U.S. SILICA HOLDINGS, INC.
Form 10-K
February 26, 2013
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

þ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Fiscal Year Ended December 31, 2012

OR

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

Commission file number 1-35416

U.S. Silica Holdings, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**26-3718801**
(State or other jurisdiction of	**(I.R.S. Employer**

Incorporation or Organization) **Identification No.)**

8490 Progress Drive, Suite 300

Frederick, Maryland 21701

(Address of Principal Executive Offices) (Zip Code)

(301) 682-0600

(Registrant s telephone number, including area code)

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

None

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

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 ¨ No þ

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 þ No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its 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 þ No ¨

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 the 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. þ

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 ¨	Accelerated filer ¨
Non-accelerated filer þ	Smaller reporting company ¨

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ¨ No þ

The aggregate market value of the outstanding common stock held by non-affiliates of the registrant as of June 29, 2012, the last business day of the registrant s most recently completed second fiscal quarter, was $132,166,558, based on the closing price of $11.26 per share, as reported on the New York Stock Exchange.

As of February 26, 2013, 52,936,821 shares of the common stock of the registrant were issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

None.

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Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements that are subject to risks and uncertainties. All statements other than statements of historical fact included in this Annual Report on Form 10-K are forward-looking statements. Forward-looking statements give our current expectations and projections relating to our financial condition, results of operations, plans, objectives, future performance and business. You can identify forward-looking statements by the fact that they do not relate strictly to historical or current facts. These statements may include words such as anticipate, estimate, expect, project, plan, intend, believe, may, will, should, can have, likely and similar meaning in connection with any discussion of the timing or nature of future operating or financial performance or other events. For example, all statements we make relating to our estimated and projected costs, expenditures, cash flows, growth rates and financial results, our plans and objectives for future operations, growth or initiatives, strategies or the expected outcome or impact of pending or threatened litigation are forward-looking statements. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we expected, including:

- fluctuations in demand for commercial silica;
- the cyclical nature of our customers businesses;
- operating risks that are beyond our control, such as changes in the price and availability of transportation, natural gas or electricity; unusual or unexpected geological formations or pressures; pit wall failures or rock falls; or unanticipated ground, grade or water conditions;
- our dependence on two of our plants for a significant portion of our sales;
- the level of activity in the natural gas and oil industries;
- decreased demand for frac sand or the development of either effective alternative proppants or new processes to replace hydraulic fracturing;
- federal, state and local legislative and regulatory initiatives relating to hydraulic fracturing and the potential for related regulatory action or litigation affecting our customers operations;
- our rights and ability to mine our properties and our renewal or receipt of the required permits and approvals from governmental authorities and other third parties;
- our ability to implement our capacity expansion plans within our current timetable and budget and our ability to secure demand for our increased production capacity, and the actual operating costs once we have completed the capacity expansion;
- our ability to succeed in competitive markets;
- loss of, or reduction in, business from our largest customers;

increasing costs or a lack of dependability or availability of transportation services or infrastructure;

increases in the prices of, or interruptions in the supply of, natural gas and electricity, or any other energy sources;

increases in the price of diesel fuel;

diminished access to water;

our ability to effectively integrate the manufacture of resin-coated sand with our existing processes;

our ability to successfully complete acquisitions or integrate acquired businesses;

our ability to make capital expenditures to maintain, develop and increase our asset base and our ability to obtain needed capital or financing on satisfactory terms;

substantial indebtedness and pension obligations;

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restrictions imposed by our indebtedness on our current and future operations;

the accuracy of our estimates of mineral reserves and resource deposits;

a shortage of skilled labor and rising costs in the mining industry;

our ability to attract and retain key personnel;

our ability to maintain satisfactory labor relations;

our reliance on trade secrets and contractual restrictions, rather than patents, to protect our proprietary rights;

our significant unfunded pension obligations and post-retirement health care liabilities;

our ability to maintain effective quality control systems at our mining, processing and production facilities;

seasonal and severe weather conditions;

fluctuations in our sales and results of operations due to seasonality and other factors;

interruptions or failures in our information technology systems;

the impact of a terrorist attack or armed conflict;

our failure to maintain adequate internal controls;

extensive and evolving environmental, mining, health and safety, licensing, reclamation and other regulation (and changes in their enforcement or interpretation);

silica-related health issues and corresponding litigation;

our ability to acquire, maintain or renew financial assurances related to the reclamation and restoration of mining property; and

other factors disclosed in Item 1A, Risk Factors and elsewhere in this Annual Report on Form 10-K.

