QUAKER CHEMICAL CORP Form 10-Q April 27, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D. C. 20549

FORM 10-Q

[X] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended March 31, 2016

[] TRANSITION REPORT PURSUANT TO SECTION ACT OF 1934	N 13 OR 15(d) OF THE SECURITIES EXCHANGE
For the transition period from to	
Commission file nur	mber 001-12019
QUAKER CHEMICAI	L CORPORATION
(Exact name of Registrant as	s specified in its charter)
Pennsylvania (State or other jurisdiction of	23-0993790 (I.R.S. Employer
incorporation or organization)	Identification No.)
One Quaker Park, 901 E. Hector Street,	

Conshohocken, Pennsylvania

19428 - 2380

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code: 610-832-4000

Not	Δ	nı	nli	ca	hl	ı
INUL	\boldsymbol{H}	M	ווע	Ca	W	lt

Former name, former address and former fiscal year, if changed since last report.

	ed all reports required to be filed by Section 13 or 15(d) of g 12 months (or for such shorter period that the registrant was such filing requirements for the past 90 days. Yes [X]
any, every Interactive Data File required to be submitted	s (or for such shorter period that the registrant was required
	accelerated filer, an accelerated filer, a non-accelerated filer, arge accelerated filer," "accelerated filer" and "smaller reporting
Large accelerated filer	Accelerated filer []

Large accelerated filer	
	Accelerated filer [
Non-accelerated filer [] (Do not check if smaller reporting	Smaller reporting
company)	company []

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes $[\]$ No [X]

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Number of Shares of Common Stock

Outstanding on March 31, 2016

13,236,040

QUAKER CHEMICAL CORPORATION AND CONSOLIDATED SUBSIDIARIES

	J	Page
PART I.	FINANCIAL INFORMATION	
Item 1.	Financial Statements (unaudited)	
	Condensed Consolidated Statements of Income for the Three	
	Months Ended March 31, 2016 and March 31, 2015	2
	Condensed Consolidated Statements of Comprehensive Income	
	for the Three Months Ended March 31, 2016 and March 31,	
	<u>2015</u>	3
	Condensed Consolidated Balance Sheets at March 31, 2016 and	
	<u>December 31, 2015</u>	4
	Condensed Consolidated Statements of Cash Flows for the Three	
	Months Ended March 31, 2016 and March 31, 2015	5
	Notes to Condensed Consolidated Financial Statements	6
Item 2.	Management's Discussion and Analysis of Financial Condition	
	and Results of Operations	20
Item 3.	Quantitative and Qualitative Disclosures about Market Risk	26
Item 4.	Controls and Procedures	27
PART II.	OTHER INFORMATION	28
Item 1.	Legal Proceedings	28
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	28
Item 6.	Exhibits	29
Signatures		29
_		

1

PART I

FINANCIAL INFORMATION

Item 1. Financial Statements (Unaudited).

Quaker Chemical Corporation

Condensed Consolidated Statements of Income

(Dollars in thousands, except per share data)

	Т	Unau hree Moi Marc	ıth	s Ended
		2016		2015
Net sales	\$	178,077	\$	181,330
Cost of goods sold		110,202		115,002
Gross profit		67,875		66,328
Selling, general and administrative expenses		48,641		48,464
Operating income		19,234		17,864
Other income (expense), net		706		(194)
Interest expense		(741)		(587)
Interest income		348		320
Income before taxes and equity in net income of associated companies		19,547		17,403
Taxes on income before equity in net income of associated companies		6,305		5,359
Income before equity in net income of associated companies		13,242		12,044
Equity in net income (loss) of associated companies		102		(1,437)
Net income		13,344		10,607
Less: Net income attributable to noncontrolling interest		398		229
Net income attributable to Quaker Chemical Corporation	\$	12,946	\$	10,378
Per share data:				
Net income attributable to Quaker Chemical Corporation common shareholders – basic	\$	0.98	\$	0.78
Net income attributable to Quaker Chemical Corporation common shareholders – diluted	\$	0.98	\$	0.78
Dividends declared	\$	0.32	\$	0.30

The accompanying notes are an integral part of these condensed consolidated financial statements.

