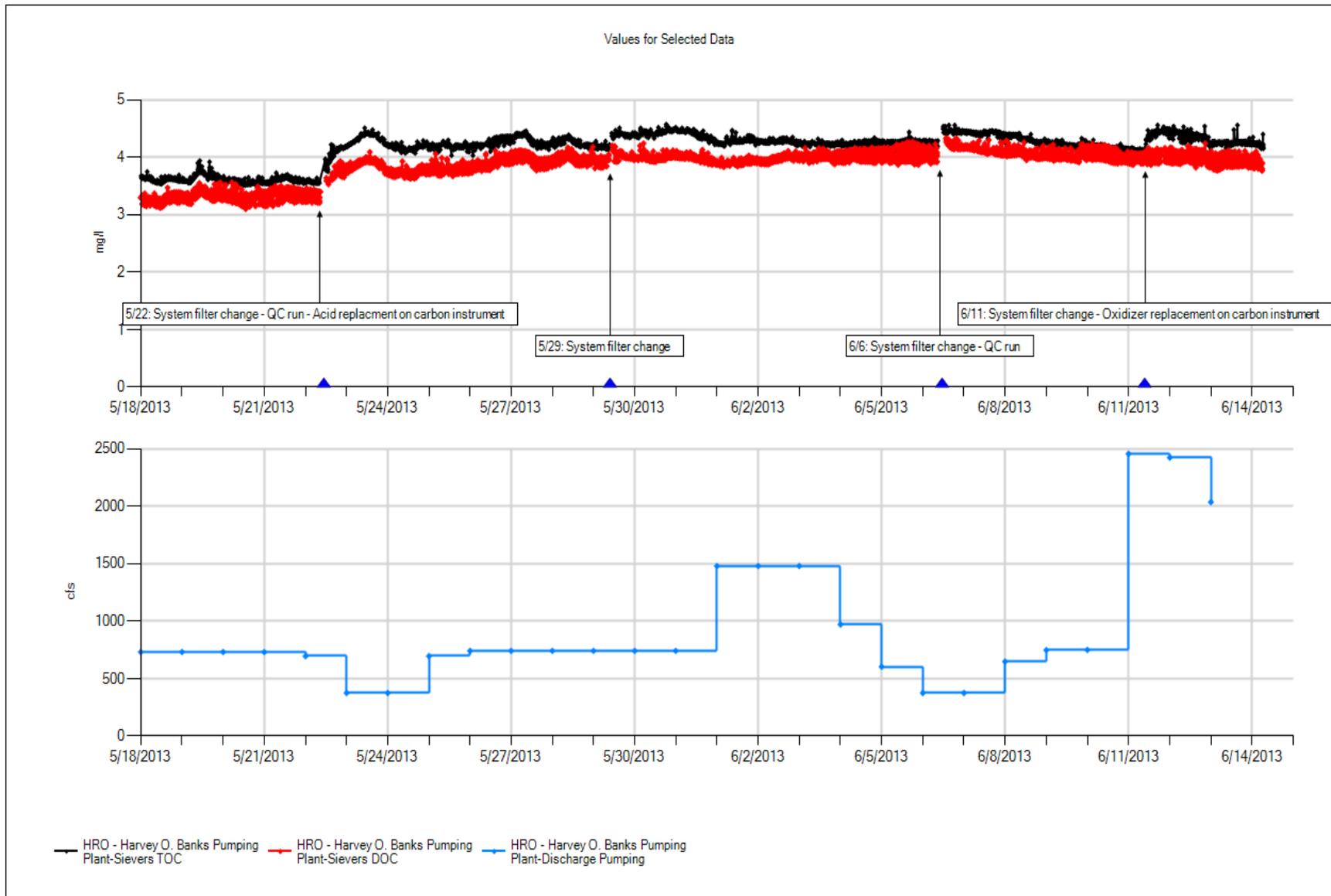
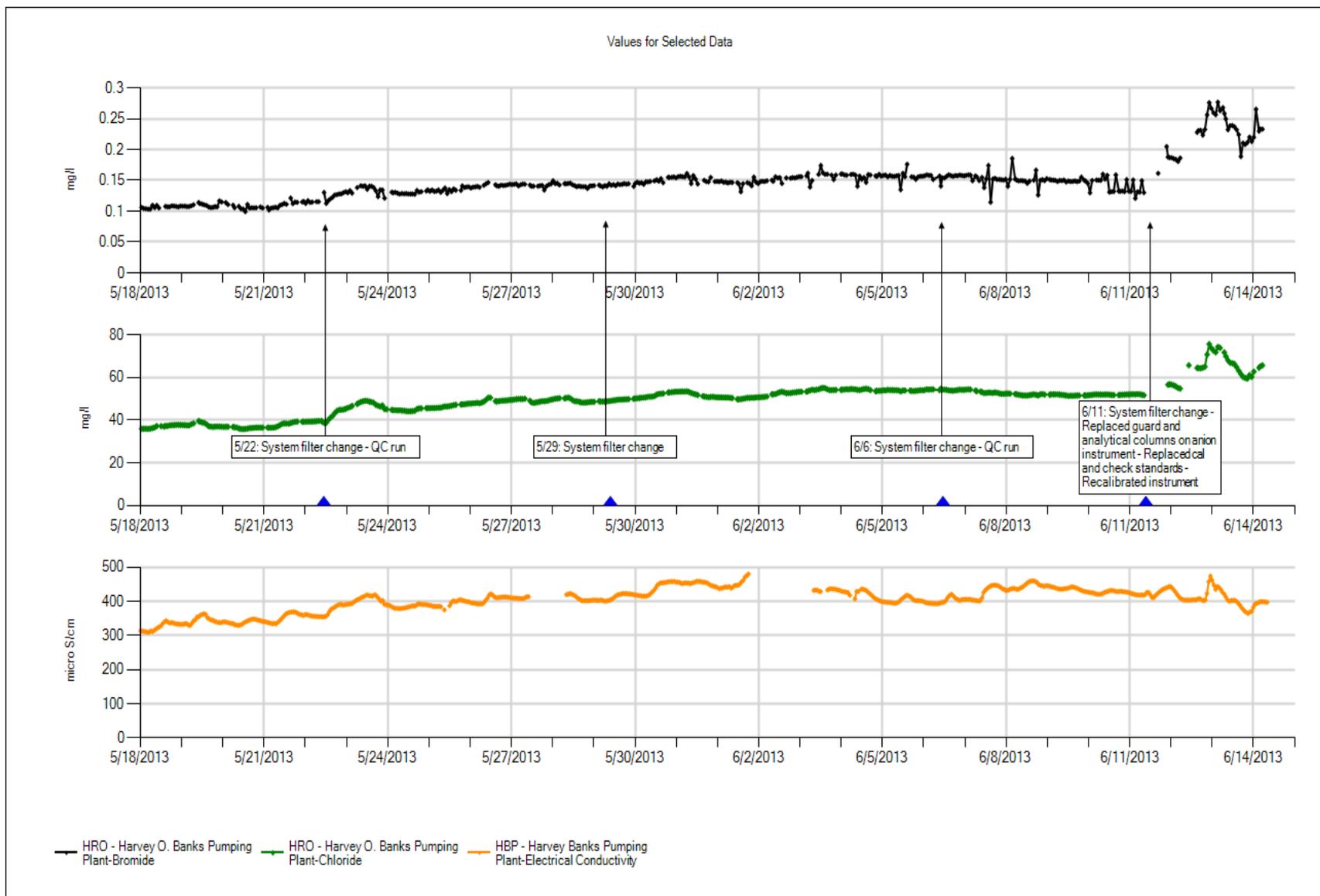


