BERSHAD STEPHEN W
Form SC 13D/A
December 03, 2009

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

SCHEDULE 13D

[RULE 13d-101]
(Amendment No. 6)[1]

GSI Group Inc.
(Name of Issuer)
Common Shares
(Title and Class of Securities)
3622U102
(CUSIP Number)
Christopher J. Hewitt, Esq.
Jones Day
901 Lakeside Avenue
Cleveland, Ohio 44114
(216) 586-3939
(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)
December 2, 2009
(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box o.

Note. Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. *See* Rule 13d-7 for other parties to whom copies are to be sent.

(Continued on following pages)
(Page 1 of **11** Pages)

1 The remainder of this cover page shall be filled out for a reporting person s initial filing on this form with respect to the subject class of securities, and for any subsequent

amendment
containing
information
which would
alter disclosures
provided in a
prior cover
page.

The information required on the remainder of this cover page shall not be deemed to be filed for the purpose of Section 18 of the Securities Exchange Act of 1934 (the Act) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No.	**3622U102**	**13D**	**Page**	**2**	**of**	**11**	**Pages**

1	NAME OF REPORTING PERSONS Stephen W. Bershad
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) o (b) þ
3	SEC USE ONLY
4	SOURCE OF FUNDS (see instructions) PF
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) o
6	CITIZENSHIP OR PLACE OF ORGANIZATION USA

NUMBER OF	7	SOLE VOTING POWER 6,251,806
SHARES BENEFICIALLY OWNED BY	8	SHARED VOTING POWER 0
EACH REPORTING	9	SOLE DISPOSITIVE POWER

PERSON		6,251,806
WITH	10	SHARED DISPOSITIVE POWER 0
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 6,251,806	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (see instructions) o	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 13.1%	
14	TYPE OF REPORTING PERSON (see instructions) IN	

1	NAME OF REPORTING PERSONS Robert G. Deuster		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) o (b) þ		
3	SEC USE ONLY		
4	SOURCE OF FUNDS (see instructions) PF		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) o		
6	CITIZENSHIP OR PLACE OF ORGANIZATION USA		
NUMBER OF	7	SOLE VOTING POWER 5,000	
SHARES BENEFICIALLY OWNED BY	8	SHARED VOTING POWER 0	
EACH REPORTING	9	SOLE DISPOSITIVE POWER	

PERSON		5,000	
WITH	10	SHARED DISPOSITIVE POWER 0	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 5,000		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (see instructions) o		
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0.01%		
14	TYPE OF REPORTING PERSON (see instructions) IN		

1	NAME OF REPORTING PERSONS R. Douglas Norby		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) o (b) þ		
3	SEC USE ONLY		
4	SOURCE OF FUNDS (see instructions)		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) o		
6	CITIZENSHIP OR PLACE OF ORGANIZATION USA		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING	7	SOLE VOTING POWER 0	
	8	SHARED VOTING POWER 0	
	9	SOLE DISPOSITIVE POWER	

PERSON		0
WITH	10	SHARED DISPOSITIVE POWER 0

11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 0
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (see instructions) o
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0%
14	TYPE OF REPORTING PERSON (see instructions) IN

1	NAME OF REPORTING PERSONS Robert G. Stevens		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) o (b) þ		
3	SEC USE ONLY		
4	SOURCE OF FUNDS (see instructions)		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) o		
6	CITIZENSHIP OR PLACE OF ORGANIZATION USA		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING	7	SOLE VOTING POWER 0	
	8	SHARED VOTING POWER 0	
	9	SOLE DISPOSITIVE POWER	

PERSON		0
WITH	10	SHARED DISPOSITIVE POWER 0
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 0	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (see instructions) o	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0%	
14	TYPE OF REPORTING PERSON (see instructions) IN	

1	NAME OF REPORTING PERSONS Eliot M. Fried		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) o (b) þ		
3	SEC USE ONLY		
4	SOURCE OF FUNDS (see instructions)		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) o		
6	CITIZENSHIP OR PLACE OF ORGANIZATION USA		
NUMBER OF	7	SOLE VOTING POWER 0	
SHARES BENEFICIALLY OWNED BY	8	SHARED VOTING POWER 0	
EACH REPORTING	9	SOLE DISPOSITIVE POWER	

PERSON		0
WITH	10	SHARED DISPOSITIVE POWER 0

11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 0
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (see instructions) o
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0%
14	TYPE OF REPORTING PERSON (see instructions) IN

This Amendment No. 6 relates to the Schedule 13D that was originally filed on February 4, 2009 (as amended, the ***Schedule 13D***), relating to the common shares, no par value (the ***Shares***), of GSI Group, Inc. (the ***Company***). Terms defined in the Schedule 13D are used herein with the same meaning.

