

New York State Department of Environmental Conservation

Division of Mineral Resources

Bureau of Oil & Gas Regulation, 3rd Floor

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October 25, 2010

Mr. Orville Cole, President
Gastem USA, Inc.
911 Central Avenue, No. 259
Albany NY 12206

Re: Revised Workover Proposal, Ross 1 (31-077-23783-00-00)
Otsego County, Town of Maryland

Dear Mr. Cole:

This correspondence is in response to Gastem USA, Inc.'s (Gastem) October 6, 2010 revised proposal to hydraulically fracture the Marcellus Shale in the Ross 1 well, and it supersedes our September 17, 2010 authorization letter regarding same. The proposal indicates that you will be testing and evaluating the Union Springs member from 2440 feet to 2460 feet and the Chittenango member from 2390 feet to 2410 feet (all measured from KB). Your program, as proposed, will incorporate nitrogen-assisted foam treatments that will require approximately 9,600 gallons of fresh water in the Union Springs, and approximately 7,100 gallons of fresh water in the Chittenango.

Department approval to perform the hydraulic fracturing of the Marcellus Shale, as proposed, is hereby granted subject to the following conditions:

1. All work performed on the well must be documented on an updated (Final) "Well Drilling and Completion Report." The Final report must be received in this office no later than 30 calendar days from the completion of flowback.
2. Gastem must report any non-routine incident related to hydraulic fracturing activities (within two hours of the initial discovery of the event) to this office. The initial telephone reporting must be followed by a written report (within 48 hours of the event) giving all details and response efforts. Non-routine incidents include, but are not limited to:
 - a. observance or indication of the well leaking gas or brine; and
 - b. casing failures, cement failures, wellhead failures, fires, blowouts, spills.

Note that this approval does not constitute approval to hydraulically fracture and evaluate other specific reservoir intervals in the Ross 1, nor is it intended to provide any inference of Department approval of any future proposal to hydraulically fracture and evaluate other specific reservoir intervals in the Ross 1.

Please contact Ted Loukides if you have any questions regarding this response.

Sincerely,

A handwritten signature in black ink that reads "John K. Dahl" with a date "1/28/10" written below it.

John K. Dahl

Director, Bureau of Oil & Gas Regulation

Enclosures

TL/tj

c: P.Briggs/T.Loukides/File