foreign exchange transaction to fund the repayment. For the year ended December 31, 2012, we recorded a charge of $12.0 million as follows: $9.7 million in connection with the redemption of our Senior Subordinated Notes due in 2014 in March 2012 (comprised of redemption premiums of $6.7 million and the write off of $3.0 million of deferred financing costs) and $2.3 million related to the write-off of deferred financing costs in connection with the repayment of $250 million of term loan B under our senior secured credit facility in October 2012.

Foreign exchange, net. For the year ended December 31, 2013, foreign exchange losses of $67.1 million were primarily related to the conversion of Euros to U.S. dollars from the proceeds of the sale of the Advanced Ceramics segment and the impact of a stronger Euro on U.S. denominated cash equivalents recorded in a Euro-denominated entity and Euro-denominated intercompany loans. For the year ended December 31, 2012, foreign exchange losses of $10.3 million were primarily related to the change in the Euro exchange rate from December 31, 2011 to March 26, 2012, the date when the Euro-denominated senior subordinated notes were repaid.

Income tax benefit/provision

We recorded an income tax benefit of $10.0 million on income from continuing operations before taxes of $45.4 million in the year ended December 31, 2013, resulting in an effective tax rate of (22.0)%. The 2013 effective tax rate is lower than the U.S. statutory rate of 35% primarily due to beneficial foreign earnings mix of (37.4)% primarily in Germany, Chile and the U.K. and the change in uncertain tax positions of (9.1)%.

We recorded an income tax benefit of $124.8 million on income from continuing operations before taxes of $108.1 million in the year ended December 31, 2012 resulting in an effective tax rate of (115.4)%. The 2012 effective tax rate is lower than the U.S. statutory rate of 35% primarily due to the reversal of valuation allowances against net deferred tax assets of (141.3)%, mainly related to the Company s U.S. federal valuation allowance and a beneficial foreign earnings mix of (5.2)%, primarily in Germany, Chile and the U.K.

See Note 11, Income Taxes, for the reconciliation of the U.S. statutory income tax rate to the effective rate.

Adjusted EBITDA

Lithium. Adjusted EBITDA was flat compared to the prior year primarily as lower energy costs of $3.2 million, lower selling, general and administrative costs of $2.8 million and the favorable impact of currency changes of $2.6 million were offset by higher raw material costs of $4.3 million and the gross margin impact of sales volumes of $3.8 million, primarily related to lower potash sales.

Surface Treatment. Adjusted EBITDA increased $19.1 million, or 12.3%, from the prior year primarily due to the gross margin impact of higher sales volumes of $18.1 million and higher selling prices of $16.6 million. This was partially offset by higher selling, general and administrative costs of $9.3 million, higher miscellaneous manufacturing costs of $4.2 million and an unfavorable product mix of $3.7 million.

Corporate and other. Adjusted loss before interest, taxes, depreciation and amortization increased $16.8 million to $32.8 million in 2013 from the prior year primarily due to higher variable compensation costs of $8.0 million and costs of $7.5 million incurred in connection with facilities retained as part of the sale of the TiO2 Pigments and Other Businesses.

Year ended December 31, 2012 compared to year ended December 31, 2011

Overview

Net sales decreased $30.3 million, or 2.2%, from the prior year primarily due to negative impact of currency changes of $65.9 million and lower volumes of $19.9 million, primarily in our Surface Treatment segment and metal sulfides business. This was partially offset by higher selling

prices of $55.3 million in our Lithium and Surface Treatment segments. See further discussion by segment below.

Operating income increased $13.1 million, or 7.2%, from the prior year primarily due to higher selling prices of $55.3 million and lower corporate costs of $23.5 million, primarily for lower variable compensation costs. This was partially offset by higher restructuring and other severance costs of $23.9 million, higher selling, general and administrative expenses of $17.2 million in our Lithium and Surface Treatment segments, the gross margin impact of lower sales volumes of $11.8 million, the negative impact of currency changes of $9.8 million and higher raw material costs of $3.5 million.

Adjusted EBITDA from continuing operations increased $37.1 million, or 13.1%, from the prior year primarily due to the reasons noted above except for the change in restructuring and other severance costs which are excluded from Adjusted EBITDA.

Net income from continuing operations increased $162.7 million to $232.9 million for 2012 primarily due to a $150.0 million reversal of a federal valuation allowance on net deferred tax assets in 2012 (see further details below and in Item 8. Financial Statements and Supplementary Data - Note 11, Income Taxes) and the reasons noted above.

Income from discontinued operations, net of tax, decreased $89.5 million, or 35.7% from the prior year primarily due to the gross margin impact of lower sales volumes of $113.0 million, primarily in titanium dioxide pigments, higher raw material costs of $82.8 million, particularly slag and ilmenite, and lower production levels resulting in lower fixed cost absorption of $20.2 million. This was partially offset by higher selling prices of $120.8 million, primarily in titanium dioxide pigments and lower selling, general and administrative costs of $9.7 million.

The gain on sale of discontinued operations, net of tax of $119.3 million in 2011 relates to the sale of the plastic compounding business in January 2011.

Net income attributable to noncontrolling interest of $14.7 million was recorded in 2012 compared to $40.6 million in 2011. The change from the prior year was primarily related to lower net income generated by our Titanium Dioxide Pigments venture in 2012.

Net income attributable to Rockwood Holdings, Inc. shareholders decreased $20.2 million, or 5.1%, from the prior year due to the reasons noted above.

Net sales

Lithium. Net sales increased $17.9 million, or 3.9%, from the prior year primarily on increased selling prices of $35.6 million, partially offset by the negative impact of currency changes of $16.4 million.

Surface Treatment. Net sales decreased $20.0 million, or 2.7%, from the prior year due to the negative impact of currency changes of $39.4 million and lower volumes in Europe of $16.4 million across most markets. This was partially offset by higher selling prices of $27.3 million and higher volumes in the U.S. and Asia totaling $8.5 million.

Gross profit

Gross profit increased $5.4 million, or 0.9%, from the prior year from higher selling prices of $55.3 million, partially offset by the negative impact of currency changes of $28.1 million, the impact of lower sales volumes of $11.8 million and higher raw material and energy costs of $4.5 million. Gross profit as a percentage of net sales were 44.3% and 42.9% for the years ended December 31, 2012 and 2011, respectively.

Selling, general and administrative expenses

SG&A expenses decreased $31.0 million, or 8.0%, from the prior year primarily from lower variable compensation costs. SG&A expenses as a percentage of net sales were 26.9% and 28.6% for the years ended December 31, 2012 and 2011, respectively.

Restructuring and other severance costs

Restructuring and other severance costs increased $23.9 million to $35.3 million for the year ended December 31, 2012 primarily due to the write-down of machinery and equipment of $12.0 million in connection with the closure of a Lithium manufacturing facility in the United States and the write-off of a trade name of $10.3 million in the Lithium segment related to the reorganization of our former Specialty Chemicals segment. See Note 16, Restructuring and Other Severance Costs, for further details.

Operating income

Lithium. Operating income decreased $14.8 million, or 11.8%, from the prior year primarily due to the write-down of machinery and equipment of $12.0 million related to the closure of a Lithium manufacturing facility in the United States, the write-off of a trade name of $10.3 million related to the reorganization of the former Specialty Chemicals segment, higher selling, general and administrative costs of $9.2 million, particularly research and development costs, higher raw material costs of $4.6 million, the gross margin impact of lower volumes of $3.6 million and the negative impact of currency changes of $3.5 million. This was partially offset by higher selling prices of $35.6 million.

Surface Treatment. Operating income increased $4.4 million, or 4.0%, from the prior year primarily due to higher selling prices of $27.3 million, partially offset by higher selling, general and administrative costs of $8.0 million, the negative impact of currency changes of $5.7 million, higher raw material costs of $5.6 million and the gross margin impact of lower volumes of $3.8 million.

Corporate and other. Operating loss decreased $23.5 million, or 44.7%, from the prior year primarily from lower variable compensation costs.

Other income (expenses)

Interest expense, net. Interest expense, net decreased $18.6 million, or 22.4%, from the prior year primarily due to lower interest of $32.4 million from the redemption of the Senior Subordinated Notes due in 2014 in March 2012, partially offset by increased interest of $15.3 million from the issuance of $1.25 billion of the 2020 Notes in September 2012.

Loss on early extinguishment/modification of debt. For the year ended December 31, 2012, we recorded a charge of $12.0 million as follows: $9.7 million in connection with the redemption of our Senior Subordinated Notes due in 2014 in March 2012 (comprised of redemption premiums of $6.7 million and the write off of $3.0 million of deferred financing costs) and $2.3 million related to the write-off of deferred financing costs in connection with the repayment of $250 million of term loan B under our senior secured credit facility in October 2012. For the year ended December 31, 2011, we recorded a charge of $16.6 million in connection with the refinancing and repayment of our senior secured term loans in February 2011 comprised of fees of $13.5 million and the write-off of deferred financing costs of $3.1 million.

Foreign exchange, net. For the year ended December 31, 2012, foreign exchange losses of $10.3 million were primarily related to the change in the Euro exchange rate from December 31, 2011 to March 26, 2012, the date when the Euro-denominated senior subordinated notes were repaid. For the year ended December 31, 2011, foreign exchange gains of $3.2 million were reported in connection with non-operating Euro-denominated transactions.

Income tax benefit/provision

We recorded an income tax benefit of $124.8 million on income from continuing operations before taxes of $108.1 million in the year ended December 31, 2012 resulting in an effective tax rate of (115.4)%. The 2012 effective tax rate is lower than the U.S. statutory rate of 35% primarily due to the reversal of valuation allowances against net deferred tax assets of (141.3)%, mainly related to our U.S. federal valuation allowance and a beneficial foreign earnings mix of (5.2)% primarily in Germany, Chile and the U.K.

We recorded an income tax provision of $15.3 million on income from continuing operations before taxes of $85.5 million in the year ended December 31, 2011 resulting in an effective tax rate of 17.9%. The 2011 effective tax rate is higher than the U.S. statutory rate of 35% primarily due to a tax benefit related to a capital loss of (103.2)% resulting from a tax election made related to a non-U.S. subsidiary, a tax benefit related to a basis difference for a non-U.S. subsidiary of (20.8)%, an allocation of tax benefits to continuing operations of (13.7%) and a beneficial foreign earnings mix of (6.3)%. Additionally, the 2011 effective tax rate was negatively impacted by an increase to the U.S. valuation allowance against net deferred tax assets of 137.5%.

See Note 11, Income Taxes, for the reconciliation of the U.S. statutory income tax rate to the effective tax rate.

Adjusted EBITDA

Lithium. Adjusted EBITDA increased $11.7 million, or 6.9%, from the prior year primarily due to higher selling prices of $35.6 million, partially offset by higher selling, general and administrative costs of $9.2 million, particularly research and development costs, the negative impact of currency changes of $5.4 million and higher raw material costs of $4.6 million and the gross margin impact of lower volumes of $3.6 million.

Surface Treatment. Adjusted EBITDA increased $4.2 million, or 2.8%, from the prior year primarily due to higher selling prices of $27.3 million, partially offset by higher selling general and administrative costs of $8.0 million, the negative impact of currency changes of $7.1 million, higher raw material costs of $5.6 million and the gross margin impact of lower volumes of $3.8 million.

Corporate and other. Adjusted loss before interest, taxes, depreciation and amortization decreased $21.2 million, or 57.0%, over the prior year primarily due to lower variable compensation costs.

