



SIEMENS



SITRANS LR250, SITRANS RD200, SITRANS RD500

Improving inventory management with radar level transmitter



After a three hour drive to Western Canada's oil fields, a truck driver arrives at an oil services company with thousands of liters of chemicals in his tank.

Once he reaches the company's storage vessels, however, it becomes immediately obvious that the vessel is full – no space for those thousands of liters of chemicals. The driver's only option is to turn around and leave – while his own company levies a hefty fine at the oil services company.

Think this scenario is too far-fetched to be true? One Alberta, Canada company in the oil and gas industry totaled over \$100,000 in inventory losses or disputes in a single year!

With the help of Siemens non-contacting radar technology and remote monitoring, this company now has precise inventory monitoring and alarming.

Challenge

Vessels at the company's site in Western Canada's oil patch store chemicals used in the well drilling and oil fracking.

Hydraulic fracturing, or 'fracking,' is a process of creating fractures in rock using pressurized fluid. Companies use this technique to extract substances like petroleum or natural gas.

Different chemicals and methanol are used in the well drilling and fracking process,

[siemens.com/sitransLR250](https://www.siemens.com/sitransLR250)



Installing the SITRANS LR250 was easy and the company now has reliable, high-performance continuous level measurements on their storage vessels.



The chemical company found installation and commissioning of the SITRANS RD500 remarkably easy – no engineering required.

and this company needs reliable and accurate level measurement in their storage vessels. Trucks deliver chemicals for storage and then ship the chemicals to the drilling and fracking sites.

However, this company reported that quite often trucks would arrive at a storage vessel to fill up, only to find that the storage vessel was empty!

The previous mechanical level measurement device would show the vessel as full, but this was not the case. These false level readings due to the mechanical parts rusting or sticking are costly – wasting operators’ time as well as the gasoline needed to make repeated trips to the storage site.

Solution

The company decided to remedy this problem by installing Siemens level solutions. First, a SITRANS LR250 radar transmitter for liquid level measurement was installed on top of the storage vessel.

Setup of the device was simple using the transmitter’s Quick Start Wizards, with only a few parameters required for basic operation. With three-millimeter (0.118 inch) accuracy, the transmitter provides the company the level measurement precision it requires.

Technicians connected the transmitter to a SITRANS RD200 remote display, which is conveniently mounted at the base of the storage tank for local display. Operators can easily check process information from ground level, rather than climbing to the top of the storage vessel.

Finally, storage vessels are also connected to SITRANS RD500 remote data manager, which integrates web access, alarm event handling and data capture for the

radar transmitter. The company sometimes experiences power outages due to storms, and the remote data manager captured these in its alarming/trending.

Operators can now monitor these storage vessels from anywhere using a standard web browser on their computers or on their smart phone through SMS messaging and email.

Benefits

With hundreds of vessels being loaded and unloaded every day, eliminating inventory losses and disputes is crucial. This Siemens level measurement and monitoring solution means that the company can now keep track of inventory levels at their storage tank depot.

The result? More than \$100,000 in savings from improved inventory management!

Siemens AG
Industry Sector
Sensors and Communications
76181 KARLSRUHE
GERMANY

Subject to change without notice
Available as pdf only
© Siemens AG 2014

The information provided in this case study contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of the contract.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes violate the rights of the owners.