SENSING EXCELLENCE

Multisensor

CASE STUDY

THM Monitoring in Drinking Water Plants in the East of Spain

Application Dossier: No. XIII

Application

THM Monitoring in Drinking Water Plants in the East of Spain

Product

MS2000 – Standard version with 4-20 mA output, sampling system, alarm, and fault relays

MS2000
THM Monitor

Application

Online THM monitoring at a drinking water plant.

Customer

Water Utilities, Spain.

Problem

The local health authority notified the water utility that the THM levels in the water supplied to households in the region was close to, or breaching, the legal limit. The local WTP was, therefore, looking for an online THM monitoring system to implement improved control of the process.

Product

MS2000 with 4-20 mA output.

Installation Facts

The system was the first of 4 units. After long discussions Multisensor's MS2000 was chosen over a competitor from the US due to the low running costs and the low maintenance requirements.

The unit has now been installed for almost 7 years (as of February 2025) and the customer is very satisfied with the results. The main benefit for the customer is the fact that the unit doesn't need reagents, and this saves them around 18,000 Euro per year. If the THM levels, go above a certain threshold an alarm is activated.

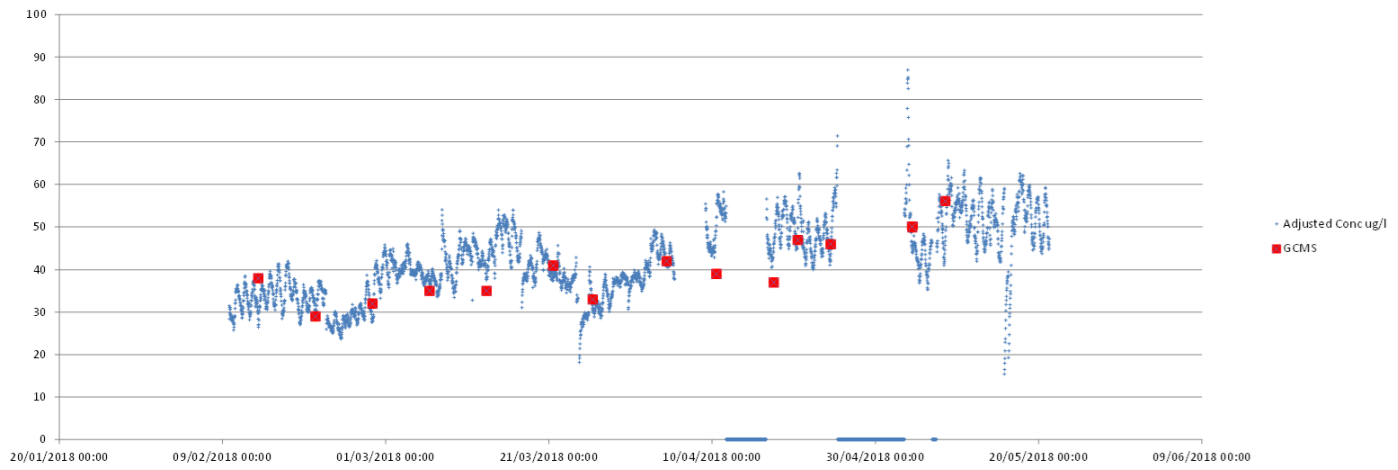
Data from 2018

In the graph on the following page we can see a comparison between the GCMS and the Multisensor System instruments over a period of 4 months when different tests were carried out. We can see how