Reconciliation of Net Income Attributable to Rockwood Holdings, Inc. to Adjusted EBITDA

Because we view Adjusted EBITDA on a consolidated basis as an operating performance measure, we use net income as the most comparable U.S. GAAP measure on a consolidated basis. The following table, which sets forth the applicable components of Adjusted EBITDA, presents a reconciliation of net income attributable to Rockwood Holdings, Inc. to Adjusted EBITDA on a consolidated basis:

	Year ended December 31,		
($ in millions)	**2013**	**2012**	**2011**
Net income attributable to Rockwood Holdings, Inc. shareholders	$ 1,659.9	$ 379.2	$ 399.4
Net income attributable to noncontrolling interest - discontinued operations	1.0	14.7	40.6
Net income	1,660.9	393.9	440.0
Income tax (benefit) provision	(10.0)	(124.8)	15.3
Loss (income) from discontinued operations, net of tax	65.0	(161.0)	(250.5)
Gain on sale of discontinued operations, net of tax	(1,670.5)		(119.3)
Income from continuing operations before taxes	45.4	108.1	85.5
Interest expense, net	82.3	64.5	83.1
Depreciation and amortization	93.5	89.3	88.0
Restructuring and other severance costs	17.5	35.3	11.4
Systems/organization establishment expenses	2.2	2.0	0.8
Acquisition and disposal costs	8.9	(2.1)	0.3
Loss on early extinguishment/modification of debt	15.5	12.0	16.6
Asset write-downs and other	4.1	0.3	0.9
Gain on previously held equity interest	(16.0)		
Foreign exchange loss (gain) on financing activities, net	67.1	10.3	(3.2)
Other	2.8	1.4	0.6
Total Adjusted EBITDA from continuing operations	$ 323.3	$ 321.1	$ 284.0

Liquidity and Capital Resources

Cash Flows

Operating Activities. Net cash provided by operating activities was $360.3 million, $449.1 million and $448.5 million in 2013, 2012 and 2011, respectively. Net cash from operating activities decreased in 2013 primarily from lower net income (excluding the gain on sale of discontinued operations), lower cash provided from discontinued operations as the sales of Advanced Ceramics and Clay-based Additives were completed in August and October 2013, respectively partially offset by lower working capital usage related to lower inventory levels in Titanium Dioxide Pigments from working capital initiatives. Net cash from operating activities in 2012 was flat compared to 2011 primarily from lower net income in 2012, which was partially offset by lower working capital usage related to lower inventory levels in Color Pigments and Services resulting from working capital initiatives.

Investing Activities. Net cash provided by (used in) investing activities was $2,010.5 million, $(358.8) million and $21.1 million in 2013, 2012 and 2011, respectively. The increase in 2013 was primarily due to net proceeds of $2,395.9 million received from the sale of the Advanced Ceramics segment in August 2013 and the Clay-based Additives business in October 2013, partially offset by acquisitions in 2013 of $34.3 million, particularly the previously unconsolidated Surface Treatment joint venture in India, and higher capital expenditures in the aggregate amount of $62.2 million for both our continuing and discontinued operations. The decrease in 2012 was primarily due to net proceeds of $300.6 million received in 2011 from the sale of the plastic compounding business, the crenox GmbH acquisition in 2012, as well as higher capital expenditures for strategic projects in our Lithium segment in 2012.

Financing Activities. Net cash (used in) provided by financing activities was $(2,074.5) million, $857.1 million and $(482.0) million in 2013, 2012 and 2011, respectively, and included scheduled payments for long-term debt.

- In 2013, we (i) repaid all of our outstanding borrowings under the term loans under our senior secured credit facility in the aggregate amount of $924.2 million, (ii) repurchased shares of our common stock in the aggregate amount of approximately $400 million, (iii) acquired from Kemira the remaining 39% interest in our former Titanium Dioxide Pigments venture for a purchase price of 97.5 million ($130.3 million based on the rate in effect on the date of purchase) and (iv) paid quarterly cash dividends to shareholders of $127.6 million. With regard to financing activities of discontinued operations, we repaid all of our outstanding borrowings under the Titanium Dioxide Pigments facility agreement in the aggregate amount of 394.5 million ($512.4 million).

- In 2012, we (i) issued a new tranche of term loan A under our existing senior secured credit facility in the amount of $350.0 million and used the proceeds along with cash on hand to redeem all of our 2014 Senior Subordinated Notes ($534.1 million in the aggregate based on the exchange rate in effect on the date of payment) in March, (ii) issued $1.25 billion of 4.625% Senior Notes due in 2020 and used a portion of the proceeds to prepay $250.0 million of term loan B under the senior secured credit facility, and

(iii) paid quarterly cash dividends to shareholders of $81.8 million. With regard to financing activities of discontinued operations, our former Titanium Dioxide Pigments venture Sachtleben GmbH, issued new term loans in the aggregate amount of 400.0 million ($500.7 million based on the exchange rate in effect on the date of. the transaction) and used a portion of the proceeds to retire existing term loans (195.0 million - $244.1 million) and pay a dividend of $43.8 million to Kemira, the former venture partner.

- In 2011, we (i) voluntarily prepaid $408.9 million of term loans under our former senior secured credit facility, (ii) paid related fees of $13.4 million in connection with the refinancing of our former senior secured credit facility in February 2011 and (iii) made distributions to noncontrolling shareholders of $19.4 million.

Liquidity

Our primary recurring source of liquidity has been and will continue to be cash generated from the operations of our subsidiaries. In addition, we received cash proceeds of $2.0 billion in August 2013 from the sale of our Advanced Ceramics segment and cash proceeds of $626.6 million in October 2013 from the sale of our Clay-based Additives business. We also entered into a definitive agreement in September 2013 to sell our TiO2 Pigments and Other Businesses for $1.325 billion, including the assumption of $225 million in pension obligations, subject to other customary adjustments. This transaction is expected to close during the first half of 2014, following the receipt of regulatory approvals.

Our primary liquidity requirements are working capital, debt service, capital expenditures, dividend payments, share repurchases and acquisitions. As noted above, we entered into a definitive agreement to acquire a 49% interest in Talison that is expected to close in the first half of 2014, subject to the receipt of regulatory approvals. It is expected that Rockwood and Tianqi will contribute equity of $196 million and $204 million, respectively. In addition, we will also provide to the joint venture a two-year secured loan of up to $670 million at 8% interest. We will grant Tianqi a three-year call option to invest from 20% to 30% in the equity of Rockwood Lithium GmbH, which will be valued at 14X the last twelve months Adjusted EBITDA.

In 2014 and future periods, we believe that based on current conditions in our industry and markets, our cash balances, cash flows from operations and potential sources of borrowing will be adequate sources of liquidity. However, an economic downturn or recession may have a material adverse impact on our results of operations, our cash flows from operations and our liquidity. In 2013, we used $86.2 million for cash interest, $172.3 million for capital expenditures, net of government grants, $127.6 million for the payment of quarterly dividends and $400 million for share repurchases. See Item 1, Business, and Item 1A, Risk Factors.

In addition, our liquidity may be negatively impacted due to funding obligations related to certain pension plans. We have several pension plans located in Germany, the United Kingdom and the United States. We have entered into long-term funding arrangements related to the Dynamit Nobel Pensionskasse multiemployer pension plan located in Germany and our defined benefit pension plans located in the United Kingdom. See Item 8. Financial Statements and Supplementary Data - Note 14, Employee Benefit Plans, for further details. Our funding obligations could change significantly based on the investment performance of the pension plan assets and changes in actuarial assumptions for local statutory funding valuations.

For our continuing operations, our overall unfunded position in our defined benefit plans as of December 31, 2013 is $275.2 million and the funded status of our plans is 33%. However, 84% of our unfunded position is concentrated in plans mostly in Germany, where funding is neither legally required nor customary. When only the plans that have funding requirements are considered, the unfunded portion is $43.2 million and the funded status is 76%.

For our discontinued operations, our overall unfunded position in our defined benefit plans as of December 31, 2013 is $202.2 million and the funded status of our plans is 39%. However, 60% of our unfunded position is concentrated in plans mostly in Germany, where funding is neither legally required nor customary. When only the plans that have funding requirements are considered, the unfunded portion is $81.8 million and the funded status is 59%. As of December 31, 2013, we have an outstanding letter of credit of 28.5 million ($39.2 million) related to a Titanium Dioxide Pigments defined benefit pension obligation in Finland. In connection with the sale of the TiO2 Pigments and Other Businesses, the purchaser has agreed to assume up to $225 million in unfunded pension liabilities.

The funding of our pension plans was in compliance with local requirements as of December 31, 2013. Almost all of our pension obligations are long-term in nature. Our annual cash outflows to meet funding requirements and benefit obligations historically have not significantly exceeded our pension expense. The measurement of our pension obligations and plan assets is dependent on a variety of actuarial assumptions and investment performance and is assessed annually.

As of December 31, 2013, we had cash and cash equivalents of $1,522.8 million of which $1,477.8 million was held by our foreign subsidiaries. We believe that the amount of funds held by our foreign subsidiaries as of such date not readily convertible into Euros or United States dollars was $3.9 million. Based on our cash balances, domestic cash flows from operations and our other sources of liquidity, we believe we have sufficient access to funds for our expected future domestic liquidity needs. Our intent is to permanently invest foreign funds outside the United States and our current plans do not demonstrate a need to repatriate them to fund our operations or dividends in the United States. Further, if the cash and cash equivalents held by our foreign subsidiaries were needed for our operations or dividends in the United States, we do not believe we would be required to accrue and pay taxes in the United States to repatriate these funds as sufficient funds could be repatriated by recalling certain intercompany loans we have with our foreign subsidiaries. Among other things, we may use available cash to invest in our business, reduce our debt, pay dividends, repurchase shares or fund acquisitions.

As of December 31, 2013, we had actual total indebtedness of $1,295.4 million, consisting primarily of the 2020 Notes ($1,250.0 million). See Item 8. Financial Statements and Supplementary Data - Note 10, Long-Term Debt, for a detailed discussion of these borrowings.

Senior secured credit facilities. In the third quarter of 2013, RSGI, a subsidiary of the Company, repaid all of its outstanding borrowings under the term loans under RSGI s senior secured credit facility in the aggregate amount of $924.2 million, consisting of $336.9 million of term loan A and $587.3 million of term loan B. RSGI also terminated its senior secured credit agreement. As a result, all commitments under the senior secured credit agreement were terminated and all obligations were discharged, including those under the revolving credit commitments.

2020 Notes. As of December 31, 2013, the outstanding amount of the 2020 Notes was $1,250.0 million. The indenture governing the 2020 Notes contains certain negative and affirmative covenants. For example, the indenture prohibits us from incurring additional indebtedness, subject to satisfying on a pro forma basis a fixed-charge coverage ratio for which the most recently ended four fiscal quarters is at least 2.00 to 1, subject to certain exceptions. For the four-fiscal-quarter period ended December 31, 2013, the fixed-charge coverage ratio equaled 7.18 to 1. In addition, the indenture prohibits us from making certain restricted payments subject to satisfying a fixed-charge coverage ratio, subject to certain exceptions. See Item 8. Financial Statements and Supplementary Data - Note 10, Long-Term Debt, for further details.

Titanium Dioxide Pigments term loans, revolving credit facility and other debt. In March 2013, we prepaid all of the outstanding borrowings under its Titanium Dioxide Pigments facility agreement. The aggregate amount repaid was 394.5 million ($512.4 million), consisting of 190.0 million ($246.8 million) of term loan A, 200.0 million ($259.8 million) of term loan B and a 4.5 million ($5.8 million) revolving credit facility. The interest rate on term loan A and the revolving credit facility was Euribor plus 3.75% and the interest rate on term loan B was Euribor plus 4.00%. The U.S. dollar amounts above were all based on the exchange rate in effect on the date of payment.

As of December 31, 2013, our weighted-average interest rate is 4.6%, excluding deferred financing costs.

Given our use of Adjusted EBITDA (see Note Regarding Non-GAAP Financial Measures for the definition of Adjusted EBITDA and management s uses of Adjusted EBITDA) as a liquidity measure, the following table presents a reconciliation of net cash provided by operating activities from continuing operations to Adjusted EBITDA:

	Year ended December 31,		
($ in millions)	**2013**	**2012**	**2011**
Net cash provided by operating activities from continuing operations	$ 120.8	$ 149.0	$ 58.7
Changes in assets and liabilities, net of the effect of foreign currency translation and acquisitions	49.6	43.2	100.0
Current portion of income tax provision	44.4	32.5	29.9
Interest expense, net, excluding amortization of deferred financing costs and unrealized losses/gains on derivatives	77.9	60.5	82.2
Restructuring and other severance costs	17.5	35.3	11.4
Systems/organization establishment expenses	2.2	2.0	0.8
Acquisition and disposal costs	8.9	(2.1)	0.3
Bad debt provision	(0.8)	(0.7)	0.1
Other	2.8	1.4	0.6
Total Adjusted EBITDA from continuing operations	$ 323.3	$ 321.1	$ 284.0

Contractual Obligations

The following table details our fixed contractual cash obligations as of December 31, 2013:

($ in millions)	Total	Less than 1 year	2-3 Years	4-5 Years	After 5 years
Debt, including current portion (a)	$ 1,711.5	$ 70.8	$ 129.5	$ 127.9	$ 1,383.3
Operating leases	69.8	12.5	16.8	10.3	30.2
Purchase obligations (b)	92.9	81.5	11.4		
Total (c) (d)	$ 1,874.2	$ 164.8	$ 157.7	$ 138.2	$ 1,413.5

(a) Amounts represent the expected principal payments of our long-term debt, including capital leases, and do not include any fair value adjustments or bond premiums or discounts. These amounts also include estimated scheduled cash interest payments for all years which total $416.2 million. See Item 8. Financial Statements and Supplementary Data - Note 10, Long-Term Debt.