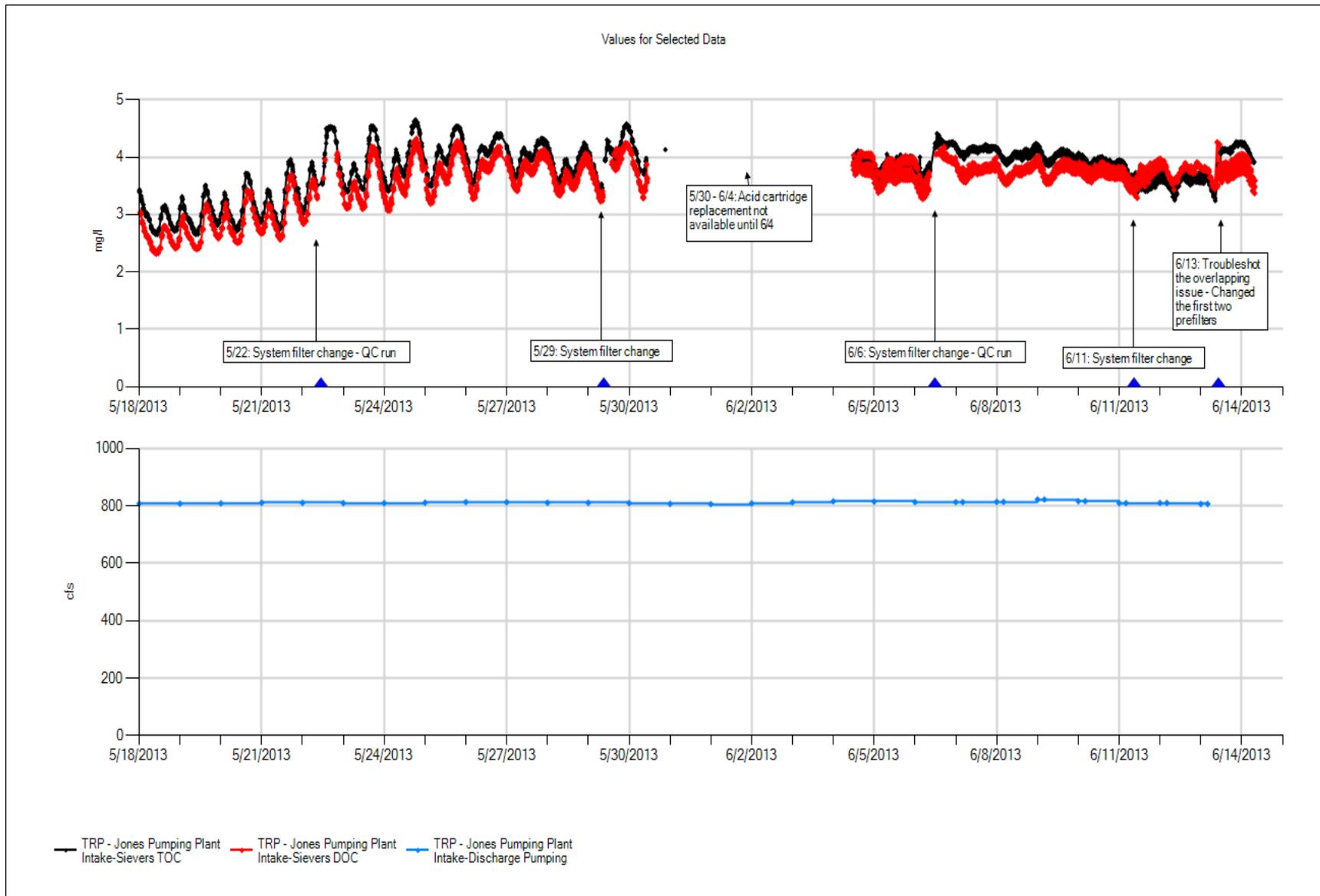
# Banks Organic Carbon with Discharge Pumping



