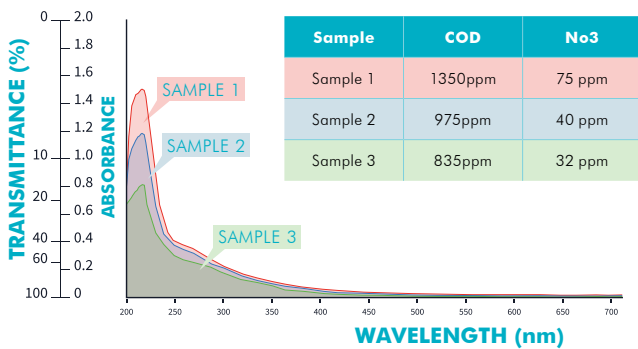


Easy Effluent Monitoring

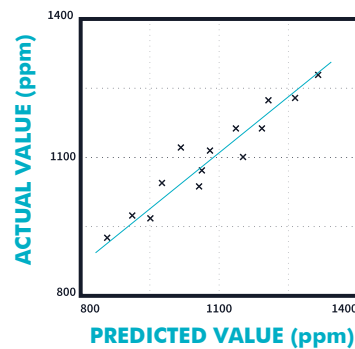
Australian Trade Waste Applications
Measuring COD, TN, TP, NH3, TSS



Introduction to UV/Vis From Absorbance to the Parameter



Chemometric Modelling



COD =
 $-5.05 + 388.44 \cdot \text{Absorbance (282nm)}$
 $-6123.48 \cdot \text{Absorbance (436nm)}$
 $+5564.12 \cdot \text{Absorbance (448nm)}$

*Further parameters on request

STEP 1: First we install a simple outdoor enclosure and then install the sensor in a flowcell, or in an open pit. Then we connect compressed air for Autocleaning.



STEP 2: We then take reference samples and measure them with a laboratory.

STEP 3: Royce Water then creates for you a site specific Chemometric model for your parameters.

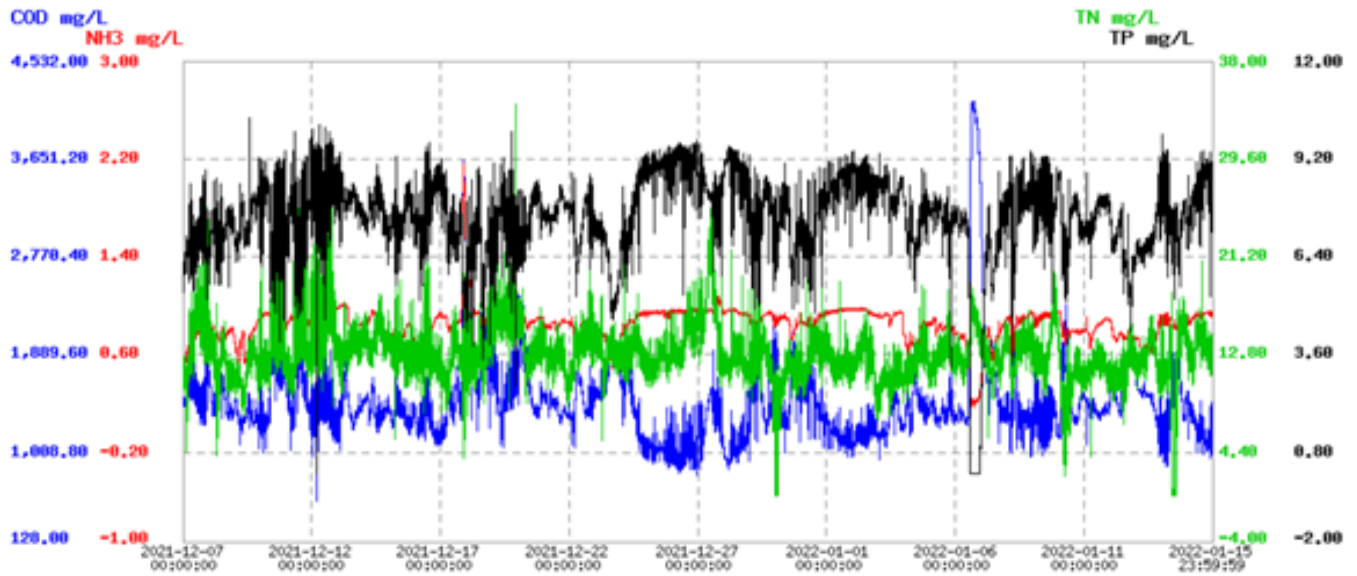
STEP 4: We optimise the cleaning regime and calibration accuracy for you for 12 months.