Quaker Chemical Corporation

Condensed Consolidated Statements of Comprehensive Income

(Dollars in thousands)

		Unaı	ıdite	d
	Thi	ree Months	s End	led March
		3	31,	
		2016		2015
Net income	\$	13,344	\$	10,607
Other comprehensive income (loss), net of tax				
Currency translation adjustments		4,733		(11,083)
Defined benefit retirement plans		187		2,478
Unrealized gain on available-for-sale securities		456		70
Other comprehensive income (loss)		5,376		(8,535)
Comprehensive income		18,720		2,072
Less: Comprehensive income attributable to noncontrolling interest		(460)		(259)
Comprehensive income attributable to Quaker Chemical Corporation	\$	18,260	\$	1,813

The accompanying notes are an integral part of these condensed consolidated financial statements.

Quaker Chemical Corporation

Condensed Consolidated Balance Sheets

(Dollars in thousands, except par value and share amounts)

	N	Unau Iarch 31,	ed December
		2016	31, 2015
ASSETS			
Current assets			
Cash and cash equivalents	\$	94,374	\$ 81,053
Accounts receivable, net		188,218	188,297
Inventories			
Raw materials and supplies		37,322	36,876
Work-in-process and finished goods		40,898	38,223
Prepaid expenses and other current assets		20,537	21,404
Total current assets		381,349	365,853
Property, plant and equipment, at cost		236,811	231,164
Less accumulated depreciation		(149,576)	(143,545)
Net property, plant and equipment		87,235	87,619
Goodwill		80,003	79,111
Other intangible assets, net		72,464	73,287
Investments in associated companies		21,194	20,354
Non-current deferred tax assets		19,916	23,468
Other assets		32,405	32,218
Total assets	\$	694,566	\$ 681,910
LIABILITIES AND EQUITY			
Current liabilities			
Short-term borrowings and current portion of long-term debt	\$	645	\$ 662
Accounts and other payables		69,748	71,543
Accrued compensation		13,626	19,166
Accrued restructuring		5,969	6,303
Other current liabilities		25,397	26,881
Total current liabilities		115,385	124,555
Long-term debt		97,620	81,439
Non-current deferred tax liabilities		11,071	11,400
Other non-current liabilities		78,964	83,273
Total liabilities		303,040	300,667
Commitments and contingencies (Note 15)		,	,
Equity			
Common stock \$1 par value; authorized 30,000,000 shares; issued and			
outstanding 2016 – 13,236,040 shares; 2015 – 13,288,113 shares		13,236	13,288
Capital in excess of par value		107,950	106,333
r r r r r			, 2

Retained earnings	329,684	326,740
Accumulated other comprehensive loss	(68,002)	(73,316)
Total Quaker shareholders' equity	382,868	373,045
Noncontrolling interest	8,658	8,198
Total equity	391,526	381,243
Total liabilities and equity	\$ 694,566	\$ 681,910

The accompanying notes are an integral part of these condensed consolidated financial statements.

4

Quaker Chemical Corporation

Condensed Consolidated Statements of Cash Flows

(Dollars in thousands)