Items 3, 4, 5, 6 and 7 of the Schedule 13D are hereby amended and supplemented to add the following:

Item 3. Source and Amount of Funds or Other Consideration.

Mr. Bershad used personal funds to purchase the Shares reported in this Schedule 13D.

Item 4. Purpose of Transaction.

On November 23, 2009, in response to the Company s voluntary filing for relief under Chapter 11 of the United States Bankruptcy Code, Mr. Bershad sent a letter to the United States Trustee requesting an appointment of an official committee of equity security holders of the Company (the ***Equity Committee***).

On December 2, 2009, Mr. Bershad and the Company entered into a letter agreement (the ***Agreement***), which is filed as Exhibit 4 hereto and incorporated herein by reference. Pursuant to the Agreement, the Company agreed to support Mr. Bershad s request for the appointment of the Equity Committee, and Mr. Bershad agreed not to contest the April 30, 2010 meeting date set by the Board of Directors in response to his earlier request for a meeting of shareholders to elect directors. If, among other reasons, the Equity Committee is not formed by December 31, 2009, or, if formed, is disbanded for any reason, Mr. Bershad retains his right to challenge the April 30, 2010 meeting date.

In connection with the Agreement, Mr. Bershad issued a press release, which is filed as Exhibit 5 hereto and incorporated herein by reference.

Mr. Bershad intends to review his investment in the Company on a continuing basis. Depending on various factors, including, without limitation, the Company s financial position and strategic direction, the outcome of discussions with the Board and management, actions taken by the Board, the outcome of the Company s bankruptcy proceedings, the outcome of the Shareholders Meeting, other investment opportunities available to Mr. Bershad, price levels of the Shares, and conditions in the securities markets and the economy in general, Mr. Bershad may in the future acquire additional Shares or dispose of some or all of the Shares beneficially owned by him, or take any other actions with respect to his investment in the Company permitted by law, including changing his investment intent with respect to such Shares and including any or all of the actions set forth in paragraphs (a) through (j) of Item 4 of Schedule 13D.

Item 5. Interest in Securities of the Issuer.

(a)-(b). Mr. Bershad has the sole power to vote and dispose of 6,251,806 Shares. Mr. Bershad is record owner of 6,251,806 Shares, which constitute approximately 13.1% of the Shares outstanding as of November 6, 2009.

(c). Mr. Bershad purchased Shares through the Pink Quote system in the amounts and for the prices set forth on Schedule I hereto.

Item 6. Contracts, Arrangements, Understandings or Relationships With Respect to Securities of the Issuer.

The information set forth above in Item 4 is incorporated herein by reference.

Item 7. Material to be Filed as Exhibits.

Exhibit 4 Letter Agreement, dated December 2, 2009, between the Company and Mr. Bershad.

Exhibit 5 Press Release, dated December 2, 2009.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: December 3, 2009

/s/ Stephen W. Bershad

Stephen W. Bershad

/s/ Robert G. Deuster

Robert G. Deuster

/s/ R. Douglas Norby

R. Douglas Norby

/s/ Robert G. Stevens

Robert G. Stevens

/s/ Eliot M. Fried

Eliot M. Fried

Schedule I

MR. BERSHAD S TRANSACTIONS SINCE THE MOST RECENT SCHEDULE 13D

The following table sets forth all transactions with respect to Shares effected by Mr. Bershad since November 23, 2009. Such transactions were effected in the open market.

DATE	AMOUNT	PRICE PER SHARE
11/24/2009	262,900	$ 0.565

EXHIBIT INDEX

Exhibit 4 Letter Agreement, dated December 2, 2009, between the Company and Mr. Bershad.
Exhibit 5 Press Release, dated December 2, 2009.

"margin-top:6pt; margin-bottom:0pt; text-indent:4%; font-size:10pt; font-family:Times New Roman">We follow the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 820, *Fair Value Measurements and Disclosures*, which defines fair value,

Table of Contents

establishes a framework for measuring fair value, and expands disclosures about fair value measurements. The fair value framework requires the categorization of assets and liabilities into three levels based upon the assumptions (inputs) used to price the assets or liabilities. Level 1 provides the most reliable measure of fair value, whereas Level 3 generally requires significant management judgment.

