

Form 5500 Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Annual Return/Report of Employee Benefit Plan This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). <p style="text-align: center;">▶ Complete all entries in accordance with the instructions to the Form 5500.</p>	OMB Nos. 1210-0110 1210-0089 <div style="text-align: center; font-size: 24pt; font-weight: bold;">2017</div> This Form is Open to Public Inspection
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Part I	Annual Report Identification Information		
For calendar plan year 2017 or fiscal plan year beginning <u>01/01/2017</u> and ending <u>12/31/2017</u>			
A	This return/report is for:	☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)	
	☒ a single-employer plan ☐ a DFE (specify) ____		
B	This return/report is:	☐ the first return/report ☐ the final return/report ☐ an amended return/report ☐ a short plan year return/report (less than 12 months)	
C	If the plan is a collectively-bargained plan, check here. ▶ ☐		
D	Check box if filing under:	☐ Form 5558 ☐ automatic extension ☐ special extension (enter description)	☐ the DFVC program

Part II	Basic Plan Information —enter all requested information		
1a	Name of plan <u>QUAKER CHEMICAL CORPORATION RETIREMENT SAVINGS PLAN</u>	1b	Three-digit plan number (PN) ▶ <u>112</u>
		1c	Effective date of plan <u>12/31/1953</u>
2a	Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) <u>QUAKER CHEMICAL CORPORATION</u> <u>901 E. HECTOR STREET</u> <u>CONSHOHOCKEN, PA 19428-0809</u>	2b	Employer Identification Number (EIN) <u>23-0993790</u>
		2c	Plan Sponsor's telephone number <u>610-832-7894</u>
		2d	Business code (see instructions) <u>325900</u>

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	07/05/2018	ALYCE SABA
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

Form 5500 (2017)
v. 170203

3a Plan administrator's name and address ☐ Same as Plan Sponsor GLOBAL PENSION COMMITTEE 901 E. HECTOR STREET CONSHOHOCKEN, PA 19428-0809	3b Administrator's EIN 23-0993790 3c Administrator's telephone number 610-832-7894
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name	4b EIN 4d PN
5 Total number of participants at the beginning of the plan year	5 799
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1) , 6a(2) , 6b , 6c , and 6d).	
a(1) Total number of active participants at the beginning of the plan year	6a(1) 563
a(2) Total number of active participants at the end of the plan year	6a(2) 619
b Retired or separated participants receiving benefits	6b 21
c Other retired or separated participants entitled to future benefits	6c 216
d Subtotal. Add lines 6a(2) , 6b , and 6c	6d 856
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	6e 2
f Total. Add lines 6d and 6e	6f 858
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	6g 857
h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	6h 0
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item).....	7
8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions: 2E 2F 2H 2I 2J 2K 2R 2T 3H 3I b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:	

9a Plan funding arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	9b Plan benefit arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor
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10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

- (1) ☒ **R** (Retirement Plan Information)
- (2) ☐ **MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
- (3) ☐ **SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary

b General Schedules

- (1) ☒ **H** (Financial Information)
- (2) ☐ **I** (Financial Information – Small Plan)
- (3) ☐ **A** (Insurance Information)
- (4) ☒ **C** (Service Provider Information)
- (5) ☒ **D** (DFE/Participating Plan Information)
- (6) ☐ **G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2017 Form M-1 annual report. If the plan was not required to file the 2017 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

<div>SCHEDULE C</div> <div>(Form 5500)</div> <div>Department of the Treasury Internal Revenue Service</div> <div>Department of Labor Employee Benefits Security Administration</div> <div>Pension Benefit Guaranty Corporation</div>	<div>Service Provider Information</div> <div>This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).</div> <div>▶ File as an attachment to Form 5500.</div>	OMB No. 1210-0110
		2017
		This Form is Open to Public Inspection.

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017		
A Name of plan QUAKER CHEMICAL CORPORATION RETIREMENT SAVINGS PLAN	B Three-digit plan number (PN) ▶	112
C Plan sponsor's name as shown on line 2a of Form 5500 QUAKER CHEMICAL CORPORATION	D Employer Identification Number (EIN) 23-0993790	

Part I	Service Provider Information (see instructions)
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You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions)..... ☒ Yes ☐ No

b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation
THE VANGUARD GROUP, INC.
23-1945930

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

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2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

THE VANGUARD GROUP, INC.

