

Real Time Wireless Downhole Inclination

The Tiltmeter

In order to produce Oil and Gas, the most critical step is drilling the well. GEO PSI has developed a downhole tool that will allow real time inclination readings during drilling operations.

The purpose of this tool is to monitor inclination in vertical sections of the wellbore in a cost efficient and timely manner by using a low frequency radio wave that can travel through the earth without the use of wires. The advantages for the tool are: decreased survey times, less "pumps off" and increased drilling time. The tool can be used anytime a survey is required. Simply stop, come off bottom, shut off the rotatory table and pumps then wait 30 seconds. Turn on the pump, resume drilling and make any changes required based on the inclination information provided.

The system consists of an inclination transducer and telemetry unit that operates from lithium batteries and fits inside a specially designed carrier, ("Gap Sub"). The Gap Sub creates an insulator in the tubular string while the tool generates a radio signal in an attempt to bridge the barrier. At surface, the signal is detected by antenna stakes in the ground that are connected to a decoding box which transfers the data to a laptop computer for customer presentation.

The data is displayed in an easy to use format that can either be transferred automatically to most EDR systems or displayed on the computer screen and used by the operator to determine the next step in drilling operations.

Gap Subs are available in a variety of sizes and come with API standard threads. Specialty sizes can be built.

FEATURES

- Improves drilling performance.
- Easy to set up.
- Intuitive and user friendly software.
- Low power consumption.
- Suitable for coiled tubing applications.
- Ruggedized and proven.
- Helps improve vertical drills, resulting in better performance of artificial lift systems.



SPECS

Dimensions	52" Long, tool can be customized at additional charge. Base tool can be run in a variety of tubular sizes, using adapter rings.
Vibration Switch	Allows tool to turn off between surveys, saving battery life.
Telemetry	2 Channel 32 Bit Telemetry, broadcasting on 6 Hertz.
Pressure Rating	8,000 psi for 3½" & 3¾" tools 10,000 psi for 4¾" and up tubular sizes
Temperature Rating	150°C
Inclination Accuracy	±1 degree at angle of 90 degrees
Battery Life	Sample frequency dependent. Minimum life of 36 hours at continuous reading* * Formation and temperature dependent

OPERATING ENVIRONMENT

Compatible with most drilling and completion fluids except super saturated salt solutions.

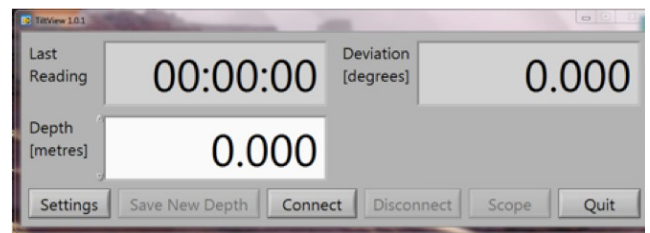
Also suitable for underbalanced and managed pressure drilling operations.

Able to handle most LCM material unless the particles are larger than ½" inch in diameter.

The tool can be pre-loaded in the shop for shipment to the rig. The tool can be set to turn off at a customer determined angle, saving battery life and allowing the tool to be run multiple times without requiring a battery change.



6.5" Gap Sub



Intuitive User-Friendly Software

Reliability — Job 1™

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