(b) Purchase obligations consist of agreements to purchase goods or services that are enforceable and legally binding and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. Purchase obligations exclude agreements that are cancelable without penalty.

(c) Statutory minimum funding requirements for 2014 for defined benefit pension plans are not included as such amounts have not been determined. For 2014, we expect to make contributions of approximately $5.3 million to pension trusts and $12.4 million directly to plan participants as benefit payments. Future contributions, including additional payments that may be required as a result of investment performance of pension assets, are not included, as they are not fixed either as to timing or amount. See Item 8. Financial Statements and Supplementary Data - Note 14, Employee Benefit Plans, for further details.

(d) Liabilities for unrecognized tax benefits of $30.7 million as of December 31, 2013 are excluded from the Contractual Obligations table as we are unable to make a reasonably reliable estimate of the period of cash settlement with the respective taxing authorities. Liabilities for these unrecognized tax benefits are classified as non-current income tax liabilities (other liabilities) unless expected to be paid within one year.

Capital Expenditures

Our capital expenditures for continuing operations, net of government grants received were for 2013 include replacements of worn, obsolete or damaged equipment as well as investments in new equipment and plants. For the year ended December 31, 2013, capital expenditures for continuing operations, net of government grants received of $2.2 million, were $172.3 million, and included the expansion of our production capacity for lithium compounds in Chile. For the years ended December 31, 2012 and 2011, our capital expenditures from continuing operations, net of government grants received were $140.8 million and $112.0 million, respectively. Capital expenditures for continuing operations, net of government grants received, for 2014 are expected to approximate 2013 levels.

Capital expenditures for discontinued operations were $181.7 million, $151.0 million and $167.8 million for the years ended December 31, 2013, 2012 and 2011, respectively.

We may incur future costs for capital improvements and general compliance under Safety, Health and Environmental (SHE) laws. For the year ended December 31, 2013, our capital expenditures for continuing operations for SHE matters totaled $6.0 million, excluding costs to maintain and repair pollution control equipment. For 2014, we estimate capital expenditures for continuing operations for compliance with SHE laws to be at similar levels; however, because capital expenditures for these matters are subject to changes in and new SHE laws, we cannot provide assurance that our recent expenditures will be indicative of future amounts required to comply with any such law. See Item 8. Financial Statements and Supplementary Data - Note 18, Commitments and Contingencies, Regulatory Developments for further discussion.

Off-Balance Sheet Arrangements

In the normal course of business, we incur obligations which include guarantees related to contract completion, regulatory compliance and product performance. Under certain circumstances, these obligations are supported through the issuance of letters of credit and other bank

guarantees. As of December 31, 2013, we had approximately $24.7 million of letters of credit and other bank guarantees, of which $22.9 million will expire in 2014 through 2016, and had the ability to issue additional letters of credit up to $7.8 million. The remaining guarantees have no specified expiration date. In the opinion of management, such obligations will not significantly affect our financial position, results of operations or cash flows, as we anticipate fulfilling our performance obligations.

Commitments and Contingencies

See Item 8. Financial Statements and Supplementary Data - Note 18, Commitments and Contingencies, for a discussion of the Company s Commitments and Contingencies.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates

and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and the related disclosure of contingent assets and liabilities. We evaluate our estimates on an ongoing basis, based on historical experience and various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

See Item 8. Financial Statements and Supplementary Data - Note 1, Basis of Presentation and Significant Accounting Policies, for a summary of our significant accounting policies. Our critical accounting policies are those that are both important to our financial condition and results of operation and require the most difficult, subjective or complex judgments on the part of management in their application, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. These critical accounting policies are as follows:

Revenue Recognition

We recognize revenue when the earnings process is complete. Product sales are recognized when products are shipped to the customer in accordance with the terms of the contract of sale, title and risk of loss have been transferred and collectability is reasonably assured. We believe that we have adequate credit granting procedures in place and that they are operating effectively so that collectability is reasonably assured. We have a low incidence of uncollectible accounts. Additionally, credit insurance is purchased at times by certain of our businesses, particularly in Europe, to protect against collection risk. Accruals are made for sales returns based on our experience and for other allowances based on the terms of allowance programs put in place. Although we believe that sufficient experience and history exists to make reasonable estimates as to such accruals and allowances, actual results can differ depending on market conditions.

Impairment

Goodwill

The recoverability of goodwill is reviewed on an annual basis during the fourth quarter. Additionally, the recoverability of goodwill would be reviewed when events or changes in circumstances occur indicating that the carrying value of the assets may not be recoverable. We have determined that our reporting units for our goodwill impairment review are our operating segments or components of an operating segment that constitute a business for which discrete financial information is available and for which segment management regularly reviews the operating results. Based on this analysis, we have identified three reporting units within our reportable segments that qualify for such review, Lithium, Surface Treatment and Metal Sulfides, as each of these units had a goodwill balance as of December 31, 2013. Based upon our review, the estimated fair values for our three reporting units having goodwill were substantially in excess of their carrying values. See Impairment Accounting section in Item 8. Financial Statements and Supplementary Data - Note 1, Basis of Presentation and Significant Accounting Policies, for the process used to test goodwill for impairment.

Goodwill impairment analyses are based on inherent assumptions and estimates about future cash flows (income approach) and appropriate benchmark peer companies or groups (peer multiple approach). Subsequent changes in these assumptions could result in future impairment. There have not been significant changes in the assumptions and methodologies used in the goodwill impairment analyses from the prior year. Although we consistently use the same methods in developing the assumptions and estimates underlying the fair value calculations, such estimates are uncertain by nature and can vary from actual results. Two assumptions with a significant impact on the three reporting unit fair value calculations include the discount rate and the terminal value growth rate. For the 2013 impairment test, we completed a sensitivity analysis on both of these key assumptions. An increase of 100 basis points in the discount rate would have resulted in a fair value, based on discounted cash flows, exceeding the carrying value for our three reporting units that have a goodwill balance. For the terminal value growth rate, a decrease of 100 basis points would have resulted in a fair value, based on discounted cash flows, exceeding the carrying value for all of our three reporting units that have a goodwill balance. Additional sensitivity was completed on the combined impact of a 100 basis point increase in the discount rate and a 100 basis point decrease in the terminal value growth rate. This also resulted in fair values, based on discounted cash flows, exceeding carrying values for each of our reporting units that have a goodwill balance.

See Impairment Accounting section in Item 8. Financial Statements and Supplementary Data - Note 1, Basis of Presentation and Significant Accounting Policies, for the process used to test goodwill for impairment.

Long-Lived Tangible and Other Intangible Assets

Long-lived tangible and other intangible assets are reviewed each reporting period to determine if events or changes in circumstances have occurred indicating that the carrying value of the assets may not be recoverable. Such circumstances may include a significant adverse change in the manner in which a long-lived asset is used, a current-period operating or cash flow loss combined with projected and/or a history of operating or cash flow losses associated with the use of a long-lived asset, or changes in the expected useful life of the long-lived asset.

To determine the recoverability of long-lived tangible and other intangible assets, these assets are grouped at the lowest level for which there are identifiable cash flows that are independent from the cash flows of other assets, which could be at the individual asset level, the product line level, the plant level or the subsidiary level depending on the nature of the identifiable cash flows at our various subsidiaries. Recoverability of assets to be held and used is measured by comparing the carrying amount of the assets or asset group to the sum of future undiscounted net cash flows expected to be generated by the asset or asset group.

Management estimates future undiscounted cash flows using key assumptions of industry and market conditions, future sales volumes and prices, raw material and labor costs, and inflation rates. For the year ended December 31, 2013, there were no long-lived assets or asset groups that had a carrying value greater than the sum of corresponding undiscounted cash flows and therefore, we did not perform any applicable fair value calculations to measure any impairment loss.

If such assets are considered to be impaired, the impairment loss that would be recognized is the amount by which the carrying amount of the assets exceeds the fair value of the assets. To determine fair value, we would use our internal cash flow estimates discounted at an appropriate interest rate, third party appraisals, as appropriate, and/or market prices of similar assets, when available.

In 2013, the Company wrote-off assets in the amount of $4.0 million related to the termination of a geothermal energy project at the Silver Peak, NV lithium facility. In 2012, we wrote off a trade name in the amount of $10.3 million in our Lithium segment related to the reorganization of our former Specialty Chemicals segment. Also, in 2012, we recorded a write-down of $12.0 million of machinery and equipment related to the closure of a Lithium manufacturing facility in the U.S.

Business Combinations

We account for business combinations using the acquisition method of accounting. Under the purchase method of accounting, we are required to allocate the purchase price to the estimated fair value of assets acquired and liabilities assumed. Examples of material estimates from our previous acquisitions are:

- The fair values of work-in-process and finished goods inventories are estimated based on selling price less selling profit. The calculation of selling profit requires a judgment on the relative margins derived from manufacturing vs. marketing efforts.

- The fair value of property, plant and equipment can be estimated by a variety of methods taking into account market values, replacement cost, and remaining useful life. Although market value and replacement cost is sometimes readily obtainable, often this requires judgment, as does determining the estimated remaining useful life. When we believe that property, plant and equipment acquired will be material to our overall balance sheet, or that fair value might represent a significant difference from the historical cost (net of accumulated depreciation) of such assets, we have engaged an independent appraiser to assist us on such estimates, as we have done in our recent acquisitions. However, it is not uncommon for appraisers to differ on the valuation of items (such as manufacturing equipment) where a ready secondary market does not exist.

- The fair value of identifiable intangible assets such as patents and other intellectual property, customer lists, and trademarks, can be estimated by discounted cash flow and return on royalties. The process utilized to identify intangible assets is consistent with the requirements of the accounting guidance on business combinations. When considered material, we have engaged an independent appraiser to assist us in the identification of intangible assets acquired, valuation of such assets and determination of the estimated useful life. An independent appraiser, with management s oversight and input, is required to make judgments and estimates that could cause such appraisals to differ from those of other appraisal experts.

- In order to determine the fair value of intangible assets and other long term assets, a discount rate and royalty rate are determined in conjunction with our independent appraiser. The royalty rate is based on professional judgment taking into consideration the type of product, market and perceived strength. The discount rate and royalty rate have a material impact on the determination of the fair value.

- Purchase accounting often involves the same critical estimates that are required in our ordinary course of business including estimates of deferred tax assets or liabilities, pension liabilities, restructuring liabilities and legal and environmental reserves.

Goodwill is an intangible asset that represents the excess of the purchase price over the fair value of identifiable assets acquired and liabilities assumed. While goodwill itself does not represent an estimate, we must assign goodwill to one or more reporting units. Allocation of goodwill to

reporting units requires judgments about the relative fair values of reporting units including the fair value of their identifiable assets and estimates as to the present value of future cash flows expected from the reporting units as adjusted by weighted average and/or risk-adjusted costs of capital. Goodwill is assessed for impairment at least annually.

Some of our business combinations have complex terms that may result in conflicting claims between buyers and sellers concerning the purchase price itself. Management is required to assess the probability and amount (or range of amounts) of such claims, and, where possible, determine the most likely amount due.

Dispositions

Long-lived assets and asset groups are classified as held for sale in the period in which the following specific criteria under ASC 360 (Property, Plant and Equipment) are all met:

- Management having the authority to approve the action, commits to a plan to sell the disposal group.
- The disposal group is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such disposal groups.
- An active program to locate a buyer and other actions required to complete the plan to sell the disposal group have been initiated.
- The sale of the disposal group is probable, and transfer of the disposal group is expected to qualify for recognition as a completed sale, within one year.
- The disposal group is being actively marketed for sale at a price that is reasonable in relation to its current fair value.

- Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

The results of operations of a disposal group that has operations and cash flows that can clearly be distinguished, operationally and for financial reporting purposes, from the rest of the entity, and that either has been disposed of or classified as held for sale are reported as discontinued operations when its operations and cash flows have been or will be eliminated from the ongoing operations of the Company and the Company will not have significant continuing involvement in it after the disposal transaction.