23-1945930

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
15 25 33 37 52	NONE	8665	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
THE VANGUARD GROUP, INC.	99	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
COLUMBIA THREADNEEDLE INVESTMENTS 13-3043478	5 BPS	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
THE VANGUARD GROUP, INC.	99	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
COLUMBIA THREADNEEDLE INVESTMENTS 41-1861053	20 BPS	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
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(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)
(complete as many entries as needed)

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

SCHEDULE D (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small>	DFE/Participating Plan Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ► File as an attachment to Form 5500.	OMB No. 1210-0110 2017 This Form is Open to Public Inspection.
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For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

A Name of plan <u>QUAKER CHEMICAL CORPORATION RETIREMENT SAVINGS PLAN</u>	B Three-digit plan number (PN) ►	<u>112</u>
C Plan or DFE sponsor's name as shown on line 2a of Form 5500 <u>QUAKER CHEMICAL CORPORATION</u>	D Employer Identification Number (EIN) <u>23-0993790</u>	

Part I	Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs) (Complete as many entries as needed to report all interests in DFEs)
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a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC RETIREMENT SAVINGS TRUST

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN <u>45-5436422-022</u>	d Entity code <u>C</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>12518131</u>
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

a Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
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103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
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103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
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103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
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103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
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103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)

Part II Information on Participating Plans (to be completed by DFEs)

(Complete as many entries as needed to report all participating plans)

a Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
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plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN

SCHEDULE H (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500.	OMB No. 1210-0110 2017 This Form is Open to Public Inspection
For calendar plan year 2017 or fiscal plan year beginning <u>01/01/2017</u> and ending <u>12/31/2017</u>		
A Name of plan <u>QUAKER CHEMICAL CORPORATION RETIREMENT SAVINGS PLAN</u>	B Three-digit plan number (PN) ►	<u>112</u>
C Plan sponsor's name as shown on line 2a of Form 5500 <u>QUAKER CHEMICAL CORPORATION</u>	D Employer Identification Number (EIN) <u>23-0993790</u>	

Part I Asset and Liability Statement			
1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.			
Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a		
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)	137169	140382
(2) Participant contributions	1b(2)		
(3) Other.....	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)		
(2) U.S. Government securities.....	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other.....	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common	1c(4)(B)	773405	1046868
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans	1c(8)	1742166	1703522
(9) Value of interest in common/collective trusts.....	1c(9)	13028075	12518131
(10) Value of interest in pooled separate accounts.....	1c(10)		
(11) Value of interest in master trust investment accounts	1c(11)		
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds).....	1c(13)	71022138	87310639
(14) Value of funds held in insurance company general account (unallocated contracts).....	1c(14)		
(15) Other	1c(15)		

		(a) Beginning of Year	(b) End of Year
1d	Employer-related investments:		
(1)	Employer securities	1d(1) 35580116	39165893
(2)	Employer real property	1d(2)	
e	Buildings and other property used in plan operation	1e	
f	Total assets (add all amounts in lines 1a through 1e)	1f 122283069	141885435
Liabilities			
g	Benefit claims payable	1g	
h	Operating payables	1h	
i	Acquisition indebtedness	1i	
j	Other liabilities	1j	
k	Total liabilities (add all amounts in lines 1g through 1j)	1k 0	0
Net Assets			
l	Net assets (subtract line 1k from line 1f)	1l 122283069	141885435

Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

		(a) Amount	(b) Total
a	Contributions:		
(1)	Received or receivable in cash from: (A) Employers	2a(1)(A) 2989927	
	(B) Participants	2a(1)(B) 4361672	
	(C) Others (including rollovers)	2a(1)(C) 520292	
(2)	Noncash contributions	2a(2)	
(3)	Total contributions. Add lines 2a(1)(A) , (B) , (C) , and line 2a(2)	2a(3)	7871891
b	Earnings on investments:		
(1)	Interest:		
	(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)	
	(B) U.S. Government securities	2b(1)(B)	
	(C) Corporate debt instruments	2b(1)(C)	
	(D) Loans (other than to participants)	2b(1)(D)	
	(E) Participant loans	2b(1)(E) 76250	
	(F) Other	2b(1)(F)	
	(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)	76250
(2)	Dividends: (A) Preferred stock	2b(2)(A)	
	(B) Common stock	2b(2)(B) 377991	
	(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C) 2767890	
	(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)	
(3)	Rents	2b(3)	
(4)	Net gain (loss) on sale of assets: (A) Aggregate proceeds	2b(4)(A) 8481885	
	(B) Aggregate carrying amount (see instructions)	2b(4)(B) 7533298	
	(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result	2b(4)(C)	
(5)	Unrealized appreciation (depreciation) of assets: (A) Real estate	2b(5)(A)	
	(B) Other	2b(5)(B) 5386169	
	(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)	

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		226114
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds).....	2b(10)		10759706
c Other income	2c		339856
d Total income. Add all income amounts in column (b) and enter total.....	2d		28754454