Our financial instruments include cash and cash equivalents, accounts receivable, accounts payable and accrued expenses, along with the promissory note with no related borrowings and any borrowings on the working capital line of credit, each described in Note 4. The fair values of all financial instruments were not materially different from their carrying values. There were no financial assets or liabilities adjusted to fair value on March 31, 2016 or December 31, 2015.

(4) Note and Line of Credit

During July 2014, we entered into a bank-issued letter of credit and related promissory note for up to $30 in borrowings to support our obligations under our facility lease agreement. No borrowings have been incurred under this promissory note. Should any borrowings occur in the future, the interest rate would be the prime rate plus 1%, with the bank having the right to set off or apply unpaid balances against our checking account if we fail to meet our obligations under any borrowings under the note. It is our intention to renew this note annually, for as long as we need to pursuant to the terms of our facility lease agreement. Because there were no amounts outstanding at any time during 2016 or 2015, we have recorded no related liability on our balance sheet.

During March 2015, we entered into a Business Loan Agreement (the Line of Credit Agreement) with Libertyville Bank and Trust Company, a Wintrust Community Bank (Libertyville), our primary bank, which was subsequently amended on April 13, 2015. Under the Line of Credit Agreement, as amended, Libertyville will provide a maximum of $300, or 75% of our eligible accounts receivable, whichever is less, of revolving credit, collateralized by a senior priority lien on our accounts receivable, inventory, equipment, general intangibles and fixtures. Interest on any borrowings would be the prime rate at the time plus 1%. We must have at least $1 million in cash, including any amounts borrowed, at Libertyville on the date of any advance. Advances may only occur at the beginning or end of a fiscal quarter and must be repaid in full within five days of the advance. The Line of Credit Agreement was extended during March 2016, and now expires on March 4, 2017. There were two advances under this Line of Credit Agreement during 2015 that were subsequently repaid within five days of each advance, and no advances during the first three months of 2016.

(5) Inventories

Inventories consist of the following:

	March 31, 2016	December 31, 2015
Raw materials	$ 218	$ 184
Finished goods	592	530
	810	714
Allowance for excess inventory quantities	(52)	(52)
	$ 758	$ 662

(6) Share-Based Compensation

We follow FASB ASC Topic 718, *Share-Based Payments*, in which compensation expense is recognized only for share-based payments expected to vest. We recognized compensation expense related to stock options of $47 for each of the three month periods ended March 31, 2016 and 2015, respectively.

Table of Contents

As of March 31, 2016, there was approximately $297 of total unrecognized compensation cost related to nonvested share-based compensation arrangements granted under our stock option plans. That cost is expected to be recognized over a remaining weighted-average period of 2.2 years.

Stock Options and Stock Grants

No stock options were exercised during the three months ended March 31, 2016. During the three months ended March 31, 2015, 69,333 shares of common stock were issued pursuant to option exercises for proceeds of $26. For the three months ended March 31, 2016, 419,390 stock options were granted compared to 446,100 stock options granted during the same period in 2015. During the three months ended March 31, 2016, 10,001 stock options were forfeited compared to 159,000 stock options forfeited during the same period in 2015. We had 2,983,000 stock options outstanding at a weighted average exercise price of $0.87 on March 31, 2016, compared to 2,574,000 stock options outstanding at a weighted average exercise price of $0.95 on December 31, 2015.

The following table illustrates the various assumptions used to calculate the Black-Scholes option pricing model for stock options granted during the three month periods ended:

	March 31, 2016	March 31, 2015
Weighted-average risk-free interest rates:	1.43%	1.74%
Dividend yield:		
Weighted-average expected life of the option:	7 years	7 years
Weighted-average expected stock price volatility:	95%	95%
Weighted-average fair value of the options granted:	$ 0.34	$ 0.44

Stock Appreciation Rights

Prior to 2011, we granted our outside directors stock appreciation rights (SARs). The change in fair value of the awards granted during prior years is included in non-cash compensation expense for the quarters ended March 31, 2016 and 2015. The SARs granted vested immediately and are payable upon the directors removal or resignation from the position of director. These awards are accounted for as liability awards, included in accrued expenses as of March 31, 2016 and 2015, and adjusted to fair value each reporting period. The fair value of the liability was less than $1 on both March 31, 2016 and December 31, 2015.

As of March 31, 2016, we did not have any unvested restricted stock or performance shares outstanding.

(7) Significant Customers and Contingencies

Revenue from three customers constituted approximately 71%, 7% and 4%, respectively, of our total revenue for the three months ended March 31, 2016. Amounts included in accounts receivable on March 31, 2016 relating to these three customers were approximately $517, $144 and $88, respectively. Revenue from these three customers constituted approximately 59%, 7% and 8%, respectively, of our total revenue for the three months ended March 31, 2015. Amounts included in accounts receivable on March 31, 2015 relating to these three customers were approximately $578, $259 and $109, respectively.