Assets held for sale are reviewed for impairment and adjusted accordingly. A loss is recognized for any initial or subsequent write-down to fair value less cost to sell.

As discussed above, during 2013, we sold our Advanced Ceramics segment and Clay-based Additives business, and entered into a definitive agreement to sell our TiO2 Pigments and Other Businesses. As of December 31, 2013, all of these transactions met the criteria for being reported as discontinued operations. As a result, the consolidated financial statements have been reclassified to reflect discontinued operations for these transactions for all periods presented.

In 2013, we recorded a charge of $142.9 million ($98.0 million, net of tax) related to an estimated loss on sale of the TiO2 Pigments and Other Businesses. The expected loss on sale represents the difference between the carrying value of these businesses and the expected proceeds. This carrying value includes the assumed recognition of actuarial (pension-related) losses and unrealized foreign exchange losses currently recorded in accumulated other comprehensive income within stockholders equity, which must be recognized upon completion of the sale.

Contingencies

Legal Matters

We are involved in various legal proceedings, including commercial, product liability, intellectual property and environmental matters, of a nature that can be expected in our business. It is our policy to accrue for amounts related to these matters if it is probable that a liability has been incurred and an amount can be reasonably estimated. The probability that a contingent liability has been incurred is regularly assessed by our legal staff, based on periodic reviews of available facts and circumstances for our legal matters, with senior operating and finance management both at the business accountable for the potential liability and at our corporate offices. This is supplemented where applicable by consultation with outside counsel. We do not believe it is informative to quantify past experience in assessing probability or estimating exposure since material matters of this nature at Rockwood often represent unique situations with little applicability to the assessment of probability or estimation of potential liability regarding other legal matters. It is our policy to disclose such matters when there is at least a reasonable possibility that a material loss has been or will be incurred.

Environmental Matters

We accrue costs of a non-capital nature related to environmental clean-up when those costs are believed to be probable and can be reasonably estimated. Expenditures that extend the life of the related property or mitigate or prevent future environmental contamination are capitalized, and expenditures related to existing conditions resulting from past or present operations and from which no current or future benefit is discernible are immediately expensed. The quantification of environmental exposures requires an assessment of many factors, including changing laws and regulations, advancements in environmental technologies, the quality of information available related to specific sites, the assessment stage of each site investigation and the length of time involved in remediation or settlement. As such, it can be extremely difficult to accurately estimate such costs. We do not include anticipated recoveries from insurance carriers or other third parties in our accruals for environmental liabilities.

We have estimated and established financial reserves relating to anticipated environmental cleanup obligations, site reclamation and remediation and closure costs. On a consolidated basis, we have accrued approximately $42.0 million for known environmental liabilities as of December 31, 2013. Given that these obligations may be paid/relieved over extended time periods (30 years in some cases), charges or credits to operations may be required as information is gathered and estimates refined.

We have evaluated our total environmental exposure based on currently available data and believe that such environmental matters will not have a material adverse impact on our financial position or results of operations. If matters previously identified by management are resolved in a manner different from original estimates, there is the potential for a material adverse effect on operating results or cash flows in any one accounting period. See Item 8. Financial Statements and Supplementary Data - Note 18, Commitments and Contingencies.

Income Taxes

Valuation Allowances **-** We record valuation allowances to reduce our deferred tax assets to the amount that is more likely than not to be realized based on available evidence weighted toward evidence that is objectively verifiable. In determining the need for a valuation allowance, the Company s policy is to evaluate evidence for sources of future taxable income, which may be available under the tax law to realize a tax benefit, including, reversal of temporary differences, tax loss-carrybacks, tax-planning strategies, and projected future taxable income. Various assumptions and strategies (including elections for tax purposes) are implicit in estimates of forecasted future taxable income.

Where a history of three years of cumulative losses has occurred, the Company evaluates its need for a valuation allowance on deferred tax assets, if any, by determining a normalized cumulative taxable income amount over the last three years, adjusted for acquisitions or divestitures, if necessary. The calculation includes management assumptions that relate to the appropriateness of certain items, such as permanent cost savings and excluding one-time items.

If we were to determine that we would be able to realize deferred tax assets in the future in excess of our net recorded amount, an adjustment to the net deferred tax asset would increase income in the period such determination was made. Likewise, should we determine that we would not be able to realize all or part of our recorded net deferred tax assets in the future, an adjustment to the deferred tax asset would decrease income in the period such determination was made.

As of December 31, 2011, we had three years of net cumulative losses in the United States. In accordance with our policy, we determined a normalized cumulative taxable income amount over the last three years, adjusted for divestitures which indicated a cumulative pro-forma pre-tax loss. Based upon this evidence, we concluded that the negative factors outweighed the positive factors as of December 31, 2011, the most persuasive factor being the objectively verifiable cumulative three year loss. As such, we recorded in our financial statements as of December 31, 2011, a valuation allowance of $152.2 million against the federal net deferred tax assets (excluding deferred tax liabilities related to long lived assets).

In 2012, we recorded an income tax benefit of $124.8 million primarily resulting from a $150.0 million reversal of our federal valuation allowance against our net U.S. federal deferred tax assets. The evidence evaluated indicated that the positive factors outweighed the negative factors, the most persuasive factors being the objectively verifiable normalized cumulative three-year taxable income, as well as projected future taxable income. Accordingly, we concluded that it was more likely than not that the net U.S. federal deferred tax assets, excluding capital losses, will be utilized in future years.

As of December 31, 2013, we had three years of net cumulative losses in the United States. In accordance with our policy, we determined a normalized cumulative taxable income amount over the last three years, adjusted for divestitures and other nonrecurring items which indicated a cumulative pro-forma pre-tax income. The evidence evaluated indicated that the positive factors outweighed the negative factors, the most persuasive factors being the objectively verifiable normalized cumulative three-year taxable income, as well as projected future taxable income. Accordingly, the Company concluded that it was more likely than not that the net U.S. federal deferred tax assets, excluding its capital losses, will be utilized in future years.

We also have recorded valuation allowances against deferred tax assets related to net operating loss and capital loss carryforwards in Luxembourg, India, China and for certain states in the United States as we have determined that it is more likely than not that the net deferred tax assets will not be realized, the most persuasive factors being three years of net cumulative losses. We have not recorded valuation allowances against our German deferred tax assets related to net operating loss carryforwards as we have determined that it is more likely than not that the net operating loss carryforwards will be realized, the most positive persuasive factors being projected future taxable income and an indefinite carryforward period for the net operating losses.

Income Tax Uncertainties -We recognize income tax uncertainties in our financial statements when it is more likely than not that an uncertain income tax position on the income tax return will be finally sustained upon examination based on its technical merits. The impact of an uncertain income tax position on the income tax return must be recognized as the largest amount that is more-likely-than-not to be sustained upon examination. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. We record our uncertain tax positions on a gross basis and in some circumstances, offset the gross liability in respect of our uncertain tax positions against deferred taxes where settlement of such liability will reduce tax loss carryforwards.

We are subject to taxation in the United States, various states, and foreign jurisdictions. In accordance with our policy, we evaluate all tax positions taken including the existing tax liabilities recorded and evaluate whether such tax positions would more-likely-than-not be sustained upon examination, based on the technical merits of the position. If the position meets the more-likely-than-not threshold test, we estimate the amount of the benefit that would be more than 50% likely to be sustained upon ultimate resolution or settlement. The estimate includes management s judgment of the amounts and probabilities of outcomes that could be realized, taking into account all facts, circumstances, and information available at the reporting date.

As of December 31, 2013, we have unrecognized tax benefits of $30.7 million on a gross basis, and $21.5 million, net of deferred tax assets. The ultimate settlement of this liability is subject to tax audits or the expiration of the statute of limitations. As such, actual results will differ from our estimates. In accordance with our policy, we have offset the gross liability in respect of our uncertain tax positions against deferred taxes where settlement of such liability would reduce tax loss carry forwards.

To the extent that the provision for income taxes increases/decreases by 1% of income before taxes, consolidated net income would have declined/improved by $0.5 million in 2013.

Stock-Based Compensation

The accounting for stock compensation is a critical accounting estimate, which requires judgments and assumptions that have an impact on our financial statements. Compensation expense is recognized for restricted stock units over the vesting life of the award, based on its estimated fair value on the grant date. Fair value is determined using the Monte Carlo simulation model as the equity awards were tied to market conditions. The model utilizes multiple input variables, which include our stock price, the expected volatility and the risk-free rate of return, that determine the probability of satisfying each market condition stipulated in the grant and calculates the fair value for the long-term performance awards. The recognition of expense is only recorded for awards that will eventually vest. This requires pre-vesting forfeitures to be estimated at the time of grant and modified, if necessary, if actual forfeitures differ from estimated forfeitures. Our forfeiture rates are based upon historical share-based equity award forfeitures.

We do not believe it is likely that there will be a material change in the future estimates or assumptions we use to determine stock-based compensation expense. However, if actual results are not consistent with our estimates and assumptions, we may be exposed to changes in stock-based compensation expense. A 10% change in our stock-based compensation expense would have affected net income attributable to Rockwood Holdings, Inc. by approximately $0.9 million for the year ended December 31, 2013. See Item 8. Financial Statements and Supplementary Data - Note 1, Basis of Presentation and Significant Accounting Policies, and Note 13, Stock-Based Compensation, for a discussion of our stock-based compensation programs.

Retirement Benefits

The measurement of our pension obligations, costs and liabilities is dependent on a variety of actuarial assumptions. These assumptions include estimates of the present value of projected future pension payments to all plan participants, with consideration to the likelihood of potential future events such as salary increases (due to marketplace conditions and/or inflation) and demographic experience (such as retirement and mortality rates). These assumptions may have an effect on the amount and timing of future contributions or benefit payments. For funded plans, the plan trustee obtains an independent valuation of the fair value of pension plan assets and prepares estimates of expected returns based on target asset allocations multiplied by current marketplace rates of return for comparable assets. We base the discount rate assumption on investment yields available at year-end on AA-rated corporate long-term bonds. The effects of actual results differing from our assumptions are accumulated and amortized over future periods and therefore are likely to affect our recognized expense in those periods. We cannot predict these bond yields or investment returns and therefore cannot reasonably estimate whether adjustments to our stockholders equity for minimum pension liability in subsequent years will be significant.

Estimated sensitivity of our pension funded status and stockholders equity and annual pension expense to a 0.25% increase/decrease in the discount rate assumption is shown below as of and for the year ended December 31, 2013. The estimates were based on inquiries of all plan actuaries. The December 31, 2013 funded status and stockholders equity are affected by assumptions as of December 31, 2013 while 2013 annual pension expense is affected by December 31, 2012 assumptions:

($ in millions)	As of December 31, 2013			
Impact of a Change in Discount Rate	**U.S. Plans Funded Status**	**Non-U.S. Plans Funded Status**	**Equity**	**2013 Pension Expense**
+25 basis points	$ 1.0	$ 13.5	$ (14.5)	$ (0.7)
-25 basis points	(1.1)	(14.3)	15.4	0.7

As shown above, changes in the discount rate can have a significant effect on the funded status of our pension plans and stockholders equity. As noted above, the funded status and stockholders equity of our funded plans might also be significantly affected by assumptions concerning expected return of plan assets. However, given that most of our pension obligations do not require funding, such sensitivity would be significantly less.

Recent Accounting Pronouncements

See Recently Issued Accounting Standards section in Item 8. Financial Statements and Supplementary Data - Note 1, Basis of Presentation and Significant Accounting Policies, for a discussion of the impact related to recent accounting pronouncements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to market risk from changes in interest rates, foreign currency exchange rates and commodity prices. We manage our exposure to these market risks through regular operating and financing activities and through the use of derivatives, when applicable. When used, derivatives are employed as risk management tools and not for trading purposes. In addition, all of our financial instruments, including derivatives, are subject to counterparty risk which we consider as part of the overall fair value requirements.

Interest Rate Risk

We had $924.2 million ($587.3 million of which was subject to a Libor floor of 1.00%) of variable-rate debt outstanding as of December 31, 2012 related to the term loans under our senior secured credit facility. In September 2013, we prepaid all of our outstanding borrowings under the term loans under the senior secured credit facility. As a result, as of December 31, 2013, we did not have any variable-rate debt outstanding.