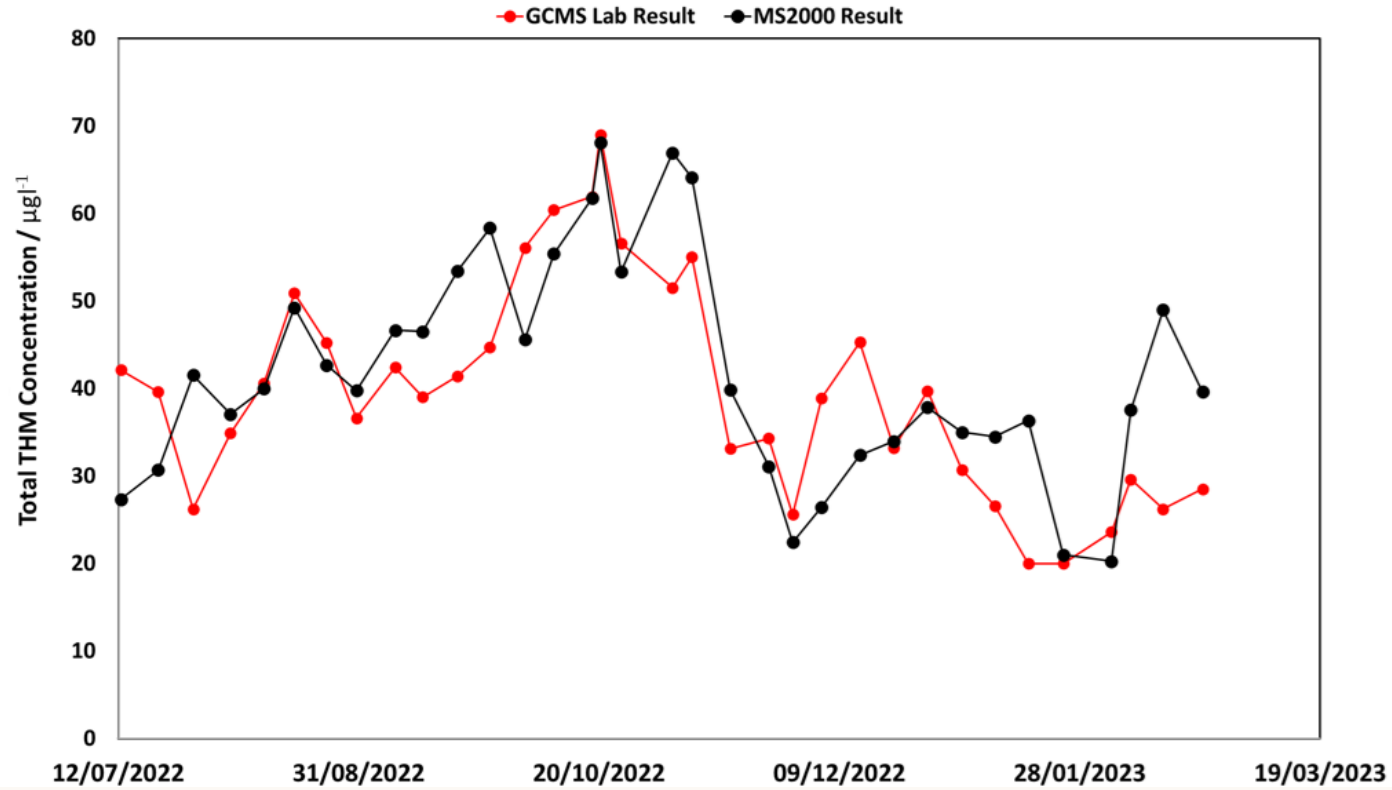
MS2000 Installed at site.

close the online measurements are to the laboratory results.

It is important to note that the MS2000 analyser has been further improved since the first installation as the data on the following pages shows.



Data from the first instrument trialled in Spain between February and May 2018.



The latest instrument data shows improved trends over nearly a year, but the lack of timestamps from the laboratory may explain some differences.

