Registration No. 333-

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

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

TARGA RESOURCES PARTNERS LP

(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

65-1295427 (I.R.S. Employer Identification Number)

1000 Louisiana, Suite 4300 Houston, Texas 77002

(Address of principal executive offices, including zip code)

Targa Resources Partners Long Term Incentive Plan (Full title of the plan)

> Rene R. Joyce Chief Executive Officer and Director Targa Resources Partners LP 1000 Louisiana, Suite 4300 Houston, Texas 77002 (Name and address of agent for service)

(713) 584-1000 (Telephone number, including area code, of agent for service)

Copy to:

David P. Oelman Vinson & Elkins L.L.P. First City Tower 1001 Fannin, Suite 2300 Houston, Texas 77002-6760

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o

Accelerated filer o

Non-accelerated filer o (Do not check if a smaller reporting company)

Smaller reporting company o

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee
Common Units representing limited partner interests	1,680,000	\$26.01	\$43,696,800	\$1,718

(1) Pursuant to Rule 416(c) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional common units that become issuable under the Targa Resources Partners Long Term Incentive Plan (the "Plan") by reason of any unit dividend, unit split, recapitalization or any other similar transaction effected without the receipt of consideration that results in an increase in the number of the registrant's outstanding shares of Common Units.

(2) Estimated solely for purposes of calculating the registration fee pursuant to Rules 457(h) and 457(c) under the Securities Act of 1933 based on the average of the high and low prices reported on the Nasdaq Global Market on February 8, 2008.

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PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed by the registrant with the Securities and Exchange Commission (the "Commission") are incorporated by reference in this registration statement:

- Our annual report on Form 10-K for the fiscal year ended December 31, 2006;
- Our quarterly reports on Form 10-Q for the fiscal quarters ended March 31, 2007, June 30, 2007 and September 30, 2007;
- Our current reports on Form 8-K (excluding any information furnished under Items 2.02 or 7.01 thereof) filed with the Commission on February 13, 2007, February 16, 2007, September 21, 2007, October 24, 2007 and January 22, 2008 and our amended current report on Form 8-K/A filed on November 14, 2007; and
- The description of our common units contained in our Registration Statement on Form 8-A filed with the Commission on February 8, 2007 (including any amendment or report filed for the purpose of updating such description).

All documents we file pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934 (excluding any information furnished pursuant to Item 2.02 or Item 7.01 on any current report on Form 8-K) subsequent to the effective date of this registration statement, and prior to the filing of a post-effective amendment to this registration statement indicating that all securities offered hereby have been sold or deregistering all securities then remaining unsold, will be deemed to be incorporated by reference herein and to be a part of this registration statement from the date of filing of those documents. Any statement contained in this registration statement or in any document incorporated or deemed to be incorporated by reference in this registration statement shall be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained in any other subsequently filed document that also is or is deemed to be incorporated by reference in this registration statement so modified or superseded shall not be deemed to constitute a part of this registration statement, except as so modified or superseded.

Item 4. Description of Securities.

Not Applicable.

Item 5. Interests of Named Experts and Counsel.

Not Applicable.

Item 6. Indemnification of Directors and Officers.

Section 17-108 of the Delaware Revised Uniform Limited Partnership Act empowers a Delaware limited partnership to indemnify and hold harmless any partner or other persons from and against any and all claims and demands whatsoever. The partnership agreement of Targa Resources Partners LP provides that the partnership will, to the fullest extent permitted by law but subject to the limitations expressly provided therein, indemnify and hold harmless its general partner, any Departing General Partner (as defined therein), any person who is or was an affiliate of the general partner or any Departing General Partner, any Group Member (as defined therein) or any affiliate of the general partner, any Departing General Partner, any Departing General Partner, any Departing General Partner, any Departing General Partner, any Berson who is or was a member, partner, officer, director, fiduciary or trustee of the general partner, any Departing General Partner, any Group Member (as defined therein) or any affiliate of the general partner, any Departing General Partner, or any person who is or was serving at the request of the general partner or any affiliate of the general partner, or any

