**LOPAP Processing notes**

Advice from Roberto:

* Zero starts when spike from valve coming on is seen in data
* Time retention is the difference between when the zero starts and when the zero is seen in the data (ie when spike from valve coming on is)
* Time response is when during the zero the measurement is down to 10% of the initial value
* Get time retention and response only when you can do both

Consider spike at the end of zero as part of zero? I think so, final value should be the value after the zero is completely over

**Notes from third processing**

For the second set of reagents I applied different zero corrections and I am not sure if they are working correctly, on 19th February (after the power cut) values are below zero at midday – first zero after power cut was a lot lower than previous zeroes, then back higher on subsequent zeroes, options:

* disregard 19th February
* use 19th February as is
* redo zeroes (though I do think this method is more truly representative of what the values are)
* try to do zeroes through interpolation in R (I think this would be a lot of work and I don’t really think I would use it again ughhh)

the second lot of data in general has higher nighttime values compared to the first lot and I trust the first batch of data more because it is around zero at night

Even in the previously processed data (from processing 2), you can see that the nights are much higher later on (5 ppt)

**How are zeroes applied in the LOPAP processing code**

raw\_data – (slope of zeroes \* running\_time + intercept)

ok I am being stupid, it’s the raw data minus an equation for a straight line (y = mx + c), where y will be the zero value between the zeroes runs -> so it is basically interpolating, so I can try this in R?

Ok done zero correction in R for values from first set of reagents and it looks good, those these reagents are not the problem children, will try with the second set of reagents

Works in R for second set as well, in the sense that it corrects the baseline, but it is still higher than reagent 1

Plotting it all together you can see that the data measured with the second set of reagents is higher, even after the zeroes have been used to correct the baseline -> what now?? Try correction using all zeroes together? Don’t think that’s really sensible?