Expenses

e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers.....	2e(1)	9146828	
(2) To insurance carriers for the provision of benefits	2e(2)		
(3) Other	2e(3)		
(4) Total benefit payments. Add lines 2e(1) through (3).....	2e(4)		9146828
f Corrective distributions (see instructions)	2f		
g Certain deemed distributions of participant loans (see instructions).....	2g		
h Interest expense.....	2h		
i Administrative expenses: (1) Professional fees	2i(1)		
(2) Contract administrator fees	2i(2)		
(3) Investment advisory and management fees	2i(3)		
(4) Other	2i(4)	5260	
(5) Total administrative expenses. Add lines 2i(1) through (4).....	2i(5)		5260
j Total expenses. Add all expense amounts in column (b) and enter total.....	2j		9152088

Net Income and Reconciliation

k Net income (loss). Subtract line 2j from line 2d	2k		19602366
l Transfers of assets:			
(1) To this plan.....	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) ☒ Unqualified (2) ☐ Qualified (3) ☐ Disclaimer (4) ☐ Adverse

b Did the accountant perform a limited scope audit pursuant to 29 CFR 2520.103-8 and/or 103-12(d)? ☐ Yes ☒ No

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: BDO USA, LLP

(2) EIN: 13-5381590

d The opinion of an independent qualified public accountant is **not attached** because:

(1) ☐ This form is filed for a CCT, PSA, or MTIA. (2) ☐ It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.).....

b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)

	Yes	No	Amount
4a		X	
4b		X	

	Yes	No	Amount
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)		X	
4c		X	
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)		X	
4d		X	
e Was this plan covered by a fidelity bond?	X		2000000
4e	X		2000000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?		X	
4f		X	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?		X	
4g		X	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?		X	
4h		X	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	X		
4i	X		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.)		X	
4j		X	
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?		X	
4k		X	
l Has the plan failed to provide any benefit when due under the plan?		X	
4l		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)		X	
4m		X	
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.			
4n			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year? ☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	5b(2) EIN(s)	5b(3) PN(s)

5c If the plan is a defined benefit plan, is it covered under the PBGC insurance program (See ERISA section 4021.)? ☐ Yes ☐ No ☐ Not determined
If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year _____. (See instructions.)

<div>SCHEDULE R (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation</div>	<div>Retirement Plan Information</div> <div>This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code).</div> <div>▶ File as an attachment to Form 5500.</div>	<div>OMB No. 1210-0110</div> <div>2017</div> <div>This Form is Open to Public Inspection.</div>
For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017		
A Name of plan QUAKER CHEMICAL CORPORATION RETIREMENT SAVINGS PLAN		B Three-digit plan number (PN) ▶ 112
C Plan sponsor's name as shown on line 2a of Form 5500 QUAKER CHEMICAL CORPORATION		D Employer Identification Number (EIN) 23-0993790
Part I	Distributions	
All references to distributions relate only to payments of benefits during the plan year.		
1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions		1
2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits): EIN(s): 23-2186884		
Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.		
3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year		3
Part II	Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)	
4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? ☐ Yes ☐ No ☐ N/A If the plan is a defined benefit plan, go to line 8.		
5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. Date: Month Day Year If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.		
6 a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived)		6a
b Enter the amount contributed by the employer to the plan for this plan year		6b
c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount)		6c
If you completed line 6c, skip lines 8 and 9.		
7 Will the minimum funding amount reported on line 6c be met by the funding deadline? ☐ Yes ☐ No ☐ N/A		
8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change? ☐ Yes ☐ No ☐ N/A		
Part III	Amendments	
9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box. ☐ Increase ☐ Decrease ☐ Both ☐ No		
Part IV	ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.	
10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan? ☐ Yes ☐ No		
11 a Does the ESOP hold any preferred stock? ☐ Yes ☐ No		
b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.) ☐ Yes ☐ No		
12 Does the ESOP hold any stock that is not readily tradable on an established securities market? ☐ Yes ☐ No		
For Paperwork Reduction Act Notice, see the Instructions for Form 5500.		
Schedule R (Form 5500) 2017 v. 170203		

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that contributed more than 5% of total contributions to the plan during the plan year (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

- 14** Enter the number of participants on whose behalf no contributions were made by an employer as an employer of the participant for:

a The current year	14a	
b The plan year immediately preceding the current plan year	14b	
c The second preceding plan year	14c	

- 15** Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:

a The corresponding number for the plan year immediately preceding the current plan year	15a	
b The corresponding number for the second preceding plan year	15b	

- 16** Information with respect to any employers who withdrew from the plan during the preceding plan year:

a Enter the number of employers who withdrew during the preceding plan year	16a	
b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	16b	

- 17** If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment. ☐

Part VI Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans

- 18** If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐

- 19** If the total number of participants is 1,000 or more, complete lines (a) through (c)

- a** Enter the percentage of plan assets held as:
 Stock: _____% Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____%
- b** Provide the average duration of the combined investment-grade and high-yield debt:
☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more
- c** What duration measure was used to calculate line 19(b)?
☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify): _____



Tel: 215-564-1900
Fax: 215-564-3940
www.bdo.com

Ten Penn Center
1801 Market Street, Suite 1700
Philadelphia, PA 19103

Independent Auditor's Report

To the Plan Administrator
Quaker Chemical Corporation Retirement Savings Plan
Conshohocken, Pennsylvania

We have audited the accompanying financial statements of the Quaker Chemical Corporation Retirement Savings Plan (the Plan), which comprise the statements of net assets available for benefits as of December 31, 2017 and 2016, and the related statement of changes in net assets available for benefits for the year ended December 31, 2017, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2017 and 2016, and the changes in net assets available for benefits for the year ended December 31, 2017, in accordance with accounting principles generally accepted in the United States of America.