Departing General Partner or any affiliate of any Departing General Partner as an officer, director, member, partner, fiduciary or trustee of another person, or any person that the general partner designates as a Partnership Indemnitee for purposes of the partnership agreement (each, a "Partnership Indemnitee") from and against any and all losses, claims, damages, liabilities (joint or several), expenses (including legal fees and expenses), judgments, fines, penalties, interest, settlements or other amounts arising from any and all claims, demands, actions, suits or proceedings, whether civil, criminal, administrative or investigative, in which any Partnership Indemnitee may be involved, or is threatened to be involved, as a party or otherwise, by reason of its status as a Partnership Indemnitee, provided that the Partnership Indemnitee shall not be indemnified and held harmless if there has been a final and non-appealable judgment entered by a court of competent jurisdiction determining that, in respect of the matter for which the Partnership Indemnitee is seeking indemnification, the Partnership Indemnitee acted in bad faith or engaged in fraud, willful misconduct or, in the case of a criminal matter, acted with knowledge that the Partnership Indemnitee's conduct was unlawful. This indemnification would under certain circumstances include indemnification for liabilities under the Securities Act. To the fullest extent permitted by law, expenses (including legal fees and expenses) incurred by a Partnership Indemnitee who is indemnified pursuant to the partnership agreement in defending any claim, demand, action, suit or proceeding shall, from time to time, be advanced by the partnership prior to a determination that the Partnership Indemnitee is not entitled to be indemnified upon receipt by the partnership of any undertaking by or on behalf of the Partnership Indemnitee to repay such amount if it shall be determined that the Partnership Indemnitee is not entitled to be indemnified upon receipt by the partnersh

Targa Resources Partners LP is authorized to purchase (or to reimburse its general partner or its affiliates for the costs of) insurance against liabilities asserted against and expenses incurred by its general partner, its affiliates and such other persons as its general partner may determine and described in the paragraph above in connection with their activities, whether or not they would have the power to indemnify such person against such liabilities under the provisions described in the paragraphs above. Targa Resources Partners LP's general partner has purchased insurance covering its officers and directors against liabilities asserted and expenses incurred in connection with their activities as officers and directors of the general partner or any of its direct or indirect subsidiaries.

Targa Resources Partners LP and Targa Resources GP LLC have entered into Indemnification Agreements (each, an "Indemnification Agreement") with each independent director of Targa Resources GP LLC (each, an "Indemnitee"). Each Indemnification Agreement provides that each of the Partnership and Targa Resources GP LLC will indemnify and hold harmless each Indemnitee against Expenses (as defined in the Indemnification Agreement) to the fullest extent permitted or authorized by law, including the Delaware Revised Uniform Limited Partnership Act and the Delaware Limited Liability Company Act in effect on the date of the agreement or as such laws may be amended to provide more advantageous rights to the Indemnitee. If such indemnification is unavailable as a result of a court decision and if the Partnership or Targa Resources GP LLC is jointly liable in the proceeding with the Indemnitee, the Partnership and Targa Resources GP LLC will contribute funds to the Indemnitee for his Expenses in proportion to relative benefit and fault of the Partnership or Targa Resources GP LLC on the one hand and Indemnitee on the other in the transaction giving rise to the proceeding.

Each Indemnification Agreement also provides that each of the Partnership and Targa Resources GP LLC will indemnify and hold harmless the Indemnitee against Expenses incurred for actions taken as a director or officer of the Partnership or Targa Resources GP LLC, or for serving at the request of the Partnership or Targa Resources GP LLC as a director or officer or another position at another corporation or enterprise, as the case may be, but only if no final and non-appealable judgment has been entered by a court determining that, in respect of the matter for which the Indemnitee is seeking indemnification, the Indemnitee acted in bad faith or engaged in fraud or willful misconduct or, in the case of a criminal proceeding, the Indemnitee acted with knowledge that the Indemnitee's conduct was unlawful. The Indemnification Agreement also provides that the Partnership and Targa Resources GP LLC must advance payment of certain Expenses to the Indemnitee, including fees of counsel, subject to receipt of an undertaking from the Indemnitee to return such advance if it is ultimately determined that the Indemnitee is not entitled to indemnification.

