a.p. v.d. berg®

ENVIROCONE®

For measuring pH, redox potential and temperature

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Envirocone®

Introduction

Environmental investigations are extremely important in the remediation of contaminated sites for a cleaner world tomorrow. There are countless examples of areas with soil, polluted to such an extent that it represents a direct health danger. Being confronted with this matter while performing geotechnical soil investigations, it was a logical step to extend this method towards environmental soil investigation. The in situ soil investigation permits the in situ determination of the magnitude and type of pollution. In this way the method offers an objective choice of whether or not further laboratory analysis is needed and is therefore secure, time-saving and cost-efficient.

"Van den Berg in every field"

We, at A.P. van den Berg, have applied our experience since 1955 with cone penetration test (CPT) technology in the development of the Envirocone® for in situ environmental investigation. Using advanced technology, the Envirocone® measures pH, redox potential and temperature with depth while being pushed into the soil. During the test, the pH and redox potential signals are compared to reference values for a correct reading.

The Envirocone® is designed to operate at the maximum loads and depths obtainable with hydraulically operated cone penetrometers, such as the A.P. van den Berg Coson and Hyson CPT systems.

Practical use

In most cases, information about the composition and permeability (hydraulic conductivity) of distinct soil layers are needed. With the Envirocone® it is possible to measure the cone resistance, sleeve friction and pore-water pressure in addition. Users, familiar with the CPT will recognize these as the common geotechnical parameters available from the geotechnical cone. Additional environmental parameters such as electrical conductivity can also be incorporated into the Envirocone® measurements. Limitation - the Envirocone® is limited to saturated soil layers. Grouting - after completing tests the holes can be sealed by injecting a bentonite, cement or chemical grout.

Data acquisition

The Envirocone® can be connected to the A.P. van den Berg data acquisition systems. User-friendly downloading and plot software can be supplied on request.

Specifications

ENVIROCONE®	
pH value	1.00 - 14.00
Redox potential	± 1000 mV
Temperature range	-25°C-+125°C
	(-13°F-+257°F)
Output impedance for DC	<1E
Cone diameter	44 mm (1.73")
Cone length	360 mm (14")

We reserve the right to change specifications without notice.

A.P. van den Berg Machinefabriek B.V.
IJzerweg 4, P.O. Box 68
8440 AB Heerenveen, The Netherlands
Phone +31 (0)513 63 13 55
Fax +31 (0)513 63 12 12
E-mail info@apvdberg.nl
http://www.apvdberg.nl

A.P. Van den Berg, Inc.
P.O. Box 654, 109 Greenwood Circle
Milford, PA 18337 USA
Phone +1 570 296 8224
Fax +1 570 296 4886
E-mail apvdberg@ptd.net

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