8

Table of Contents

The loss of one of these significant customers, a significant decrease in revenue from one or more of these customers, or the failure to attract new customers could have a material adverse effect on our business, results of operations and financial condition.

We currently have exclusive supply agreements with BASF Corporation (BASF), our largest customer, that have contingencies outlined which could potentially result in the license of technology and/or the sale of production equipment from the Company to the customer intended to provide capacity sufficient to meet the customer s production needs. This outcome may occur if we fail to meet certain performance requirements, certain other obligations and/or certain financial condition covenants. The financial condition covenants in one of our supply agreements with BASF trigger a technology transfer right (license and equipment sale at BASF s option) in the event (a) that earnings for the twelve month period ending with our most recently published quarterly financial statements are less than zero and our cash, cash equivalents and certain investments are less than $1 million, or (b) of an acceleration of any debt maturity having a principal amount of more than $10 million. Our supply agreements with BASF also trigger a technology transfer right in the event of our insolvency, as further defined within the agreements. In the event of an equipment sale, upon incurring a triggering event, the equipment would be sold to the customer at either 115% of the equipment s net book value or the greater of 30% of the original book value of such equipment, and any associated upgrades to it, or 115% of the equipment s net book value, depending on the contract and related equipment.

We believe that we have sufficient cash and credit availability (See Liquidity and Capital Resources in Management s Discussion and Analysis in Part I, Item 2 of this Form 10-Q for a further discussion, as well as the description of our Line of Credit Agreement described in Note 4) to operate our business during 2016. If a triggering event were to occur and BASF elected to proceed with the license and related equipment sale mentioned above, we would receive royalty payments from this customer for products sold using our technology; however, we would lose both significant revenue and the ability to generate significant revenue to replace that which was lost in the near term. Replacement of necessary equipment that could be purchased and removed by the customer pursuant to this triggering event could take in excess of twelve months. Any additional capital outlays required to rebuild capacity would probably be greater than the proceeds from the purchase of the assets as dictated by our agreement with the customer. Similar consequences would occur if we were determined to have materially breached certain other provisions of the supply agreement with BASF. Any such event would also likely result in the loss of many of our key staff and line employees due to economic realities. We believe that our employees are a critical component of our success and it could be difficult to replace them quickly. Given the occurrence of any such event, we might not be able to hire and retain skilled employees given the stigma relating to such an event and its impact on us. Finally, any shortfall in capital needed to operate the business as management intends, including with respect to avoiding this triggering event as described above, may result in a curtailment of certain activities or anticipated investments.

Should events arise that make it appropriate for us to seek additional financing, such additional financing may not be available on acceptable terms or even at all, and any such financing could be dilutive to our stockholders. Such a financing could be necessitated by such things as the loss of one or more significant customers or a significant decline in revenue from those customers, currently unknown capital requirements, new regulatory requirements, the need to meet cash requirements under our BASF agreement to avoid a triggering event, or other circumstances not currently anticipated by us. The failure to obtain sufficient capital may impair or curtail our business plans and under such circumstances may raise doubt regarding our ability to continue as a going concern.

(8) Business Segmentation and Geographical Distribution

Revenue from international sources approximated $124 and $375 for the three months ended March 31, 2016 and 2015, respectively. All of this revenue was product revenue.

Table of Contents

Our operations comprise a single business segment and all of our long-lived assets are located within the United States.

(9) New Accounting Pronouncements

During May 2014, the FASB issued Accounting Standards Update (ASU) No. 2014-09 (ASU 2014-09), *Revenue from Contracts with Customers*, and related updates in ASU No. 2016-08 and ASU No. 2016-10, which supersedes nearly all existing revenue recognition guidance under U.S. generally accepted accounting principles. The new standard requires a company to recognize revenue when it transfers goods or services to customers in an amount that reflects the consideration that the company expects to receive for those goods or services. Additionally, the guidance requires certain disclosures designed to help users of financial statements better understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. ASU 2014-09 is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period, which is our first quarter of 2018. The new standard allows application either retrospectively to each prior reporting period presented or retrospectively as a cumulative-effect adjustment as of the date of adoption. We are evaluating the effect that ASU 2014-09 will have on our financial statements and related disclosures, but do not expect it to have a material impact on our financial position, results of operations, or cash flows.

