



Environmental Training

Practical Fieldwork Theory & Techniques



This course has received the approval of
The Chartered Institution of Water and Environmental Management

The Practical Fieldwork Theory and Techniques training course is aimed at anyone involved in environmental fieldwork who wants to sharpen their theoretical knowledge, improve their understanding of best practice techniques and environmental standards and who is interested in learning about the equipment available which will give them the best, most accurate results in the most cost effective way.

Designed by Van Walt Ltd as a working platform or textbook for those involved in environmental research it combines the theory of this fast changing, regulated sector with practical exercises using industry approved equipment in a realistic fieldwork environment.

The course consists of 12 modules presented over 3 days:

- Module 1 - Introduction to Contaminated Land and Water
- Module 2 - Background and Introduction to Environmental Standards and Reporting
- Module 3 - Geohydrology and Soil Classification
- Module 4 - Soil Sampling
- Module 5 - Sediment and Sludge Sampling
- Module 6 - Chemistry behind Remediation
- Module 7 - Conceptual Site Modelling and Introduction to Risk Assessment
- Module 8 - Installation of Monitoring Wells
- Module 9 - Water Quality Measurements
- Module 10 - Remediation Techniques
- Module 11 - Remediation of Contaminated Sites
- Module 12 - Groundwater Sampling

Costs: £750.00 plus VAT. This includes ALL meals and hotel accommodation for TWO nights.

Entry:

- Maximum 12 participants per course
- A Science subject to 'A' level standard is an advantage.

All participants receive a certificate on completion of the course.

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Benefits of the course

The combination of theory and practical demonstrations provides delegates with relevant theoretical knowledge and valuable hands-on experience under the guidance of expert instructors. The course covers different definitions and remediation of contaminated land, including the techniques and chemistry of remediation; sampling sludges, sediments and groundwater; installing monitoring wells; current environmental standards and reporting.

As a result you gain an in-depth knowledge of current environmental techniques applied in fieldwork research and detailed experience of soil, sediment and groundwater sampling equipment. In summary, on completion of the course you are fieldwork ready - more efficient, expert, effective and competitive. Attendance of this course can be included in your quality assurance systems and all successful delegates receive a certificate of participation on completion.



Learning Objectives

- Enable you to deliver valuable, accurate analysis results.
- Increase your knowledge, skills and motivation.
- Introduce you to environmental research strategies, scientific sampling backgrounds and appropriate sampling procedures and equipment.
- Raise your awareness of the importance of skilled fieldwork (to avoid errors and misinterpretations of obtained research results).
- Instruct you and give you experience in the correct use of delicate field equipment.
- Guide you in obtaining representative samples, sound measurements and monitoring of results so you and your clients benefit from more accurate and efficiently obtained research results.

Course Content

The course comprises theoretical and practical sessions, including demonstrations in a classroom environment and exercises in the field on:-

- The evaluation of contaminants
- Introduction to environmental standards and reporting
- Soil classification
- Introduction to hydrogeology
- Risk assessment - an introduction
- Definitions of remediation
- Conceptual site modelling
- Chemistry behind remediation
- Soil, sludges and sediment sampling
- Installation of monitoring wells
- Groundwater sampling





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Course Review

Know what you are measuring!

This training course is for everyone who is interested in the link between theory and practice (why and how) in the field of environmental sampling and research.

The course provides you with a detailed understanding of soil, groundwater, sediment, soil moisture and soil sampling techniques for the purposes of environmental (pollution) research. Combining theoretical and practical exercises the course inspires professional work practices and accurate analysis results. You learn to work smarter and get the best results from your equipment, first time, every time.

Previously our delegates have been drawn from many different areas and from locations throughout the world:

Aker Solutions E & C Ltd, ALcontrol Laboratories, Alpha Environmental Ltd, Amec, Arcadis Geraghty & Miller, Ashdown Site Investigation, Atkins, Atomic Weapons Establishment, Bodycote Al Futtaim UAE, Bourne Community College, Brunel University, Butrint Foundation, BWB Consulting, Capita Symonds Ltd, Cleantec Restoration Services, Complete Tank Solutions, Concept Site Investigations, Costain, Croatian Centre for Agriculture, Food & Rural Affairs, DEC Associates, DSTL, Dundalk Institute of Technology, Elument Ltd, Envirocentre Ltd, Environmental Efficiency Consultants Ltd Ireland, ESI, First Environment Ltd, Fluor Limited, GEA Welltech Sweden, Geoffrey Walton Practice, Geotechnics Ltd, Grontmij, Groundsure Ltd, Halcrow Group Limited, Health Protection Agency, Hill Burn Ltd., Hyder Consulting, Ian Farmer Associates, IGER, Institute of Naval Medicine, Inverclyde Council, JBA Consulting, Knight Environmental Ltd, Liverpool University, Lloyds Environmental, LLWR Ltd, London Borough of Brent, London Borough of Richmond upon Thames, Magnox South, McHugh Consultants, Marcus Hodges Environment, Merebrook Projects Ltd, Mitchellson Formwork & Civil Engineering Ltd, MWH Belgium, Nexia Solutions, Norfolk Partnership Laboratory, Norwest Holst, OES Consulting, Orkney College, OSRL EARL, Queen Mary University, Raw Group, Research Institute for Soil Science Romania, RSK Group plc, Sanctus Limited, Saudi Basic Industries Corporation, Scottish Crop Research Institute, Scott Wilson Ltd, Selby District Council, Sellafeld Ltd, SEPA, Serco TA&S, Soil Environment Services Ltd, South Gloucestershire Council, Spill Go, SRK Consulting, Teagasc, UKAEA, University College Dublin, University of East Anglia, University College of Northampton, University of Leeds, University of Portsmouth, URS Corporation, Vector Environmental Services, White Young Green, WRC Swindon, WSP Remediation, Wycombe District Council.