Foreign Currency Risk

We conduct operations in many countries around the world. Our results of operations are subject to both currency transaction risk and currency translation risk. We operate a geographically diverse business, with 53% of our net sales in 2013 generated from customers in Europe, 21% in North America (predominantly in the United States), 16% in Asia and 10% from the rest of the world based upon customer ship to locations. For a geographic description of the origin of our net sales and location of our long-lived assets, see Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information. Although we sell and manufacture our products in many countries, our sales and production costs are mainly denominated in U.S. dollars and Euros. Our results of operations and financial condition are therefore impacted by the fluctuation of the Euro against our reporting currency, the U.S. dollar. Approximately 50% of our 2013 net sales were derived from subsidiaries whose local currency is the Euro. This increases the impact of the fluctuation of the Euro against the U.S. dollar.

We incur currency transaction risk whenever we enter into either a purchase or sale transaction using a currency other than the functional currency of the transacting entity. Gains and losses on currency transactions are included in operating income and do impact our operating margins. With respect to currency translation risk, our financial condition and results of operations are measured and recorded in the relevant functional currency and then translated into U.S. dollars for inclusion in our consolidated financial statements. Gains and losses on currency translations are recorded in our consolidated financial statements as a component of other comprehensive income (loss) and do not impact our operating margins. Exchange rates between these currencies and U.S. dollars in recent years have fluctuated significantly and may do so in the future.

To manage our exposure to changes in foreign currency exchange rates, we have entered into certain foreign currency forward contracts from time to time. See Item 8. Financial Statements and Supplementary Data - Note 5, Financial Instruments and Fair Value Measurements, for further details regarding these forward contracts.

Our financial results are subject to the effect of currency fluctuations on the translation of our Euro-denominated debt. As of December 31, 2013, our total Euro-denominated debt equaled 32.7 million ($44.9 million). A weakening or strengthening of the Euro against the U.S. dollar by $0.01 would decrease or increase the U.S. dollar equivalent of our total Euro-denominated debt by $0.3 million as of December 31, 2013. Gains and losses on the translation of debt denominated in a currency other than the functional currency of the borrower are included as a separate component of other expenses, net in our statement of operations and accumulated other comprehensive income in the Consolidated Balance Sheet.

Commodity Price Risk

We are subject to commodity price risk for certain of our raw materials. We have not hedged this commodity price exposure to date.

Credit Risk

We monitor our investments with counterparties with the objective of minimizing concentration of credit risk. Our investment policy places limits on the amount and time to maturity of investments with any individual counterparty. The policy also requires that investments are made only with highly rated corporate and financial institutions.

The use of derivative instruments exposes us to credit risk. When the fair value of a derivative instrument is positive, we are exposed to credit risk if the counterparty fails to perform. When the fair value of a derivative instrument is negative, the counterparty is exposed to credit risk if we fail to perform our obligation. We are not required to post collateral when a derivative contract is in a liability position, and we do not require counterparties to post collateral for derivatives in an asset position to us. We seek to minimize the credit risk in derivative instruments by entering into transactions with reputable financial institutions. For additional information, see Item 8. Financial Statements and Supplementary Data - Note 5, Financial Instruments and Fair Value Measurements .

Item 8. Financial Statements and Supplementary Data.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of

Rockwood Holdings, Inc.
Princeton, New Jersey

We have audited the accompanying consolidated balance sheets of Rockwood Holdings, Inc. and Subsidiaries (the Company) as of December 31, 2013 and 2012, and the related consolidated statements of operations, comprehensive income, changes in stockholders equity, and cash flows for each of the three years in the period ended December 31, 2013. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Rockwood Holdings, Inc. and Subsidiaries at December 31, 2013 and 2012, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2013, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company s internal control over financial reporting as of December 31, 2013, based on the criteria established in *Internal Control Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 4, 2014 expressed an unqualified opinion on the Company s internal control over financial reporting.

/s/ Deloitte & Touche LLP
Parsippany, New Jersey
March 4, 2014

ROCKWOOD HOLDINGS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

(Dollars in millions, except per share amounts; shares in thousands)

	Year ended December 31,		
	2013	2012	2011
Net sales	$ 1,377.8	$ 1,323.8	$ 1,354.1
Cost of products sold	759.8	737.1	772.8
Gross profit	618.0	586.7	581.3
Selling, general and administrative expenses	401.8	356.2	387.2
Gain on previously held equity interest	(16.0)		
Restructuring and other severance costs	17.5	35.3	11.4
Asset write-downs and other	4.1	0.3	0.9
Operating income	210.6	194.9	181.8
Other expenses, net:			
Interest expense, net	(82.3)	(64.5)	(83.1)
Loss on early extinguishment/modification of debt	(15.5)	(12.0)	(16.6)
Foreign exchange (loss) gain on financing activities, net	(67.1)	(10.3)	3.2
Other, net	(0.3)		0.2
Other expenses, net	(165.2)	(86.8)	(96.3)
Income from continuing operations before taxes	45.4	108.1	85.5
Income tax (benefit) provision	(10.0)	(124.8)	15.3
Income from continuing operations	55.4	232.9	70.2
(Loss) income from discontinued operations, net of tax	(65.0)	161.0	250.5
Gain on sale of discontinued operations, net of tax	1,670.5		119.3
Net income	1,660.9	393.9	440.0
Net income attributable to noncontrolling interest - discontinued operations	(1.0)	(14.7)	(40.6)
Net income attributable to Rockwood Holdings, Inc. shareholders	$ 1,659.9	$ 379.2	$ 399.4
Amounts attributable to Rockwood Holdings, Inc. shareholders:			
Income from continuing operations	$ 55.4	$ 232.9	$ 70.2
Income from discontinued operations	1,604.5	146.3	329.2
Net income attributable to Rockwood Holdings, Inc. shareholders	$ 1,659.9	$ 379.2	$ 399.4
Basic earnings per share attributable to Rockwood Holdings, Inc. shareholders:			
Earnings from continuing operations	$ 0.73	$ 3.00	$ 0.92
Earnings from discontinued operations	21.17	1.88	4.30
Basic earnings per share	$ 21.90	$ 4.88	$ 5.22
Diluted earnings per share attributable to Rockwood Holdings, Inc. shareholders:			
Earnings from continuing operations	$ 0.72	$ 2.91	$ 0.88
Earnings from discontinued operations	20.73	1.83	4.12
Diluted earnings per share	$ 21.45	$ 4.74	$ 5.00
Dividends declared per share of common stock	$ 1.70	$ 1.05	$
Weighted average number of basic shares outstanding	75,781	77,665	76,555
Weighted average number of diluted shares outstanding	77,390	79,943	79,865

See accompanying notes to consolidated financial statements.

ROCKWOOD HOLDINGS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Dollars in millions)

	Year ended December 31,		
	2013	2012	2011
Net income	$ 1,660.9	$ 393.9	$ 440.0
Other comprehensive income, net of tax:			
Pension related adjustments	50.4	(76.8)	(45.3)
Foreign currency translation	64.6	25.1	(53.8)
Intercompany loans - foreign currency translation	30.3	13.9	(24.7)
Net investment hedges		(0.3)	(9.9)
Foreign exchange contracts		0.2	0.4
Other comprehensive income (loss)	145.3	(37.9)	(133.3)
Comprehensive income	1,806.2	356.0	306.7
Comprehensive income attributable to noncontrolling interest	(2.4)	(1.9)	(28.4)
Comprehensive income attributable to Rockwood Holdings, Inc. shareholders	$ 1,803.8	$ 354.1	$ 278.3

See accompanying notes to consolidated financial statements.

ROCKWOOD HOLDINGS, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

(Dollars in millions, except per share amounts; shares in thousands)

	December 31, 2013	December 31, 2012
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,522.8	$ 1,266.1
Accounts receivable, net	228.1	205.5
Inventories	228.2	212.7
Deferred income taxes	45.4	7.5
Prepaid expenses and other current assets	90.1	47.9
Assets of discontinued operations	1,549.1	2,583.2
Total current assets	3,663.7	4,322.9
Property, plant and equipment, net	842.8	719.6
Goodwill	659.6	610.5
Other intangible assets, net	127.9	123.4
Deferred financing costs, net	17.9	33.2
Deferred income taxes	156.5	157.4
Other assets	63.9	46.6
Total assets	$ 5,532.3	$ 6,013.6
LIABILITIES		
Current liabilities:		
Accounts payable	$ 92.2	$ 73.2
Income taxes payable	13.5	23.7
Accrued compensation	70.0	57.4
Accrued expenses and other current liabilities	89.0	87.2
Deferred income taxes	2.3	3.9
Long-term debt, current portion	10.3	38.4
Liabilities of discontinued operations	486.5	1,258.0
Total current liabilities	763.8	1,541.8
Long-term debt	1,285.1	2,181.4
Pension and related liabilities	268.9	276.1
Deferred income taxes	38.4	30.4
Other liabilities	102.7	95.7
Total liabilities	2,458.9	4,125.4
Commitments and Contingencies - See Note 18		
Restricted stock units	24.2	12.5
EQUITY		
Rockwood Holdings, Inc. stockholders' equity:		
Common stock ($0.01 par value, 400,000 shares authorized, 80,219 shares issued and 73,892 shares outstanding at December 31, 2013; 400,000 shares authorized, 78,560 shares issued and 78,466 shares outstanding at December 31, 2012)	0.8	0.8
Paid-in capital	1,269.8	1,243.1
Accumulated other comprehensive income (loss)	103.7	(12.6)
Retained earnings	1,923.1	392.7
Treasury stock, at cost (6,327 shares and 94 shares, respectively)	(401.3)	(1.4)
Total Rockwood Holdings, Inc. stockholders' equity	2,896.1	1,622.6
Noncontrolling interest	153.1	253.1
Total equity	3,049.2	1,875.7
Total liabilities and equity	$ 5,532.3	$ 6,013.6

See accompanying notes to consolidated financial statements.

ROCKWOOD HOLDINGS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in millions)

	Year ended December 31, 2013	2012	2011
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 1,660.9	$ 393.9	$ 440.0
Adjustments to reconcile net income to net cash provided by operating activities:			
Income from discontinued operations, net of tax	65.0	(161.0)	(250.5)
Gain on sale of discontinued operations, net of tax	(1,670.5)		(119.3)
Depreciation and amortization	93.5	89.3	88.0
Deferred financing costs amortization	4.4	4.0	3.0
Loss on early extinguishment/modification of debt	15.5	12.0	16.6
Gain on previously held equity interest	(16.0)		
Foreign exchange loss (gain) on financing activities, net	67.1	10.3	(3.2)
Fair value adjustment of derivatives			(2.1)
Bad debt provision	0.8	0.7	(0.1)
Stock-based compensation	12.7	11.4	12.6
Deferred income taxes	(54.4)	(157.3)	(14.6)
Asset write-downs and other	4.1	24.5	0.9
Excess tax benefits from stock-based payment arrangements	(17.0)	(3.7)	(4.0)
Changes in assets and liabilities, net of the effect of foreign currency translation and acquisitions:			
Accounts receivable	(18.4)	(13.8)	(20.0)
Inventories	(11.8)	(13.2)	(28.9)
Prepaid expenses and other assets	(10.6)	(27.6)	(11.3)
Accounts payable	8.8	(1.6)	0.4
Income taxes payable	(20.3)	(9.2)	(17.4)
Accrued expenses and other liabilities	7.0	(9.7)	(31.4)
Net cash provided by operating activities of continuing operations	120.8	149.0	58.7
Net cash provided by operating activities of discontinued operations	239.5	300.1	389.8
Net cash provided by operating activities	360.3	449.1	448.5
CASH FLOWS FROM INVESTING ACTIVITIES:			
Capital expenditures (a)	(172.3)	(140.8)	(112.0)
Acquisitions	(34.3)	0.2	(0.8)
Proceeds on sale of assets	2.6	0.5	0.7
Net cash used in investing activities of continuing operations	(204.0)	(140.1)	(112.1)
Net cash provided by (used in) investing activities of discontinued operations (b)	2,214.5	(218.7)	133.2
Net cash provided by (used in) investing activities	2,010.5	(358.8)	21.1
CASH FLOWS FROM FINANCING ACTIVITIES:			
Issuance of common stock, net of fees	24.5	8.9	14.6
Excess tax benefits from stock-based payment arrangements	17.0	3.7	4.0
Payments of long-term debt	(1,131.0)	(807.8)	(422.9)
Proceeds from long term debt	204.6	1,606.2	
Purchase of noncontrolling interest	(130.3)		
Deferred financing costs		(29.3)	(5.3)
Fees related to early extinguishment/modification of debt	(5.2)	(6.8)	(13.4)
Dividend distributions to shareholders	(127.6)	(81.8)	
Share repurchases	(399.9)		
Net cash (used in) provided by financing activities of continuing operations	(1,547.9)	693.1	(423.0)
Net cash (used in) provided by financing activities of discontinued operations	(526.6)	164.0	(59.0)

Net cash (used in) provided by financing activities	(2,074.5)	857.1	(482.0)
Effect of exchange rate changes on cash and cash equivalents	(46.2)	4.7	(6.8)
Net increase (decrease) in cash and cash equivalents	250.1	952.1	(19.2)
Less net (decrease) increase in cash and cash equivalents from discontinued operations	(6.6)	1.2	(18.3)
Increase (decrease) in cash and cash equivalents from continuing operations	256.7	950.9	(0.9)
Cash and cash equivalents of continuing operations, beginning of period	1,266.1	315.2	316.1
Cash and cash equivalents of continuing operations, end of period	$ 1,522.8	$ 1,266.1	$ 315.2
Supplemental disclosures of cash flow information:			
Interest paid	$ 86.2	$ 54.7	$ 95.6
Income taxes paid, net of refunds	64.7	46.5	43.1
Non-cash investing activities:			
Acquisition of capital equipment included in accounts payable	18.6	10.3	14.6

(a) Net of government grants of $2.2 million, $9.4 million and $16.0 million for the years ended December 31, 2013, 2012 and 2011, respectively.