Targa Resources Investments Inc. ("Targa Investments"), the indirect parent of Targa Resources, Inc. ("Targa"), has entered into Indemnification Agreements (each, a "Targa Investments Indemnification Agreement") with each director and officer of Targa, including Messrs. Joyce, Perkins, Heim, McParland, Johnson, Whalen, Chung, Kagan and Joung (each, an "Indemnitee"). Each Targa Investments Indemnification Agreement provides that Targa Investments will indemnify and hold harmless each Indemnitee for Expenses (as defined in the Targa Investments Indemnification Agreement) to the fullest extent permitted or authorized by law in effect on the date of the agreement or as it may be amended to provide more advantageous rights to the Indemnitee. If such indemnification is unavailable as a result of a court decision and if Targa Investments and the Indemnitee are jointly liable in the proceeding, Targa Investments will contribute funds to the Indemnitee for his Expenses in proportion to relative benefit and fault of Targa Investments and Indemnitee in the transaction giving rise to the proceeding.

Each Targa Investments Indemnification Agreement also provides that Targa Investments will indemnify the Indemnitee for monetary damages for actions taken as a director or officer of Targa Investments, or for serving at Targa Investments' request as a director or officer or another position at another corporation or enterprise, as the case may be but only if (i) the Indemnitee acted in good faith and, in the case of conduct in his official capacity, in a manner he reasonably believed to be in the best interests of Targa Investments and, in all other cases, not opposed to the best interests of Targa Investments and (ii) in the case of a criminal proceeding, the Indemnitee must have had no reasonable cause to believe that his conduct was unlawful. The Targa Investments Indemnification Agreement also provides that Targa Investments must advance payment of certain Expenses to the Indemnitee, including fees of counsel, subject to receipt of an undertaking from the Indemnitee to return such advance if it is it is ultimately determined that the Indemnitee is not entitled to indemnification.

Item 7. Exemptions from Registration Claimed.

Not Applicable.

Item 8. Exhibits.

No.	Description
4.1	Certificate of Limited Partnership of Targa Resources Partners LP (incorporated by reference to Exhibit 3.2 to Targa Resources Partners LP's Registration Statement on Form S-1 filed November 16, 2006 (File No. 333-138747)).
4.2	Certificate of Formation of Targa Resources GP LLC (incorporated by reference to Exhibit 3.3 to Targa Resources Partners LP's Registration Statement on Form S-1 filed January 19, 2007 (File No. 333-138747)).
4.3	Agreement of Limited Partnership of Targa Resources Partners LP (incorporated by reference to Exhibit 3.3 to Targa Resources Partners LP's Annual Report on Form 10-K filed April 2, 2007 (File No. 001-33303)).
4.4	First Amended and Restated Agreement of Limited Partnership of Targa Resources Partners LP (incorporated by reference to Exhibit 3.1 to Targa Resources Partners LP's current report on Form 8-K filed February 16, 2007 (File No. 001-33303)).
4.5	Limited Liability Company Agreement of Targa Resources GP LLC (incorporated by reference to Exhibit 3.4 to Targa Resources Partners LP's Registration Statement on Form S-1 filed January 19, 2007 (File No. 333-138747)).
4.6	Specimen Unit Certificate representing common units (incorporated by reference to Exhibit 4.1 to Targa Resources Partners LP's Annual Report on Form 10-K filed April 2, 2007 (File No. 001-33303)).
4.7	Targa Resources Partners Long-Term Incentive Plan (incorporated by reference to Exhibit 10.2 to Targa Resources Partners LP's Registration Statement on Form S-1 filed February 1, 2007 (File No. 333-138747)).

No.	Description
4.8	Form of Restricted Unit Grant Agreement (incorporated by reference to Exhibit 10.2 to Targa Resources Partners LP's current report on Form 8- K filed February 13, 2007 (File No. 001-33303)).
4.9	Form of Performance Unit Grant Agreement (incorporated by reference to Exhibit 10.3 to Targa Resources Partners LP's current report on Form 8-K filed February 13, 2007 (File No. 001-33303)).
5.1*	Opinion of Vinson & Elkins L.L.P.
23.1*	Consent of PricewaterhouseCoopers LLP
23.2*	Consent of Vinson & Elkins L.L.P. (contained in Exhibit 5.1 hereto)
24.1*	Powers of Attorney (included on the signature page to this Registration Statement).
* file	d herewith.

Item 9. Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of a prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (1)(i) and (1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on the 12th day of February, 2008.

TARGA RESOURCES PARTNERS LP

By: TARGA RESOURCES GP LLC, Its general partner

By: /s/ Rene R. Joyce

Rene R. Joyce Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Rene R. Joyce and Jeffrey J. McParland and each of them severally as his or her true and lawful attorneys-in-fact, with power to act, with or without the other, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact full power and authority to do and perform each and every act and anything appropriate or necessary to be done, as fully and for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the date indicated.