During February 2016, the FASB issued ASU No. 2016-02 (ASU 2016-02), *Leases (Topic 842)*. This standard requires the recognition of assets and liabilities arising from lease transactions on the balance sheet and the disclosure of key information about leasing arrangements. Accordingly, a lessee will recognize a lease asset for its right to use the underlying asset and a lease liability for the corresponding lease obligation. Both the asset and liability will initially be measured at the present value of the future minimum lease payments over the lease term. Subsequent measurement, including the presentation of expenses and cash flows, will depend on the classification of the lease as either a finance or an operating lease. Initial costs directly attributable to negotiating and arranging the lease will be included in the asset. For leases with a term of 12 months or less, a lessee can make an accounting policy election by class of underlying asset to not recognize an asset and corresponding liability. Lessees will also be required to provide additional qualitative and quantitative disclosures regarding the amount, timing and uncertainty of cash flows arising from leases. These disclosures are intended to supplement the amounts recorded in the financial statements and provide additional information about the nature of an organization s leasing activities. The amendments in this standard are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018, with early adoption permitted. We are currently evaluating what impact, if any, its adoption will have to the presentation of our financial statements and related disclosures.

During August 2014, the FASB issued ASU No. 2014-15, *Disclosure of Uncertainties about an Entity s Ability to Continue as a Going Concern* (ASU 2014-15). ASU 2014-15 will explicitly require management to assess an entity s ability to continue as a going concern, and to provide related footnote disclosure in certain circumstances. The new standard will be effective for all entities in the first annual period ending after December 15, 2016. Earlier adoption is permitted. We do not believe that the adoption will have an impact on the presentation of our financial statements, financial position, results of operations, cash flows and related disclosures.

Item 2. Management s Discussion and Analysis of Financial Condition and Results of Operations

Overview

Nanophase is an advanced materials and applications developer and commercial manufacturer with an integrated family of materials technologies. We produce engineered nano and sub-micron materials for use in a variety of diverse markets: personal care including sunscreens, architectural coatings, industrial coating applications, abrasion-resistant additives, plastics additives, medical

10

diagnostics, energy, and a variety of surface finishing technologies (polishing) applications, including optics. We target markets in which we believe practical solutions may be found using our products. We work closely with current and potential customers in these target markets to identify their material and performance requirements and market our materials to various end-use applications manufacturers. Recently developed technologies have made certain new products possible and opened potential new markets. For example, we have applied our skills at producing precisely defined nanomaterials to now create and sell larger, sub-micron material products. Our focus is on customer need where we believe we have an advantage, as opposed to finding uses for one particular technology. We expect growth in end-user (manufacturing customers, including customers of our customers) adoption in 2016 and beyond. Our initiatives in targeted market areas are progressing at differing rates of speed, but we have been broadly moving through testing and development cycles, and in a number of cases believe we are approaching first revenue or next stage revenue with particular customers in the industries referenced above. We have recently developed material solutions in the personal care, surface finishing technologies (polishing) and energy-management areas that have been taken to potential customers and for which early stage revenues are occurring. We believe that successful introduction of our materials with manufacturers may lead to follow-on orders for other materials in their applications. We expect that we will both work more deeply with current customers and attract additional customers, which should help us achieve growth in these markets in 2016 and beyond.

Results of Operations

Total revenue decreased to $2,211,000 for the three months ended March 31, 2016, compared to $2,310,000 for the same period in 2015. A substantial majority of our revenue for both periods was from our largest customer in personal care and sunscreen applications. The decrease was primarily due to the timing of shipment to our customer in medical diagnostics. This customer receives two or three shipments per year, and received a shipment during the first quarter of 2015 but not the first quarter of 2016. We anticipate the opposite will happen during the second quarter, with a shipment during the second quarter of 2016 and no corresponding shipment during the second quarter of 2015. Product revenue, the primary component of our total revenue, decreased to $2,189,000 for the three months ended March 31, 2016, compared to $2,300,000 for the same period in 2015. Revenue from our top three customers was approximately 71%, 7% and 4%, respectively, during the three months ended March 31, 2016, compared to 59%, 7% and 8%, respectively, for the same customers during the same period in 2015.

Other revenue increased to $22,000 for the three months ended March 31, 2016, compared to $10,000 for the same period in 2015. Other revenue was comprised primarily of shipping costs paid by customers, and included a one-time fee-based development project completed during the first quarter of 2016.