(b) Includes net proceeds of $2,395.9 million from the sale of the Advanced Ceramics segment and Clay-based Additives business in 2013 and $300.6 million from the sale of the plastic compounding business in 2011.

See accompanying notes to consolidated financial statements.

ROCKWOOD HOLDINGS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS EQUITY

(Dollars in millions; shares in thousands)

		Rockwood Holdings Inc. Stockholders Equity					
	Total	**Common Stock**	**Paid-in Capital**	**Accumulated Other Comprehensive Income (Loss)**	**Retained Earnings (Deficit)**	**Treasury Stock**	**Noncontrolling Interest**
Balance, January 1, 2011	$ 1,322.7	$ 0.8	$ 1,202.6	$ 133.6	$ (302.3)	$ (1.4)	$ 289.4
Issuance of common stock	14.6		14.6				
Deferred compensation	5.0		5.0				
Dividend declared to noncontrolling shareholder	(0.2)						(0.2)
Distribution to noncontrolling shareholder	(19.4)						(19.4)
Other comprehensive loss, net of tax	(133.3)			(121.1)			(12.2)
Net income	440.0				399.4		40.6
Balance, December 31, 2011	1,629.4	0.8	1,222.2	12.5	97.1	(1.4)	298.2
Issuance of common stock	8.9		8.9				
Deferred compensation	10.2		10.2				
Dividend paid to shareholders ($1.05 per share)	(81.8)		1.8		(83.6)		
Dividend distributions to noncontrolling shareholder	(47.0)						(47.0)
Other comprehensive loss, net of tax	(37.9)			(25.1)			(12.8)
Net income	393.9				379.2		14.7
Balance, December 31, 2012	1,875.7	0.8	1,243.1	(12.6)	392.7	(1.4)	253.1
Issuance of common stock	24.5		24.5				
Share repurchases	(399.9)					(399.9)	
Deferred compensation	7.2		7.2				
Dividend paid to shareholders ($1.70 per share)	(127.6)		1.9		(129.5)		
Dividend distributions to noncontrolling shareholder	(6.6)						(6.6)
Purchase of noncontrolling interest	(130.3)		(6.9)	(27.6)			(95.8)
Other comprehensive income, net of tax	145.3			143.9			1.4
Net income	1,660.9				1,659.9		1.0
Balance, December 31, 2013	$ 3,049.2	$ 0.8	$ 1,269.8	$ 103.7	$ 1,923.1	$ (401.3)	$ 153.1

See accompanying notes to consolidated financial statements.

ROCKWOOD HOLDINGS, INC. AND SUBSIDIARIES

Notes To Consolidated Financial Statements

1. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES:

Basis of Presentation The consolidated financial statements, prepared in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP), include the accounts of Rockwood Holdings, Inc. and Subsidiaries, which may be referred to as Rockwood or the Company. Rockwood is a leading global developer, manufacturer and marketer of technologically advanced and high value-added specialty chemicals used for industrial and commercial purposes.

During 2013, the Company sold its Advanced Ceramics segment and Clay-based Additives business, and entered into a definitive agreement to sell its Titanium Dioxide Pigments, Color Pigments and Services, Timber Treatment Chemicals, Rubber/Thermoplastics Compounding and Water Chemistry businesses (TiO2 Pigments and Other Businesses). As of December 31, 2013, all of these transactions met the criteria for being reported as discontinued operations. As a result, the Company s consolidated financial statements have been reclassified to reflect discontinued operations for these transactions for all periods presented. See Note 2, Discontinued Operations, for further details of these transactions.

Noncontrolling interest represents the total of the noncontrolling party s interest in certain investments (principally the former Titanium Dioxide Pigments venture and the Timber Treatment joint venture in the Performance Additives segment) that are consolidated but less than 100% owned. On February 15, 2013, the Company acquired Kemira s 39% interest in its former Titanium Dioxide Pigments venture for a purchase price of 97.5 million ($130.3 million based on the rate in effect on the date of purchase).

All intercompany balances and transactions have been eliminated. Material subsequent events are evaluated through the report issuance date and disclosed where applicable.

In December 2013, we entered into definitive agreement, which is filed as an exhibit to this Report, with Tianqi Group HK Co., Limited, a wholly-owned subsidiary of Chengdu Tianqi Group Co., Ltd., to acquire a 49% interest in Windfield Holdings Pty Ltd, which directly owns 100% of the equity of Talison Lithium Pty Ltd, a company incorporated in Australia (Talison). Talison currently sells the lithium concentrate to third parties who further process the concentrate into lithium carbonate and lithium chloride. Talison has a leading position in the growing Chinese lithium concentrates market and produces two categories of lithium concentrates: (i) technical-grade lithium concentrates which have low iron content for use in the manufacture of glass, ceramics and heat-proof cookware; and (ii) a high-yielding chemical-grade lithium concentrate, which is used to produce lithium chemicals which form the basis for manufacture of lithium-ion batteries for laptop computers, mobile phones, electric bicycles and electric vehicles. The acquisition of a 49% interest in Talison is currently expected to close in the first half of 2014, subject to receipt of the regulatory approvals. The Company cannot assure that this acquisition will close in a timely manner or at all.

Unless otherwise noted, all balance sheet items as of December 31, 2013 which are denominated in Euros are converted at the December 31, 2013 exchange rate of 1.00 = $1.3743. For the years ended December 31, 2013, 2012 and 2011, the average rate of exchange of the Euro to the U.S. dollar is $1.3285, $1.2864 and $1.3923, respectively.

Use of Estimates The preparation of financial statements and related disclosures in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and revenue and expenses during the periods reported. These estimates include, among other things, assessing the collectability of accounts receivable, the use and recoverability of inventory, the valuation of deferred tax assets, the measurement of the accrual for uncertain tax benefits, impairment of goodwill as well as property, plant and equipment and other intangible assets, the accrual of environmental and legal reserves, the useful lives of tangible and intangible assets, the measurement of pension obligations and stock-based compensation expense among others. Actual results could differ from those estimates. Such estimates also include the fair value of assets acquired and liabilities assumed as a result of allocations of the purchase price of business combinations consummated.

Major Customers and Concentration of Credit The Company has a number of major end-user, retail and original equipment manufacturer customers, with the largest concentration in Europe and the United States. No single customer accounted for more than 3% of net sales during any of the periods presented. The Company does not believe a material part of its business is dependent upon any single customer, the loss of which would have a material long-term impact on the business of the Company. However, the loss of one or more of the Company s largest customers would most likely have a negative short-term impact on the Company s results of operations. Financial instruments which potentially subject the Company to concentrations of credit risk consist primarily of accounts receivable and derivative contracts.

Accounts Receivable The allowance for doubtful accounts is estimated at each reporting date based on factors such as receivable age, customer liquidity status and previous write-off history. The Company performs ongoing credit evaluations of customers and generally does not require collateral. Credit insurance is maintained by certain of the Company s businesses. An allowance is maintained for aggregate expected credit losses. Write-offs are charged to the allowance when taken, net of recoveries. Allowance for doubtful account activity is as follows:

	Year Ended December 31,		
($ in millions)	**2013**	**2012**	**2011**
Balance, January 1	$ 4.9	$ 4.9	$ 5.6
Additions, net of recoveries	0.9	0.7	(0.1)
Write-offs	(0.5)	(0.8)	(0.4)
Other		0.1	(0.2)
Balance, December 31	$ 5.3	$ 4.9	$ 4.9

Revenue Recognition The Company recognizes revenue when the earnings process is complete. Product sales are recognized when products are shipped to the customer in accordance with the terms of the contract of sale, title and risk of loss have been transferred, collectability is reasonably assured, and pricing is fixed or determinable. Accruals are made for sales returns and other allowances based on the Company s experience. The Company records shipping and handling costs in cost of products sold and records shipping and handling costs billed to customers in net sales. Revenue under service agreements, which was less than 1% of consolidated net sales in 2013, 2012 and 2011, is realized when the service is performed. Liabilities for product warranties are less than 1% of consolidated net sales as of December 31, 2013 and 2012.

Dispositions Long-lived assets and asset groups are classified as held for sale in the period in which the specific criteria are met in accordance with accounting standards for reporting discontinued operations. See Note 2, Discontinued operations, for further details.

Foreign Currency Translation The functional currency of each of the Company s foreign subsidiaries is primarily the respective local currency. Balance sheet accounts of the foreign operations are translated into U.S. dollars at period-end exchange rates and income and expense accounts are translated at average exchange rates during the period. Translation gains and losses related to net assets located outside the U.S. are shown as a component of accumulated other comprehensive income. Gains and losses resulting from foreign currency transactions (transactions denominated in a currency other than the entity s functional currency), including intercompany financing arrangements for which settlement is planned or anticipated, are included in determining net income for the period in which exchange rates change. Gains or losses on certain intercompany loans that are of a long-term investment nature for which settlement is not planned or anticipated in the foreseeable future are reported and accumulated in the same manner as translation adjustments. These loans are all related to intercompany debt arrangements. As of December 31, 2013, intercompany debt arrangements deemed to be of a long-term investment nature for which settlement is not planned or anticipated in the foreseeable future equaled 581.0 million ($798.5 million). In addition, gains or losses on Euro-denominated debt that is designated as a net investment hedge of the Company s Euro-denominated investments are reported and accumulated in the same manner as translation adjustments.

Advertising The Company expenses advertising costs within selling, general and administrative expenses as incurred. Advertising costs are less than 1% of consolidated net sales in 2013, 2012 and 2011.

Research and Development Research and development costs are charged to expense within selling, general and administrative expenses, as incurred. Such costs were $22.6 million, $22.1 million and $17.6 million for the years ended December 31, 2013, 2012 and 2011, respectively.

Cash and Cash Equivalents All highly liquid instruments and money market funds with a maturity of three months or less when purchased are considered to be cash equivalents. The carrying amount approximates fair value because of the short maturities of these instruments.

Inventories Inventories are stated at the lower of cost or market. Cost is determined primarily on average cost or the first-in, first-out method. Inventory quantities on hand are reviewed regularly, and where necessary, provisions for excess and obsolete inventory are recorded based primarily on either the Company s estimated forecast of product demand and production requirements or historical usage. See Note 6, Inventories.

Property, Plant and Equipment Property, plant and equipment are stated at cost less accumulated depreciation. Depreciation is determined using the straight-line method over the various asset classes. Estimated lives generally range from 20-30 years for buildings and improvements (including land improvements), 7-12 years for machinery and equipment, 3-5 years for furniture and fixtures and 14-50 years for mining rights. See Note 7, Property, Plant and Equipment.

The estimated useful lives of leasehold improvements are the lesser of the estimated life of the improvement or the term of the lease.

