SPIRE CORP Form SC 13D/A February 25, 2008

CUSIP No. 848565107

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

SCHEDULE 13D

(AMENDMENT NO. 6)

UNDER THE SECURITIES EXCHANGE ACT OF 1934

Spire Corporation

(Name of Issuer)

Common Stock

(Title of Class of Securities)

848565107

(CUSIP Number)

Joseph P. Bartlett, Esq.

Greenberg Glusker Fields Claman & Machtinger LLP
1900 Avenue of the Stars, Suite 2100
Los Angeles, CA 90067
(310) 201-7481

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

February 19, 2008 (Date of Event which Requires Filing of this Statement)

If the reporting person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of Sections 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box / /.

NOTE: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Section 240.13d-7 (b) for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

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

1

CUSIP No. 848565107

(1)	Name of Reporting Person S.S. or I.R.S. Identification No. of Above Person				
	David Gelbaum, Trust				
(2)	Check the Appropriat	te Box if	a Member of a Group	(A) /X/ (B) / /	
(3)	SEC Use Only				
(4)	Source of Funds (See	Instruc	tions)		
	PF				
(5)	Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e) / /				
(6)	Citizenship or Place of Organization				
	U.S.				
		(7)	Sole Voting Power		
Benefi	of Shares	(8)	Shared Voting Power 1,022,056		
by Eac Persor	ch Reporting N With	(9)	Sole Dispositive Power		
		(10)	Shared Dispositive Power 1,022,056		
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person				
	1,022,056				
(12)	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) / /				
(13)	Percent of Class Represented by Amount in Row (11)				
(14)	Type of Reporting Person (See Instructions) IN				
(1)		rly Repor	Common Stock outstanding, as report on Form 10-Q for the quarterly p		

2

COSIL NO. 040303101	No. 848565107
---------------------	---------------

(1) Name of Reporting Person S.S. or I.R.S. Identification No. of Above Person						
	Monica Chavez Gelbaum, Trustee, The Quercus Trust					
(2)	Check the Appropriate Box if a Member of a Group (See Instructions) (A) / (B) /					
(3)	SEC Use Only					
(4)	Source of Funds (See Instructions) PF					
(5)	Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e) / /			/ /		
(6)	Citizenship or Place of Organization					
	U.S.					
		(7)	Sole Voting Power			
Number of Shares Beneficially Owned by Each Reporting Person With		(8)	Shared Voting Power 1,022,056			
		(9)	Sole Dispositive Power			
		(10)	Shared Dispositive Power 1,022,056			
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person					
	1,022,056					
(12)	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) / /			/ /		
(13)	Percent of Class Represented by Amount in Row (11) 12.3%(1)					
(14)	Type of Reporting P	erson (Se				
(1)		rly Repor	Common Stock outstanding, as repo t on Form 10-Q for the quarterly p			

ended September 30, 2007.

3

CUSIP No. 848565107

(1)	Name of Reporting Person S.S. or I.R.S. Identification No. of Above Person				
	The Quercus Trust				
(2)	Check the Appropriate Box if a Member of a Group (See Instructions) (A) /> (B) /				
(3)	SEC Use Only				
(4)	Source of Funds (S	ee Instruc	tions)		
	PF				
(5)	Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e) / /			/ /	
(6)	Citizenship or Place of Organization				
	U.S.				
		(7)	Sole Voting Power		
Number of Shares Beneficially Owned by Each Reporting Person With		(8)	Shared Voting Power 1,022,056		
		(9)	Sole Dispositive Power		
		(10)	Shared Dispositive Power 1,022,056		
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person				
	1,022,056				
(12)	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) / /				
(13)	Percent of Class Represented by Amount in Row (11) 12.3%(1)				
(14)	Type of Reporting 00	Person (Se	ee Instructions)		
(1)			Common Stock outstanding, as report on Form 10-Q for the quarterly p		.n

the Issuer's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2007.

4

CUSIP No. 848565107

Item 1.