	Unaudited For the Three Months End March 31,			ns Ended
		2016	Í	2015
Cash flows from operating activities				
Net income	\$	13,344	\$	10,607
Adjustments to reconcile net income to net cash provided by operating				
activities:				
Depreciation		3,157		3,071
Amortization		1,777		1,627
Equity in undistributed earnings of associated companies, net of dividends		(27)		1,437
Deferred compensation and other, net		980		1,091
Stock-based compensation		1,798		1,685
Gain on disposal of property, plant and equipment and other assets		(20)		(21)
Insurance settlement realized		(279)		(115)
Pension and other postretirement benefits		(2,685)		10
Increase (decrease) in cash from changes in current assets and current liabilities, net of acquisitions:		, , ,		
Accounts receivable		2,602		3,428
Inventories		(1,800)		(2,584)
Prepaid expenses and other current assets		1,183		(2,634)
Accounts payable and accrued liabilities		(8,647)		(9,516)
Change in restructuring liabilities		(509)		
Net cash provided by operating activities		10,874		8,086
Cash flows from investing activities				
Investments in property, plant and equipment		(2,172)		(2,414)
Payments related to acquisitions, net of cash acquired		(1,384)		528
Proceeds from disposition of assets		26		80
Insurance settlement interest earned		8		10
Change in restricted cash, net		271		105
Net cash used in investing activities		(3,251)		(1,691)
Cash flows from financing activities				
Proceeds from long-term debt		14,687		
Repayment of long-term debt		(159)		(1,327)
Dividends paid		(4,243)		(3,990)
Stock options exercised, other		(253)		(50)
Payments for repurchase of common stock		(5,859)		_
Excess tax benefit related to stock option exercises		104		287

Net cash provided by (used in) financing activities	4,277	(5,080)
Effect of exchange rate changes on cash	1,421	(1,708)
Net increase (decrease) in cash and cash equivalents	13,321	(393)
Cash and cash equivalents at beginning of period	81,053	64,731
Cash and cash equivalents at end of period	\$ 94,374	\$ 64,338

The accompanying notes are an integral part of these condensed consolidated financial statements.

Quaker Chemical Corporation

Notes to Condensed Consolidated Financial Statements

(Dollars in thousands, except share and per share amounts, unless otherwise stated)

(Unaudited)

Note 1 – Condensed Financial Information

The condensed consolidated financial statements included herein are unaudited and have been prepared in accordance with generally accepted accounting principles in the United States ("U.S. GAAP") for interim financial reporting and the United States Securities and Exchange Commission ("SEC") regulations. Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted pursuant to such rules and regulations. In the opinion of management, the financial statements reflect all adjustments (consisting only of normal recurring adjustments, except certain material adjustments, as discussed below) which are necessary for a fair statement of the financial position, results of operations and cash flows for the interim periods. The results for the three months ended March 31, 2016 are not necessarily indicative of the results to be expected for the full year. These financial statements should be read in conjunction with the Company's Annual Report filed on Form 10-K for the year ended December 31, 2015. During the first quarter of 2016, the Company revised its Condensed Consolidated Balance Sheet for December 31, 2015, reducing non-current deferred tax assets and non-current deferred tax liabilities by \$3.6 million each, to correct for offsetting deferred tax balances within related taxing jurisdictions. The Company considers such revision to be immaterial and the revision had no impact on reported equity, net income or net cash provided by operating activities.

Venezuela's economy has been considered hyper inflationary under U.S. GAAP since 2010, at which time the Company's Venezuela equity affiliate, Kelko Quaker Chemical, S.A. ("Kelko Venezuela"), changed its functional currency from the bolivar fuerte ("BsF") to the U.S. dollar. Accordingly, all gains and losses resulting from the remeasurement of Kelko Venezuela's monetary assets and liabilities to published exchange rates are required to be recorded directly to the Condensed Consolidated Statement of Income. As of December 31, 2014, there were three legally available exchange rates in Venezuela, the CADIVI (or the official rate, 6.3 BsF per U.S. dollar), the SICAD I and the SICAD II. Kelko Venezuela had access to the CADIVI for imported goods, had not been invited to participate in any SICAD I auctions and had limited access to the SICAD II mechanism. Accordingly, the Company measured its equity investment and other related assets with Kelko Venezuela at the CADIVI exchange rate at December 31, 2014. During the three months ended March 31, 2015, the Venezuela government announced changes to its foreign exchange controls. There continued to be three exchange mechanisms, however, they consisted of the CADIVI, a combined SICAD I and SICAD II auction mechanism (the "SICAD") and a newly created, marginal currency system (the "SIMADI"). In light of the first quarter of 2015 changes to Venezuela's foreign exchange controls and the on-going economic challenges in Venezuela, the Company re-assessed Kelko Venezuela's access to U.S. dollars, the impact on the operations of Kelko Venezuela, and the impact on the Company's equity investment and other related assets, which resulted in revaluing its equity investment in Kelko Venezuela and other related assets to the SIMADI exchange rate of approximately 193 BsF per U.S. dollar as of March 31, 2015. This resulted in a charge of \$2.8 million, or \$0.21 per diluted share, recorded in the three months ended March 31, 2015. As of December 31, 2015, the Company's equity investment in Kelko Venezuela was \$0.2 million, and continued to be valued at the SIMADI exchange rate, which was approximately 198 BsF per U.S. dollar.