Major renewals and improvements are capitalized and minor replacements, maintenance and repairs are charged to current operations as incurred. Upon retirement or disposal of assets, the cost and related accumulated depreciation are removed from the balance sheet and any gain or loss is reflected in the statement of operations.

The Company classifies depreciation and amortization in its consolidated statements of operations consistent with the utilization of the underlying assets as follows:

	Year Ended December 31,		
($ in millions)	**2013**	**2012**	**2011**
Cost of products sold	$ 50.7	$ 52.5	$ 48.0
Selling, general and administrative expenses (a)	42.8	36.8	40.0
Total depreciation and amortization	$ 93.5	$ 89.3	$ 88.0

(a) Primarily consists of amortization costs.

Goodwill Goodwill represents the cost in excess of fair value of net assets acquired in transactions accounted for using the acquisition method of accounting. See Note 8, Goodwill, for details of goodwill activity by segment.

Other Intangible Assets Other intangible assets primarily consists of patents and other intellectual property, trade names and trademarks, and customer relationships. Patents and other intellectual property are recorded at their estimated fair values at the time of acquisition and are being amortized over their estimated remaining useful lives, ranging from 4-20 years. Trade names and trademarks are being amortized from 18-25 years, customer relationships are being amortized over periods ranging from 7-15 years and supply agreements are being amortized over periods ranging from 10-15 years. See Note 9, Other Intangible Assets, Net.

Impairment Accounting

Goodwill- The recoverability of goodwill is reviewed on an annual basis during the fourth quarter. Additionally, the recoverability of goodwill is reviewed when events or changes in circumstances occur indicating that the carrying value of the assets may not be recoverable. We have determined that our reporting units for our goodwill impairment review are our operating segments or components of an operating segment that constitute a business for which discrete financial information is available and for which segment management regularly reviews the operating results. Based on this analysis, we have identified three reporting units within our reportable segments that qualify for such review; Lithium, Surface Treatment and Metal Sulfides, as each of these units had a goodwill balance as of December 31, 2013. Based upon our review, the estimated fair values for our three reporting units having goodwill were substantially in excess of their carrying values.

In accordance with the accounting guidance for determining goodwill impairment, the Company applies a two-step methodology:

First Step

In the first step, the Company determines the estimated fair value of each reporting unit and compares that fair value to the carrying value of such reporting unit. In determining the estimated fair value of each reporting unit, the Company uses the following approaches.

Income Approach: Under this approach, the Company makes certain assumptions, among other things, estimates of future cash flows, including growth rates, price increases, capital expenditures, the benefits of recent acquisitions and expected synergies, and an appropriate discount rate in determining the estimated fair value of each reporting unit.

Market Approach: Under this approach, the fair value of each reporting unit is derived from peer multiples. Specifically, the estimated fair value of each reporting unit is based on an industry metric that is the ratio of enterprise value (EV which is commonly defined as market capitalization, plus long-term debt, less cash) to EBITDA of the relevant benchmark peer companies and groups. The Company uses EV multiples for the last twelve months EBITDA and for the next fiscal year s budgeted EBITDA. The peer companies are typically based upon the competitors disclosed in Item 1, Business for each of the reporting units. The Company then multiplies this ratio by its Adjusted EBITDA for the recently completed year and the budgeted Adjusted EBITDA for the upcoming year of such reporting unit and compares it to the carrying value of such reporting unit.

If the fair value resulting from the income approach substantially exceeds carrying value of a reporting unit, there is clear evidence that no impairment exists. In addition, the Company estimates the fair value of each reporting unit using the market approach to corroborate the estimated fair value determined from the income approach. If the fair values estimated under the income and market approach are substantially different, the relevant facts and circumstances are reviewed and a qualitative assessment is made to determine the proper weighting for estimating fair value. Once the estimated fair value is determined, it is compared to the carrying value of a reporting unit. If the estimated fair value exceeds the carrying value of a reporting unit, there is no impairment. If the results of the first step indicate the carrying value of a reporting unit exceeds its estimated fair value, the second step is performed.

Second Step

In the second step, the Company would determine the implied fair value of goodwill in the same manner as if it had acquired those reporting units. The potential impairment is computed by comparing the implied fair value of the reporting unit s goodwill with the carrying amount of goodwill. If the carrying amount of the reporting unit s goodwill is greater than the implied fair value of its goodwill, an impairment loss must be recognized for the excess. If necessary, the Company may consult with valuation specialists to assist with its goodwill impairment review.

For the year ended December 31, 2013, there was clear evidence that no impairment existed for our Lithium, Surface Treatment and Metal Sulfides reporting units, as the estimated fair value substantially exceeded the carrying value of each reporting unit. Accordingly, the second step for determining the existence of a goodwill impairment was not required for any of our reporting units. As such, we concluded there was no goodwill impairment for any of our reporting units.

These calculations are based on inherent assumptions and estimates about future cash flows and appropriate benchmark peer companies or groups. Subsequent changes in these assumptions could result in future impairment. Although the Company consistently uses the same methods in developing the assumptions and estimates underlying the fair value calculations, such estimates are uncertain by nature and can vary from actual results.

Long-lived tangible and other intangible assets These assets are reviewed each reporting period to determine if events or changes in circumstances have occurred indicating that the carrying value of the assets may not be recoverable. Such circumstances may include a significant adverse change in the manner in which a long-lived asset is used, a current-period operating or cash flow loss combined with projected and/or a history of operating or cash flow losses associated with the use of a long-lived asset, or changes in the expected useful life of the long-lived asset.

To determine the recoverability of long-lived tangible and other intangible assets, these assets are grouped at the lowest level for which there are identifiable cash flows that are independent from the cash flows of other assets, which could be at the individual asset level, the product line level, the plant level or the subsidiary level depending on the nature of the identifiable cash flows at our various subsidiaries. Recoverability of assets to be held and used is measured by comparing the carrying amount of the assets or asset group to the sum of future undiscounted net cash flows expected to be generated by the asset or asset group.

Management estimates future undiscounted cash flows using key assumptions of industry and market conditions, future sales volumes and prices, raw material and labor costs, and inflation rates. For the year ended December 31, 2013, there were no long-lived assets or asset groups that had a carrying value greater than the sum of corresponding undiscounted cash flows and therefore, we did not perform any applicable fair value calculations to measure any impairment loss.

If such assets are considered to be impaired, the impairment loss that would be recognized is the amount by which the carrying amount of the assets exceeds the fair value of the assets. To determine fair value, we would use our internal cash flow estimates discounted at an appropriate interest rate, third party appraisals, as appropriate, and/or market prices of similar assets, when available.

In 2013, the Company wrote-off assets in the amount of $4.0 million related to the termination of a geothermal energy project at the Silver Peak, NV lithium facility. These assets were written down to zero as it was determined there is no estimated recoverability as these assets will no longer be used. In 2012, the Company wrote off a trade name in the amount of $10.3 million in our Lithium segment related to the reorganization of the Specialty Chemicals segment. This trade name was written down to zero as there is no estimated recoverability based on the fact that the asset will no longer be used. In addition, the Company recorded a write-down of $12.0 million of machinery and equipment related to the closure of a Lithium manufacturing facility in the U.S. These write-downs were included as part of restructuring and other severance costs in the consolidated statements of operations.

Financial Instruments Management believes the carrying amount of financial instruments, including accounts receivable, accounts payable and debt, approximates fair value, except as described in Note 5, Financial Instruments and Fair Value Measurements.

Derivatives All derivatives are recognized as either assets or liabilities at fair value. Changes in the fair value of derivatives not designated as hedging instruments are recognized in earnings while changes in the fair value of derivatives that are designated as hedging instruments are recognized as a component of comprehensive income. The Company uses derivative instruments to manage its exposure to market risks associated with fluctuations in interest rates and foreign currency exchange rates. See Note 5, Financial Instruments and Fair Value Measurements and Note 17, Accumulated Other Comprehensive Income, for the impact of the Company s net investment and cash flow hedges.

The Company does not enter into derivative contracts for trading purposes nor does it use leveraged or complex instruments.

Pension, Postemployment and Postretirement Costs Defined benefit costs and liabilities and postretirement benefit costs and liabilities have been determined in accordance with accounting standards for retirement benefits. Postemployment benefit costs and liabilities have been determined in accordance with accounting standards for nonretirement postemployment benefits. See Note 14, Employee Benefit Plans, for further details.

Related Party Transactions In the ordinary course of business, Rockwood may engage in transactions with certain related parties. For 2013, related-party transactions were not significant.

Income Taxes Deferred tax assets and liabilities are recognized for future tax consequences attributable to differences between the financial statement carrying amounts and the corresponding tax carrying amounts of assets and liabilities. Deferred tax assets are also recognized for tax loss and tax credit carryforwards. A valuation allowance is recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized based on available evidence weighted toward evidence that is objectively verifiable. As of December 31, 2013, deferred taxes are not provided on the undistributed earnings of subsidiaries of $2,298.9 million, as such amounts are considered to be permanently invested.

The impact of an uncertain income tax position on the income tax return must be recognized at the largest amount that is more-likely-than-not to be sustained upon audit by the relevant authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained based on technical merits.

The Company records liabilities for uncertain tax benefits net of deferred tax assets associated with tax loss carryforwards for liabilities arising in the same year as the asset and for liabilities arising in different years from the asset, provided that the related tax loss can be carried back or forward to offset the liability.

Where the Company has a loss from continuing operations and income in other categories, the Company allocates a tax benefit to continuing operations and a tax provision to those other categories. Where there is income in other categories on a net basis, the Company s policy is to allocate the tax provision only to categories with income on a pro-rata basis.

Future realization of the tax benefit of an existing deductible temporary difference or carryforward ultimately depends on the existence of sufficient taxable income of the appropriate character (for example, ordinary income or capital gain) within the carryforward period available under the tax law. The Company s policy is to consider the following sources of taxable income, which may be available under the tax law to realize a tax benefit for deductible temporary differences and carryforwards:

- Future reversals of existing taxable temporary differences.

- Future taxable income exclusive of reversing temporary differences and carryforwards.

- Taxable income in prior carry back year(s) if carry back is permitted under the tax law.

- Tax planning strategies that would, if necessary, be implemented to:

(1) Accelerate taxable amounts to utilize expiring carryforwards.

(2) Change the character of taxable or deductible amounts from ordinary income or loss to capital gain or loss.

(3) Switch from tax-exempt to taxable investments.

Evidence available about each of those possible sources of taxable income will vary between tax jurisdictions and, possibly, from year to year. To the extent evidence about one or more sources of taxable income is sufficient to support a conclusion that a valuation allowance is not necessary, the Company s policy is that other sources need not be considered. Consideration of each source is required, however, to determine the amount of the valuation allowance that may be required to be recognized for deferred tax assets.

For any specific jurisdiction where a history of three years of cumulative losses has occurred or where there has been a substantial change in the business (e.g., a major acquisition or divestiture); the Company does not rely on projections of future taxable income as described above. Instead, the Company determines its need for a valuation allowance on deferred tax assets, if any, by determining a normalized cumulative taxable income amount over the last three years, adjusted for acquisitions or divestitures if necessary. The Company will also consider the following positive evidence in the above scenarios, if present:

- Existing contracts or firm sales backlog that will produce more than enough taxable income to realize the deferred tax asset based on existing sales prices and cost structures.

- An excess of appreciated asset value over the tax basis of the entity s net assets in an amount sufficient to realize the deferred tax asset.

Comprehensive Income Comprehensive income includes net income and the other comprehensive income components which include unrealized gains and losses from foreign currency translation and from certain intercompany transactions that are of a long-term investment nature, pension-related adjustments that are recorded directly into a separate section of stockholders equity in the balance sheets and net investment and cash flow hedges. Foreign currency translation amounts are not adjusted for income taxes since they relate to indefinite life investments in non-U.S. subsidiaries and certain intercompany debt. See Note 17, Accumulated Other Comprehensive Income.

