## Banks Pumping Plant: Discharge Pumping – TOC, DOC – EC



5/20 – Sample delivery system filter change

5/28 – Sample delivery system 100 um and 0.45 um filter change, analysis of organic carbon QC samples

6/3 – Sample delivery system filter change

6/10 - Found that a non-50 um filter was installed in the 50 um housing, replaced with a 50 um filter, replaced the 100 um and 0.45 um, analyzed all QC samples, cleaned various lines





5/20 – Sample delivery system filter change

5/28 – Sample delivery system 100 um and 0.45 um filter change, anion analyzer annual preventative maintenance, calibration issue resolved on June 1

6/3 – Sample delivery system filter change

6/10 - Found that a non-50 um filter was installed in the 50 um housing, replaced with a 50 um filter, replaced the 100 um and 0.45 um, analyzed all QC samples, cleaned various lines



Banks Pumping Plant: Nitrate with Check Standards and values below the 1.0 ppm reporting limit



Jones PP – Discharge Pumping, Organic Carbon, and EC

5/20: All filters replaced 5/28: Pre-filters replaced. QC event 6/3: All filters replaced 6/10: Pre-filters replaced. QC event





5/28: QC event 6/10: QC event



Filter Changes: 5/20 = prefilters only, 5/26 = all filters, 6/9 = all filters. Events: 5/26 & 6/9 = Cleaned pump intake. Increase in TOC in early June.



Events: 5/20, 5/26, & 5/30 – 6/1 = Sampling interrupted by unknown entities attempting to gain remote access of the Vernalis computer. 5/26 & 6/9 = QC and maintenance. 6/8 = Annual preventative maintenance performed by Dionex technician. Pumps rebuilt with new seals.





DOC (5/26 – 6/2, intermittent) & TOC (6/1 – 6/2) --- Low flow due to bypass valve setting and/or solenoid valve malfunction caused intermittent readings to measure non-representative water.





- > All parameters (5/16 5/18) --- Shutdown due to communication error.
- ▶ 5/20 --- Installed new computer to run the Metrohm software exclusively.
- > All parameters (5/21 5/26) --- The new computer shutdown due to incorrect power/hibernation settings.
- All parameters (5/26 6/2, intermittent) --- Low flow due to bypass valve setting and/or solenoid valve malfunction caused intermittent readings to measure non-representative water.









## Significant Events: May 14<sup>th</sup> 2015 to June 11<sup>th</sup> 2015

- **5/27 RTMQC**: Changed all pre-filters (75, 50, and 5 micron filters) except for the .45micron.
- 6/9 RTMQC: Changed the 75, 50 and .45 micron filters. The .45 micron filter was not flushed prior to install. This caused a spike in DOC values on the first 6 readings and I had to QC the data as unacceptable. Also, the computer restarted around 4:00 AM and Indigo never reopened.









