

BOND SCHOENECK & KING

One Lincoln Center | Syracuse, NY 13202-1355 | bsk.com

KEVIN M. BERNSTEIN, ESQ.
kbernstein@bsk.com
P: 315.218.8329
F: 315.218.8429

January 6, 2014

VIA ELECTRONIC AND
FIRST CLASS MAIL



Peter Briggs, Director
New York State Department of Environmental Conservation
Division of Mineral Resources
Bureau of Oil & Gas Permitting and Management
625 Broadway, 3rd Floor
Albany, NY 12233-6500

Re: *Finger Lakes LPG Storage, LLC*
DEC Facility No. 8-4432-00085

Dear Peter:

In response to the Department's inquiry, please find attached a memorandum from John Istvan and Leonard Dionisio, Inergy's experts on geology and hydrocarbon facilities in salt.

Please note that the information contained in the attachment contains confidential information or confidential and/or proprietary, trade secret or business information and should be treated as privileged and confidential and should not be released pursuant to the provisions of 6 NYCRR § 616.7.

Sincerely,

BOND, SCHOENECK & KING, PLLC

A handwritten signature in cursive script that reads "Kevin Bernstein".

Kevin M. Bernstein

Enclosure

cc: Finger Lakes LPG Storage, LLC



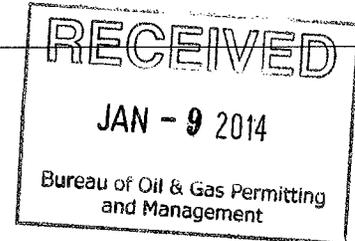
MEMORANDUM

FROM: Leonard Dionisio
John Istvan

TO: Peter Briggs, DEC

DATE: January 6, 2014

RE: Response to DEC Inquiry regarding Valley Stress Conditions in Young Letter



We understand you recently contacted Kevin Bernstein to request that Inergy and Arlington evaluate whether the conclusions contained in the Finite Element Analysis ("FEA") would be impacted by the discussion in Professor Young's October 4, 2013 letter (which was attached to EarthJustice's comments on the Arlington Storage Gallery 2 Environmental Assessment) regarding abnormal valley stress conditions. We have evaluated the discussion in Professor Young's letter and consulted with Professor Kittitep Fuenkajorn who, as you know, is a bedded and domal salt expert known worldwide and who prepared the FEA. The results of our evaluation and Dr. Fuenkajorn's review follows.

Based on our knowledge of the geology underlying the caverns proposed to be used by Finger Lakes and Arlington and the historical storage of hydrocarbons in the Arlington galleries,¹ these caverns are not directly under the valley under Seneca Lake. The work developed in connection with the respective Reservoir Suitability Reports supports cavern integrity and the issuance of the respective underground storage permits.

In addition, Professor Fuenkajorn has noted that the FEA performed on the Finger Lakes caverns assume that the ground surface is flat and the in-situ stress is hydrostatic. These caverns are relatively deep (casing shoes from 1,600 to 2,000 feet). To have any significant stress effect induced by the topographic variation, the difference of the elevations between the valley and hill has to be over 1,000 feet.

Average elevations for wells on the hill (slope) in Arlington Gallery 2 and Finger Lakes Gallery 1 are approximately 710 and 700, respectively, moving upslope and to

¹ From 1964-1984, LPG was stored in Gallery 2 without incident. Natural gas has been stored in Gallery 1 since 1996 without incident.

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the north. Differences between the depth of valley (432 feet bathymetric depth in the Lake east of the US Salt plant) to the hill, result in differences of 278 feet and 268 feet compared to a difference of the 1,000 feet referenced above and in the FEA by Professor Fuenkajorn.

Since the cavern facility is under the slope of the valley (and not the valley itself), the lateral stresses on the cavern field will be greater than what was used in the FEA model. However, this has no adverse effect. In fact, the additional lateral stress should increase the cavern roof stability during the withdrawal period. Cavern roof lateral stresses are not adversely affected during hydrocarbon injection since pressure change is gradual. The maximum storage pressures determined at the casing shoe by the FEA model become even more conservative, as well.

We believe this responds to Professor Young's comments.

KEVIN M. BERNSTEIN, ESQ.
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January 3, 2014

**VIA ELECTRONIC AND
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RECEIVED

JAN - 6 2014

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