Cost of revenue generally includes costs associated with commercial production and customer development arrangements. Cost of revenue increased to $1,755,000 for the three months ended March 31, 2016, compared to $1,745,000 for the same period in 2015. The change in cost of revenue is typically driven by changes in revenue volume, and impacted by efficiencies related to improvements in our processes. The small increase during the first quarter of 2016, despite the decline in revenue, was primarily due to the timing of repair and maintenance expenses and the timing of costs capitalized into inventory. We expect to continue new nanomaterial development, primarily using our NanoArc® synthesis and dispersion technologies, for targeted applications and new markets during 2016 and beyond. At current revenue levels we have generated a positive gross margin, though margins have been impeded by not having enough revenue to efficiently absorb manufacturing overhead that is required to work with current customers and expected future customers. We believe that our current fixed manufacturing cost structure is sufficient to support significantly higher levels of production. The extent to which margins grow, as a percentage of total revenue, will be dependent upon revenue mix, revenue volume, and our ability to continue to cut costs and pass commodity market-driven raw materials increases on to customers. We expect that product revenue volume increases would result in our fixed manufacturing costs being more efficiently absorbed, leading to increased margins. We expect to continue to focus on

reducing controllable variable product manufacturing costs, with potential variability related to the commodity metals markets, but may or may not realize absolute dollar gross margin growth through 2016 and beyond, dependent upon the factors discussed above.

Research and development expense, which includes all expenses relating to the technology and advanced engineering groups, primarily consists of costs associated with the development or acquisition of new product applications and coating formulations and the cost of enhancing our manufacturing processes. As an example, we have been, and continue to be, engaged in research to enhance our ability to disperse material in a variety of organic and inorganic media for use as coatings and polishing materials. Much of this work has led to several new products and additional potential new products.

Having demonstrated the capability to produce pilot quantities of mixed-metal oxides in a single crystal phase, we do not expect development of further variations on these materials to present material technological challenges. Many of these materials exhibit performance characteristics that can enable them to serve in various catalytic applications. We are now working on several related commercial opportunities using the same materials. We expect that this technique should enable us to scale to large quantity commercial volumes. We also have an ongoing advanced engineering effort that is primarily focused on the development of new nanomaterials as well as the refinement of existing nanomaterials, as dictated by our customer-driven marketing strategy. We are not certain when or if any significant revenue will be generated from the production of the materials described above.

Research and development expense was flat at $301,000 for the three months ended March 31, 2016, compared to $302,000 for the same period in 2015. We expect quarterly research and development expense to increase by approximately 10% for each of the remaining quarters of 2016 as compared to the first quarter of 2016, due to increased staffing and related expenses primarily due to a planned expansion in personal care and energy-management areas.

Selling, general and administrative expense decreased to $761,000 for the three month period ended March 31, 2016, compared to $866,000 for the same period in 2015. The net decrease was primarily attributed to salaries and professional services related to marketing and selling activities in our surface finishing (polishing) and energy solutions support. During 2015 we had a surge of activity related to new products that did not need to be repeated during 2016. 2016 also saw delayed timing of professional fees and other expenses that we expect to be restored to normal levels during the second quarter of 2016. We expect total selling, general and administrative expense to increase by approximately 5% during the remainder of 2016, compared to the first quarter of 2016.

Inflation

We believe inflation has not had a material effect on our operations or financial position. However, supplier price increases and wage and benefit inflation, both of which represent a significant component of our costs of operations, may have a material effect on our operations and financial position in 2016 and beyond if we are unable to pass through any applicable increases under our present contracts or through to our markets in general.

Liquidity and Capital Resources

Our cash, cash equivalents and short-term investments amounted to $1,478,000 on March 31, 2016, compared to $1,275,000 on December 31, 2015 and $1,207,000 on March 31, 2015. The net cash used in our operating activities was $698,000 for the three months ended March 31, 2016, compared to $612,000 for the same period in 2015. The net cash used in operating activities was significantly impacted by working capital fluctuations, including a $316,000 net use of cash during the first quarter of 2016 and $237,000 during the same period of 2015, both primarily related to increases in accounts receivable

balances. Net cash used in investing activities amounted to $64,000 for the three months ended March 31, 2016, compared to $46,000 for the same period in 2015. Capital expenditures amounted to $27,000 and $38,000 for the three months ended March 31, 2016 and 2015, respectively. Net cash provided by financing activities was $965,000 for the three months ended March 31, 2016, compared to cash provided by financing activities of $3,000 for the three months ended March 31, 2015, as we sold 2.6 million shares of our common stock to our largest stockholder on February 10, 2016 for $988,000 in proceeds and had a small number of stock option exercises during the first quarter of 2015. We intend to use the proceeds from the sale of shares for working capital and general corporate purposes.