We derive many of our forward-looking statements from our operating budgets and forecasts, which are based on many detailed assumptions. While we believe that our assumptions are reasonable, we caution that it is very difficult to predict the impact of known factors, and it is impossible for us to anticipate all factors that could affect our actual results. Important factors that could cause actual results to differ materially from our expectations, or cautionary statements, are disclosed under Item 1A, Risk Factors and Item 7, Management s Discussion and Analysis of Financial Condition and Results of Operations in this Annual Report on Form 10-K. All written and oral forward-looking statements attributable to us, or persons acting on our behalf, are expressly qualified in their entirety by these cautionary statements as well as other cautionary statements that are made from time to time in our other filings with the Securities and Exchange Commission (the SEC) and public communications. You should evaluate all forward-looking statements made in this Annual Report on Form 10-K in the context of these risks and uncertainties.

We caution you that the important factors referenced above may not contain all of the factors that are important to you. In addition, we cannot assure you that we will realize the results or developments we expect or anticipate or, even if substantially realized, that they will result in the consequences or affect us or our operations in the way we expect. The forward-looking statements included in this Annual Report on Form 10-K are made only as of the date hereof. We undertake no obligation to update or revise any forward-looking statement as a result of new information, future events or otherwise, except as otherwise required by law.

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PART I.

ITEM 1. BUSINESS

Unless we state otherwise or the context otherwise requires, the terms we, us, our, U.S. Silica, the Company, our business, our company refer to U.S. Silica Holdings, Inc. and its consolidated subsidiaries as a combined entity. Adjusted EBITDA as used herein is a non-GAAP measure. For a detailed description of Adjusted EBITDA, please see the discussion under Management s Discussion and Analysis of Financial Condition and Results of Operations How We Evaluate Our Business Adjusted EBITDA on page 66.

Our Company

Business Overview

We are the second largest domestic producer of commercial silica, a specialized mineral that is a critical input into a variety of attractive end markets. During our 112-year history, we have developed core competencies in mining, processing, logistics and materials science that enable us to produce and cost-effectively deliver over 250 products to customers across these end markets. In our largest end market, oil and gas proppants, our frac sand is used to stimulate and maintain the flow of hydrocarbons in horizontally drilled oil and natural gas wells. This segment of our business is experiencing rapid growth due to recent technological advances in the hydraulic fracturing process, which have made the extraction of large volumes of oil and natural gas from U.S. shale formations economically feasible. Our commercial silica is also used as an economically irreplaceable raw material in a wide range of industrial applications, including glassmaking and chemical manufacturing. Additionally, in recent years a number of attractive new end markets have developed for our high-margin, performance silica products, including high performance glass, specialty coatings, polymer additives and geothermal energy systems.

As of February 26, 2013, we operate 15 production facilities across the United States and control 307 million tons of reserves, including approximately 144 million tons of reserves that can be processed to meet the American Petroleum Institute (API) frac sand size specifications. We produce a wide range of frac sand sizes and are one of the few commercial silica producers capable of rail delivery of large quantities of API grade frac sand to most of the major U.S. shale basins. We believe that, due to a combination of these favorable attributes and robust drilling activity in the oil and natural gas industry, we have become a preferred commercial silica supplier to our customers in the oil and gas proppants end market and, consequently, have experienced high demand for our frac sand. To meet this demand, in 2011 we began to invest significant resources to increase our proppant production, including expanding our frac sand capabilities by approximately 1.2 million tons, or approximately 75% above tons sold in 2010, and began constructing a new facility to be fully operational in the first quarter of 2013 to produce resin-coated sand, which significantly expands our addressable proppant market. During the second half of 2012, we expanded our production capacity with the development of a Greenfield site and construction of a production facility near Sparta, Wisconsin and expect the facility to be fully operational in the second quarter of 2013. We expect this new facility to increase our annual production by 1,700,000 tons when fully operational.

Our operations are organized into two segments based on end markets served: (1) Oil & Gas Proppants and (2) Industrial & Specialty Products. Our segments are complementary because our ability to sell to a wide range of customers across end markets allows us to maximize recovery rates in our mining operations, optimize our asset utilization and reduce the cyclicality of our earnings. In 2012, we generated approximately $441.9 million of sales, $150.6 million of Adjusted EBITDA and $79.2 million of net income. These figures represent increases of 50%, 61% and 162%, respectively, compared to 2011. In particular, the Oil & Gas Proppants segment contribution margin grew by 107% in 2012 and represented approximately 72% of total company segment contribution margin, compared to 56% for the prior year.