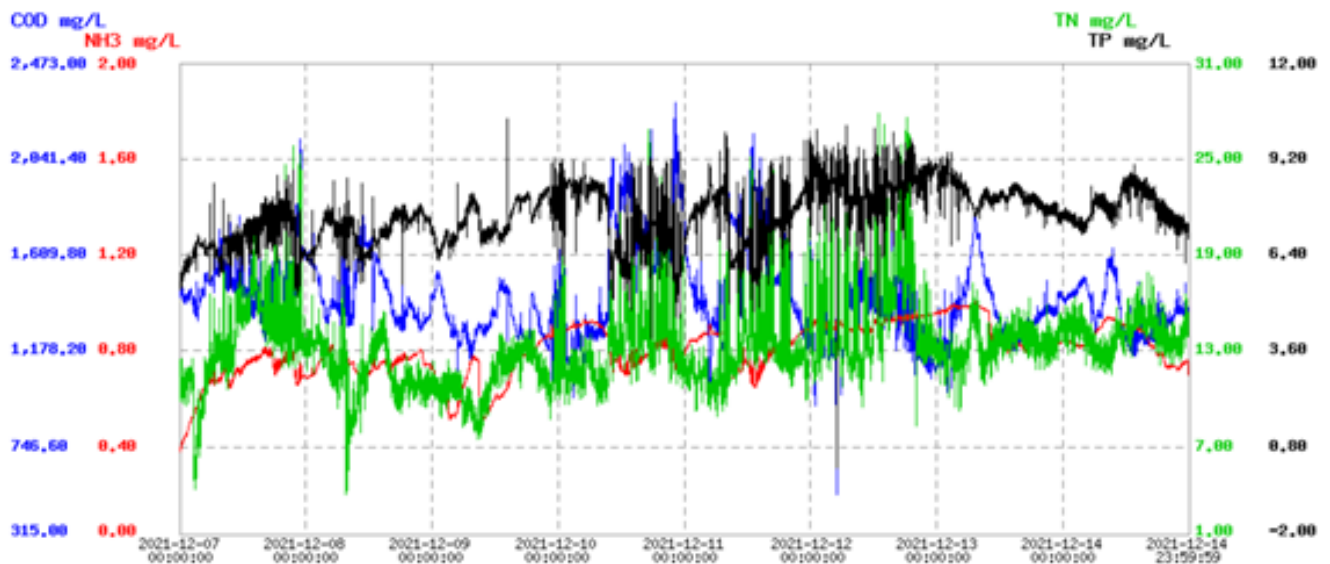
EVALUATION: Trade waste or industrial applications are typically easier than municipal applications – Monthly manual cleaning was required in the below data