Report on Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The supplemental schedules of assets (held at year end) as of December 31, 2017 is presented for the purpose of additional analysis and are not a required part of the financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. Such information is the responsibility of the Plan's management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

BDO USA, LLP

Philadelphia, Pennsylvania
June 21, 2018

Quaker Chemical Corporation Retirement Savings Plan

Schedule of Assets (Held at End of Year) As of December 31, 2017

Quaker Chemical Corporation Retirement Savings Plan, EIN 23-0993790, PN 112

Attachment to Form 5500, Schedule H, Part IV, Line 4 (i):

(a) (b) Identify of issue, borrower, lessor, or similar party	(c) Description of investment including maturity date, rate of interest, collateral, par, or maturity value	(e) Current Value
Columbia Small Cap Growth Fund, Inc.	Registered Investment Company	\$ 4,996,035
* Vanguard 500 Index Fund Investor Shares	Registered Investment Company	18,425,815
* Vanguard Balanced Index Fund Investor Shares	Registered Investment Company	4,305,371
* Vanguard Extended Market Index Fund Investor Shares	Registered Investment Company	5,129,108
* Vanguard Federal Money Market Fund	Registered Investment Company	189
* Vanguard International Growth Fund Investor Shares	Registered Investment Company	5,768,475
* Vanguard Target Retirement 2015 Fund	Registered Investment Company	2,014,093
* Vanguard Target Retirement 2020 Fund	Registered Investment Company	5,458,296
* Vanguard Target Retirement 2025 Fund	Registered Investment Company	6,800,133
* Vanguard Target Retirement 2030 Fund	Registered Investment Company	4,744,788
* Vanguard Target Retirement 2035 Fund	Registered Investment Company	2,475,518
* Vanguard Target Retirement 2040 Fund	Registered Investment Company	2,636,250
* Vanguard Target Retirement 2045 Fund	Registered Investment Company	1,862,692
* Vanguard Target Retirement 2050 Fund	Registered Investment Company	1,441,098
* Vanguard Target Retirement 2055 Fund	Registered Investment Company	922,781
* Vanguard Target Retirement 2060 Fund	Registered Investment Company	123,614
* Vanguard Target Retirement Income	Registered Investment Company	3,017,215
* Vanguard Total Bond Market Index Fund Investor Shares	Registered Investment Company	6,451,747
* Vanguard Total International Bond Index Fund Investor Shr	Registered Investment Company	166,672
* Vanguard U.S. Growth Fund Investor Shares	Registered Investment Company	5,671,765
* Vanguard Windsor II Fund Investor Shares	Registered Investment Company	4,050,117
* Vanguard Brokerage Option	Vanguard Brokerage Option	1,895,735
* Vanguard Retirement Savings Master Trust	Common/Collective Trust	12,518,131
*# Quaker Chemical Corporation	Common Stock Fund	39,165,893
* Participant notes receivable	(4.25% to 5.5%)	1,703,522
		<u>\$ 141,745,053</u>

* Party-in-Interest

Related party

(d) Column (d) is omitted as cost is not required for participant directed investments



Quaker Chemical Corporation Retirement Savings Plan

Financial Statements
and Supplemental Schedule
December 31, 2017 and 2016

The report accompanying these financial statements was issued by
BDO USA, LLP, a Delaware limited liability partnership and the U.S. member of BDO
International Limited, a UK company limited by guarantee.



Quaker Chemical Corporation Retirement Savings Plan

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Additional Information*

Schedule H – Schedule of Assets (Held at End of Year)	13
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* Other supplemental schedules required by Section 2520.103-10 of the Department of Labor Rules and Regulations for Reporting and Disclosure under ERISA have been omitted because they are not applicable.



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Fax: 215-564-3940
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Independent Auditor's Report

To the Plan Administrator
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Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2017 and 2016, and the changes in net assets available for benefits for the year ended December 31, 2017, in accordance with accounting principles generally accepted in the United States of America.