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Corporate History

In August 2007, we were acquired by an affiliate of Harvest Partners, LLC. Soon thereafter, in October 2007, we were acquired by Hourglass Acquisition I, LLC, a direct, wholly owned subsidiary of Harbinger Capital Partners. In November 2008, Hourglass Acquisition I, LLC was acquired by U.S. Silica Holdings, Inc., formerly GGC USS Holdings, Inc., a wholly-owned subsidiary of GGC USS Holdings, LLC (GGC Holdings), an affiliate of Golden Gate Capital (Golden Gate Capital). The Company was formed by Golden Gate Capital as a Delaware corporation to effect the acquisition of Hourglass Acquisition I, LLC, and through that acquisition U.S. Silica Company, our principal operating subsidiary, became an indirect, wholly owned subsidiary of the Company.

On January 31, 2012, simultaneously with the initial public offering of our common stock, GGC USS Holdings, LLC contributed all of the stock of its wholly-owned subsidiary, GGC RCS Holdings, Inc., whose operating subsidiary is Coated Sand Solutions, LLC (Coated Sand Solutions), to us. Coated Sand Solutions develops resin-coated sand proppants for sale into the oil and gas proppants market for use in the hydraulic fracturing process.

Our Strengths

We attribute our success to the following strengths:

Large-scale producer with a diverse and high-quality reserve base. Our 15 geographically dispersed production facilities control 307 million tons of reserves, including API size frac sand and large quantities of silica with distinct characteristics, giving us the ability to sell over 250 products to over 1,800 customers. Our large-scale production and logistics capabilities and long reserve life make us a preferred commercial silica supplier to our customers. Our consistent, reliable supply of large quantities of silica gives our customers the security to customize their production processes around our commercial silica. Furthermore, our large scale provides us earnings diversification and a larger addressable market.

Geographically advantaged footprint with intrinsic transportation advantages. The strategic location of our facilities and our logistics capabilities enable us to enjoy high customer retention and a larger addressable market. In our Oil & Gas Proppants segment, our network of frac sand production facilities with access to on-site rail and the strategic locations of our transloads serve to create an addressable market that includes every major U.S. shale basin. We believe we are one of the few frac sand producers capable of delivering API grade frac sand cost-effectively to most of the major U.S. shale basins by on-site rail. Additionally, due to the high weight-to-value ratio of many silica products in our Industrial & Specialty Products segment, the proximity of our facilities to our customers facilities often results in us being their sole supplier. This advantage has enabled us to enjoy strong customer retention in this segment, with our top five Industrial & Specialty Products segment customers purchasing from us for an average of over 50 years.

Low-cost operating structure. We believe the combination of the following factors contributes to our low-cost structure and our high margins:

- our ownership of the vast majority of our reserves, resulting in mineral royalty rates that were less than 0.3% of our sales in 2012;
- the close proximity of our mines to their respective processing plants, which allows for a cost-efficient and highly automated production process;
- our processing expertise, which enables us to create over 250 products with unique characteristics while minimizing waste;

our integrated logistics management expertise and geographically advantaged facility network, which enables us to reliably ship products by the most cost-effective method available, whether by truck, rail or barge;

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our large customer base across numerous end markets, which allows us to maximize our mining recovery rate and asset utilization; and

our large overall and plant-level operating scale.

Strong reputation with our customers and the communities in which we operate. We believe that we have built a strong reputation during our 112-year operating history. Our customers know us for our dependability and our high-quality, innovative products, as we have a long track record of timely delivery of our products according to customer specifications. We also have an extensive network of technical resources, including materials science and petroleum engineering expertise, which enables us to collaborate with our customers to develop new products and improve the performance of their existing applications. We are also well known in the communities in which we operate as a preferred employer and a responsible corporate citizen, which generally serves us well in hiring new employees and securing difficult to obtain permits for expansions and new facilities.

Experienced management team. The members of our senior management team bring significant experience to the dynamic environment in which we operate. Their expertise covers a range of disciplines, including industry-specific operating and technical knowledge as well as experience managing high-growth businesses. We believe we have assembled a flexible, creative and responsive team with a mentality that is particularly well suited to the rapidly evolving unconventional oil and natural gas drilling landscape, which is currently the principal driver of our growth.