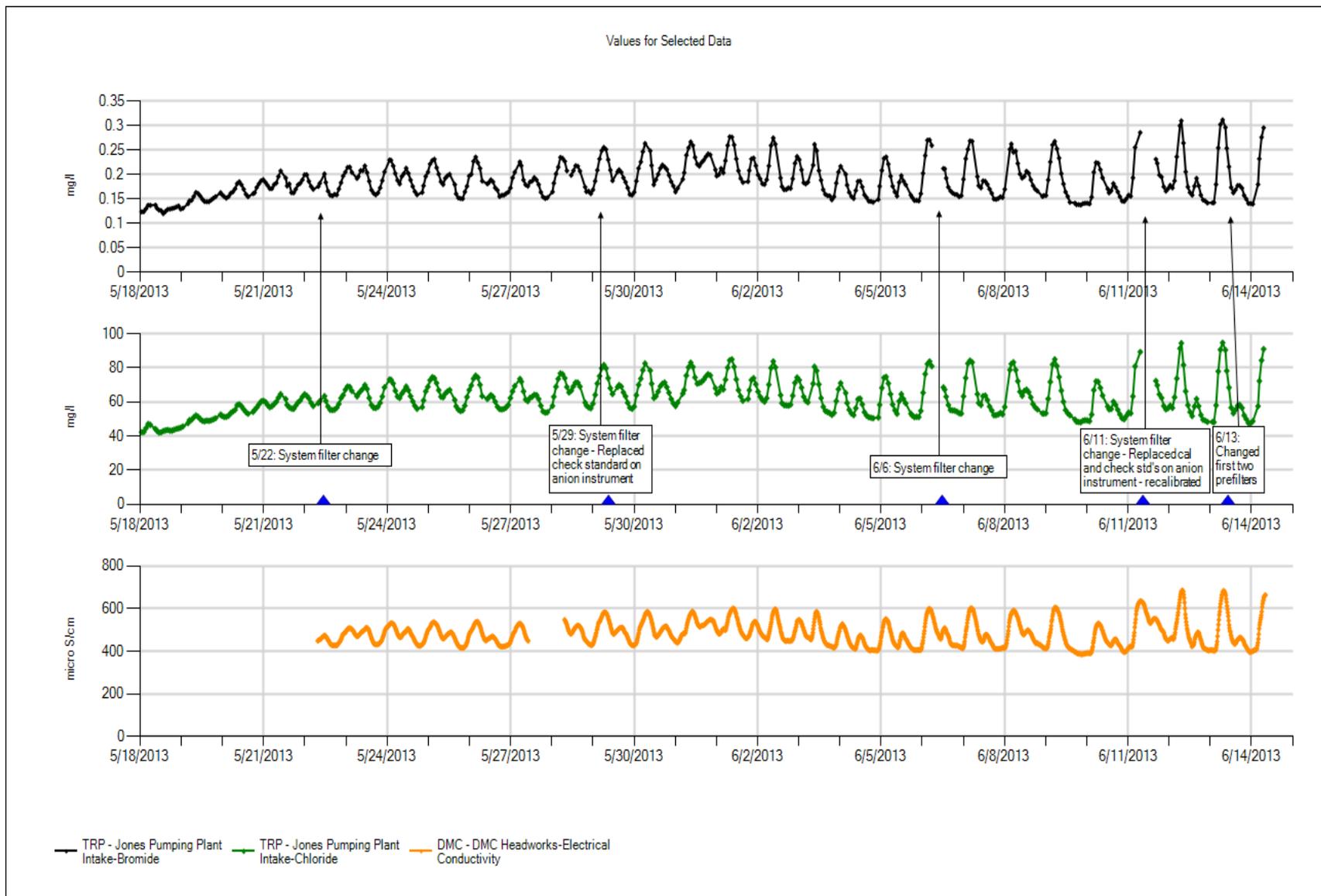
# Banks Bromide, Chloride and EC



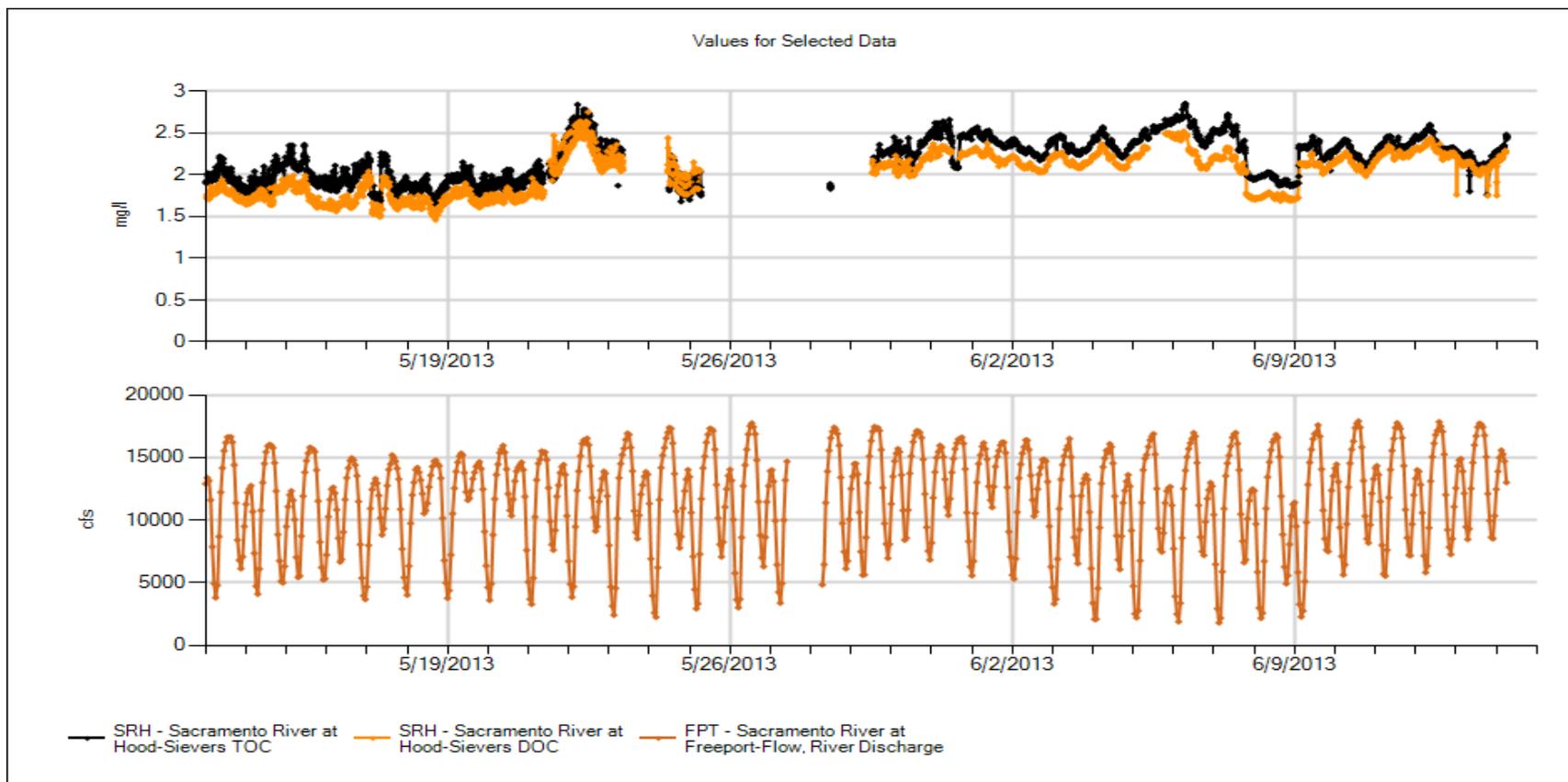
# Jones Organic Carbon with