Our supply agreements with our largest customer, BASF, contain certain financial covenants which could potentially impact our liquidity. The most restrictive financial covenants under these agreements require that we maintain a minimum of $1 million in cash, cash equivalents and certain investments, and that we not have the acceleration of any debt maturity having a principal amount of more than $10 million, in order to avoid triggering the customer s potential right to transfer certain technology and equipment to that customer at a contractually defined price. We had approximately $1.5 million in cash and cash equivalents on March 31, 2016, with no borrowings on our Line of Credit. This supply agreement and its covenants are more fully described in Note 7, and our Line of Credit is more fully described in Note 4, to our Financial Statements in Part I, Item 1 of this Form 10-Q.

We believe that cash from operations and cash, cash equivalents and unused borrowing capacity will be adequate to fund our operating plans through 2016. Our actual future capital requirements in 2016 and beyond will depend, however, on many factors, including customer acceptance of our current and potential nanomaterials and product applications, continued progress in research and development activities and product testing programs, the magnitude of these activities and programs, and the costs necessary to increase and expand our manufacturing capabilities and to market and sell our materials and product applications. Other important issues that will drive future capital requirements will be the development of new markets and new customers as well as the potential for significant unplanned growth with existing customers. Depending on the success of certain projects, we expect that capital spending relating to currently known capital needs for the remainder of 2016 will be between $200,000 and $350,000. If those projects are delayed or ultimately prove unsuccessful, we would expect our capital requirements to be on the lower end of that range. If other projects are successful the total capital spending may exceed the higher end of this range.

Should events arise that make it appropriate for us to seek additional financing, such additional financing may not be available on acceptable terms or even at all, and any such additional financing could be dilutive to our stockholders. Such a financing could be necessitated by such things as the loss of one or more existing customers or a significant decrease in revenue from those customers; currently unknown capital requirements in light of the factors described above; new regulatory requirements that are outside our control; the need to meet previously discussed cash requirements to avoid a triggering event under our BASF agreement; or various other circumstances coming to pass that we currently do not anticipate. The failure to obtain sufficient capital to fund our business plans may result in a curtailment or other change in those plans, and under such circumstances may raise doubt as to our ability to continue as a going concern.

On March 31, 2016, we had a net operating loss carryforward of approximately $81 million for income tax purposes. Because we may have experienced ownership changes within the meaning of the U.S. Internal Revenue Code in connection with our various prior equity offerings, future utilization of this carryforward may be subject to certain limitations as defined by the Internal Revenue Code. If not utilized, the carryforward will expire at various dates between January 1, 2018 and December 31, 2035. As a result of the annual limitation and uncertainty as to the amount of future taxable income that will be earned prior to the expiration of the carryforward, we have concluded that it is likely that some portion of this carryforward will expire before ultimately becoming available to reduce income tax liabilities. Changes in Illinois state law that began in 2011 will impact net loss carryforward duration and utilization on the state tax level.

Table of Contents

Off-Balance Sheet Arrangements

We have not created, and are not party to, any special-purpose or off-balance sheet entities for the purposes of raising capital, incurring debt or operating our business. We do not have any off-balance sheet arrangements or relationships with entities that are not consolidated into our financial statements that are reasonably likely to materially affect our liquidity or the availability of capital resources.

As more fully described in Note 4 to our Financial Statements in Part I, Item I of this Form 10-Q, during 2014 we entered into a letter of credit and promissory note for up to $30,000 supporting our obligations under our facility lease agreement. No borrowings have been incurred under this promissory note.

Safe Harbor Provision

We want to provide investors with more meaningful and useful information. As a result, this Quarterly Report on Form 10-Q (the Form 10-Q) contains and incorporates by reference certain forward-looking statements , as defined in Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act). These statements reflect our current expectations of the future results of our operations, performance and achievements. Forward-looking statements are covered under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. We have tried, wherever possible, to identify these statements by using words such as anticipates , believes , estimates , expects , plans , intends and similar expressions. These statements reflect management s current beliefs and are based information now available to it. Accordingly, these statements are subject to certain risks, uncertainties and contingencies that could cause our actual results, performance or achievements in 2016 and beyond to differ materially from those expressed in, or implied by, such statements. These risks, uncertainties and factors include, without limitation: our ability to become profitable despite the losses we have incurred since our incorporation; our dependence on our principal customers and the terms of our supply agreements with BASF which could trigger a requirement to transfer technology and/or sell equipment to that customer; our potential inability to obtain working capital when needed on acceptable terms or at all; our ability to obtain materials at costs we can pass through to our customers, including Rare Earth elements, specifically cerium oxide; uncertain demand for, and acceptance of, our nanocrystalline materials; our manufacturing capacity and product mix flexibility in light of customer demand; our limited marketing experience; changes in development and distribution relationships; the impact of competitive products and technologies; our dependence on patents and protection of proprietary information; the resolution of litigation or other legal proceedings in which we may become involved; our ability to maintain an appropriate electronic trading venue for our securities; and the impact of any potential new governmental regulations that could be difficult to respond to or costly to comply with. In addition, our forward-looking statements could be affected by general industry and market conditions and growth rates. Readers of this Quarterly Report on Form 10-Q should not place undue reliance on any forward-looking statements. Except as required by federal securities laws, we undertake no obligation to update or revise these forward-looking statements to reflect new events or uncertainties.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Not required for a smaller reporting company.