During the three months ended March 31, 2016, the Venezuela government announced further changes to its foreign exchange controls, including eliminating the CADIVI, SICAD and SIMADI exchange rate mechanisms and replacing them with a new dual foreign exchange rate system. The Company understands that the new dual foreign exchange

rate system now consists of a protected "DIPRO" exchange rate, with a rate fixed at 10 Bsf per U.S. dollar and, also, a floating supplementary market exchange rate known as the "DICOM." The DIPRO rate will only be available for payment of certain imports of essential goods in the food and health sectors while the DICOM will govern all other transactions not covered by DIPRO. As of March 31, 2016, the published rate for the DICOM was approximately 273 BsF per U.S. dollar. In light of these changes to the foreign exchange controls during the three months ended March 31, 2016, the Company again re-assessed Kelko Venezuela's access to U.S. dollars, the impact on the operations of Kelko Venezuela, and the impact on the Company's equity investment and other related assets. The Company does not believe it currently has access to the DIPRO and, therefore, believes the DICOM is currently the exchange rate system available to Kelko Venezuela, which resulted in a currency conversion charge of \$0.1 million, or \$0.01 per diluted share, during the three months ended March 31, 2016. As of March 31, 2016, the Company's equity investment in Kelko Venezuela was \$0.2 million, valued at the DICOM exchange rate.

As part of the Company's chemical management services, certain third-party product sales to customers are managed by the Company. Where the Company acts as the principal, revenue is recognized on a gross reporting basis at the selling price negotiated with customers. Where the Company acts as an agent, such revenue is recorded using net reporting of service revenue, at the amount of the administrative fee earned by the Company for ordering the goods. Third-party products transferred under arrangements resulting in net reporting totaled \$11.1 million and \$11.9 million for the three months ended March 31, 2016 and 2015, respectively.

Quaker Chemical Corporation

Notes to Condensed Consolidated Financial Statements - Continued

(Dollars in thousands, except share and per share amounts, unless otherwise stated)

(Unaudited)

Note 2 -Recently Issued Accounting Standards

The Financial Accounting Standards Board ("FASB") issued an accounting standard update in March 2016 involving several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, use of a forfeiture rate, and classification on the statement of cash flows. The guidance within this accounting standard update is effective for annual and interim periods beginning after December 15, 2016. Early adoption is permitted, however, if early adoption is elected, all amendments in the update must be adopted in the same period. When adopted, application of the guidance will vary based on each aspect of the update; including on a retrospective, modified retrospective or prospective basis. The Company has not early adopted and is currently evaluating the potential impact of this guidance and considering the appropriate implementation strategy.

The FASB issued an accounting standard update in February 2016 regarding the accounting and disclosure for leases. Specifically, the update will require entities that lease assets to recognize the assets and liabilities for the rights and obligations created by those leases on the balance sheet, in most instances. The guidance within this accounting standard update is effective for annual and interim periods beginning after December 15, 2018, and should be applied on a modified retrospective basis for the reporting periods presented. Early adoption is permitted. The Company has not early adopted and is currently evaluating the potential impact of this guidance and considering the appropriate implementation strategy.