Report on Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The supplemental schedules of assets (held at year end) as of December 31, 2017 is presented for the purpose of additional analysis and are not a required part of the financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. Such information is the responsibility of the Plan's management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

BDO USA, LLP

Philadelphia, Pennsylvania
June 21, 2018

Quaker Chemical Corporation Retirement Savings Plan

Statements of Net Assets Available for Benefits

	As of December 31,	
	2017	2016
Assets		
Investments:		
Registered investment companies	\$ 86,461,772	\$ 70,348,175
Vanguard Retirement Savings Master Trust	12,518,131	13,028,075
Quaker Chemical Corporation Stock Fund	39,165,893	35,580,116
Participant-directed brokerage account	1,895,735	1,447,368
Total investments	<u>140,041,531</u>	<u>120,403,734</u>
Receivables:		
Employer's contributions	140,382	137,169
Participant notes receivable	1,703,522	1,742,166
Total receivables	<u>1,843,904</u>	<u>1,879,335</u>
Net assets available for benefits	<u>\$ 141,885,435</u>	<u>\$ 122,283,069</u>

The accompanying notes are an integral part of the financial statements

Quaker Chemical Corporation Retirement Savings Plan

Statements of Changes in Net Assets Available for Benefits

	For the Year Ended December 31,	
	2017	2016
Additions		
Investment income:		
Interest and dividend income, investments	\$ 3,371,995	\$ 2,510,626
Net increase in fair value of investments	17,434,318	18,747,616
Total investment income	20,806,313	21,258,242
Interest income, participant notes receivable	76,250	68,462
Contributions:		
Employer	2,989,927	2,741,340
Participant	4,881,964	4,635,651
Total contributions	7,871,891	7,376,991
Total additions	28,754,454	28,703,695
Deductions		
Payment of benefits	9,152,088	9,355,639
Total deductions	9,152,088	9,355,639
Net increase	19,602,366	19,348,056
Net assets available for benefits:		
Beginning of year	122,283,069	102,935,013
End of year	\$ 141,885,435	\$ 122,283,069

The accompanying notes are an integral part of the financial statements

Quaker Chemical Corporation Retirement Savings Plan

Notes to Financial Statements

NOTE 1 – DESCRIPTION OF PLAN

The following description of the Quaker Chemical Corporation Retirement Savings Plan (the “Plan”) provides only general information. The Plan document provides a complete description of the Plan’s provisions.

General

The Plan is a defined contribution plan for certain U.S. employees of Quaker Chemical Corporation (the “Company”) and participating employers (AC Products, Inc. (“AC”), Epmar Corporation (“Epmar”), Summit Lubricants, Inc. (“Summit”) and ECLI Products, LLC (“ECLI”). The Plan is administered by the Global Pension Committee, which is appointed by the Company’s Board of Directors, and is subject to the Employee Retirement Income Security Act of 1974 (“ERISA”).

Employees of the Company and adopting affiliates are eligible to participate in the Plan on their first day of employment or as soon as administratively practicable thereafter, unless specified differently in any bargaining unit agreement.

Plan Amendments

The Plan was amended pursuant to Amendment No. 3 to include certain technical language requested by the Internal Revenue Service (“IRS”) in connection with the issuance of a favorable determination letter to the Plan dated November 15, 2017.

The Plan was amended pursuant to Amendment No. 2 effective January 1, 2017 to provide service credit for eligible employees of Lubricor Inc. (“Lubricor”), a newly acquired subsidiary of the Company, for service provided prior to November 30, 2016, the acquisition date.

The Plan was amended pursuant to Amendment No. 1 effective January 1, 2017 to automatically enroll participants hired on or after January 1, 2017, to add ECLI, a subsidiary of the Company, to the Plan as a participating employer, and to change the investment direction of the Company’s matching contributions and non-elective contributions such that these contributions will be made in cash instead of Company stock and will be invested according to the direction of the participant, beneficiary or alternate payee.

The Plan was amended and restated effective January 1, 2016 to incorporate prior amendments and to exclude certain items from the definition of compensation.

Contributions

Participants may elect to contribute on a before-tax and/or after-tax basis any whole percentage of their compensation as defined, up to 50%, during the year, not to exceed the annual Internal Revenue Code limits. At the discretion of the Global Pension Committee, the Plan matches 50% of the first 6% of compensation as defined that is contributed to the Plan, with a maximum matching contribution of 3% of compensation. No changes were made to the discretionary matching provision during 2017 or 2016. In addition, the Plan provides for a non-elective nondiscretionary contribution on behalf of participants who have completed one year of service equal to 3% of the eligible participant's compensation.

The Company’s Board of Directors (and AC’s Board of Directors with respect to AC participants) reserves the right to make future discretionary non-elective contributions, which are allocated on the basis of eligible participants’ compensation as defined. Upon completing one year of service, an eligible participant is eligible to receive discretionary non-elective contributions on the first day of the month coinciding with or next following the date on which the participant meets the one year of service requirement. Epmar, Summit and ECLI participants are not eligible for a discretionary non-elective contribution.