Discharge Pumping



# Jones Bromide, Chloride and EC



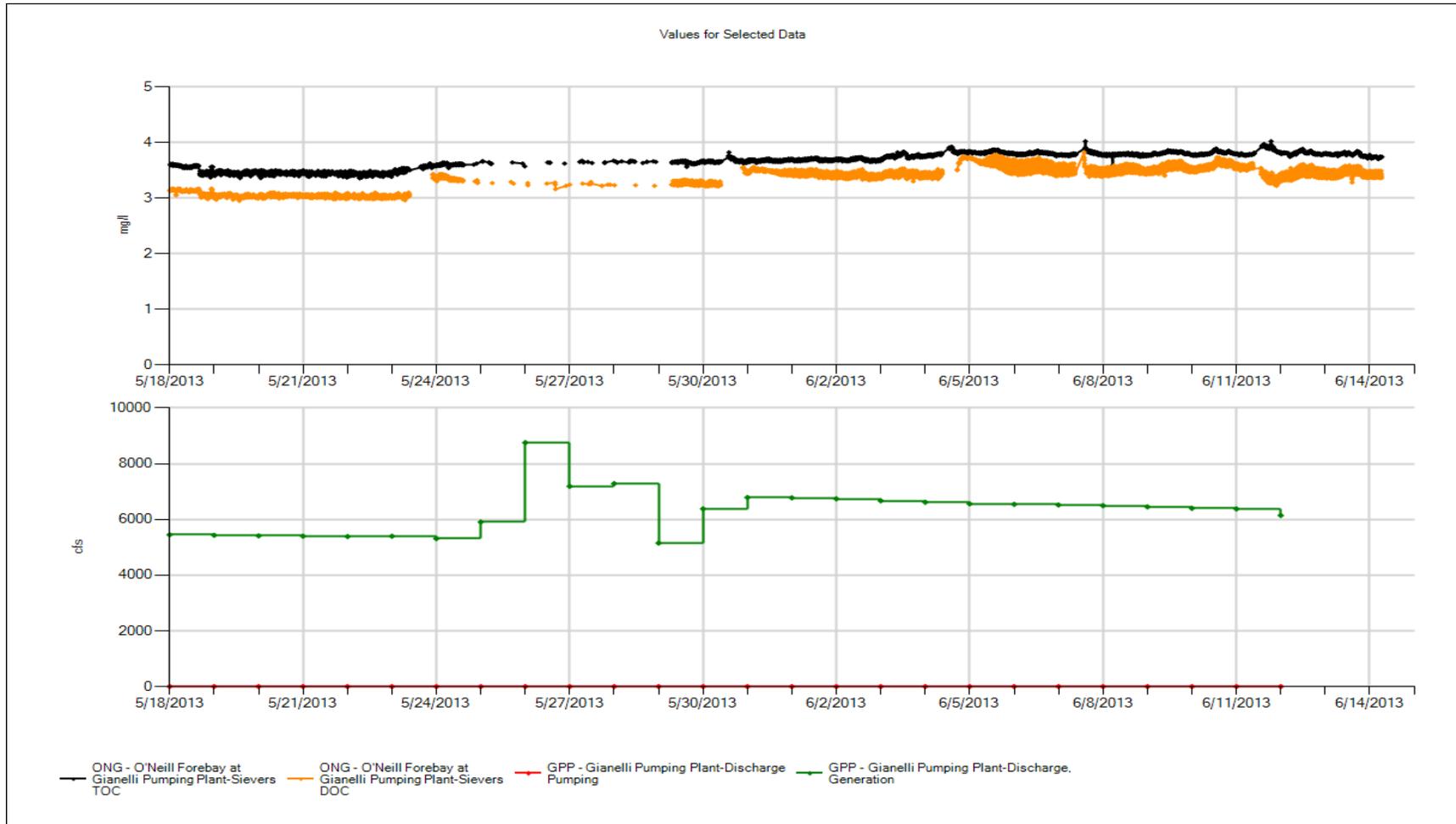
## Sacramento River at Hood: TOC, DOC, Flow rate



