

**VITREOUS GLASS INC.
TWELVE MONTHS ENDED SEPTEMBER 30, 2018
MANAGEMENT DISCUSSION AND ANALYSIS**

This Management Discussion and Analysis (“MD&A”) is dated December 7, 2018.

The following is management's discussion and analysis of the business and financial results of Vitreous Glass Inc. (“Vitreous” or the “Company”) for the three months and for the year ended September 30, 2018. This MD&A should be read in conjunction with the audited financial statements of the Company for the year ended September 30, 2018. The financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”). The financial statements and additional information relevant to the Company's activities can be found on SEDAR at www.sedar.com. Results are reported in Canadian dollars unless otherwise noted.

Advisory Regarding Forward Looking Statements and Information

This MD&A contains forward looking statements and information. Forward looking statements and information are based upon current expectations and assumptions that involve a number of risks and uncertainties, certain of which are beyond the Company's control and could cause actual events or results to differ materially from those reflected in the MD&A. Forward looking statements and information are based upon the estimates and opinions of the Company's management at the time the statements were made.

Readers of this MD&A are strongly cautioned that any statements relating to the future business prospects of the Company (and therefore its ability to meet its financial obligations, and potentially continue to pay dividends) are entirely subject to the continuation of satisfactory business conditions. These include, but are not limited to, availability of waste glass for processing, demand for fiberglass building insulation by the consumer, willingness and ability of the Company's customers to continue to use waste glass as part of their raw material, availability of hauling product to and from the Company's plant, adequate margins to cover the Company's costs, and the financial health of the Company's customers.

In particular, forward looking statements and information include assumptions that (i) there will be continuing market demand for fiberglass insulation; (ii) the Company's customers will continue to operate their Alberta plants at a level where historical levels of demand for glass are present; and (iii) glass supply and transportation continue to be available on an economically viable basis. Management believes that Vitreous has sufficient cash and available credit facilities to meet its obligations as they fall due, and anticipates no change in the ability to meet such obligations on an ongoing basis.

The reader is cautioned that historical results are not necessarily indicative of future performance. The forward looking statements are made as of the date of this MD&A and the Company does not undertake any obligation to update publicly or revise any of the included forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable securities laws.

The Company

Vitreous operates a waste glass processing plant at Airdrie, Alberta. The plant gathers post-consumer waste glass from Alberta and elsewhere, crushes it, removes contaminants, and sells the final product to three manufacturers of fiberglass building insulation for use as a raw material in their production facilities in Alberta.

Sales

Sales for the three months ended September 30, 2018 increased by 13.6% from the same three months of the preceding fiscal year due to an increase in volume of product sold of 9.8% combined with an increase in average product selling price of 3.5%.

Sales for the year ended September 30, 2018 increased by 4.9% from the preceding fiscal year due to an increase in volume of product sold of 1.6% combined with an increase in average product selling price of 3.2%.

During the periods ended June 30, 2018 and 2017, all sales were to three customers in the fiberglass insulation manufacturing industry, of which two customers exceeded 10% of total sales. Sales to these two customers comprised 49.9% and 40.8% respectively of total sales for the three months ended September 30, 2018 (2017 - 50.8% and 40.1% respectively). Sales to each of these two customers comprised 53.9% and 36.6% respectively of total sales for the year ended September 30, 2018 (2017 - 57.1 and 32.9% respectively). As at September 30, 2018 91% (September 30, 2017 - 96%) of accounts receivable are due from those two customers.

Fluctuations in customer demand for the Company's product and the supply of raw glass are discussed under "Business Risks".

Comparative Figures for Sales and Cost of Sales

For the three months ended September 30, 2018 and the year ended September 30, 2018, the Company changed its classification of certain charges that have previously been recorded as a reduction to cost of sales. These charges to customers were initiated a number of years ago and, at time of introduction, were regarded as surcharges for the recovery of specific increased glass costs, of uncertain duration, due to changes in the structure of the Company's supply arrangements. Commencing in the current fiscal year ending September 30, 2018, these cost recovery surcharges have now been reclassified out of cost of sales and into sales, reflecting the Company's view that the changes in the structure of supply arrangements are permanent and therefore the recovery of the related charges is more accurately included in recurring sales revenue. Prior year sales and cost of sales amounts have been reclassified to provide a presentation consistent with the current period's presentation of sales and cost of sales.