Our Strategy

The key drivers of our growth strategy include:

Expand our oil and gas proppant production capacity and product portfolio. Beginning in the fourth quarter of 2011, we executed several initiatives to increase our frac sand production capacity and augment our proppant product portfolio. At our Ottawa, Illinois facility, we implemented operating improvements and installed a new dryer and six mineral separators to increase our annual frac sand production capacity by 900,000 tons. At our Rockwood, Michigan facility, we added 250,000 tons of annual frac sand production capacity by installing an entirely new processing circuit. In 2012, we neared completion of a new resin-coated sand facility that we expect will resin coat up to 400 million pounds of sand annually and will significantly expand our addressable oil and gas proppant market upon its completion. We expect this production facility to be fully operational in the first quarter of 2013. During the second half of 2012, we expanded our production capacity with the development of a Greenfield site and construction of a production facility near Sparta, Wisconsin and expect the facility to be fully operational in the second quarter of 2013. We expect this new facility will increase our annual production by 1,700,000 tons when fully operational.

Increase our presence in industrial and specialty products end markets. We intend to increase our presence and market share in certain industrial and specialty products end markets that we believe are poised for growth. We will continue to work toward transforming our industrial and specialty product segment from a commodity business to a more value-driven approach by developing capabilities and products that assist in enabling us to increase our presence in larger, more profitable markets.

Optimize product mix and further develop value-added capabilities to maximize margins. We continue to actively manage our product mix at each of our plants to ensure we maximize our profit margins. This requires us to use our proprietary expertise in balancing key variables, such as mine geology, processing capacities, transportation availability, customer requirements and pricing. In 2012, while our tons sold increased by 14%, we believe this expertise helped enable us to increase our operating income by 96%. We also expect to continue investing in ways to increase the value we provide to our customers by expanding our product offerings, increasing our transportation assets, improving our supply chain management, upgrading our information technology, and creating a world class customer service model.

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Expand our supply chain network and leverage our logistics capabilities to meet our customers needs in each strategic oil and gas basin. We will continue to expand our transload network to ensure product is available to meet the growing in-basin needs of our customers. This approach allows us to provide strong customer service and puts us in a position to take advantage of opportunistic spot market sales. Our plant sites are strategically located to provide access to all Class I railroads, which enables us to cost effectively send product to each of the strategic basins in North America. We can ship product by truck, barge and rail with an ability to connect to short-line railroads as necessary to meet our customers evolving in-basin product needs. For example, in 2013, we anticipate opening our San Antonio, Texas unit-train receiving transload facility which was built in partnership with BNSF railroad to support the Eagle Ford basin market. We believe that our supply chain network and logistics capabilities are a competitive advantage that enables us to provide superior service for our customers. We will continue to make strategic investments and develop partnerships with transload operators and transportation providers that will enhance our portfolio of supply chain services that we can provide to customers.

Evaluate both Greenfield and Brownfield expansion opportunities. We will continue to leverage our reputation, processing capabilities and infrastructure to increase production, as well as explore other opportunities to expand our reserve base. We may accomplish this by developing Greenfield projects, where we can capitalize on our technical knowledge of geology, mining and processing and our strong reputation within local communities. Additionally, we may pursue other opportunistic acquisitions, taking advantage of our asset footprint, our management s experience with high-growth businesses and our strong customer relationships. We may also evaluate international acquisitions as unconventional oil and natural gas drilling expands globally.

Maintain financial strength and flexibility. We intend to maintain financial strength and flexibility to enable us to pursue acquisitions and new growth opportunities as they arise. On December 31, 2012, we amended our asset-based revolving line-of-credit to, among other items, increase the availability under the agreement by $15.0 million and extend the termination date of the agreement to October 31, 2016. As of December 31, 2012, we had $61.0 million of cash on hand and $32.1 million of available borrowings under our credit facilities.

Our Industry

The commercial silica industry consists of businesses that are involved in the mining, processing and sale of commercial silica. Commercial silica, also referred to as silica, industrial sand and gravel, silica sand and quartz sand, is a term applied to sands and gravels containing a high percentage of silica (silicon dioxide, SiO_2) in the form of quartz. Commercial silica deposits occur throughout the United States, but mines and processing facilities are typically located near end markets and in areas with access to transportation infrastructure. Other factors affecting the feasibility of commercial silica production include deposit composition, product quality specifications, land-use and environmental regulation, including permitting requirements, access to electricity, natural gas and water and a producer s expertise and know-how.

