

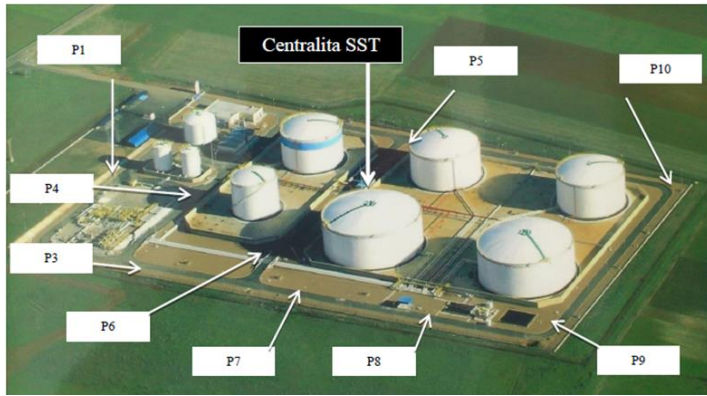
Above Ground Storage Tank Farm Monitoring

THE SCOPE OF PROJECT

As part of the environmental policy of a mayor Storage Tank Farm Company, decided to install continuous monitoring of the groundwater for the early detection of spills in twelve of their sites.

THE CHALLENGE

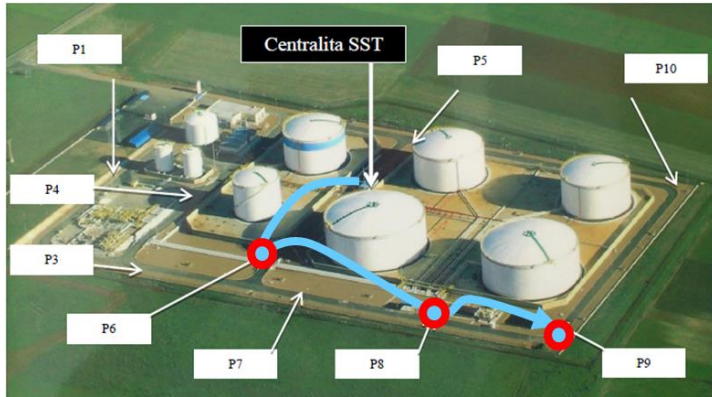
Big storage tank farms have significant number of monitoring wells in a large area where above ground tanks difficult the transmission of the wireless signals.



Monitoring of one of the AGST

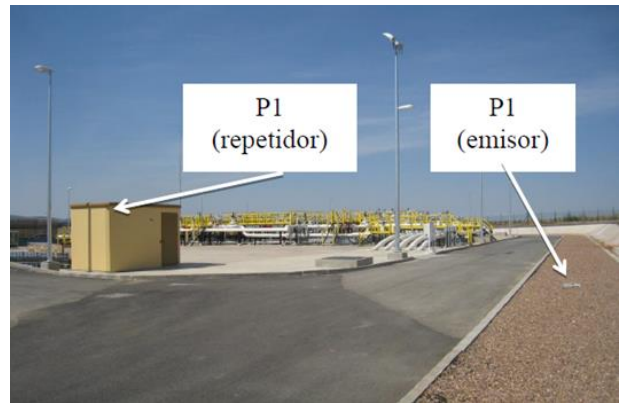
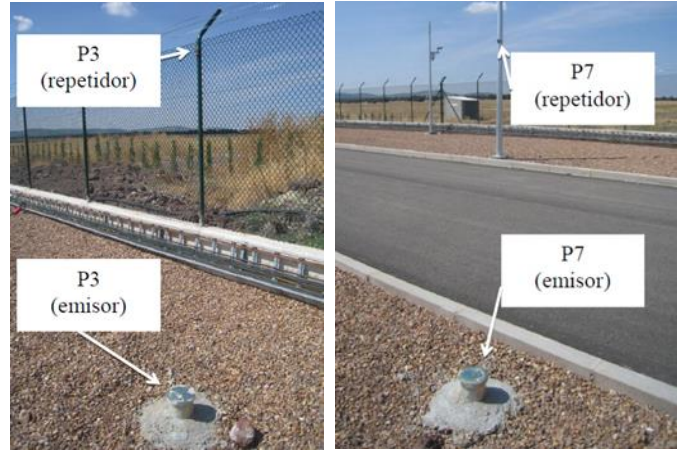
THE SOLUTION

SST wireless communication system has the capability of using a mesh of repeaters to reach long distances.



Communication path of sensor "P9" using "P8" and "P6" as repeaters.

All communications paths were done in-situ having real readings of communication strength between each device. Also, the ability to reconfigure the path remotely (once team left the site) allowed to improve the defined path for optimal communication.



Example of installation of sensors and repeaters.

THE OUTCOME

A total of 160 sensors were installed in 12 different sites generating over 700.000 reading per year over 7 years. Nearly 5 million communications with the SST server. During that time several spills were detected and very few false alarms were generated.

The total cost of SST monitoring 24/7 was lower than a manual monitoring once a month.

With the old monthly manual monitoring they would generate only 1.920 readings per year compared to the more than 700.000 they do today! And all at a lower cost than manual monitoring!!