For the three months ended September 30, 2017, sales were reclassified from \$1,891,982 to \$2,055,992 and cost of sales was reclassified from \$879,579 to \$1,043,589. For the year ended September 30, 2017, sales were reclassified from \$7,584,266 to \$8,226,180 and cost of sales was reclassified from \$3,428,013 to \$4,069,927.

In Selected Annual Information below, for the year ended September 30, 2016 sales were reclassified from \$8,022,291 to \$8,651,788.

In addition, the Company reclassified a portion of its amortization expenses out of general administrative expenses and into cost of sales to be included as part of the determination of gross margin. The portion of amortization reclassified totaled \$392,553 for the year ended September 30, 2017 being the amount of amortization for the building, plant and equipment associated with the processing of raw glass into finished inventory.

These reclassifications have no impact on income before taxes.

Cost of sales, not including amortization

Cost of sales, not including amortization, as a percentage of sales revenue for the three months ended September 30, 2018 decreased by 4.5 percentage points to 46.3% for the current fiscal year from 50.8% for the same period of the preceding fiscal year. This decrease in cost of sales as a percentage of sales revenue is due to (a) lower cost of repairs and maintenance, due to lower costs of plant repairs and maintenance and (b) by a slightly higher average product selling price per unit, offset by (c) a slightly higher average cost per unit of raw glass consumed in the three months ended September 30, 2018 compared to the same period of the prior year.

Cost of sales as a percentage of sales revenue for the year ended September 30, 2018 decreased by 1.8 percentage points to 47.7% for the current fiscal year from 49.5% for the preceding fiscal year. This reduction in cost of sales as a percentage of sales revenue is due to (a) lower cost of repairs and maintenance for the year, (b) lower cost per unit of glass sold, and (c) higher average product selling price per unit in the year ended September 30, 2018 compared to the preceding fiscal year.

General and Administrative Expenses

General and administrative expenses for the three months ended September 30, 2018 increased by 8.9% from the same period of the preceding fiscal year primarily due to the incentive based nature of compensation for the chief

executive officer. This incentive based compensation is primarily determined by gross margin amount that increased by 23.8% in the three months ended September 30, 2018 compared to the same period of the preceding fiscal year.

General and administrative expenses for the year ended September 30, 2018 increased by 7.1% from the same period of the preceding fiscal year primarily due to the incentive based nature of compensation for the chief executive officer. This incentive based compensation is primarily determined by gross margin amount that increased by 8.5% in the year ended September 30, 2018 compared to the preceding fiscal year.

Accounts receivable

Accounts receivable at September 30, 2018 were consistent with sales in the period leading up to the end of the fiscal year. All accounts receivable as at September 30, 2018 are considered collectible.

Inventory and Supply

Inventory is maintained at levels that are dictated largely by available supply and customer demand as discussed under “Business Risks”.

The total carrying value of inventory on hand as at September 30, 2018, comprising primarily raw glass on hand plus a modest amount of crushed glass in process, increased by 15.0% from the value on hand at September 30, 2017. This increase is due to the offsetting effect of:

- (a) a 39.4% increase in the per-unit carrying cost of the raw glass portion of inventory at September 30, 2018 compared to September 30, 2017. This increase in carrying costs is due to the combined effect (i) a 14.9% increase in the average cost per unit of glass purchased (ii) the carrying cost of raw glass inventory as at September 30, 2018 does not include credits that, prior to October 1, 2017, served to reduce inventory carrying cost and cost of sales. See discussion above under **Comparative Figures for Sales and Cost of Sales**. While sales and cost of sales amounts have been reclassified for the three months and year ended September 30, 2017, no such reclassification was made to the carrying cost of raw glass inventory on hand as at September 30, 2017.
- (b) a 16.7% decrease in the quantity of the raw glass portion of inventory on hand at September 30, 2018 compared to September 30, 2017.