The FASB issued an accounting standard update in November 2015 regarding the classification of deferred taxes on the balance sheet. The update requires that all deferred tax assets and liabilities, along with any related valuation allowance, be classified as noncurrent on the balance sheet. The update does not change the existing requirement that only permits offsetting within a jurisdiction. The guidance within this accounting standard update is effective for annual and interim periods beginning after December 15, 2016, and may be applied either prospectively, for all deferred tax assets and liabilities, or retrospectively. Early adoption is permitted. The Company has not early adopted. Adoption of the guidance will not have an impact on the Company's earnings or cash flow but will result in a balance sheet reclassification between current and long-term assets and liabilities.

The FASB issued an accounting standard update in July 2015 regarding simplifying the measurement of inventory. The guidance is applicable for entities that measure inventory using the FIFO or average cost methods. Specifically, the update requires that inventory be measured at lower of cost or net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. The amendments in this update are effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. This guidance should be applied prospectively with early adoption permitted. As of March 31, 2016, the Company has elected to early adopt this guidance without a material impact.

The FASB issued an accounting standard update in May 2015 regarding the required disclosures for entities that elect to measure the fair value of certain investments using the net asset value per share (or its equivalent) practical expedient in accordance with the fair value measurement authoritative guidance. The update removes the requirement to categorize within the fair value hierarchy, and also limits the requirement to make certain other disclosures, for all

such investments. The amendments in this update are effective for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years, and should be applied on a retrospective basis for the periods presented. Early adoption was permitted. As of March 31, 2016, the Company has adopted this guidance without a material impact.

The FASB issued an accounting standard update in April 2015 regarding the presentation of debt issuance costs on the balance sheet. The update requires capitalized debt issuance costs be presented on the balance sheet as a reduction to debt, rather than recorded as a separate asset. The amendments in this update are effective for annual and interim periods beginning after December 15, 2015 and should be applied on a retrospective basis for the periods presented. Early adoption was permitted. Also, in June 2015, the SEC staff announced that the guidance within this accounting standard update was not applicable to revolving debt arrangements or credit facilities. As of March 31, 2016, the Company has adopted this guidance without a material impact.

The FASB issued an accounting standard update in May 2014 regarding the accounting for and disclosure of revenue recognition. Specifically, the update outlined a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers, which will be common to both U.S. GAAP and International Financial Reporting Standards ("IFRS"). The guidance was effective for annual and interim periods beginning after December 15, 2016, and allowed for full retrospective adoption of prior period data or a modified retrospective adoption. Early adoption was not permitted. In August 2015, the FASB issued an accounting standard update to delay the effective date of the new revenue standard by one year, or, in other words, to be effective for annual and interim periods beginning after December 15, 2017. Entities will be permitted to adopt the new revenue standard early but not before the original effective date. In March 2016, the FASB issued an accounting standard update to clarify the implementation guidance on principal versus agent considerations. In April 2016, the FASB issued an accounting standard update to clarify the identification of performance obligations and the licensing implementation guidance, while retaining the related principles for those

Quaker Chemical Corporation

Notes to Condensed Consolidated Financial Statements - Continued

(Dollars in thousands, except share and per share amounts, unless otherwise stated)

(Unaudited)

areas. The amendments in these 2016 updates do not change the core principle of the previously issued guidance in May 2014. The Company is currently evaluating the potential impact of the new revenue recognition guidance and considering the appropriate implementation strategy.

