

GASTAR EXPLORATION INC.

FORM 15-12B

(Termination of Registration of a Class of Security under Section 12(b))

Filed 05/10/17

Address	1331 LAMAR STREET SUITE 650 HOUSTON, TX 77010
Telephone	7137391800
CIK	0001431372
Symbol	GST
SIC Code	1311 - Crude Petroleum and Natural Gas
Industry	Oil & Gas Exploration and Production
Sector	Energy
Fiscal Year	12/31

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

FORM 15

**CERTIFICATION AND NOTICE OF TERMINATION OF REGISTRATION
UNDER SECTION 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934
OR SUSPENSION OF DUTY TO FILE REPORTS UNDER SECTIONS 13 AND 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934.**

Commission File Number: 001-35211

GASTAR EXPLORATION INC.

(Exact name of registrant as specified in its charter)

1331 Lamar Street,
Suite 650,
Houston, Texas 77010
(713) 739-1800

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Preferred Share Purchase Rights ¹
(Titles of each class of securities covered by this Form)

Common Stock, par value \$0.001 per share

8.625% Series A Cumulative Preferred Stock, par value \$0.01 per share

10.75% Series B Cumulative Preferred Stock, par value \$0.01 per share

(Titles of all other classes of securities for which a duty to file reports under section 13(a) or 15(d) remains)

Please place an X in the box(es) to designate the appropriate rule provision(s) relied upon to terminate or suspend the duty to file reports:

Rule 12g-4(a)(1)	<input checked="" type="checkbox"/>
Rule 12g-4(a)(2)	<input type="checkbox"/>
Rule 12h-3(b)(1)(i)	<input type="checkbox"/>
Rule 12h-3(b)(1)(ii)	<input type="checkbox"/>
Rule 15d-6	<input checked="" type="checkbox"/>

Approximate number of holders of record as of the certification or notice date: None

¹ The Preferred Share Purchase Rights (the "Rights") expired on April 6, 2017 pursuant to the terms of the Rights Agreement (the "Rights Agreement"), dated as of January 27, 2017, between Gastar Exploration Inc. (the "Company") and American Stock Transfer & Trust Company, LLC, as Rights Agent (the "Rights Agent") as amended by Amendment No. 1 to the Rights Agreement, dated as of April 6, 2017, between the Company and the Rights Agent. The Company initially filed a Form 8-A to register the Rights on January 30, 2017.

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Gastar Exploration Inc.

Date: May 10, 2017

By: /s/ Michael A. Gerlich

Name: Michael A. Gerlich

Title: Senior Vice President, Chief Financial Officer and Corporate Secretary