Market and Industry Data

We obtained the industry, market and competitive position data used in this Annual Report on Form 10-K from our own internal estimates and research as well as from industry and general publications and research, surveys and studies conducted by third parties. We have relied upon publications of The Freedonia Group, Inc. (Freedonia) as our primary sources for third-party market and industry data. Industry publications, surveys and studies generally state that the information contained therein has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While we believe that each of these publications, surveys and studies is reliable, we have not independently verified market and industry data from third-party sources. While we believe our internal company research is reliable and the definitions of our market and industry are appropriate, neither such research nor these definitions have been verified by any independent source.

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Extraction and Production Processes

Commercial silica deposits are formed from a variety of sedimentary processes and have distinct characteristics that range from hard sandstone rock to loose, unconsolidated dune sands. While the specific extraction method utilized depends primarily on the deposit composition, most silica is mined using conventional open-pit bench extraction methods and begins after clearing the deposit of any overlaying soil and organic matter. The silica deposit composition and chemical purity also dictate the processing methods and equipment utilized. For example, broken rock from a sandstone deposit may require one, two or three stages of crushing to liberate the silica grains required for most markets. Unconsolidated deposits may require little or no crushing, as silica grains are not tightly cemented together.

After extracting the ore, the silica is washed with water to remove fine impurities such as clay and organic particles. In some deposits, these fine contaminants or impurities are tightly bonded to the surface of the silica grain and require attrition scrubbing to be removed. Other deposits require the use of flotation to collect and separate contaminants from the silica. When these contaminants are weakly magnetic, special high intensity magnets may be utilized in the process to improve the purity of the final commercial silica product. After the silica has been washed, most output is dried prior to sale.

The final step in the production process involves the classification of commercial silica products according to their chemical purity, particle shape and particle size distribution. Generally, commercial silica is produced and sold in either whole grain (unground) form or ground form. Whole grain silica generally ranges from 12 to 140 mesh. Mesh refers to the number of openings per linear inch on a sizing screen. Whole grain silica products are sold in a range of shapes, sizes and purity levels to be used in a variety of industrial applications, such as glass, foundry, building products, oil and natural gas recovery, filtration and recreation. Some whole grain silica is further processed to ground silica of much smaller particle sizes, ranging from 5 to 250 microns. A micron is one-millionth of a meter.

Product Distribution

Most commercial silica is shipped in bulk to customers by truck or rail. There has been a shift away from truck to rail, as more volumes have been directed to the oil and gas proppants end market, which typically utilizes rail transportation.

For bulk commercial silica, transportation cost represents a significant portion of the overall product cost. Consequently, the majority of production transported by truck is sold within approximately 200 miles of the producing facility. This limitation emphasizes the importance of rail or barge access for low cost delivery outside of the 200-mile truck radius. As a result, facility location is one of the most important considerations for producers and customers. These factors dictate the all-in delivered cost of silica production. Exceptions to this include frac sands used in oil and natural gas recovery and finer grade commercial silica, where transporting the materials long distances is economically feasible due to the relatively high unit values.

In addition to bulk shipments, commercial silica products can be packaged and shipped in 50 to 100 pound bags or bulk super sacks. Bag shipments are usually made to smaller customers with batch operations, warehouse distributor locations or for ocean container shipments made overseas. The products that are shipped in bags are often higher value products, such as ground and fine ground industrial silica.

Primary End Markets

The special properties of commercial silica chemistry, purity, grain size, color, inertness, hardness and resistance to high temperatures make it critical to a variety of industries. Commercial silica is a key input in the well completion process, specifically, in the hydraulic fracturing techniques used in unconventional oil and natural gas wells. In the industrial and specialty products end markets, stringent quality requirements must be met

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when commercial silica is used as an ingredient to produce thousands of everyday products, including glass, building and foundry products and metal castings, as well as certain specialty applications such as solar panels, wind turbines, geothermal energy systems and catalytic converters. Due to the unique properties of commercial silica, it is an economically irreplaceable raw material in a wide range of industrial applications. Our major end markets include:

Oil and Gas Proppants

Commercial silica is used as a proppant by companies involved in oil and natural gas recovery in unconventional resource plays. Unconventional oil and natural gas production requires hydraulic fracturing and other well stimulation techniques to recover oil or natural gas that is trapped in the source rock and typically involves horizontal drilling. Frac sand is pumped down oil and natural gas wells at high pressures to prop open rock fissures in order to increase the flow rate of hydrocarbons from the wells. Additionally, every 4 to 5 years proppants may be used to re-fracture the shale and keep the fractures open. Demand for commercial silica in the hydraulic fracturing market is expected to increase 8.0% annually through 2016. This is the fastest expected growth rate of any major market segment, according to a Freedonia report dated October 2012. Based on our own internal and other third-party estimates, we believe commercial silica used by the oil and gas proppants end market increased significantly in 2011 and likely accounted for approximately 44% of total commercial silica volumes in the U.S.