Note 3 -Restructuring and Related Activities

In response to continued weak economic conditions and market declines in many regions, Quaker's management approved a global restructuring plan (the "2015 Program") in the fourth quarter of 2015 to reduce its operating costs. The 2015 Program includes the re-organization of certain commercial functions, the closure of certain distribution, lab and administrative offices, and other related severance charges. In addition to these actions, the Company made a decision to make available for sale certain technology of one of its existing businesses, which also resulted in employee severance and \$0.3 million of intangible assets being reclassified to other current assets as of December 31, 2015. During the three months ended March 31, 2016, there has been no further update and the intangible assets continue to be available for sale and included in other current assets.

The 2015 Program includes provisions for the reduction of total headcount by approximately 65 employees globally. Employee separation benefits varied depending on local regulations within certain foreign countries and included severance and other benefits. The Company continues to expect to substantially complete all of the initiatives under the 2015 Program during 2016 and expects settlement of these charges to occur primarily in 2016 as well. The Company did not incur additional restructuring expenses in connection with the 2015 Program during the first quarter of 2016, and, at this time, the Company does not expect material, additional restructuring expenses beyond customary and routine adjustments to initial estimates for employee separation benefits.

Restructuring activity recognized in connection with the 2015 Program is as follows:

	,	North		EMEA	A a	ia/Pacific	South America		Total
Accrued restructuring as of	P	America		LNILA	AS	ia/Pacific	America		Total
December 31, 2015	\$	1,867	\$	4,265	\$	135	\$ 36	\$	6,303
Cash payments		(284)		(54)		(132)	(39)		(509)
Currency translation adjustments		_	_	175		(3)	3		175
Accrued restructuring as of									
March 31, 2016	\$	1,583	\$	4,386	\$	_	\$ -	_ \$	5,969
Note 4 – Business Segments									

The Company's reportable operating segments are organized by geography as follows: (i) North America, (ii) Europe, Middle East and Africa ("EMEA"), (iii) Asia/Pacific and (iv) South America. Operating earnings, excluding indirect operating expenses, for the Company's reportable operating segments are comprised of revenues less costs of goods sold and selling, general and administrative expenses ("SG&A") directly related to the respective region's product sales. The indirect operating expenses consist of SG&A related expenses that are not directly attributable to the product sales of each respective reportable operating segment. Other items not specifically identified with the Company's

reportable operating segments include interest expense, interest income, license fees from non-consolidated affiliates and other income (expense).

Quaker Chemical Corporation

Notes to Condensed Consolidated Financial Statements - Continued

(Dollars in thousands, except share and per share amounts, unless otherwise stated)

(Unaudited)

The following table presents information about the performance of the Company's reportable operating segments for the three months ended March 31, 2016 and 2015:

	Three Months Ended March 31,			
	2016	•	2015	
Net sales				
North America	\$ 82,372	\$	83,002	
EMEA	47,649		43,185	
Asia/Pacific	41,512		45,000	
South America	6,544		10,143	
Total net sales	\$ 178,077	\$	181,330	
Operating earnings, excluding indirect operating expenses				
North America	\$ 18,632	\$	17,825	
EMEA	8,053		6,571	
Asia/Pacific	11,048		10,434	
South America	(315)		1,252	
Total operating earnings, excluding indirect operating expenses	37,418		36,082	
Indirect operating expenses	(16,407)		(16,591)	
Amortization expense	(1,777)		(1,627)	
Consolidated operating income	19,234		17,864	
Other income (expense), net	706		(194)	
Interest expense	(741)		(587)	
Interest income	348		320	
Consolidated income before taxes and equity in net income of associated companies	\$ 19,547	\$	17,403	

Inter-segment revenues for the three months ended March 31, 2016 and 2015 were \$1.8 million and \$2.0 million for North America, \$3.9 million and \$4.8 million for EMEA, \$0.3 million and \$0.1 million for Asia/Pacific, respectively, and less than \$0.1 million for South America in both periods. However, all inter-segment transactions have been eliminated from each reportable operating segment's net sales and earnings for all periods presented above.

