

USE CASE

WaterScope IoT water well shaft monitoring



WIRELESS DATA COLLECTION SYSTEM WITH ONLINE MONITORING

A regional waterworks had an issue, that not have adequate information on the operation of their water well shafts. They were looking for a monitoring solution that can be installed in existing well shafts and can provide additional information to reduce operating costs.

The WaterScope IoT well and well shaft monitoring system is able to continuously monitor the operation of wells shaft, measure their water level, measure the continuous electrical performance of the pump, monitor the running time and current consumption of the pumps, measure the water pressure in the engine house, record the closed / open) and to indicate flooding.

It successfully provides measurement and data collection capabilities even in large areas that are not adequately covered by generally used data communication solutions.

The measurement data is transmitted using LoRaWAN or NBIoT wireless technology to the cloud server and from there to the user via the Internet. The data is displayed in a personalized way, even on a mobile device. Access to the data can be done in a way that is protected by an access right (login, password) according to the user's needs. Appropriately authorized colleagues can even track measurement results on a mobile phone, allowing alarms to be handled quickly.

By processing and analyzing the large amount of data collected about the condition of the equipment in real time, the operating processes can be optimized and more efficient use of resources can be realized. It will be possible to coordinate the operation of wells operating far apart. Thanks to continuous monitoring, operating and maintenance costs can be reduced and power consumption can be optimized.

If the threshold values defined jointly with the user are reached / exceeded, the system sends a warning signal / alarm, but also a signal based on an adjustable trend analysis, ie. an alarm can occur in the event of excessive water consumption, not just when the limit values are reached.

WaterScope provides a complete monitoring unit package that can be used to equip a complete machine house:

- **NBLoT or LoRa WAN communication**
- **WS IoT General data collection unit**
- Current and voltage meter
- Water pressure measurement
- Well water level measurement
- Quantity meter
- Enclosure security: Intrusion detection

FACTS and DATA

Buyer: Regional Waterworks.	Population: 2600 people
Device: WS IoT SGU-N data collector	Built: 2012
Solution: WS IoT Drinking water pump shaft monitoring	Monitoring installed: 2021