This Amendment No. 6 to Schedule 13D (this "Amendment No. 6") amends and restates, where indicated, the statement on Schedule 13D relating to the Common Stock of the Issuer filed by The Quercus Trust, David Gelbaum and Monica Chavez Gelbaum (the "reporting persons") with the Securities and Exchange Commission on August 31, 2007 (the "Initial Schedule 13D"), Amendment No. 1 to Schedule 13D filed on September 28, 2007, Amendment No. 2 to Schedule 13D filed on October 16, 2007, Amendment No. 3 to Schedule 13D filed on November 20, 2007, Amendment No. 4 to Schedule 13D filed on December 14, 2007 and Amendment No. 5 to Schedule 13D filed on February 4, 2008. Capitalized terms used in this Amendment No. 6 but not otherwise defined herein have the meanings given to them in the Initial Schedule 13D or prior amendments thereto.

This Amendment No. 6 is being made to disclose the acquisition of additional shares (the "Shares") of Common Stock of the Issuer. Except as otherwise set forth herein, this Amendment No. 6 does not modify any of the information previously reported by the reporting persons in the Initial Schedule 13D or prior amendments thereto.

Item 5. Interest in Securities of the Issuer

- (a) As of the date of this Amendment No. 6, each reporting person beneficially owns 1,022,056 shares of Common Stock, which are held of record by the Trust.
- (b) Each of David Gelbaum and Monica Chavez Gelbaum, acting alone, has the power to exercise voting and investment control over the shares of Common Stock owned by the Trust.
- (c) Since February 4, 2008, the Trust has purchased shares of Common Stock in brokered transactions as follows:

Date	Number of Shares	Price Per Share
2/4/2008	15 , 847	\$ 19.7972
2/7/2008	4,100	\$ 17.9783
2/8/2008	8,450	\$ 17.7486
2/11/2008	15,000	\$ 17.5053
2/12/2008	8,600	\$ 17.9565
2/13/2008	10,200	\$ 19.0458
2/14/2008	10,500	\$ 18.9760
2/15/2008	8,000	\$ 17.8943
2/19/2008	6,600	\$ 17.6130
2/20/2008	8,546	\$ 17.2383
2/21/2008	5,017	\$ 16.9703

- (d) Not applicable.
- (e) Not applicable.

5

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

Pursuant to the Power of Attorney filed as Exhibit "B" to Amendment No. 1 to Schedule 13D filed on August 24, 2007 with respect to the issuer Emcore Corp., David Gelbaum has been appointed as Monica Chavez Gelbaum's Attorney-In-Fact.

Item 7. Material to Be Filed as Exhibits

Exhibit A: Agreement Regarding Joint Filing of Amendment No. 6 to Schedule 13D.

6

CUSIP No. 848565107

SIGNATURE

After reasonable inquiry and to the best of its knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct and agrees that this statement may be filed jointly with the other undersigned parties.

Dated: February 25, 2008 /s/ David Gelbaum

· · ·

David Gelbaum, Co-Trustee of The Quercus Trust

/s/ David Gelbaum, as Attorney-In-Fact for Monica Chavez Gelbaum

Monica Chavez Gelbaum, Co-Trustee of The Quercus Trust

/s/ David Gelbaum

The Quercus Trust, David Gelbaum, Co-Trustee of The Quercus Trust

7

CUSIP No. 848565107

EXHIBIT A

AGREEMENT REGARDING JOINT FILING OF AMENDMENT NO. 6 TO SCHEDULE 13D

The undersigned agree that the Amendment No. 6 to Schedule 13D with respect to the Common Stock of Spire Corporation is a joint filing being made on their behalf.

Dated: February 25, 2008 /s/ David Gelbaum

David Gelbaum, Co-Trustee of The Quercus Trust

/s/ David Gelbaum, as Attorney-In-Fact for Monica Chavez Gelbaum

Monica Chavez Gelbaum, Co-Trustee of The Quercus Trust

/s/ David Gelbaum

The Quercus Trust, David Gelbaum, Co-Trustee of The Quercus Trust

8