Quaker Chemical Corporation Retirement Savings Plan

Notes to Financial Statements

Participants who are eligible to make contributions and who have or will attain age 50 before the end of the Plan year are eligible to make catch-up contributions in accordance with, and subject to, the limitations of Internal Revenue Code (“IRC”) Section 414(v). No Company matching contributions are made with respect to catch-up contributions.

The Company previously made its non-elective nondiscretionary contribution and a portion of its elective discretionary matching contributions in shares of Company common stock. As noted above, the company began making both the non-elective and elective contributions in cash rather than Company stock, effective January 1, 2017. Non-cash contributions made by the Company were \$2,134,058 in 2016.

Participant Accounts

Each participant’s account is credited or deducted with the participant’s contribution and any applicable direct expenses and allocation of the Company’s contributions and any Plan earnings and losses.

Participant Notes Receivable

Participants may borrow from their fund accounts (other than amounts invested in the Company Stock Fund) an amount limited to the lesser of \$50,000 or 50% of the participant’s vested account balance. The loans bear interest at a rate equal to the prevailing rate of interest charged for similar loans by lending institutions in the community (generally the prime rate), plus 1%. The term of each participant loan generally may not exceed five years except for the purchase of principal residence loans. Interest rates on outstanding participant notes receivable at December 31, 2017 ranged from 4.25% to 5.50%. Principal and interest is paid ratably through periodic payroll deductions. Loan application fees and annual maintenance fees on all outstanding loans are paid by the participant.

Payment of Benefits

Generally, upon separation of service, for any reason, a participant may receive a lump sum amount equal to the value of the participant’s account. In addition, a participant may elect to take an in-service distribution from their rollover account prior to reaching age 59 ½, and from all accounts upon reaching age 59 ½. If a participant’s vested account balance exceeds \$1,000, the participant may defer payment until April 1 following the year the participant reaches age 70 ½ or following the year in which the participant terminates employment, if later.

Hardship Withdrawals

Participants who are actively employed and who meet certain requirements may take a hardship withdrawal from their elective contributions. Participants who receive a hardship withdrawal will not be eligible to make contributions for six months following the receipt of the hardship withdrawal.

Vesting

Upon entering the Plan, participants are fully vested in Company matching contributions, Company discretionary non-elective contributions, Company nondiscretionary non-elective contributions and employee deferrals plus actual earnings.

Plan Termination

Although it has not expressed any intent to do so, the Company has the right to terminate the Plan subject to the provisions of ERISA. In the event of Plan termination, participants would remain 100% vested.

Quaker Chemical Corporation Retirement Savings Plan

Notes to Financial Statements

NOTE 2 – SUMMARY OF ACCOUNTING POLICIES

Basis of Accounting

The Plan's financial statements are prepared on the accrual basis of accounting.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and changes therein, and disclosure of contingent assets and liabilities. The most significant estimate is the determination of the fair values of the Plan's investments. Actual results could differ from those estimates.

Administration of Plan Assets

The Plan's assets are held by the Trustee of the Plan. Certain administrative functions are performed by officers or employees of the Company. No such officer or employee receives compensation from the Plan. Substantially all administrative expenses, including the Trustee's and audit fees, are paid directly by the Company and are therefore excluded from these financial statements.

Investment Valuation and Income Recognition

The Plan's investments are recorded at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Plan management determines the Plan's valuation policies utilizing information provided by the Trustee. Refer to Note 5 – Fair Value Measures for further information.

Purchases and sales of investments are recorded on a trade-date basis. Net increase in fair value of investments includes gains and losses on investments bought and sold during the year as well as unrealized gains and losses on those held at year end. Interest income is accrued when earned. Dividend income is recorded on the ex-dividend date. Capital gain distributions are included in dividend income.

Net investment returns reflect certain fees paid by the investment funds, which include costs for portfolio management, administrative and other services as described in each fund's prospectus. These fees are deducted by the investment funds prior to allocation of the Plan's investment earnings activity and are therefore not separately identified as Plan expenses.

Participant Notes Receivable

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Interest income is recorded on the accrual basis. No allowance for credit losses was recorded as of December 31, 2017 or 2016. Delinquent notes receivable from participants are recorded as a benefit payment when the Plan Administrator deems the participant note receivable to be in default based on the terms of the Plan document.

Payment of Benefits

Benefits are recorded when paid.

Quaker Chemical Corporation Retirement Savings Plan

Notes to Financial Statements

Recently Issued Accounting Standards

In February 2017, the Financial Accounting Standards Board (“FASB”) issued Accounting Standard Update (“ASU”) No. 2017-06, *Plan Accounting: Defined Benefit Pension Plans (Topic 960), Defined Contribution Pension Plans (Topic 962), Health and Welfare Benefit Plans (Topic 965): Employee Benefit Plan Master Trust Reporting*. The amendments in this update require employee benefit plans to report its interest in a master trust and the change in the value of the interest as separate line items on the statement of net assets available for benefits and the statement of changes in net assets available for benefits, respectively. The update requires a plan to disclose the master trust’s other assets and liabilities, as well as the dollar amount of its interest in these balances. In addition, the amendments in this update remove the requirement to disclose the percentage interest in the master trust for plans with divided interest and requires that a plan disclose the dollar amount of its interest in the general types of investments held by the master trust. The amendments in this update are effective for fiscal years beginning after December 15, 2018 and should be applied on a retrospective basis for the periods presented. Early adoption is permitted. The Plan is still evaluating the impact of this guidance, and has not adopted such.