SOFT DRINK MANUFACTURE

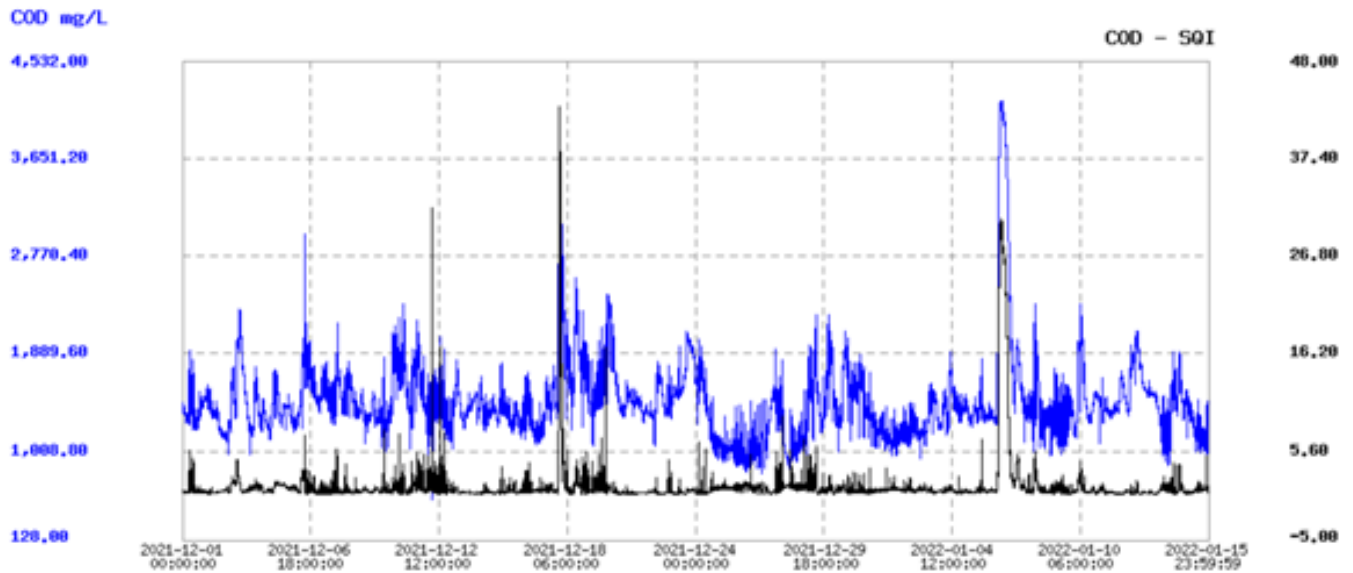
1.5 MONTHS



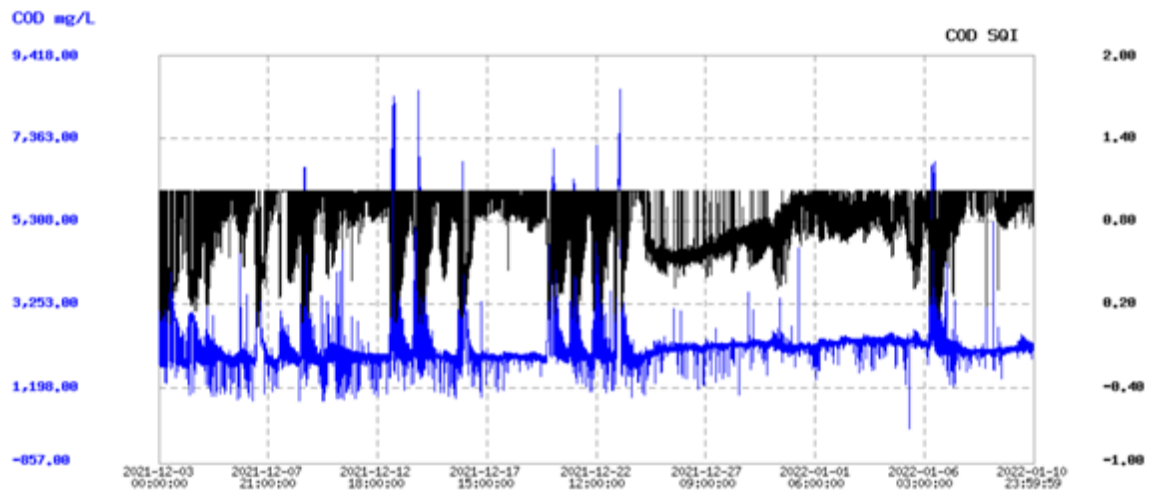
1 WEEK



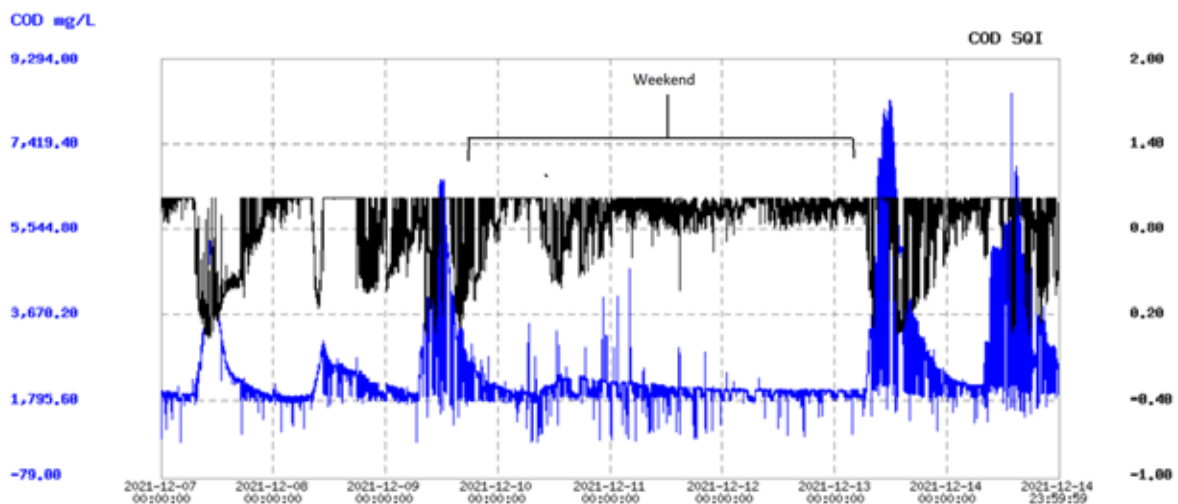
COD & NH3 SQI – The SQI indicates how much you can trust the data. An SQI of lower than 4 indicates higher than 90% confidence. A lower SQI is better and can be used to detect process upsets.



FRUIT JUICE MANUFACTURE 1.5 MONTHS



1 WEEK



Summary

Parameters measured with a single sensor:	COD, NH3, TN, TP, TSS (others available)
Work required by site to set up:	Electrical wiring, 25-35 grab samples
Maintenance requirements:	Monthly manual cleaning
Effluent monitoring control evaluation:	Suitable

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