

**Review of Lowell Narrowband
Comet Photometry 2018 May - 2021
Apr for PDS SBN Oct. 19, 2022**

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Overview

- Small but important and very useful data set for cometary research
- The data consist of 1 csv table (with accompanying label)
- It is very useful and very efficient to have all the relevant parameters in one (although giant) table with all the data having been processed in a consistent manner
- I consider this dataset certifiable

Review — data values

- I had no problem reading the table with the PDS4Viewer.
- Input files mentioned in column 2 are not provided in this data set. Explicitly state in the documentation that this column is given for (whatever reason it is used for in the original data base)
- In some columns, the values are all the same for all rows. This is up to the provider if they want to leave those in or take them out and mention the values only in the documentation.
- Columns that are 'empty', i.e. have no values at all should be deleted (Alt Desig)
- As already noted in the 'pre-liens' replace the NaN values with a missing constant or other appropriate constant value
- H2O vapor column. Give all entries in scientific notation (some are, and some are not)

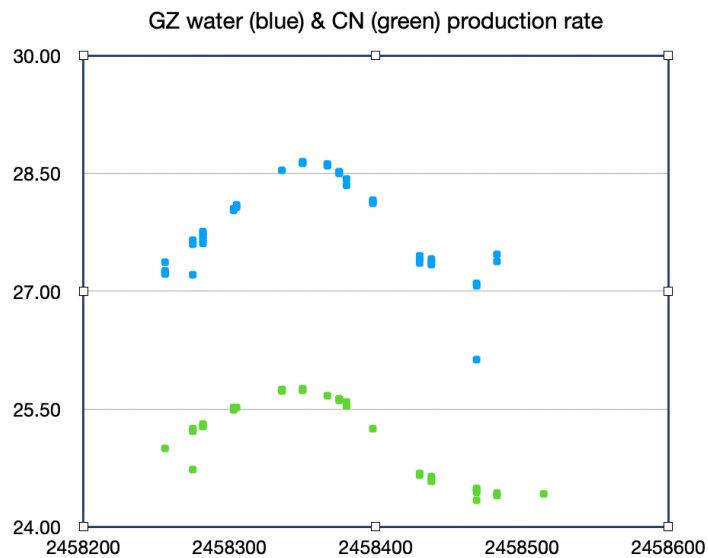
Review — label

- Dates in column 1 is doubled — —> rogue hidden character in the xml file (only visible for me when using e.g. Visual Studio Code exposing hidden characters)
- Should the processing level be derived instead of calibrated?
- Input file used: mention in the description that the input files are not provided
- Tisserand invariant: it would be nice to add the definition in the description

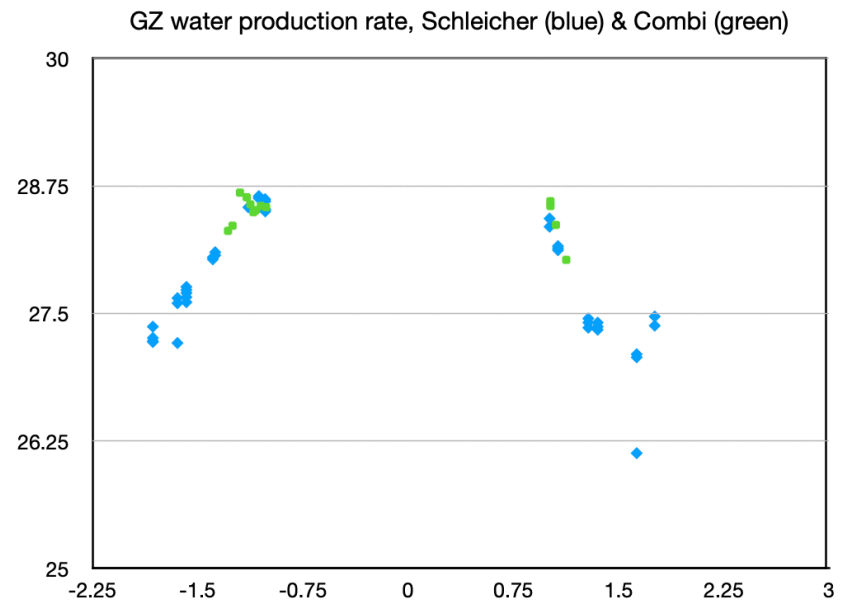
Review — documentation

- The documentation is comprehensive and complete to describe the dataset

Science application



Compare water & CN production rate for GZ



Compare water production rate to another source