Signature	Title	Date
/s/ Rene R. Joyce Rene R. Joyce	Chief Executive Officer and Director (Principal Executive Officer)	February 12, 2008
/s/ JEFFREY J. McParland Jeffrey J. McParland	Executive Vice President and Chief Financial Officer (Principle Financial Officer)	February 12, 2008
/s/ JOHN R. SPARGER John R. Sparger	Senior Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 12, 2008
/s/ James W. Whalen James W. Whalen	Director	February 12, 2008
/s/ Peter R. Kagan Peter R. Kagan	Director	February 12, 2008
/s/ Chansoo Joung Chansoo Joung	Director	February 12, 2008

Signature	Title	Date
/s/ Barry R. Pearl Barry R. Pearl	Director	February 12, 2008
/s/ Robert B. Evans Robert B. Evans	Director	February 12, 2008
/s/ WILLIAM D. SULLIVAN William D. Sullivan	Director	February 12, 2008

INDEX TO EXHIBITS

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24.1*	Powers of Attorney (included on the signature page to this Registration Statement).

* Filed herewith.

Vinson&Elkins

February 12, 2008

Targa Resources Partners LP 1000 Louisiana, Suite 4300 Houston, Texas 77002

Ladies and Gentlemen:

We have acted as counsel to Targa Resources Partners LP, a Delaware limited partnership (the "<u>Partnership</u>"), in connection with the registration under the Securities Act of 1933, as amended, of the offering and sale of up to 1,680,000 common units representing limited partner interests in the Partnership (the "<u>Common Units</u>") issuable under the Targa Resources Partners Long Term Incentive Plan (the "<u>Plan</u>").

As the basis for the opinion hereinafter expressed, we examined such statutes, including the Delaware Revised Uniform Limited Partnership Act (the "<u>Delaware Act</u>"), corporate records and documents, certificates of corporate and public officials, and other instruments and documents as we have deemed necessary or advisable for the purposes of this opinion, including the Registration Statement on Form S-8 filed in connection with the registration of the Common Units. In such examination, we have assumed the authenticity of all documents submitted to us as originals and the conformity with the original documents of all documents submitted to us as copies.

Based on the foregoing and on such legal considerations as we deem relevant, we are of the opinion that:

1. The Partnership has been duly formed and is validly existing as a limited partnership under the Delaware Act.

2. The Common Units, when issued and delivered on behalf of the Partnership in accordance with the Plan, will be duly authorized, validly issued, fully paid and non-assessable.

The foregoing opinion is limited to the laws of the United States of America, the Constitution of the State of Delaware and the Delaware Act, as interpreted by federal courts and the courts of the State of Delaware.

Vinson & Elkins LLP Attorneys at Law Austin Beijing Dallas Dubai Hong Kong Houston London Moscow New York Shanghai Tokyo Washington First City Tower, 1001 Fannin Street, Suite 2500 Houston, TX 77002-6760 **Tel** 713.758.2222 **Fax** 713.758.2346 **www.velaw.com**

V&E

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act and the rules and regulations thereunder.

Very truly yours,

/s/ Vinson & Elkins L.L.P.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 30, 2007 relating to the financial statements of Targa North Texas LP, our report dated March 30, 2007 relating to the financial statement of Targa Resources Partners LP, our report dated March 30, 2007 relating to the financial statement of Targa Resources Partners LP, our report dated March 30, 2007 relating to the financial statement of Targa Resources Partners LP, our report dated March 30, 2007 relating to the financial statement of Targa Resources Partners LP, our report dated March 30, 2007 relating to the financial statement of Targa Resources Partners LP, our report dated March 30, 2007 relating to the financial statement of Targa Resources Partners LP, our report dated March 30, 2007 relating to the financial statement of Targa Resources Partners LP, our report dated March 30, 2007 relating to the financial statement of Targa Resources Partners LP, our report dated March 30, 2007 relating to the financial statement of Targa Resources Partners LP, our report dated March 30, 2007 relating to the financial statement of Targa Resources Partners LP's Form 10-K for the year ended December 31, 2006.

/s/ PricewaterhouseCoopers LLP Houston, Texas February 11, 2008