

## ***Interactive comment on “Hydrochemical assessment of Semarang area using multivariate statistics: A sample based dataset” by Dasapta Erwin Irawan and Thomas Triadi Putranto***

**Anonymous Referee #2**

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Major concerns about the MS: 1. The aim of this MS is to understand the water quality classification and distribution in Semarang area and to explain the underlying processes. However, the MS does not provide the sufficient information about study area? In section 3, authors mentioned that the sampling points were distributed from the southern volcanic highland to the coastal area. It is better to provide the elevation in the Figure 1. Did all the wells locate in volcanic area? Or in other words, does coastal area have any volcano?

2. Since the data covered from 1992 to 2007, during this period the hydrological conditions may alter. I'd like to suggest the authors analyzing the data of wells sampled in 1992 and 1993, and analyzing the data of wells sampled in 2003, 2006, and 2007.

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And then compared these two results based on the methods of HCA and PCA.

3. In the Conclusions section, authors mentioned this study want to integrate geological, hydrogeological data, and statistical analysis to construct a hydrogeological model of the aquifer system in Semarang. I wonder do results of HCA well explain the underlying processes? If it does not, authors should divide these wells according their geological characteristics and then do HCA and PCA.

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