Glass

Commercial silica is a critical input into and accounts for 60% to 70% of the raw materials in glass production. The glassmaking markets served by commercial silica producers include containers, flat glass, specialty glass and fiberglass. Demand typically varies within each of these end markets. See Risk Factors Risks Related to Our Business Our operations are subject to the cyclical nature of our customers businesses, and we may not be able to mitigate that risk.

The container glass, flat glass and fiberglass end markets are generally mature end markets. Demand for container glass has historically grown in line with population growth, and we expect similar growth in the future. Flat glass and fiberglass tend to be correlated with construction and automotive production activity, and as a result remain depressed relative to peak demand given the contraction of these end markets over the past few years. To the extent construction and domestic automotive production activity continues its recovery in the coming years, which is difficult to predict given current economic uncertainty, we expect that demand in these end markets will continue to increase. See Risk Factors Risks Related to Our Business Our operations are subject to the cyclical nature of our customers businesses, and we may not be able to mitigate that risk.

Building Products

Commercial silica is used in the manufacturing of building products for commercial and residential construction. Whole grain commercial silica products are used in flooring compounds, mortars and grouts, specialty cements, stucco and roofing shingles. Ground commercial silica products are used by building products manufacturers as functional extenders and to add durability and weathering properties to cementious compounds. In addition, geothermal wells are a fast growing alternative energy source that require specialized ground silica products in their well casings for effectiveness. The market for commercial silica used to manufacture building products is driven primarily by the demand in the construction markets. The historical trend for this market has been one of growth, especially in demand for cementious compounds for new construction, renovation and repair. Although the housing construction market experienced a significant decline beginning in 2006 and continuing through 2011, we began to see an increase in permits and housing starts in 2012. To the extent the housing market recovery continues in the coming years, which is difficult to predict given current economic uncertainty, we expect that demand in this end market will increase. See Risk Factors Risks Related to Our Business Our operations are subject to the cyclical nature of our customers businesses, and we may not be able to mitigate that risk.

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Foundry

Commercial silica products are used in the production of molds for metal castings and in metal casting products. In addition, commercial whole grain silica is sold to coaters of foundry silica who then sell their product to foundries for cores and shell casting processes. The demand for foundry silica depends on the rate of automobile and light truck production, construction and production of heavy equipment like rail cars. Over the past decade, there has been some movement of foundry supply chains to Mexico and other offshore production areas. In 2010, foundry demand decreased significantly as a result of the decrease in automotive and heavy equipment production. However, we began seeing increases in foundry demand in 2011 and throughout 2012. In 2012, foundry was one of our strongest end markets as revenue was up 7% year over year. To the extent production levels continue to strengthen in the coming years, which is difficult to predict given current economic uncertainty, we expect foundry demand to continue to improve. See Risk Factors Risks Related to Our Business Our operations are subject to the cyclical nature of our customers businesses, and we may not be able to mitigate that risk.

Chemicals

Both whole grain and ground silica products are used in the manufacturing of silicon-based chemicals, such as sodium silicate, that are used in a variety of applications, including food processing, detergent products, paper textiles and specialty foundry applications. This end market is driven by the development of new products by the chemicals manufacturers, including specialty coatings and polymer additives. We expect this end market to grow as these manufacturers continue their product and applications development. See Risk Factors Risks Related to Our Business Our operations are subject to the cyclical nature of our customers businesses, and we may not be able to mitigate that risk.

Fillers and Extenders

Commercial silica products are sold to producers of paints and coating products for use as fillers and extenders in architectural, industrial and traffic paints and are sold to producers of rubber and plastic for use in the production of epoxy molding compounds and silicone rubber. The commercial silica products used in this end market are most often ground silica, including finer ground classifications. The market for fillers and extenders is driven by demand in the construction and automotive production industries as well as by demand for materials in the housing remodeling industry. Although construction, domestic automotive production and housing remodeling demand decreased in 2009, we have continued to see strengthening in these sectors in 2011 and throughout 2012. To the extent these industries continue to recover in the coming years, which is difficult to predict given current economic uncertainty, we expect demand to improve. See Risk Factors Risks Related to Our Business Our operations are subject to the cyclical nature of our customers businesses, and we may not be able to mitigate that risk.

