

# Oil Production Powered by MultiTech and LoRaWan®



## Tank Monitoring for Oil and Gas Companies

For more than 100 years, a well-known company has been producing oil and gas in California for consumption throughout the region by homes and businesses - including the agriculture industry, which accounts for approximately one-third of the national agriculture output. And for nearly four decades, this major oil supplier has been outfitting its equipment throughout the San Joaquin Valley with radio frequency monitors. These monitors serve to help the company keep a constant watch on their equipment as they produce more than 140,000 barrels of oil equivalent from 18,000 oil wells across 100 square miles of oil fields.

### The Challenge | Monitoring Equipment Across Large Distance

To responsibly provide energy to residents, businesses, and entire industries, the organization has long been committed to safety, operational efficiency, and following environmental regulations. To continue their 100-year legacy, they decided to outfit thousands of 250-gallon barrels with smart lids and radio frequency monitors. These smart lids allow tank-level readings to be taken remotely (previously done manually with dipsticks). These tanks support well health, help to prevent corrosion, and allow treatments to be added to the wells and flow-lines to optimize production.

Unfortunately, outfitting so many relatively inactive units with radio frequency monitors was cost-prohibitive due to the high levels of security and the near-constant uptime required to support their equipment and infrastructure.

### The Solution | A Long Range Wide Area Network

Their smart lids require an internet connection to effectively transmit data across an area of about 10 miles. Utilizing a LoRaWan Network was determined to be the most cost-effective solution, allowing them to deploy their own network without needing to rely upon a third-party solution. MultiTech Conduit gateways from USAT were selected for the network links as they can support thousands of endpoints, allowing them to cover large areas with just a handful of gateways — majorly reducing costs.

In addition to MultiTech Conduit gateways, the MultiTech LENS solution was selected for easy, efficient deployments and their ongoing network management needs. LENS allows for centralized management of the LoRaWAN devices as well as configuration and control of the MultiTech Conduit gateways. It also makes it easy to add additional gateways and end devices as needed should the organization decide to add other LoRa-enabled sensors to other parts of their operations in the San Joaquin Valley and beyond.

### The Results | Scalable Networks With Greater Visibility

By deploying a LoRaWAN with MultiTech Conduit gateways and MultiTech LENS, the organization is now able to operate and maintain a scalable network with incredible visibility. The flexibility to easily deploy new equipment and monitor all of their sensors across their entire network is integral to their continued success.

### The Team | Device Provisioning, Activation and Installation Services

For over 30 years, the team at MCA has helped thousands of public and private utility organizations utilize reliable and secure wireless communications to remotely monitor and control critical assets in the field. Better communications keep critical systems running longer, enable faster repairs, and can save lives. Reach out to MCA to procure, provision, activate, and install all the devices your organization needs.

## Industry Profile

- Oil and Gas Utilities
- Tank Monitoring

## Technology Solutions

- MultiTech Conduit®
- MultiTech LoRa mCard™
- MultiTech LENS®
- MultiTech LoRa Antenna
- MultiTech LoRa Sensors
- Mobile Mark LMW202

## Targeted Results

- Real-Time Sensor Data
- Lower Power Wide Area
- Remote Management
- Cost Savings and ROI



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