Accounting for Environmental Liabilities In the ordinary course of business, Rockwood is subject to extensive and changing federal, state, local and foreign environmental laws and regulations, and has made provisions for the estimated financial impact of environmental cleanup and site reclamation costs. Rockwood s policy has been to accrue costs of a non-capital nature related to environmental clean-up when those costs are believed to be probable and can be reasonably estimated. If the aggregate amount of the obligation and the amount and timing of the cash payments for a site are fixed or reliably determinable, the liability is discounted. Expenditures that extend the life of the related property or mitigate or prevent future environmental contamination are capitalized and expenditures related to existing conditions resulting from past or present operations and from which no current or future benefit is discernible are immediately expensed. The quantification of environmental exposures requires an assessment of many factors, including changing laws and regulations, advancements in environmental technologies, the quality of information available related to specific sites, the assessment stage of each site investigation and the length of time involved in remediation or settlement. In some matters, Rockwood may share costs with other parties. Rockwood does not include anticipated recoveries from insurance carriers or other third parties in its accruals for environmental liabilities.

Stock-Based Compensation In April 2009, the Company adopted the 2009 Stock Incentive Plan (the Plan ; together with the previous plans, the Plans), which has 11,000,000 authorized shares. All equity awards granted after this date are being awarded under the Plan.

The Company awarded restricted stock units in 2013, 2012 and 2011 to certain employees of Rockwood corporate headquarters and its business units. See Note 13, Stock-Based Compensation, for further details. The restricted stock units contain a provision in which the units shall immediately vest and become converted into the right to receive a cash payment upon a change in control as defined in the equity agreement. As the provisions for redemption are outside the control of the Company, the fair value of these units as of December 31, 2013 and 2012 has been recorded as mezzanine equity (outside of permanent equity) in the consolidated balance sheets.

Recently Issued Accounting Standards:

In February 2013, the FASB issued an ASU that addressed obligations resulting from joint and several liability arrangements for which the total amount of the obligation is fixed at the reporting date. This ASU provides guidance for the recognition, measurement, and disclosure of obligations resulting from joint and several liability arrangements for which the total amount of the obligation within the scope of this ASU is fixed at the reporting date, except for obligations addressed within existing guidance in U.S. GAAP. The guidance requires an entity to measure those obligations as the sum of the amount the reporting entity agreed to pay on the basis of its arrangement among its co-obligors and any additional amount the reporting entity expects to pay on behalf of its co-obligors. The guidance in this ASU also requires an entity to disclose the nature and amount of the obligation as well as other information about those obligations. This ASU is effective for the Company in its first quarter beginning January 1, 2014 and is not expected to have a material impact on the Company s financial statements.

In March 2013, the FASB issued an ASU that addressed the release of the cumulative translation adjustment (CTA) into net income when a parent either sells a part or all of its investment in a foreign entity or no longer holds a controlling financial interest in a subsidiary or group of assets that is a business. This ASU requires a parent to release any related CTA into net income only if the sale results in the complete or substantially complete liquidation of the foreign entity. This practice is consistent with the Company s previous accounting policy and will not have an impact on the Company s financial statements. This ASU is effective for the Company in its first quarter beginning January 1, 2014.

In July 2013, the FASB issued an ASU that eliminates diversity in practice for presentation of an unrecognized tax benefit when a net operating loss (NOL) carryforward, a similar tax loss, or a tax credit carryfoward is available to reduce the taxable income or tax payable that would result from disallowance of a tax position. Under this ASU, an entity must present an unrecognized tax benefit, or a portion of an unrecognized tax benefit, in the financial statements as a reduction to a deferred tax asset for an NOL carryforward, a similar tax loss, or a tax credit carryfoward except when: an NOL carryforward, a similar tax loss, or a tax credit carryfoward is not available as of the reporting date under the governing tax law to settle taxes that would result from the disallowance of the tax position; and the entity does not intend to use the deferred tax asset for this purpose. This ASU is effective for the Company in its first quarter beginning January 1, 2014 and is not expected to have a material impact on the Company s financial statements.

2. DISCONTINUED OPERATIONS:

In August 2013, the Company completed the sale of its Advanced Ceramics segment for cash proceeds of $2.0 billion. In October 2013, the Company completed the sale of its Clay-based Additives business, which was part of the Performance Additives segment, for cash proceeds of $626.6 million. In September 2013, the Company entered into a definitive agreement to sell its TiO2 Pigments and Other Businesses for $1.325 billion, including the assumption of $225 million in pension obligations, and subject to other customary adjustments. This transaction is expected to close during the first half of 2014, following the receipt of regulatory approvals. As of December 31, 2013, all of these transactions met the criteria for being reported as discontinued operations. The Company s consolidated financial statements have been reclassified to reflect discontinued operations for these transactions for all periods presented.

The gain on sale of discontinued operations, net of tax, of $1,670.5 million recorded in 2013 is comprised of the gain on sale of the Advanced Ceramics segment of $1,164.2 million and the gain on sale of the Clay-based Additives business of $506.3 million.

In 2013, the Company recorded a charge of $142.9 million ($98.0 million after tax) related to an expected loss on sale of the TiO2 Pigments and Other Businesses. The expected loss on sale represents the difference between the carrying value of these businesses and the expected proceeds. This carrying value includes the assumed recognition of actuarial (pension-related) losses and unrealized foreign exchange losses currently

recorded in accumulated other comprehensive income within stockholders equity, which must be recognized upon completion of the sale. The fair value of the assets to be sold are categorized as Level 3 in the fair value hierarchy, as the fair value was determined based on expected sale proceeds.

On January 7, 2011, the Company completed the sale of its plastic compounding business. The plastic compounding business, which manufactured specialty plastic compounds for the wire and cable industry, medical applications and other uses, comprised substantially all of the assets of the Company s former Specialty Compounds segment. The Company s financial statements have been reclassified to reflect the plastic compounding business as discontinued operations for all periods presented. The sale of the plastic compounding business includes the net gain on the sale of the plastic compounding business of $119.3 million (net of taxes of $78.2 million, a portion of which was offset through the utilization of net operating losses of $76.5 million) for the year ended December 31, 2011. The valuation allowance related to these net operating losses was reversed in the fourth quarter of 2010 as a benefit to income taxes in continuing operations.

Results of the discontinued operations of the Advanced Ceramics segment, the Clay-based Additives business and the TiO2 Pigments and Other Businesses included in the consolidated statements of operations for the years ended December 31, 2013, 2012 and 2011 are as follows:

($ in millions)	Advanced Ceramics	Clay-based Additives	TiO2 Pigments and Other	Total
Year ended December 31, 2013				
Net sales	$ 384.6	$ 147.8	$ 1,602.4	$ 2,134.8
Income (loss) before taxes	47.3	29.3	(187.6)	(111.0)
Year ended December 31, 2012				
Net sales	$ 546.7	$ 191.4	$ 1,445.0	$ 2,183.1
Income before taxes	120.8	45.3	61.8	227.9
Year ended December 31, 2011				
Net sales	$ 585.1	$ 202.3	$ 1,527.8	$ 2,315.2
Income before taxes	127.8	50.4	179.1	357.3

The carrying value of the assets and liabilities of the discontinued operations of the TiO2 Pigments and Other Businesses included in the consolidated balance sheets as of December 31, 2013 are as follows:

($ in millions)	TiO2 Pigments and Other
ASSETS	
Accounts receivable, net	$ 200.3
Inventories	401.9
Property, plant and equipment, net	749.2
Other intangible assets, net	64.3
Other assets	133.4
Total assets	$ 1,549.1
LIABILITIES	
Accounts payable and other current liabilities	$ 249.9
Pension and related liabilities	205.0
Other liabilities	31.6
Total liabilities	$ 486.5

The carrying value of the assets and liabilities of the discontinued operations of the Advanced Ceramics, Clay-based Additives and TiO2 Pigments and Other Businesses included in the consolidated balance sheets as of December 31, 2012 are as follows:

	As of December 31, 2012			
($ in millions)	Advanced Ceramics	Clay-based Additives	TiO2 Pigments and Other	Total
ASSETS				
Accounts receivable, net	$ 64.4	$ 20.3	$ 182.2	$ 266.9
Inventories	85.1	24.0	488.2	597.3
Property, plant and equipment, net	304.0	48.8	655.8	1,008.6
Goodwill	254.3			254.3
Other intangible assets, net	92.1	13.9	216.6	322.6
Other assets	6.9	11.7	114.9	133.5
Total assets	$ 806.8	$ 118.7	$ 1,657.7	$ 2,583.2
LIABILITIES				
Accounts payable and other current liabilities	$ 57.1	$ 26.3	$ 254.2	$ 337.6
Long-term debt	1.7		534.9	536.6
Pension and related liabilities	79.5	1.0	224.2	304.7
Other liabilities	65.5	7.1	6.5	79.1
Total liabilities	$ 203.8	$ 34.4	$ 1,019.8	$ 1,258.0

In March 2013, the Company prepaid all of its outstanding borrowings under its Titanium Dioxide Pigments facility agreement. The aggregate amount prepaid was 394.5 million ($512.4 million), consisting of 190.0 million ($246.8 million) of term loan A, 200.0 million ($259.8 million) of term loan B and a 4.5 million ($5.8 million) revolving credit facility. The U.S. dollar amounts above were all based on the exchange rate in effect on the date of payment. As a result of the repayment of all borrowings under the Titanium Dioxide Pigments facility agreement, all outstanding interest rate swaps were terminated resulting in a payment of 3.0 million ($3.9 million based on the exchange rate in effect on the date of payment). The Company had not applied hedge accounting for these interest rate swaps and had recorded the mark-to-market adjustment of these derivatives as a component of interest expense in its consolidated statements of operations. As of December 31, 2012, notional amount and fair value of these interest rate swaps were $662.9 million and $4.8 million, respectively. For the years ended December 31, 2013, 2012 and 2011, the gain/(loss) recorded was $0.9 million, $(2.3) million and $0.5 million, respectively.

The Company has a non-interest bearing note receivable from its former titanium dioxide pigments venture partner in the amount of $29.4 million that is due in August 2028, with a carrying value of $7.4 million and $6.5 million in the consolidated balance sheets as of December 31, 2013 and 2012, respectively. Interest is imputed at an effective rate of 8.96%. The fair value of the note receivable was approximately $13.6 million and $13.8 million at December 31, 2013 and 2012, respectively, and is categorized as Level 3 in the fair value hierarchy. The fair value was determined based on an internally developed valuation that uses current interest rates in developing a present value of the receivable.

Included in other liabilities are reclamation obligations of $8.1 million and $7.7 million as of December 31, 2013 and 2012, respectively. These obligations primarily relate to post-closure reclamation of landfills in the Titanium Dioxide Pigments business.

3. SEGMENT INFORMATION:

The Company is a leading global developer, manufacturer and marketer of technologically advanced and high value-added specialty chemicals used for industrial and commercial purposes. In 2012, the Company operated in five reportable segments. As discussed in Note 2, Discontinued

Operations, the Company sold its Advanced Ceramics segment and Clay-based Additives business, and entered into a definitive agreement to sell its TiO2 Pigments and Other Businesses. As a result, the Company operates in two reportable segments, Lithium and Surface Treatment, based on the nature and economic characteristics of its products and services as well as the manner in which the information is used internally by the Company s chief operating decision maker, who is the Company s Chief Executive Officer.

Items that cannot be readily attributed to individual segments have been classified as Corporate and other. Corporate and other operating loss primarily represents payroll, professional fees and other operating expenses of centralized functions such as treasury, tax, legal, internal audit and consolidation accounting as well as the cost of operating the Company s central offices (including some costs maintained based on legal or tax considerations). The Corporate and other classification also includes the results of operations of the Metal Sulfides and Wafer Reclaim businesses.

Summarized financial information for each of the reportable segments is provided in the following tables:

($ in millions)	Year ended December 31, 2013	2012	2011
Net Sales:			
Lithium	$ 479.4	$ 474.4	$ 456.5
Surface Treatment	770.2	723.2	743.2
Corporate and other	128.2	126.2	154.4
Total (a)	$ 1,377.8	$ 1,323.8	$ 1,354.1

(a) This amount does not include $2,134.8 million, $2,183.1 million and $2,315.2 million for the years ended December 31, 2013, 2012 and 2011, respectively, of net sales from discontinued operations.

The Company uses Adjusted EBITDA on a segment basis to assess the ongoing performance of the Company s reportable segments and reporting units. Because the Company views Adjusted EBITDA on a segment basis as an operating performance measure, the Company uses income (loss) before taxes as the most comparable U.S. GAAP measure. The summary of segment information below includes Adjusted EBITDA, a non-GAAP financial measure used by the Company s chief operating decision maker and senior management to evaluate the operating performance of each segment.

($ in millions)	Year ended December 31, 2013	2012	2011
Adjusted EBITDA:			
Lithium			