As discussed under “Business Risks”, the Company accepts deliveries of raw glass from its major supplier and other suppliers as it becomes available. The volume of supply of raw glass made available in the year ended September 30, 2018 declined by 1.3% compared to the prior year. See comments under “Business Risks”.

Purchase of property, plant and equipment

In the three months ended September 30, 2018, the Company spent \$15,371 on additions to fixed assets compared to \$4,946 in the same period of the prior fiscal year. Additions in the current period comprise \$12,272 to the building and \$3,099 for computer equipment, compared to \$4,946 on additions to plant and equipment in the same period of the prior fiscal year.

In the year September 30, 2018, the Company spent \$17,555 on additions to fixed assets compared to \$14,385 in the prior fiscal year. Additions in the current year comprise \$12,272 for the building, \$3,838 for computer equipment and \$1,445 for furniture and fixtures, compared to \$14,385 on additions to plant and equipment in the prior fiscal year.

Cash and bank operating lines of credit

The Company continues to carry an available operating line of credit in an authorized amount of \$750,000, secured by a general security agreement covering all property of the Company except for accounts receivable from one major customer. This line of credit is to be used to finance any short term operating cash requirements. The Company did not draw upon its operating credit during the year ended September 30 2018, and no balance was outstanding as at September 30, 2018 (\$Nil as at September 30, 2017).

Commitments

The Company has entered into a lease for a front-end loader with monthly lease payments of \$2,494 expiring April 30, 2019.

The Company is committed to monthly payments of \$2,000 under a property lease expiring May 31, 2022 for storage of the Company's raw material inventory.

Business Risks

All production from the Company's Alberta glass plant is sold to two large customers and one smaller one in the fiberglass manufacturing industry in Alberta, which is heavily dependent on housing starts in Western Canada and the Northwest United States.

Inventory is maintained at levels that are dictated largely by available supply and customer demand. The Company is subject to unpredictable variations in demand for its product and in supply of raw glass. The Company is required to manage an appropriate balance between supply and demand while maintaining an appropriate level of inventory of raw glass on hand.

Revenue is dependent upon the quantity of Vitreous product purchased by its customers. Customer demand is in turn driven by demand for fiberglass building insulation that is affected by seasonal variations in the building industry, cyclical variations in the building industry and unexpected events including events of a nature that can cause unexpected increases or decreases in building activity. The Company ships to its customers based on their day-to-day consumption.

On the supply side the Company generally must accept glass as it becomes available from one major supplier, and two other suppliers of modest scale, all three of which involve a different cost, including hauling. The Company makes every effort not to interrupt supply. Interruptions in supply cause operational challenges for the Company's suppliers that have resulted in certain former suppliers severing their relationship with the Company in the past. The loss of any of the Company's current suppliers could have an adverse impact on the operations of the Company.

For the past several quarters, demand for product has been exceeding the available supply of raw glass. Accordingly the Company has limited its sales to levels determined by its supply of raw glass. This limit will remain in effect until demand for product is equal to or exceeded by the available supply of raw glass on an annualized basis. The Company continues to seek additional sources of raw glass.

There are indications in the North American market that there has been a trend of decline in the market share of glass containers versus other beverage containers. As discussed in "Inventory and Supply", the volume of raw glass available to the Company declined slightly in the year ended September 30, 2018 compared to the prior fiscal year. There is a risk that the volume of glass beverage containers sold may decline which would result in a decline in the available supply of raw glass. Furthermore, the return of recyclable glass beverage containers to depots is erratic in quantity and timing. The Company is not able to forecast the volumes of raw glass that may be available in the future.

The Company continues to monitor the balance between supply and demand. See comments under "Inventory and Supply".

Liquidity and capital resources

The Company's debt at September 30, 2018 comprised normal trade payables, accrued liabilities and income taxes payable. Assuming that there is continuing market demand for fiberglass insulation, assuming that its customers continue to operate their Alberta plants at a level where sufficient levels of demand for glass are present, and assuming that glass supply and transportation continue to be available on an economically viable basis, management believes that Vitreous will generate sufficient cash flows from operations and has available credit facilities to meet its obligations as they fall due, and anticipates no change in the ability to meet such obligations on an ongoing basis.

