

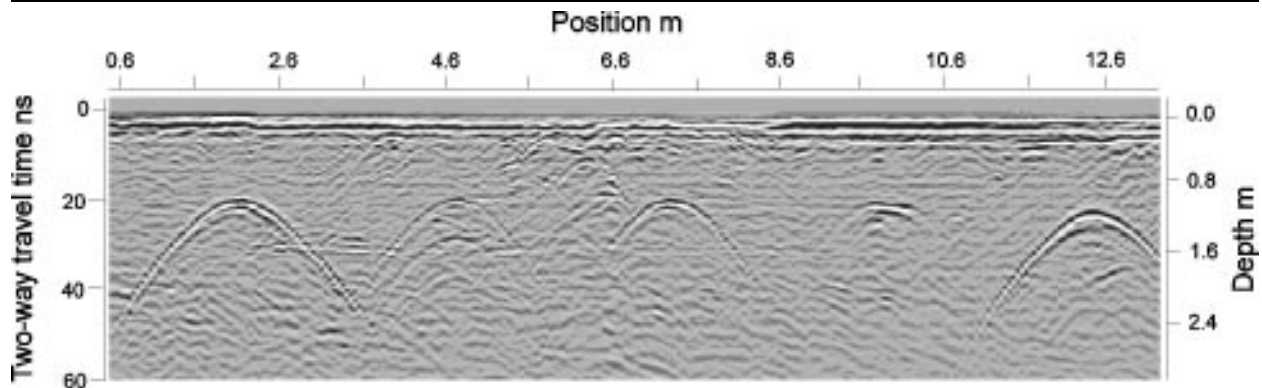
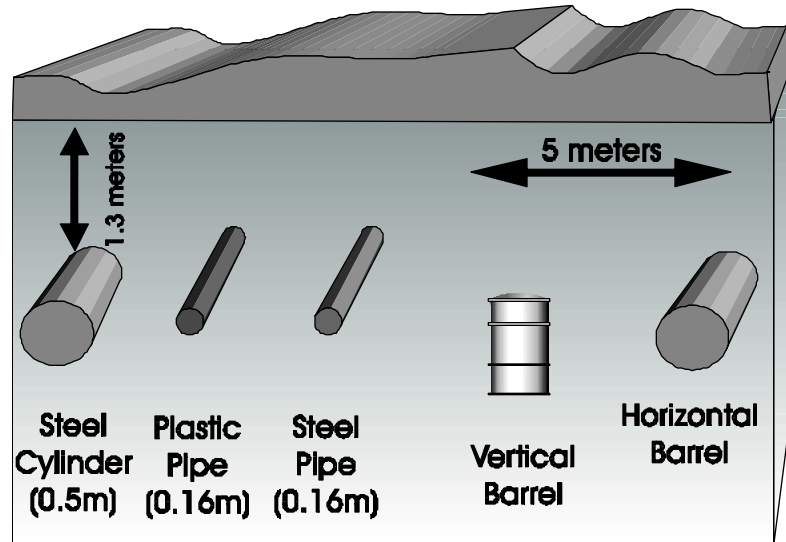


# CASE STUDY

## PIPES & BARRELS

### HIGHLIGHTS

- ❖ GPR detects barrels & pipes buried at a depth of 1.3 meters
- ❖ GPR detects both metallic & nonmetallic objects
- ❖ GPR enhances hyperbolic response making targets easily detectable
- ❖ GPR data makes location and depth determinations quick and easy



The below data section demonstrates the use of ground penetrating radar (GPR) for pipe and barrel location. The pulseEKKO GPR systems clearly locate both metallic and nonmetallic objects. The data also displays the ability of pulseEKKO GPR systems to locate small objects, such as the pipes.

The hyperbolic shape (inverted U) of the GPR response is diagnostic of localized targets. The top of the hyperbola indicates feature location.

The shape of the tails gives a measure of velocity and depth.

The example data shown here were acquired using a pulseEKKO 1000 system with 450 MHz antennas. The data were recorded using 16 stacks at 0.1 meter step intervals. Note the difference in response for the two barrel orientations indicate that GPR can distinguish geometry.

*Data compliments of University of Waterloo, Canada*