NOTE 3 – RISKS AND UNCERTAINTIES

Investment securities are exposed to various risks such as interest rate, credit and overall market volatility risks. Due to the risks associated with investment securities, it is possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants’ account balances and the amounts reported in the statements of net assets available for benefits. The Plan therefore provides for investment options in various investment securities, which allows participants to diversify their securities portfolios and mitigate these risks.

NOTE 4 – VANGUARD RETIREMENT SAVINGS MASTER TRUST

The Plan invests in a trust, the Vanguard Retirement Savings Master Trust (“VRSMT”), which is composed of an investment in fully benefit-responsive contracts that are issued by insurance companies and commercial banks and in contracts that are backed by bond funds and trusts that are selected by Vanguard Fiduciary Trust Employer, the Trustee. Contract value, as reported by VRSMT, is the amount participants would receive if they were to initiate a permitted transaction under the terms of the Plan, and also, represents contributions made under the contract, plus earnings, less participant withdrawals. Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value. Certain events limit the Plan’s ability to transact at contract value, including: 1) Premature termination of the contracts by the Plan; 2) Plan termination; and 3) Bankruptcy of the Plan sponsor. The Plan administrator does not believe that any events that would limit the Plan’s ability to transact at contract value with Plan participants are probable of occurring. Contract issuers may terminate and settle the contracts at other than contract value if there is a change in qualification status of a participant, sponsor or plan, a breach of material obligations under the contract and misrepresentation by the contract holder or failure of the underlying portfolio to conform to pre-established investment guidelines. The VRSMT is valued at the Net Asset Value (“NAV”) in the fair value hierarchy.

NOTE 5 – FAIR VALUE MEASURES

The Plan applies the guidance of the FASB regarding fair value measurements, which establishes a common definition for fair value. Specifically, the guidance utilizes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The following is a brief description of those three levels:

- Level 1: Observable inputs such as quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active.
- Level 3: Unobservable inputs that reflect the reporting entity’s own assumptions.

Quaker Chemical Corporation Retirement Savings Plan

Notes to Financial Statements

The following is a description of the valuation methodologies used for the investments measured at fair value, including the general classification of such instruments pursuant to the valuation hierarchy:

Registered Investment Companies

The shares of registered investment companies, which represent the NAV of shares held by the Plan, are valued based on quoted market prices on an exchange in an active market and are classified as Level 1 investments.

Common Stock Fund

The common stock fund is comprised of investments in the Quaker Chemical Corporation Stock Fund, which is composed of shares of the Company and uninvested cash. The shares of the Company are traded on an exchange in an active market and are classified as a Level 1 investment.

Participant-Directed Brokerage Account

The participant-directed brokerage account is mainly composed of investments in common stock and registered investment companies, which are valued based on quoted market prices on an exchange in an active market and are classified as Level 1 investments.

The valuation methodologies described above may produce fair value calculations that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methodologies are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date. There have been no significant changes in methodologies used or transfers between levels during the years ended December 31, 2017 and 2016.

As of December 31, 2017 and 2016, the Plan's investments measured at fair value on a recurring basis were as follows:

	Fair Value Measurements at December 31, 2017			
	Total	Using Fair Value Hierarchy		
<u>Assets</u>	<u>Fair Value</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Registered investment companies	\$ 86,461,772	\$ 86,461,772	\$ —	\$ —
Common stock fund	39,165,893	39,165,893	—	—
Participant-directed brokerage account	1,895,735	1,895,735	—	—
Total investments in fair value hierarchy	\$ 127,523,400	\$ 127,523,400	\$ —	\$ —
Common/collective trust measured at NAV *	12,518,131	—	—	—
Total investments	<u>\$ 140,041,531</u>	<u>\$ 127,523,400</u>	<u>\$ —</u>	<u>\$ —</u>

	Fair Value Measurements at December 31, 2016			
	Total	Using Fair Value Hierarchy		
<u>Assets</u>	<u>Fair Value</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Registered investment companies	\$ 70,348,175	\$ 70,348,175	\$ —	\$ —
Common stock fund	35,580,116	35,580,116	—	—
Participant-directed brokerage account	1,447,368	1,447,368	—	—
Total investments in fair value hierarchy	\$ 107,375,659	\$ 107,375,659	\$ —	\$ —
Common/collective trust measured at NAV *	13,028,075	—	—	—
Total investments	<u>\$ 120,403,734</u>	<u>\$ 107,375,659</u>	<u>\$ —</u>	<u>\$ —</u>

* Certain investments that are measured at fair value using the NAV per share (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts presented in these tables are intended to permit reconciliation of the fair value hierarchies to the line items presented in the statements of net assets available for benefits.