Any modest plant capital expenditures are generally financed from ongoing cash flows from operations before payment of dividends. The Company also sets aside funds to cover the possibility of a major capital replacement or upgrade.

Share Capital

As at September 30, 2018 and December 7, 2018, there were 6,283,667 common shares (“Common Shares”) outstanding (6,283,667 at September 30, 2017).

Effective November 12, 2018, the Board of Directors granted to Meredith Cashion, a director of the Company, an option to acquire 100,000 Common Shares at an option price of \$3.54 per share expiring on November 11, 2023. This option for 100,000 Common Shares remains outstanding as at December 7, 2018. As at September 30, 2018 there were no options outstanding (nil at September 30, 2017).

Selected Annual Information

The following charts and related comments provide selected annual information for the fiscal years 2018, 2017 and 2016.

<i>Year ended September 30:</i>	<i>2018</i>	<i>2017</i>	<i>2016</i>
Sales	\$8,627,657	\$8,226,180	\$8,651,788
Net income	\$2,120,257	\$1,917,980	\$2,093,092
Per share	\$0.34	\$0.30	\$0.33
Diluted per share	\$0.34	\$0.30	\$0.33
Total assets	\$5,516,392	\$5,512,130	\$5,790,485
Long-term financial liabilities	\$ 0	\$ 0	\$ 0
Dividends paid, per share	\$0.34	\$0.34	\$0.43

Comments on Selected Annual Information

In the year ended September 30, 2018, sales increased by 4.9% from the preceding fiscal year due to an increase in volume of product sold of 1.6% combined with an increase in average product selling price of 3.2%.

In the year ended September 30, 2017, sales declined by 4.9% from the 2016 year due to a 7.0% decline in volume of product sold off set by an increase in average product selling price of 2.2%. The volume of product sold is dependent upon the volume of supply of raw glass available for purchase as discussed under “Inventory and Supply” and “Business Risks”.

Gross margin before amortization as a percentage of sales revenue for the year ended September 30, 2018 increased by 1.8 percentage points to 52.3% for the current fiscal year from 50.5% for the preceding fiscal year. This increase in gross margin before amortization as a percentage of sales revenue is due to (a) lower cost of repairs and maintenance for the current year, and (b) lower cost per unit of glass sold in the current year, and (c) higher average product selling price per unit in the year ended September 30, 2018 compared to the preceding fiscal year.

Gross margin before amortization as a percentage of sales revenue for the year ended September 30, 2017 increased by 0.5 percentage points from 50.0% to 50.5% mainly due to a 2.2% decrease in the cost of glass sold in the 2017 year compared to the prior year.

Net income for the year ended September 30, 2018 increased by 10.5% (\$202,277) over the prior year primarily due to an 8.5% (\$353,767) increase in amount of gross margin before amortization in the current year over the prior year. See comments above on gross margin before amortization as a percentage of sales.

Net income in the year ended September 30, 2017 decreased by 8.4% (\$175,112) over the prior year primarily due to a 3.9% (\$168,721) decrease in amount of gross margin before amortization in the 2017 year over the prior year. Despite improvements in gross margin before amortization as a percentage of sales in the 2017 year compared to the 2016 year, the 4.9% reduction in totals sales volume in the 2017 year resulted in a decrease of 3.9% in the amount of gross margin before amortization for the 2017 year compared to the year ended September 30, 2016. See comments above on sales and on gross margin as a percentage of sales.

Selected Quarterly Information

The following charts and related comments provide selected information for the eight most recent fiscal quarters.

<i>Quarter ended:</i>	<i>Sep 18</i>	<i>Jun 18</i>	<i>Mar 18</i>	<i>Dec 17</i>
Sales	\$2,335,763	\$1,960,348	\$2,156,899	\$2,174,847
Net income	\$597,843	\$435,950	\$507,941	\$578,523
Per share	\$0.10	\$0.07	\$0.08	\$0.09
Diluted per share	\$0.10	\$0.07	\$0.08	\$0.09

<i>Quarter ended:</i>	<i>Sep 17</i>	<i>Jun 17</i>	<i>Mar 17</i>	<i>Dec 16</i>
Total revenue	\$2,055,989	\$2,060,873	\$2,130,066	\$1,979,252
Net income	\$456,325	\$489,020	\$565,423	\$407,212
Per share	\$0.07	\$0.08	\$0.09	\$0.06
Diluted per share	\$0.07	\$0.08	\$0.09	\$0.06

Comments on Selected Quarterly Information

Quarterly results vary significantly depending upon demand and supply factors beyond the control of the company as discussed in “Business Risks”.