### Significant Events:

**5/14** – filter change.    **5/21** – filter change.    **5/23** – cleaned TOC analyzer and updated firmware, but during update process the system board became corrupted. The station was taken offline.    **5/24** – new system board was installed.    **5/26** – data was removed because of TOC and DOC overlap issues.    **5/28** – flow rate calibration was conducted on TOC analyzer.    **6/5** – filter change.    **6/11** – prefilter change only.

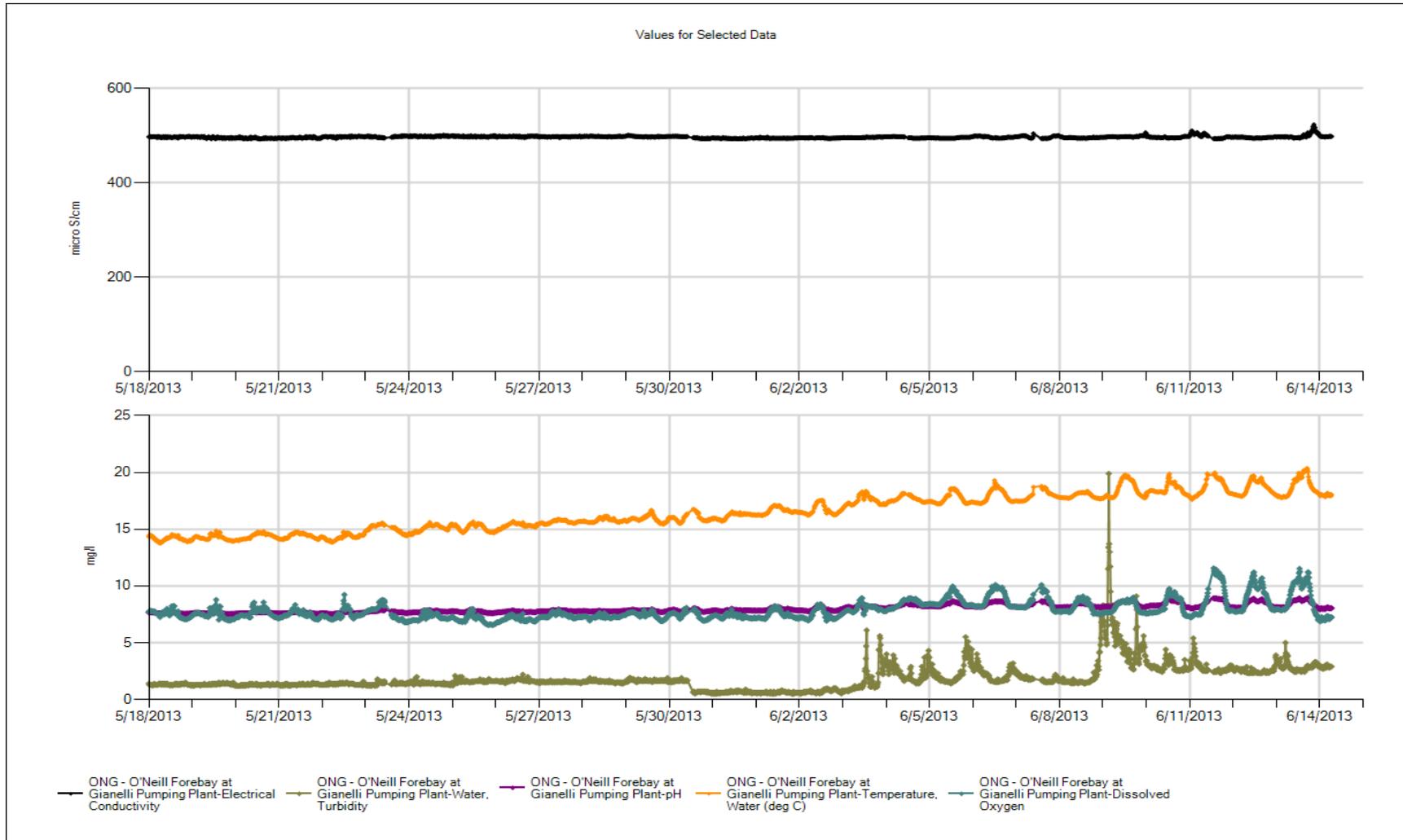
### Gianelli Organic Carbon and Pumping/Generating:



### Gianelli Significant Sievers Events: May 16, 2013 – June 14, 2013

- Error in data stream caused data to only be reported intermittently from 5/24 until 5/29.
- Passed QC on 5/23, 5/30 and 6/4.

