



## ***DUCK CREEK ENERGY, INC.***

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May 4, 2017

Mr. Andrew Agate, UIC Manager  
Ohio Department of Natural Resources  
Division of Oil and Gas Resource Management  
2045 Morse Road  
Columbus, Ohio 43229-6693

Re: Your April 28, 2017 Titled "Brine Sampling Report"

Dear Andrew,

I am in receipt of your April 28, 2017 letter titled "2017 Brine Sampling Report". The following responds to your requests but I note that some of the requests related to information dating back over 12 years and that we are under no obligation to maintain or provide. We will answer your inquiry to the best of our ability and consistent with applicable requirements.

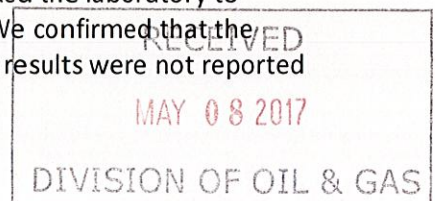
- 1) ***"Provide records detailing shipments of AquaSalina beginning calendar year 2004 and each year thereafter..."***

**Response:** Chief's Order 2004-82 specifically establishes the records Duck Creek is required to maintain. Order No. 6 provides that Duck Creek shall file an annual report which includes the volume of raw brine transported to the facility, the brine hauler and the oil and gas well source of the raw brine. Duck Creek is not required to maintain or provide to the Division information related to the sale, transportation and use of its product, AquaSalina. Chief's Order 2004-82 specifically provides that AquaSalina is a commodity, not a waste product. As a commodity, it is no longer regulated by the Division.

Further, disclosure of Duck Creek's customer list, sales and customer usage is considered Confidential Business Information and disclosure would put Duck Creek at a significant disadvantage with its competitors supplying rock salt and manmade salt solutions. Accordingly, we do not intend to provide this requested information regarding our customers. If there is specific, relevant and recent information you request and is not confidential business information, please advise.

- 2) ***"Provide the laboratory analysis data for Xylene from calendar years 2010-2016 as required by Chief's Order 2004-82"***

**Response:** In response to earlier discussions with the Division, we asked the laboratory to determine why the analytical results for Xylene were not reported. We confirmed that the annual BTEX analysis of AquaSalina did include Xylene; however, the results were not reported



due to a coding error at the lab (*i.e.*, the analysis was completed but not reported). Unfortunately, the lab was not able to retrieve the historical analytical data. Neither the Division nor Duck Creek identified the omission when the reports were originally submitted. Please note that the recent 2017 analysis of finished AquaSalina confirmed that Xylene was Non Detectable. This is consistent with analysis of AquaSalina prior to 2010 and we have no reason to believe that Xylene would have been present in the intervening years. In fact, we expect the presence of Xylene would have been flagged by the lab.

- 3) ***“Provide an explanation for the continued operation and distribution of AquaSalina during periods of violation in 2011 (benzene over threshold), 2015 (barium over threshold), 2016 (barium over threshold), and in 2010-2016 (Xylene not reported).”***

**Response:** Your letter references a “threshold” for certain substances. I expect that this refers to the Maximum Contaminant Levels referred to in Chief’s Order 2004-82. As an initial matter, I note that MCL’s are established to identify concentrations of substances which are safe in drinking water. While MCL’s provide a benchmark for certain regulatory purposes, they are not applied to road treatment products.

Second, while Duck Creek evaluates its operation on an ongoing basis to assure that AquaSalina remains safe and effective, Chief’s Order 2004-82 specifically confirms that the Division determines whether analytical results require a cessation or modification of operations. Order No. 10 states:

In the event that test results of AquaSalina™ submitted by Duck Creek, or generated as a result of the Division's independent testing and analysis, raise concerns on the part of the Division that AquaSalina™ does not comply with the requirements of condition number seven of this Order, upon notification by the Division, Duck Creek shall immediately cease distribution of AquaSalina™. (underline added)

Although this authority rests with the Division, Duck Creek would of course immediately cease or modify operation of test results indicated any potential issue with the transportation or use of the finished AquaSalina product.

Third, I note that Tom Tomastik (former Division of Oil & Gas UIC coordinator) specifically addressed the issue of MCL’s in his deposition as a representative of the Division in a civil case in 2012. In his deposition (transcript attached), he discusses on pages 70-73 the fact that a small exceedance of an MCL would not trigger action by the Division because AquaSalina is not drinking water and because the constituents of concern would quickly volatilize upon use.

Finally, AquaSalina meets or exceeds the stringent standards established by the Pacific Northwest Snowfighters Association (“PNS”). The Ohio Department of Transportation and over

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30 other state DOT's rely on PNS to develop and establish standards to assure the safe and effective use of snow control and deicing agents. AquaSalina is recognized as one of the safest and most effective products in the country. The PNS standards are far more applicable than MCL's established for drinking water. I have attached a copy of the PNS standards.

**CONCLUSION**

Duck Creek fully complies with Chief's Order 2004-82 and we request its prompt renewal. Our customers, publically funded townships and local governments are making purchasing decisions on their dust suppression products for the summer and the purchase process often requires the approval letter. Failure to issue this in a timely basis will require them to purchase costly calcium chloride from wells in Michigan. The spreading rate of this out-of-state material is reportedly 3,200 gallons per lane mile. AquaSalina is used at 250 gallons per lane mile. Further delay will not only cost the public more, but will result in greater environmental impact using a much less effective product.

We respectfully ask the Division to promptly approve the renewal of Chief's Order 2004-82 (pending since April 2016) and issue our AquaSalina renewal. If additional information is required, please feel free to call me directly.

Regards,

  
David I. Mansbery  
President

Enclosures: Deposition T. Tomastik dtd 7/13/2012  
PNS Snow & Ice Control Chemical Prod. Spec.

cc: R. Worstall (w/encl.)  
E. Vendel (w/encl.)