For the three months ended September 30, 2018, sales increased by 13.6% from the same quarter of the prior year due to an increase in volume of product sold of 9.8% combined with an increase in average product selling price of 3.5%. Net income for the quarter ended September 30, 2018 increased by 31.0% due to the combined effect of a 13.6% increase in sales, as discussed under “Sales”, and a decrease in cost of sales as a percentage of sale, as discussed under “Cost of sales”.

For the three months ended June 30, 2018, sales decreased by 4.9% from the same quarter of the prior year due to an 8.1% decrease in volume of product sold offset by an increase in overall average selling price per unit. Net income for the quarter ended June 30, 2018 decreased by 10.9% from the same quarter of the prior year due to the decrease in sales volume and a higher average cost per unit of glass sold.

For the three months ended March 31, 2018, sales increased by 1.3% from the same quarter of the prior year due to an increase in average product selling price offset by a 1.8% decrease in the volume of product sold. Net income for

the quarter ended March 31, 2018 decreased by 10.2% from the same quarter of the prior year due to an increase in the average per unit costs of glass sold.

For the three months ended December 31, 2017, sales increased by 9.9% compared to the same quarter of the prior year due to the combined effect of a 6.9% increase in volume of product sold and an increase in average product selling price. Net income for the three months ended December 31, 2017 increased by 42.0% compared to the same quarter of the prior year due to the combined effect of (a) the 9.9% increase in sales in the quarter ended December 2017, and (b) higher cost of glass sold in the same quarter of the prior year, and (c) higher amortization charged in the same quarter of the prior year.

Critical Accounting Estimates

IFRS require management to make estimates and assumptions that reported amount of assets, liabilities, revenue and expenses during the reporting periods presented. Significant estimates include the assessment of the recoverability of carrying value of the Company's inventory, property plant and equipment, and deferred income taxes. By their nature, these estimates are subject to measurement uncertainty and the effect on the financial statements of changes in such estimates in future periods could be significant.

The Company has no off-balance sheet arrangements.

Related Party Transactions

The Company obtained (and continues to obtain) consulting services from David Birkby, a director of the Company, at a cost of \$2,000 in the three months ended September 30, 2018 and \$8,000 for the year ended September 30, 2018 (\$2,000 and \$8,000 for the same periods in the prior fiscal year). These services are related to plant operations and plant management.

The Company obtained (and continues to obtain) consulting services from Timothy H. Rendell CPA, a director of the Company, at a cost of \$10,130 in the three months ended September 30, 2018 and \$40,628 for the year ended September 30, 2018 (\$10,000 and \$36,515 for the same periods in the prior year). These services are related to providing Chief Financial Officer services under a personal services contract.

Future plans

The Company plans to continue to manage its waste glass processing operation cautiously, and consistent with past practices.

Shareholder value and dividends

Having reviewed a variety of alternatives over the years, the Company's Board has concluded that the optimum value for shareholders at this time is obtained by continuing to run the Company's business and to pay dividends as the results of business allow. Dividend amounts are primarily affected by net cash flow from operations, timing of receipts on accounts receivable, timing of payment of accounts payable, and fluctuations in inventory levels.

Since September 30, 2016 the Company has paid cash dividends on its Common Shares as follows:

November 15, 2018	\$0.10
August 15, 2018	\$0.06
May 18, 2018	\$0.08
February 15, 2018	\$0.12
November 15, 2017	\$0.08
August 15, 2017	\$0.05
May 15, 2017	\$0.12
February 15, 2017	\$0.10
November 15, 2016	\$0.07

The Company's ability to pay dividends is contingent on the ongoing results of operation of the business. The Company believes that quarterly dividends, if any, should reflect actual business results of the most recent completed quarter.

All dividends paid to date are "eligible" dividends when calculating the dividend tax credit for income tax purposes.