

# Geo-Instruments: Tank Monitoring Application



Above: Typical oil depot (tank farm) in use throughout the world.

photo, below) real time data logging systems, (outside the explosion hazard zone) web based data processing, reporting and display system.

The system collects and processes data from multiple tanks, each with four tiltmeters, installed on a 90 degree pattern around the tank (see drawing next page), transfers the data to a real time application server, displays updated graphics, alarm conditions, and trend histories to a user controlled web space. Project stakeholders are alerted by the system of critical movements via text messages/phone notification, and email.

This system may be customized to suite unique applications. Please contact us for details regarding how we may help monitor your application.

Below: Tiltmeter installation progress image, showing Tiltmeter inside explosion proof enclosure, (front cover removed).



Concern regarding pile foundations on oil depot tank infrastructure, during re-commissioning of retired tanks has been answered with a unique monitoring program utilizing specially designed Electrolytic Tiltmeters, real time loggers, and purpose specific software applications.

The use of this monitoring system provides early warning of any potential settlement or differential movement of tank foundation structures. The near real time data from the system provides priceless insight to plant engineers regarding the in situ condition of the tank foundation. This information will allow a series of tanks to be reactivated, providing economical, safe storage for high demand fuel oil.

The solution provides an automated, real time monitoring system consisting of tiltmeters installed in NEC Class 1, Division 1 explosion proof enclosures (see

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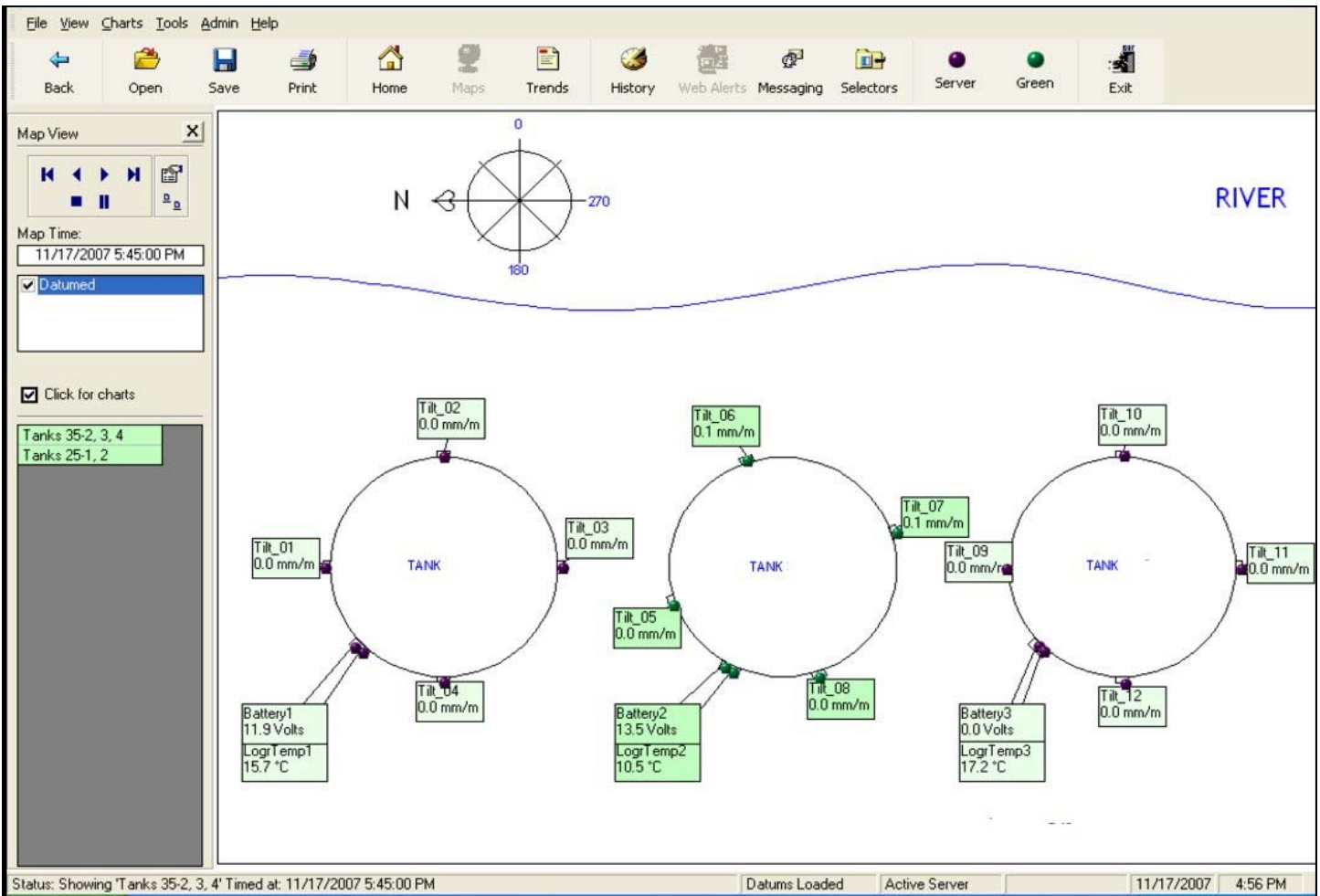
24 Celestial Drive

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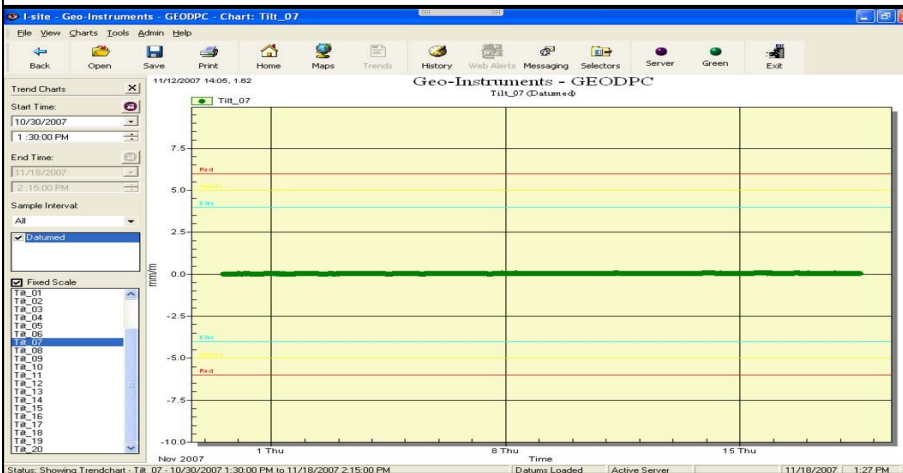
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Above/below: Real time display software screen shots with graphical representation of monitored tanks, and trend graph. Data boxes are color coded in the event of an over threshold measurement. Right: Logger installation outside explosion hazard zone.



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