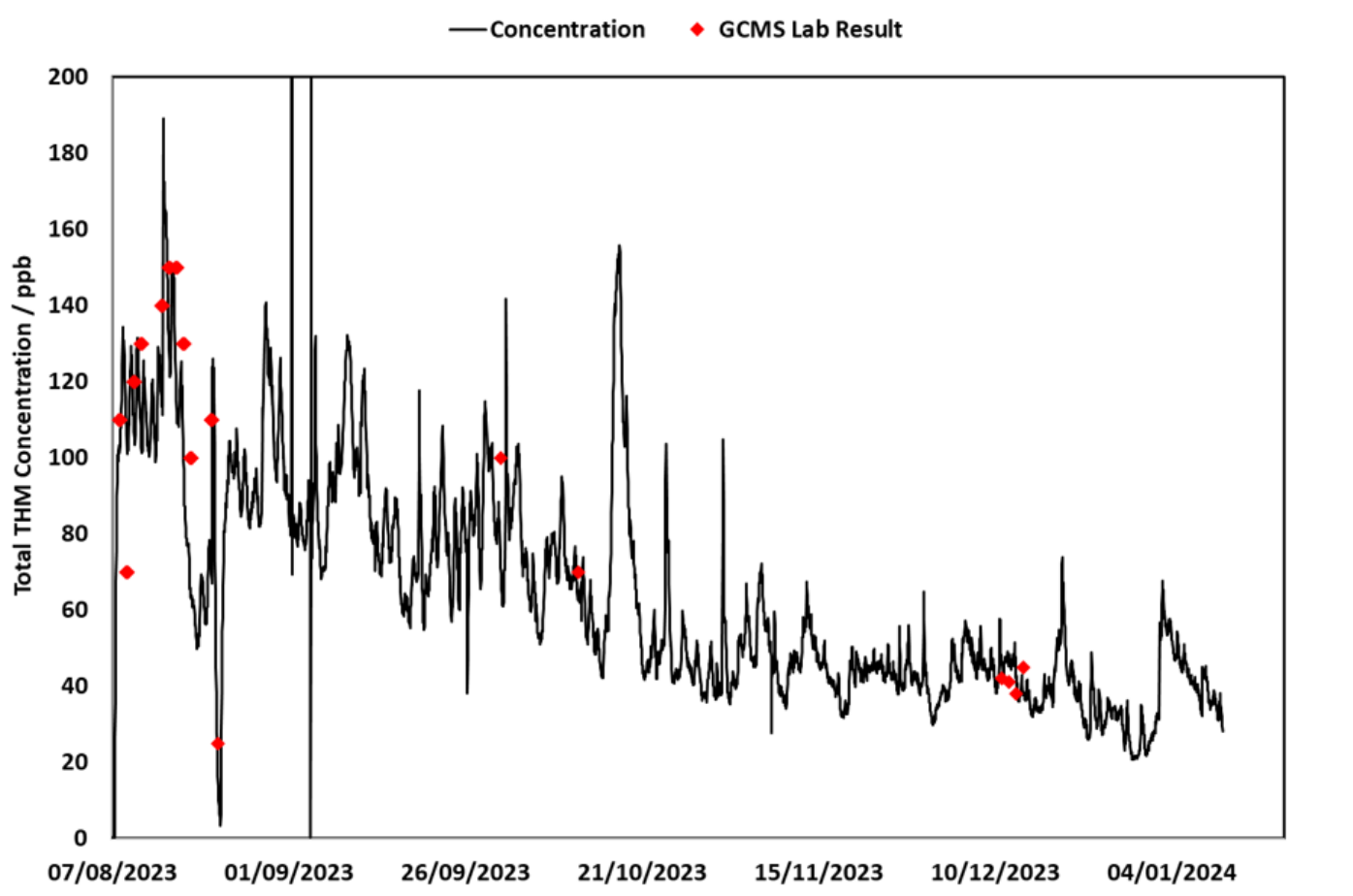
Developments

Following this first successful installation the Spanish distributor for Multisensor Systems, EQUITROL - Equipamientos de Control, continued to help water treatment plants all over the East of Spain with their THM monitoring requirements.

By February 2025 more than 10 THM analysers have been installed and continue to protect WTPs in Spain.

Many municipalities around Spain are presently considering installing on-line THM analysers as a way to monitor their water treatment process.

Analyser installed at another location.



Data from another analyser installed at a different location for 6 months.

Did you know?

Following this installation in 2018 a number of THM analysers have been installed in various drinking water treatment plants providing accurate data on THM levels in the region.

One of the main concerns the local water companies have is the high variability of demand between the summer season, when tourism increases, and the winter season when the population drops.

This means that the demand for water is highly variable, creating a number of challenges.

Monitoring THMs on-line allows optimisation of the treatment process throughout the year, ensuring safe drinking water for the population.

Why Multisensor?

The customer needed a system with low running costs and high accuracy

Multisensor

For more information

Visit: www.multisensor.co.uk
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Front Image Credit: Mike McBey, Catalan countryside and Montserrat Mountain

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Multisensor Systems is a developer and supplier of Water and Gas Analysers specialising in oil in water and hydrocarbon analysers, oil in water detectors, VOC monitors and THM analysers based in the United Kingdom.

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CHANGELOG

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