

# Guided Wave Radar Upgrades the Measurements at Petro-Canada™ in Wildcat Hills

## RESULTS

- Maintenance virtually eliminated
- Continuous online measurements
- Minimized start-up time with easy to use software tools and diagnostic capabilities

## APPLICATION

Gas Condensate skim tanks

**Application Characteristics:** Low dielectric, some coating

## CUSTOMER

Petro-Canada Gas Plant, Wildcat Hills, Alberta

## CHALLENGE

Two gas condensate storage tanks at the Petro-Canada Wildcat Hills Gas Plant had tape style level transmitters that were failing and needed to be replaced. Tape style measurement requires a great deal of cleaning and adjustment to get a valid measurement. The site wanted to stay with a top down, two-wire measurement.

## SOLUTION

The plant considered Guided Wave Radar (GWR) to be a suitable replacement for the tape-style transmitters. It is a top-down, 2-wire technology that can tolerate light coating on the probes. It provides a direct level measurement that is independent of fluid changes. The Rosemount 3300 Guided Wave Radar was chosen for its diagnostic capabilities and easy-to-use software tools.

By switching to GWR, maintenance has been eliminated. GWR can tolerate buildup in the probes, and recalibration is not required. The devices are now continuously online and reliable.

The 3300 includes both installation and operational diagnostic capabilities. Dynamic Gain Optimization allows automatic adjustment of gain to maximize signal-to-noise to compensate for changes in the process. Intelligent Signal Processing works such that in the event of a lost signal, the 3301 can evaluate the last location of the level peak and the location of the end of the probe to determine if a tank is full or empty. Depending on the results, it will drive the mA signal to a high or low saturation value. This prevents over-spills. Other units simply go into alarm mode under similar



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conditions. In addition, the user-friendly Radar Configuration Tools software makes setup simple and easy. It also allows for easy troubleshooting of potential problems.



The troubleshooting diagnostics became useful immediately. As is often the case with older tanks, the actual tank installation did not match up with the as-built drawings. One of the units required some adjustments to the upper null zone and threshold settings to accommodate the nozzle. The other 3301 was installed in a sub-optimum 2" stilling well. It also required some minor adjustments after installation. Since the adjustments were made, they have worked perfectly. Maintenance has been eliminated and on-line measurements are constant.

### RESOURCES

#### Rosemount 3300

<http://www.emersonprocess.com/rosemount/products/level/m3300.html>



*A flexible cable was the only choice for this 24 ft (7.3 m) tank*

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