Demand Trends

U. S. demand for industrial silica has been growing steadily. According to Freedonia, demand for industrial silica grew at a compound annual growth rate (CAGR) of 4% from 2001 to 2011. This increase in demand was driven primarily by hydraulic fracturing, which grew at a 27% CAGR from 2001 to 2011, according to a Freedonia report dated October 2012. More recently, the recovery of the U.S. housing and automotive markets has also positively affected silica segments related to the glass, building materials, foundry and fillers and extenders markets.

In the hydraulic fracturing market, although low prices for natural gas in 2012 caused horizontal rig count to decline, frac sand demand continued to increase. This occurred because the growth in demand is also the result of an increase in the amount of frac sand used per rig, which is growing as a result of the following factors:

improved drill rig productivity, resulting in more wells drilled per year, per rig;

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the increase in the number of fracturing sites within each well where fracturing occurs and proppant is needed;

the increase in the length of the horizontal distance covered in lateral wells due to advances in horizontal drilling technologies; and

the increase in proppant use per foot completed in each fracturing stage.

The following chart identifies trends in the number of horizontal drill rigs from 2002 to 2012 and the CAGR over such period.

Data Source: Baker Hughes, Inc., January 2013

(1) Data reported as year-end rig count for period (2002-2012). As of February 22, 2013, the horizontal drill rig count was 1,140.

Freedonia projects demand for industrial silica to grow at a CAGR of 6% until 2016, driven by hydraulic fracturing, flat and other glass (non-container) and building products markets according to their report dated October 2012. See Risk Factors Risks Related to Our Business Our operations are subject to the cyclical nature of our customers businesses, and we may not be able to mitigate that risk.

Supply

During 2012, the market increased supply to meet recent shortages and appears to be balanced, though shortages persist in certain coarse grades. The year was also marked by the entry of multiple new players in the silica mining business, concentrated in Wisconsin and Minnesota. New entrants faced serious hurdles to establish their operations, including:

the difficulty of finding silica reserves suitable for use as frac sand, which, according to the API, must meet stringent technical specifications, including, among others, sphericity, grain size, crush resistance, acid solubility, purity and turbidity;

the difficulty of securing contiguous reserves of silica large enough to justify the capital investment required to develop a mine and processing plant;

a lack of industry-specific geological, exploration, development and mining knowledge and experience needed to enable the identification, acquisition and development of high-quality reserves;

the difficulty of identifying reserves with the above characteristics that either are located in close proximity to oil and natural gas reservoirs or have the rail access needed for low-cost transportation to major shale basins;

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the difficulty of securing mining, production, water, air, refuse and other federal, state and local operating permits from the proper authorities, a process that can require up to three years; and

the difficulty of assembling a large, diverse portfolio of customers to optimize operations.

Many projects were abandoned, postponed or delayed due to these difficulties. The new entrants who were able to establish themselves often had high cost structures which resulted from these factors. See Risk Factors Risks Related to Our Business Our operations are subject to the cyclical nature of our customers businesses, and we may not be able to mitigate that risk.

Pricing

Historically, commercial silica has been characterized by regional markets created by the high weight-to-value ratio of silica. Since 2000, the increased demand for commercial silica from our customers in both the oil and gas proppants end market and industrial and specialty products end markets and limited supply increases have resulted in favorable pricing trends in both of our operating segments. From 2001 to 2011, North America commercial silica prices increased at an average annual rate of 5.9%, according to a Freedonia report dated October 2012.

The increased demand from the industrial and specialty products end market has assisted the oil and gas end market by using supply and increasing prices. If the use of hydraulic fracturing continues to increase, and if the general economic recovery continues to result in increased demand from our customers in industrial and specialty products end markets, we expect the prices that our products command will continue to increase. See Risk Factors Risks Related to Our Business Our operations are subject to the cyclical nature of our customers businesses, and we may not be able to mitigate that risk.

Our Products

In order to serve a broad range of end markets, we produce and sell a variety of commercial silica products, including whole grain and ground products, as well as other industrial mineral products that we believe complement our commercial silica products.

Whole Grain Silica Products We sell whole grain commercial silica products in a range of shapes, sizes and purity levels. We sell whole grain silica that has a round shape and high crush strength to be used as frac sand in connection with oil and natural gas recovery, and we have constructed a production facility for resin-coated sand that we expect to be fully operational in the first quarter of 2013. We also sell whole grain silica products in a range of size distributions, grain shapes and chemical purity levels to our customers involved in the manufacturing of glass products, including a low-iron whole grain product sold to manufacturers of architectural and solar glass applications. In addition, we sell over 80 grades of whole grain round silica to the foundry industry and provide whole grain commercial silica to the building products industry. Sales of whole grain commercial silica products accounted for approximately 82%, 78% and 74% of our total sales revenue for 2012, 2011 and 2010, respectively.