Note 5 – Stock-Based Compensation

The Company recognized the following stock-based compensation expense in SG&A in its Condensed Consolidated Statements of Income for the three months ended March 31, 2016 and 2015:

Thr	ee Mo	onths En	ded	
	Mar	ch 31,		
2016			2015	
\$	201	\$		185

Nonvested stock awards and restricted stock units	848	752
Employee stock purchase plan	23	18
Non-elective and elective 401(k) matching contribution in stock	689	699
Director stock ownership plan	37	31
Total stock-based compensation expense	\$ 1,798	\$ 1,685

The Company's estimated taxes payable as of March 31, 2016 and 2015, respectively, were sufficient to fully recognize \$0.1 million and \$0.3 million of excess tax benefits related to stock option exercises as cash inflows from financing activities in its Condensed Consolidated Statements of Cash Flows, for the three months ended March 31, 2016 and 2015, respectively.

Quaker Chemical Corporation

Notes to Condensed Consolidated Financial Statements - Continued

(Dollars in thousands, except share and per share amounts, unless otherwise stated)

(Unaudited)

Stock option activity under all plans is as follows:

	Number of Options	Weighted Average Exercise Price (per option)	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Options outstanding at December 31, 2015	99,671	\$ 71.73	3	
Options granted	67,444	72.12	2	
Options outstanding at March 31, 2016	167,115	\$ 71.89	5.7	\$ 2,317
Options expected to vest at March 31, 2016	103,040	\$ 75.82	2 6.4	\$ 1,027
Options exercisable at March 31, 2016	64,075	\$ 65.5	7 4.4	\$ 1,290

There were no options exercised during the three months ended March 31, 2016. The total intrinsic value of options exercised during the three months ended March 31, 2015 was \$0.2 million. Intrinsic value is calculated as the difference between the current market price of the underlying security and the strike price of a related option.

A summary of the Company's outstanding stock options at March 31, 2016 is as follows:

Range of Exercise Prices	Number of Options Outstanding	Weighted Average Remaining Contractual Term (years)	Weighted Average Exercise Price (per option)	Number of Options Exercisable	Weighted Average Exercise Price (per option)
\$ — - \$ 10.00 \$ 10.01 - \$ 20.00	2,367	0.8	-\$ 18.82	- 2,367	18.82
·	2,307	0.8	10.02	2,307	10.02
\$ 20.01 - \$ 30.00	_	_	_		_
\$ 30.01 - \$ 40.00	6,317	2.9	38.13	6,317	38.13
\$ 40.01 - \$ 50.00	_				
\$ 50.01 - \$ 60.00	21,055	3.9	58.26	21,055	58.26
\$ 60.01 - \$ 70.00	_				
\$ 70.01 - \$ 80.00	101,230	6.2	72.57	22,281	73.47
\$ 80.01 - \$ 90.00	36,146	5.9	87.30	12,055	87.30
	167,115	5.7	71.89	64,075	65.57

As of March 31, 2016, unrecognized compensation expense related to options granted during 2014, 2015, and 2016 was \$0.2 million, \$0.5 million, and \$1.0 million, respectively.

During the first quarter of 2016, the Company granted stock options under its LTIP plan that are subject only to time vesting over a three-year period. For the purposes of determining the fair value of stock option awards, the Company uses the Black-Scholes option pricing model and the assumptions set forth in the table below:

Number of options granted	67,444
Dividend yield	1.49%
Expected volatility	28.39%
Risk-free interest rate	1.08%
Expected term (years)	4.0

Less than \$0.1 million of expense was recorded on these options during the three months ended March 31, 2016. The fair value of these awards is amortized on a straight-line basis over the vesting period of the awards.

