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October 29, 2014

**VIA Federal Express
(518) 402-8056**

Mr. Peter S. Briggs
Director, Bureau of Oil & Gas Permitting and Management
New York State Department of Environmental Conservation
625 Broadway, Third Floor
Albany, New York 12233-6500



Re: Wellhead Brine Pressures Well #58
Proposed Finger Lakes LPG, Watkins Glen, NY

Dear Mr. Briggs:

This letter and the tables attached hereto are to clarify the expected wellhead brine pressures associated with the proposed storage and recovery of liquid butane from Well #58 as part of the proposed Finger Lakes LPG Storage project. The table below summarizes the surface pressures during static conditions for both the brine and the product:

	Interface at [REDACTED]	Interface at [REDACTED]
Surface brine tbg. press (psig)	[REDACTED]	[REDACTED]
Surface product annular pressure (psig)	[REDACTED]	[REDACTED]

Butane SG = 0.584, Brine SG = 1.194

The brine and product pressures during product injection and withdrawal are summarized in the two attachments. [REDACTED]

[REDACTED] the maximum surface brine pressure at the end of product withdrawal [REDACTED] is 516 psig. [REDACTED]

[REDACTED]



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Should you have any questions, please feel free to contact me at 832-519-2278.

Sincerely,

A handwritten signature in blue ink that reads 'David L. Hayden'.

David L. Hayden
VP, Reservoir Engineering



Attachments

Cc: James Johnston, Vice President, Associate General Counsel, Crestwood
Kevin Bernstein, Environmental and Energy Law Attorney, Bond Schoeneck & King PLLC



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Attachment 1
Well 58
Watkins Glen



9 5/8" Production Casing, 5 1/2" Hanging String, Product Withdrawal

[Redacted]

At Beginning of Product Withdrawal		
Product Withdrawal, Interface at [Redacted]	Min Press	Max Press
Surface tubing press	[Redacted]	[Redacted]
Surface product press	[Redacted]	[Redacted]
Press at casing seat	[Redacted]	[Redacted]
Flow rate (gpm)	[Redacted]	[Redacted]
dp in the tubing	[Redacted]	[Redacted]
dp in the annulus	[Redacted]	[Redacted]
Tubing velocity (ft/sec)	[Redacted]	[Redacted]
Annular velocity	[Redacted]	[Redacted]

At End of Product Withdrawal		
Product Withdrawal, Interface at [Redacted]	Min Press	Max Press
Surface tubing press	[Redacted]	516
Surface product press	[Redacted]	[Redacted]
Press at casing seat	[Redacted]	[Redacted]
Flow rate (gpm)	[Redacted]	[Redacted]
dp in the tubing	[Redacted]	[Redacted]
dp in the annulus	[Redacted]	[Redacted]
Tubing velocity (ft/sec)	[Redacted]	[Redacted]
Annular velocity	[Redacted]	[Redacted]

Attachment 2

Well 58

Watkins Glen



9 5/8" Production Casing, 5 1/2" Hanging String, Product Injection

While operating under the maximum allowable pressure at the casing seat, the maximum injection rate is shown at various interface depths. Two cases are summarized below

At Beginning of Product Injection	
Product Injection, Interface at [REDACTED]	Max Rate
Surface tubing press	[REDACTED]
Surface product press	824
Press at casing seat	[REDACTED]
Flow rate (gpm)	[REDACTED]
dp in the tubing	[REDACTED]
dp in the annulus	[REDACTED]
Tubing velocity (ft/sec)	[REDACTED]
Annular velocity	[REDACTED]

At End of Product Injection	
Product Injection, Interface at [REDACTED]	Max Rate
Surface tubing press	[REDACTED]
Surface product press	[REDACTED]
Press at casing seat	[REDACTED]
Flow rate (gpm)	[REDACTED]
dp in the tubing	[REDACTED]
dp in the annulus	[REDACTED]
Tubing velocity (ft/sec)	[REDACTED]
Annular velocity	[REDACTED]