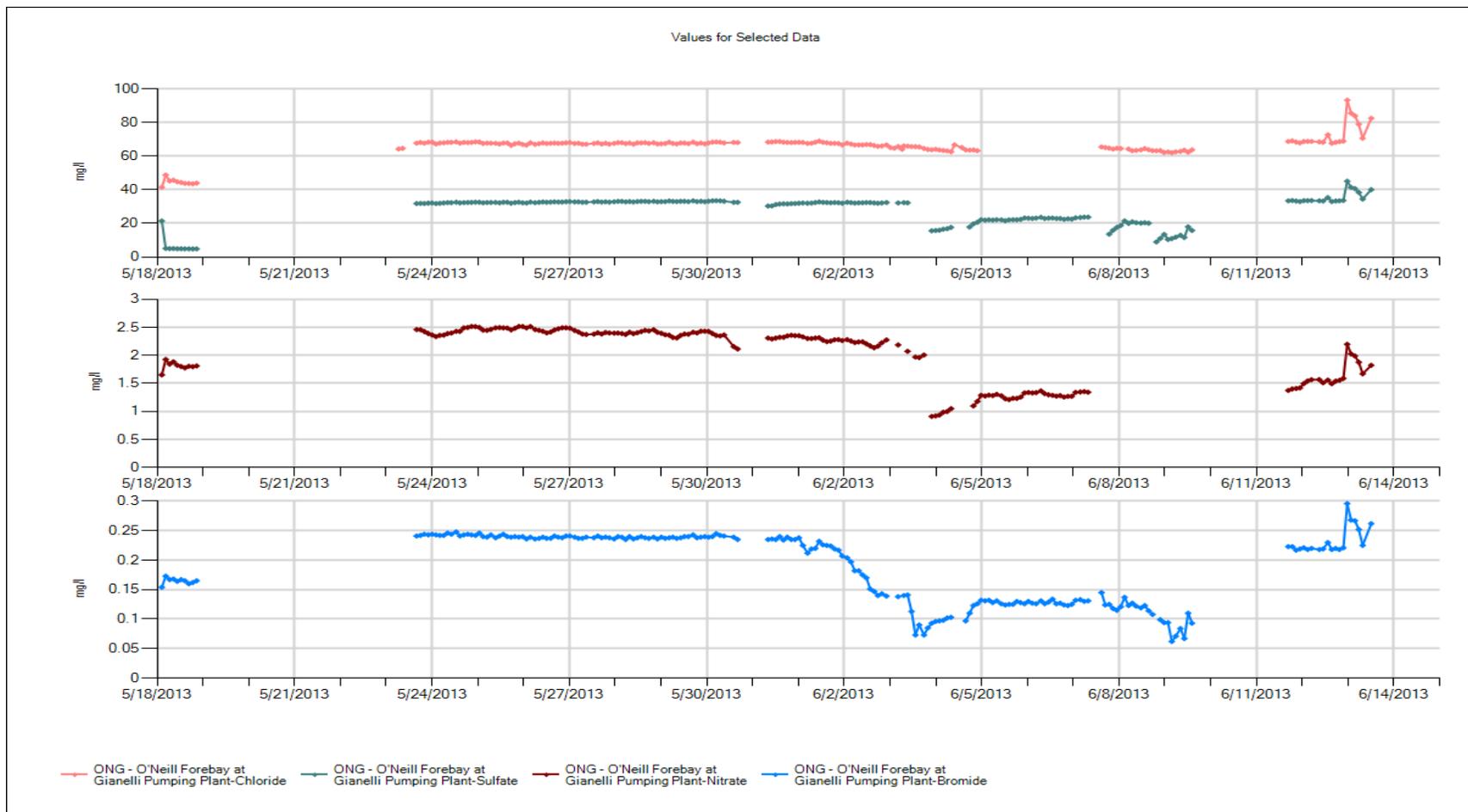
Gianelli Sonde (EC, DO, Temp, Turbidity, pH):



**Gianelli Significant Sonde Events: May 16, 2013 – June 14, 2013**

- Calibrated on 5/30. ted on 5/30.