Quaker Chemical Corporation

Notes to Condensed Consolidated Financial Statements - Continued

(Dollars in thousands, except share and per share amounts, unless otherwise stated)

(Unaudited)

Activity of nonvested shares granted under the Company's LTIP plan is shown below:

			Weighted Average Grant		
	Number of Shares		Oate Fair Value (per share)		
Nonvested awards, December 31, 2015	113,910	\$	72.91		
Granted	23,661	\$	72.22		
Vested	(17,785)	\$	58.97		
Nonvested awards, March 31, 2016	119,786	\$	74.84		

The fair value of the nonvested stock is based on the trading price of the Company's common stock on the date of grant. The Company adjusts the grant date fair value for expected forfeitures based on historical experience for similar awards. As of March 31, 2016, unrecognized compensation expense related to these awards was \$4.5 million to be recognized over a weighted average remaining period of 2.0 years.

Activity of nonvested restricted stock units granted under the Company's LTIP plan is shown below:

			Weighted
		Av	erage Grant
	Number of	Da	te Fair Value
	Units		(per unit)
Nonvested awards, December 31, 2015	6,174	\$	74.14
Granted	1,841	\$	72.12
Vested	(1,418)	\$	58.26
Nonvested awards, March 31, 2016	6,597	\$	76.99

The fair value of the nonvested restricted stock units is based on the trading price of the Company's common stock on the date of grant. The Company adjusts the grant date fair value for expected forfeitures based on historical experience for similar awards. As of March 31, 2016, unrecognized compensation expense related to these awards was \$0.2 million to be recognized over a weighted average remaining period of 2.1 years.

Employee Stock Purchase Plan

In 2000, the Board adopted an Employee Stock Purchase Plan ("ESPP") whereby employees may purchase Company stock through a payroll deduction plan. Purchases are made from the plan and credited to each participant's account at the end of each month (the "Investment Date"). The purchase price of the stock is 85% of the fair market value on the Investment Date. The plan is compensatory and the 15% discount is expensed on the Investment Date. All employees, including officers, are eligible to participate in this plan. A participant may withdraw all uninvested payment balances credited to a participant's account at any time. An employee whose stock ownership of the Company exceeds five percent of the outstanding common stock is not eligible to participate in this plan.

2013 Director Stock Ownership Plan

In 2013, the Company adopted the 2013 Director Stock Ownership Plan (the "Plan"), to encourage the Directors to increase their investment in the Company, which was approved at the Company's May 2013 shareholders' meeting. The Plan authorizes the issuance of up to 75,000 shares of Quaker common stock in accordance with the terms of the Plan in payment of all or a portion of the annual cash retainer payable to each of the Company's non-employee directors in 2013 and subsequent years during the term of the Plan. Under the Plan, each director who, on May 1 of the applicable calendar year, owns less than 400% of the annual cash retainer for the applicable calendar year, divided by the average of the closing price of a share of Quaker Common Stock as reported by the composite tape of the New York Stock Exchange for the previous calendar year (the "Threshold Amount"), is required to receive 75% of the annual cash retainer in Quaker common stock and 25% of the retainer in cash, unless the director elects to receive a greater percentage of Quaker common stock (up to 100%) of the annual cash retainer for the applicable year. Each director who owns more than the Threshold Amount may elect to receive common stock in payment of a percentage (up to 100%) of the annual cash retainer. The annual retainer is \$0.1 million and the retainer payment date is June 1.

Quaker Chemical Corporation

Notes to Condensed Consolidated Financial Statements - Continued

(Dollars in thousands, except share and per share amounts, unless otherwise stated)

(Unaudited)

Note 6 – Pension and Other Postretirement Benefits

The components of net periodic benefit cost for the three months ended March 31, 2016 and 2015 are as follows:

Three Months Ended March 31,

					Ot	her	
	Pension Benefits			Postretirement Benefits			
	2016		2015		2016		2015
Service cost	\$ 670	\$	773	\$	4	\$	5
Interest cost	1,111		1,262		39		50
Expected return on plan assets	(1,344)		(1,402)		_	-	_
Actuarial loss amortization	808		881				