Table of Contents

Item 4. Controls and Procedures

Disclosure controls

We are responsible for establishing and maintaining disclosure controls and procedures that are designed to ensure that information required to be disclosed by us in the reports filed by us under the Exchange Act is: (a) recorded, processed, summarized and reported within the time periods specified in the SEC s rules and forms; and (b) accumulated and communicated to our management, including our principal executive and principal financial officers, to allow timely decisions regarding required disclosures. It should be noted that in designing and evaluating our disclosure controls and procedures, we recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and that our management necessarily was required to apply its judgment regarding the design of our disclosure controls and procedures. As of the end of the period covered by this report, we conducted an evaluation, under the supervision (and with the participation) of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at reaching that level of reasonable assurance.

Internal control over financial reporting

The Company s management, including the CEO and CFO, confirms that there was no change in the Company s internal control over financial reporting during the period covered by this report that has materially affected, or is reasonably likely to materially affect, the Company s internal control over financial reporting.

PART II OTHER INFORMATION

Item 1. Legal Proceedings

We are not a party to any pending legal proceedings or claims that we believe will result in a material adverse effect on our business, financial condition, or operating results.

Item 1A. Risk Factors

In addition to the information set forth in this Quarterly Report on Form 10-Q and before deciding to invest in, or retain, shares of our common stock, you also should carefully review and consider the information contained in our other reports and periodic filings that we make with the Securities and Exchange Commission, including, without limitation, the information contained under the caption Part I, Item 1A Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2015. Those risk factors could materially affect our business, financial condition and results of operations. Additional risks and uncertainties that we do not currently know about, we currently believe are immaterial or we have not predicted may also harm our business operations or adversely affect us. If any of these risks or uncertainties actually occurs, our business, financial condition, results of operations, cash flows or stock price could be materially adversely affected. There have been no material changes from the risk factors previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2015.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None, other than the issuance of shares to our largest stockholder on February 10, 2016, as disclosed in our Current Report on Form 8-K as filed on February 10, 2016.

15

Table of Contents

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit 4.1	Common Stock Purchase Agreement, dated February 10, 2016, between the Company and Bradford T. Whitmore, incorporated by reference to Exhibit 4.1 to the Company s Current Report on Form 8-K filed February 10, 2016.
Exhibit 10.1	Business Loan Agreement, dated March 4, 2016, between the Company and Libertyville Bank and Trust Company, incorporated by reference to Exhibit 10.1 to the Company s Current Report on Form 8-K filed March 10, 2016.
Exhibit 10.2	Change in Terms Agreement, dated March 4, 2016, between the Company and Libertyville Bank and Trust Company, incorporated by reference to Exhibit 10.2 to the Company s Current Report on Form 8-K filed March 10, 2016.
Exhibit 10.3*	Supply Agreement, dated as of March 31, 2016, between the Company and Ester Solutions Company, incorporated by reference to Exhibit 10.1 to the Company s Current Report on Form 8-K filed April 6, 2016.
Exhibit 31.1	Certification of Chief Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Exchange Act.
Exhibit 31.2	Certification of Chief Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Exchange Act.
Exhibit 32	Certification of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350.
Exhibit 101	The following materials from Nanophase Technologies Corporation s Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, formatted in XBRL (Extensible Business Reporting Language): (1) the Balance Sheets, (2) the Statements of Operations, (3) the Statements of Cash Flows, and (4) the Notes to Unaudited Financial Statements.

* Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

16

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

NANOPHASE TECHNOLOGIES CORPORATION

Date: May 13, 2016

By: /s/ JESS A. JANKOWSKI
Jess A. Jankowski
President and Chief Executive Officer

Date: May 13, 2016

By: /s/ FRANK J. CESARIO
Frank J. Cesario
Chief Financial Officer

17