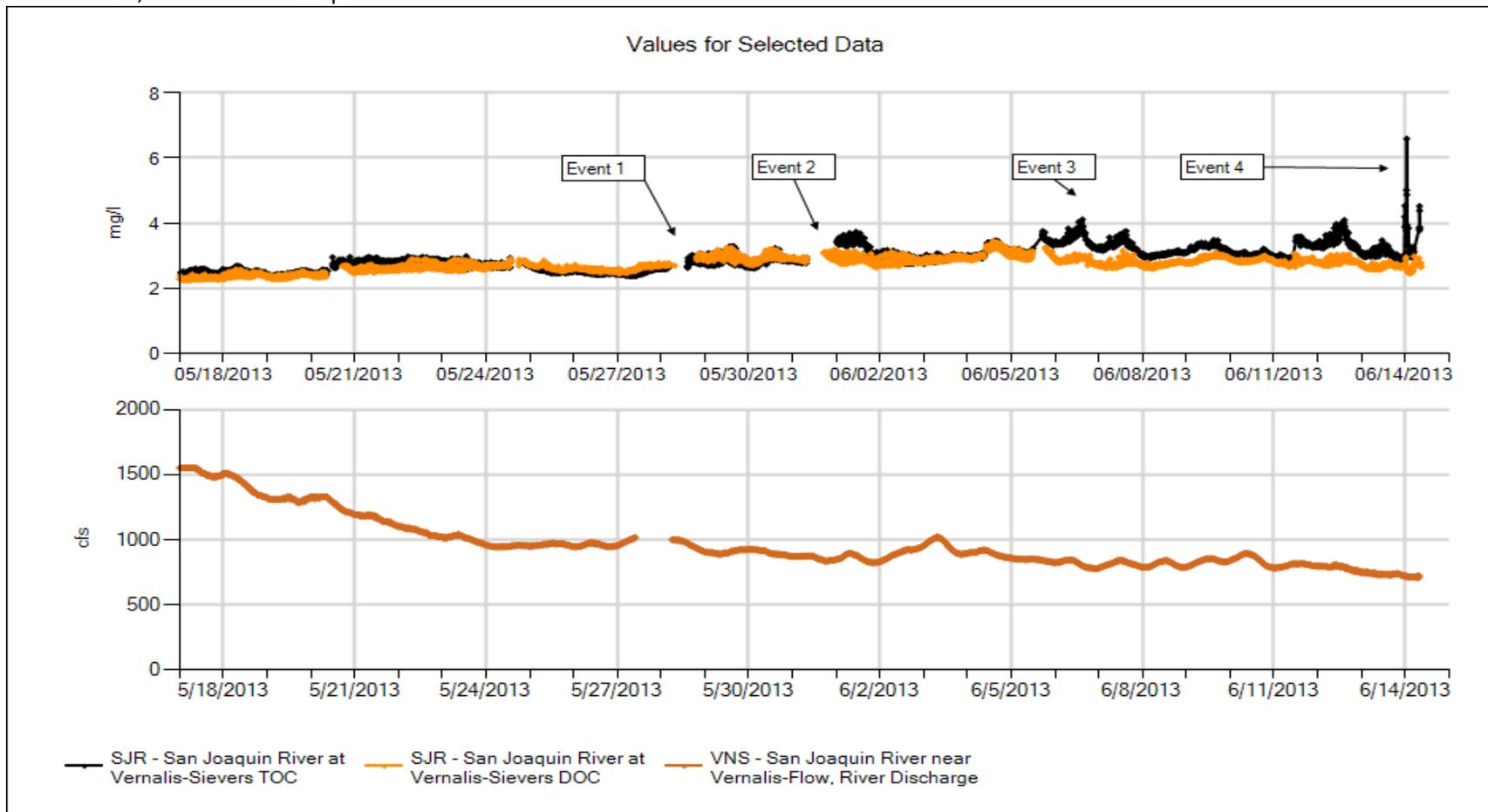
### Gianelli Anions (Chloride, Sulfate, Nitrate, & Bromide):



### ***Gianelli Significant Metrohm Events: May 16, 2013 – June 14, 2013***

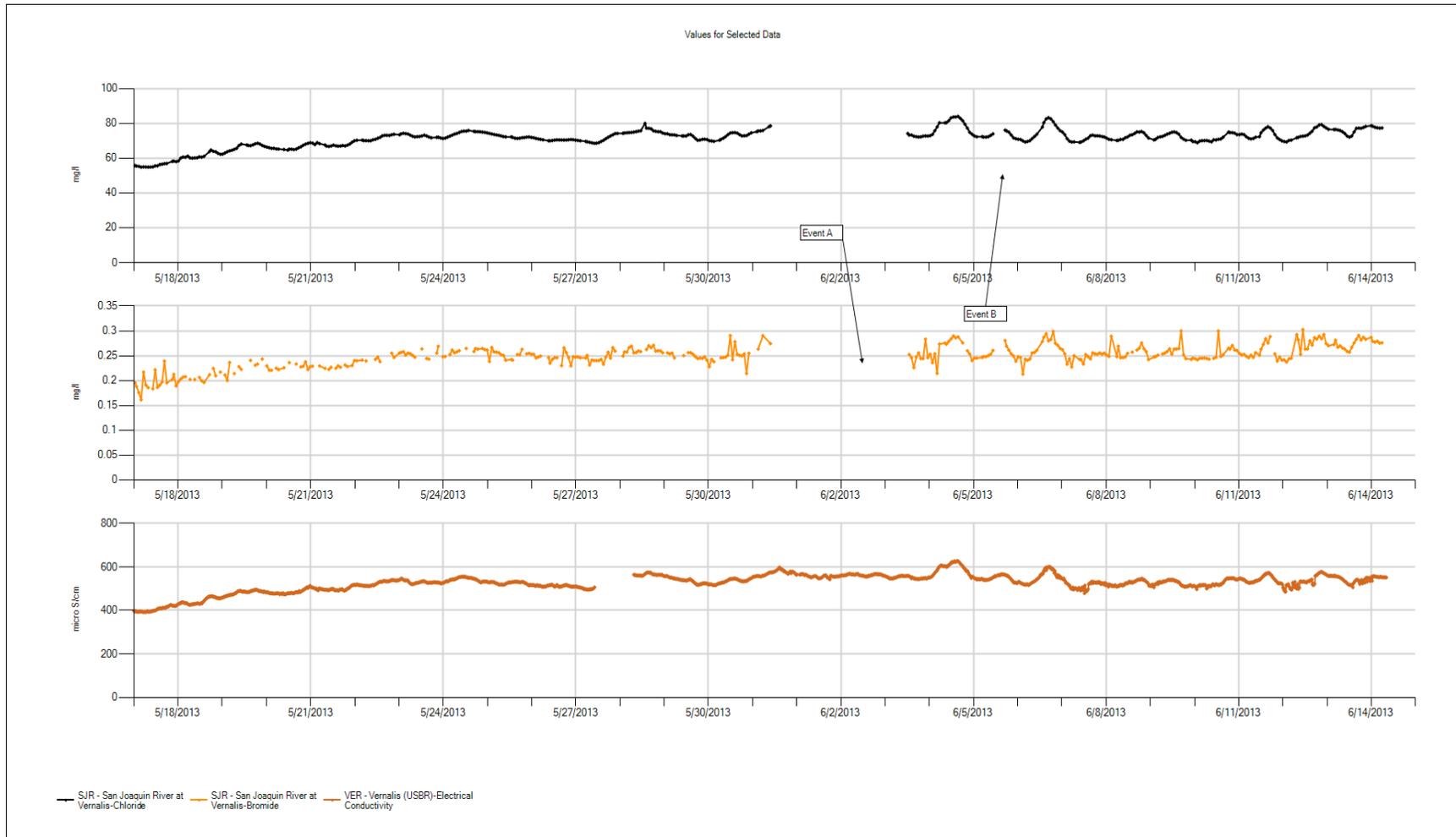
- Instrument lost communication with a periphery device and shut down from **5/19 to 5/23** and from **5/30 to 5/31**.
- Recently installed guard column proved to be faulty and caused errors in analysis from **6/3 to 6/11** (problem started on **6/1** for Br).
- Contamination in sample line caused high readings from **6/12 to 6/14**.