Ground Silica Products Our ground commercial silica products are inherently inert, white and bright, with high purity. We market our ground silica in sizes ranging from 40 to 250 microns for use in plastics, rubber, polishes, cleansers, paints, glazes, textile fiberglass and precision castings. We also produce and market fine ground silica in sizes ranging from 5 to 40 microns for use in premium paints, specialty coatings, sealants, silicone rubber and epoxies. We believe we are currently the only commercial silica producer in the United States that manufactures a 5-micron product. Sales of ground silica products accounted for approximately 14%, 16% and 19% of our total sales revenue for 2012, 2011 and 2010, respectively.

Other Industrial Mineral Products We also produce and sell certain other industrial mineral products, such as aplite, calcined kaolin clay and magnesium silicate. Aplite is a mineral used to produce container glass and insulation fiberglass and is a source of alumina that has a low melting point and a low tendency to form defects

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in glass. Calcined kaolin clay is a mineral primarily used as a functional extender. Calcined kaolin clay is chemically inert, has a high covering power, gives desirable flow properties and reduces the amount of expensive pigments required. These characteristics make calcined kaolin clay an ideal functional extender in paints, plastics, specialty coatings and rubber. We also produce and sell a highly selective adsorbent made from a mixture of silica and magnesium, used extensively in preparative and analytical chromatography. Sales of our other industrial mineral products accounted for approximately 4%, 6% and 7% of our total sales revenue for 2012, 2011 and 2010, respectively.

Our Primary End Markets and Customers

We sell our products to a variety of end markets. At the end of 2008, we began investing heavily in our capacity to supply frac sand to customers in the oil and gas proppants end market. Our high-quality reserves of frac sand have enabled us to quickly build a presence in this market, and we have invested in the production of resin-coated sand for the same purpose. Our customers in the oil and gas proppants end market include, among others, Schlumberger Ltd., Nabors Industries Ltd., Texas Specialty Sands, Calfrac and C&J Energy Services, Inc. Sales to the oil and gas proppants end market comprised approximately 55%, 36% and 28% of our total sales revenue in 2012, 2011 and 2010, respectively.

Our primary markets have historically been core industrial end markets with customers engaged in the production of glass, building products, foundry products, chemicals and fillers and extenders. Our diverse customer base drives high recovery rates across our production. We also benefit from strong and long-standing relationships with our customers in each of the industrial and specialty products end markets we serve. In our industrial and specialty products end markets, our customers include such industry leaders as Owens-Illinois, Inc., Owens Corning, Saint-Gobain Glass, The Sherwin-Williams Company and PPG Industries. Sales to our industrial and specialty products end markets comprised approximately 45%, 64% and 72% of our total sales revenue in 2012, 2011 and 2010, respectively.

We primarily sell our products under short term price agreements or at prevailing market rates. For a limited number of our customers, particularly in the oil and gas proppants end market, we sell under long-term, competitively-bid contracts. Sales under these long-term contracts collectively accounted for 31%, 17% and 18% of total company sales revenue in 2012, 2011 and 2010, respectively. Although these long-term contracts would provide us with some downside protection if there were to be a significant reduction in demand for frac sand, we believe that there is, and that there will continue to be, sufficient demand for frac sand such that we would not experience an adverse effect if these long-term contracts are not renewed or are canceled. Historically we have not entered into long-term contracts with our customers in the industrial and specialty products end markets because of the high cost to our customers of switching providers. We typically renegotiate our price agreements with these customers annually.

The following table provides more detail regarding the end markets that we serve and our significant customer relationships in those markets:

End Market	Primary Customers
Oil and Gas Proppants	Schlumberger Limited, Nabors Industries Ltd., Texas Specialty Sands, Calfrac, C&J Energy Services, Inc.
Glass	PPG Industries, Owens-Illinois, Inc., Owens Corning, Saint-Gobain Glass
Building Products	Owens Corning, BASF Corporation, Johns Manville
Foundry	Porter Warner Industries, LLC, Thyssen Krupp Waupaca
Chemicals	PQ Corporation, Occidental Chemical Corporation
Fillers and Extenders	The Sherwin-Williams Company, Dow Corning Corporation

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Production