



DIVISION OF
CORPORATION FINANCE

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

February 10, 2015

Via E-mail

Ryan Ashton
Chief Executive Officer
Great Basin Scientific, Inc.
2441 South 3850 West
Salt Lake City, UT 84120

**Re: Great Basin Scientific, Inc.
Registration Statement on Form S-1
Filed January 20, 2015
File No. 333-201596**

Dear Mr. Ashton:

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. If 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.

Prospectus Cover Page

1. We note the prospectus cover page indicates the underwriters are selling the units on a "best efforts basis." However, the cover page also contains language that is typically used in connection with firm commitment underwritten offerings, such as the delivery date of the securities being offered. Please revise to clarify the nature of the offering. Also, it is unclear how certain aspects of this offering, including the date of the offering, will occur on a best efforts basis. For example, you reference certain events to occur on dates such as "nine months after the date of this offering" and "15 days after the Separation Trigger Date." Please revise to clarify, as it is unclear if these occurrences will be measured from the date the offering starts, the dates the securities are sold, the termination date of the offering, or otherwise. Finally, please revise to disclose the termination date of the offering.

2. Please include in your prospectus all information that may not be omitted in reliance on rule 430A. For example, we note you have not included the number of units and the number of Series C Warrants to be offered. The principal amount of securities to be offered (i.e., the volume) is not considered price-related information for purposes of rule 430A. Please revise accordingly. For guidance, please refer to Item 227.02 of the Securities Act Rules Compliance and Disclosure Interpretations, available on the Commission's website.

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 refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Ryan Ashton
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Please contact Jay Mumford at 202-551-3637 or Mary Beth Breslin, Senior Attorney, at 202-551-3625 with any other questions.

Sincerely,

/s/ Mary Beth Breslin for

Amanda Ravitz
Assistant Director

cc (via e-mail): David Marx