## Vernalis TOC, DOC and San Joaquin Flow



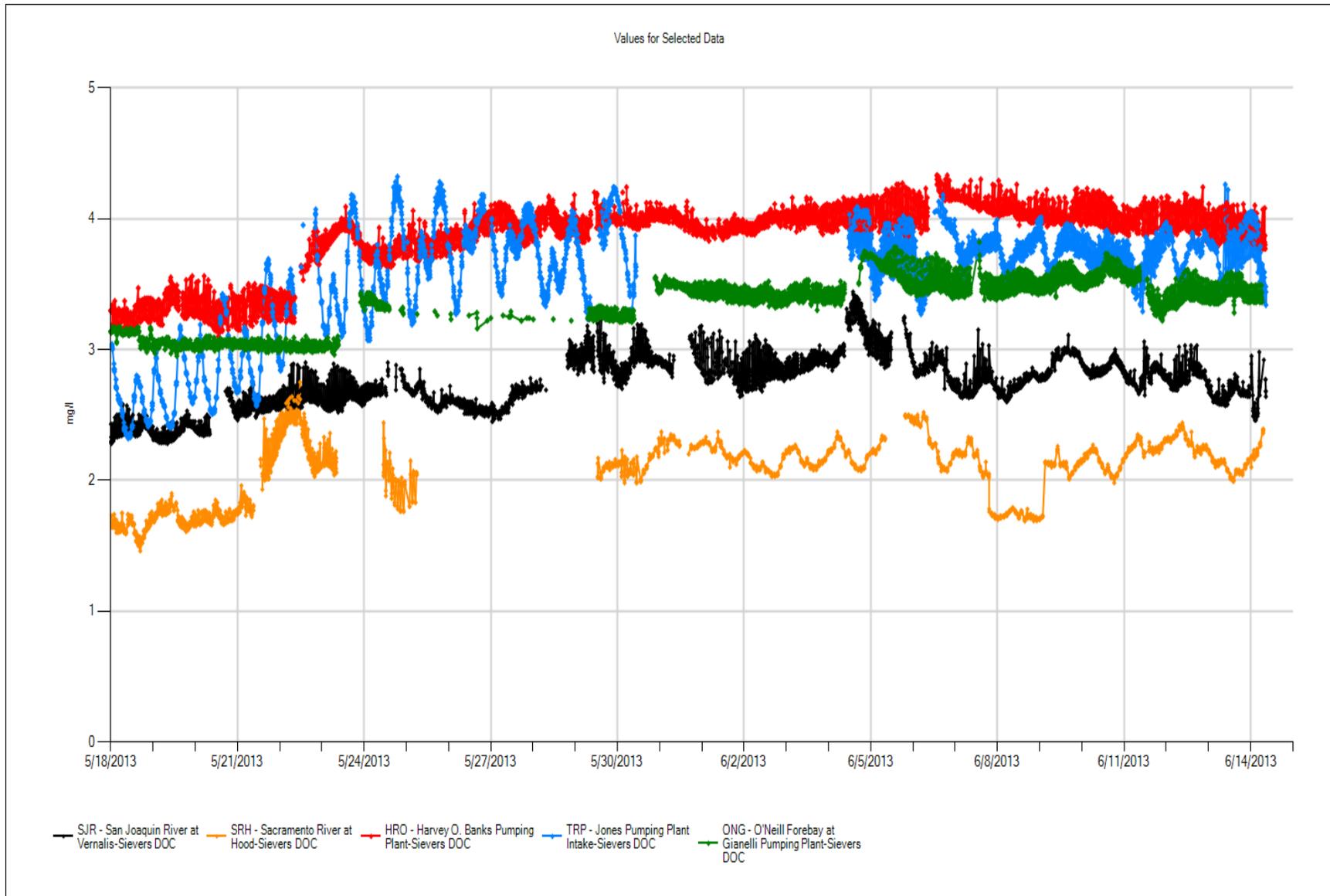
**Filter changes** occurred on 5/14, 5/20, 5/24, 5/28, 6/5, and 6/11. **Event 1:** Filters clogged and an oxidizer cartridge exchange. **Event 2:** Sievers system backflush and IOS cleaning. **Event 3:** Completely disassembled, cleaned, and reassembled the StreamWalker and Sievers IOS to get better separation between TOC and DOC results. **Event 4:** Acid delivery error resulting in high inorganic carbon levels within the sample. Most likely a temporary problem, such as a bubble in the reagent cartridge.

## Vernalis Chloride, Bromide and EC



**Event A:** Software glitch ended the sampling sequence during the check standard analysis on a Friday afternoon. The sampling sequence was checked and reset the next Monday. **Event B:** After a grab sample injection, the anion instrument was left idle while the delivery system shut-off so that the StreamWalker and Sievers IOS could be disassembled, cleaned, and reassembled.

# DOC at all Stations



# Bromide and EC at Selected Stations

