



DIVISION OF
CORPORATION FINANCE

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

November 19, 2012

Via E-mail

Mr. Stephen C. Taylor
Chief Executive Officer
Natural Gas Services Group, Inc.
508 West Wall Street, Suite 550
Midland, Texas 79701

**Re: Natural Gas Services Group, Inc.
Registration Statement on Form S-3
Filed October 31, 2012
File No. 333-184672**

Dear Mr. Taylor:

We have limited our review of your registration statement to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Registration Statement on Form S-3

Signatures

1. The report must be signed by your principal executive officer, principal financial officer, and controller or principal accounting officer in their individual capacities. Please revise to identify the individual signing in the capacity of each principal officer. Refer to Instruction 1 to Signatures of Form S-3.

Stephen C. Taylor
Natural Gas Services Group, Inc.
November 19, 2012
Page 2

Closing Comments

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please contact Caroline Kim, Staff Attorney, at (202) 551-3878 or, in her absence, the undersigned at (202) 551-3611 with any questions.

Sincerely,

/s/ A.N. Parker

Anne Nguyen Parker
Branch Chief

CC: David A. Thayer
Jones & Keller, P.C.