Quaker Chemical Corporation Retirement Savings Plan

Notes to Financial Statements

NOTE 6 – RELATED PARTY AND PARTY-IN-INTEREST TRANSACTIONS

The Plan invests in shares of mutual funds and a collective trust managed by an affiliate of Vanguard Fiduciary Trust Company (“VFTC”). VFTC acts as Trustee for Plan investments. In addition, certain Plan assets are invested in shares of the Quaker Chemical Corporation Stock Fund. As of December 31, 2017 and 2016, the Plan held 259,738 and 278,100 shares of common stock of Quaker Chemical Corporation in the Quaker Chemical Corporation stock fund, respectively. Transactions in such investments qualify as party-in-interest transactions and are exempt from the prohibited transaction rules. Fees incurred by the Plan for investment management services are included in the net increase in the fair value of investments.

Participant notes receivable qualify as party-in-interest transactions and are exempt from the prohibited transaction rules.

NOTE 7 – TAX STATUS

The IRS informed the Company by letter dated November 15, 2017, which updates the letter dated September 27, 2012, that the Plan is qualified under IRC Section 401(a). The Plan has since been amended, however, the Plan administrator continues to believe the Plan is currently designed and being operated in compliance with the applicable requirements of the IRC. The Plan administrator has not identified any uncertain tax positions which would require adjustment to or disclosure in the Plan’s financial statements. The IRS has the ability to examine the Plan’s tax return filings for all open tax years, which generally relate to the three prior years; however, there are currently no audits for any tax periods in progress.

NOTE 8 – SUBSEQUENT EVENTS

The Company and the Plan have evaluated subsequent events through the date that these financial statements were available to be issued, and there were no subsequent events which would require an adjustment or additional disclosures to the financial statements.

Quaker Chemical Corporation Retirement Savings Plan

Schedule of Assets (Held at End of Year) As of December 31, 2017

Quaker Chemical Corporation Retirement Savings Plan, EIN 23-0993790, PN 112

Attachment to Form 5500, Schedule H, Part IV, Line 4 (i):

(a) (b) Identify of issue, borrower, lessor, or similar party	(c) Description of investment including maturity date, rate of interest, collateral, par, or maturity value	(e) Current Value
Columbia Small Cap Growth Fund, Inc.	Registered Investment Company	\$ 4,996,035
* Vanguard 500 Index Fund Investor Shares	Registered Investment Company	18,425,815
* Vanguard Balanced Index Fund Investor Shares	Registered Investment Company	4,305,371
* Vanguard Extended Market Index Fund Investor Shares	Registered Investment Company	5,129,108
* Vanguard Federal Money Market Fund	Registered Investment Company	189
* Vanguard International Growth Fund Investor Shares	Registered Investment Company	5,768,475
* Vanguard Target Retirement 2015 Fund	Registered Investment Company	2,014,093
* Vanguard Target Retirement 2020 Fund	Registered Investment Company	5,458,296
* Vanguard Target Retirement 2025 Fund	Registered Investment Company	6,800,133
* Vanguard Target Retirement 2030 Fund	Registered Investment Company	4,744,788
* Vanguard Target Retirement 2035 Fund	Registered Investment Company	2,475,518
* Vanguard Target Retirement 2040 Fund	Registered Investment Company	2,636,250
* Vanguard Target Retirement 2045 Fund	Registered Investment Company	1,862,692
* Vanguard Target Retirement 2050 Fund	Registered Investment Company	1,441,098
* Vanguard Target Retirement 2055 Fund	Registered Investment Company	922,781
* Vanguard Target Retirement 2060 Fund	Registered Investment Company	123,614
* Vanguard Target Retirement Income	Registered Investment Company	3,017,215
* Vanguard Total Bond Market Index Fund Investor Shares	Registered Investment Company	6,451,747
* Vanguard Total International Bond Index Fund Investor Shr	Registered Investment Company	166,672
* Vanguard U.S. Growth Fund Investor Shares	Registered Investment Company	5,671,765
* Vanguard Windsor II Fund Investor Shares	Registered Investment Company	4,050,117
* Vanguard Brokerage Option	Vanguard Brokerage Option	1,895,735
* Vanguard Retirement Savings Master Trust	Common/Collective Trust	12,518,131
*# Quaker Chemical Corporation	Common Stock Fund	39,165,893
* Participant notes receivable	(4.25% to 5.5%)	1,703,522
		<u>\$ 141,745,053</u>

* Party-in-Interest

Related party

(d) Column (d) is omitted as cost is not required for participant directed investments