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What you've said about our training:

"Awesome"

Marc Hewitt, DSTL

"Very educational, excellent course"

Ray Reed, Magnox South

"Applicable, relevant & practical"

Dave Bescoby, Butrint Foundation, University of East Anglia

"I learned so much and I had lots of fun"

Alette Kattenberg, Orkney College

"Excellent"

Greg Verbinnen, DSTL

"Overall the course was excellent and lecturers very knowledgeable and experienced."

Philip Purdie, Atomic Weapons Establishment

"Excellent"

Claire Betts, Mitchellson Formwork & Civil Eng Ltd

"Excellent overview of environmental sampling, risk assessment & remediation"

David Abiorwerth, Wycombe District Council

"Best course I've been on in years"

Chris Taylor, London Borough of Brent

"Inspiring"

Jon Roberts, Concept Site Investigations

"Spot-on"

Matthew Cleece, Complete Tank Solutions

"Excellent, nice people ... talented and committed"

Stuart Berwick, Norfolk Partnership Laboratory

"Great refresher in sampling techniques and source of information with regards to remediation techniques"

Matthew Penny, Halcrow Group Ltd

"I found the course to meet all my expectations, and more..."

J. Webster (Environmental Consultant), Capita Symonds

"I am a reasonably experience site investigation worker... but I can thoroughly recommend this course to those who are starting out in environmental sampling and those who have a few years experience under their belt."

M.O. Ross, (Environmental scientist), Nexia Solutions

"For consultants with all levels of knowledge, from the inexperienced to the very experienced, everyone should be made to take this course."

L. Fuller, (environmental consultant), GroundSure Ltd

"Should have done it months ago"

Nick Tomlin, Alpha Environmental

"Well constructed and informative with amusing Dutch variations of some English!"

Sean Gregory, Merebrook Science & Environment

"I really enjoyed the course and learned a great deal. The staff at Van Walt made me feel welcome and the food/drinks were perfect."

Toby Smith, Health Protection Agency

"Time well spent!"

Alexa Gray, Sanctus Limited

"Superb in-depth review"

Stephen Guy, Alpha Environmental

"Superb"

Liam Doherty, WRC Swindon



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Instructors Team

Vincent van Walt

Owner and founder of Van Walt Ltd, Vincent was educated around the world including the United Kingdom, Italy, Germany, Hong Kong, Luxembourg and New Zealand. After 'cutting his teeth' in the accountancy profession at university and later with Peat Marwick Mitchell (now KPMG) in London, Vincent switched to a career in soil science and from there it was a natural progression to start Van Walt Ltd.

Almost 30 years later the business has flourished to become one of the UK's leading providers of environmental monitoring equipment to the environmental, educational and agricultural communities. Today our equipment is the benchmark for environmental analysis; equipment that provides consistent, accurate results - that sets the standard for soil and groundwater monitoring and research.

Vincent remains equally committed, spending much of his time with some of the world's best suppliers sourcing new equipment that provides the best results at the best prices for our customers. Along the way Vincent has built up considerable expertise in the field of environmental research and is dedicated to an improvement in theory and techniques. He still spends a considerable amount of his time sharing his expertise by developing environmental training, providing telephone, online and onsite support plus field testing the latest equipment to ensure our customers get the best results.

Jan Frank Mars

Jan Frank Mars, MSc, born in 1964, was educated at Utrecht University as a chemical biologist. His specialisations are toxicology and biological in-situ remediation. He has experience as a project manager for (bio) in situ remediation research techniques. And Jan Frank's experience in field investigation and necessary pre-investigations to gather detailed insight into the processes and various techniques for (bio) remediation possibilities has led to full-scale in situ remediation plants.

Jan Frank has extensive knowledge in the design of sampling equipment for soil, soil gas, soil moisture, sediments and groundwater sampling. This includes installation techniques (manual and with machinery) for monitoring wells for environmental research and soil classification. Plus he has experience with sampling for a wide range of pollutants such as polycyclic hydrocarbons, mineral oils, pesticides, chlorinated solvents, trace metals, cyanides and other volatiles and non-volatiles.

As a lecturer and co-author of the course Jan Frank also has extensive hands-on teaching experience in international train the trainer projects for, soil physical laboratory equipment, telemetry and monitoring equipment for hydrology, geo-technology and meteorological studies.

Over the years worldwide (from the UK to Tuvalu) Jan Frank has trained more than five hundred environmental and agricultural specialists in theory and practice for environmental sampling of soil and groundwater pollutants.

Tom Stone

A relative new-comer to the environmental sector Tom was born in 1978, educated locally and attended Huddersfield University.

With a passion for understanding how something works Tom swapped a career with Qinetiq and Barclays Bank to come to Van Walt in 2006. Since that time he has worked hard to get intimate with our equipment. He has made it his passion to take apart, probe, prod and rebuild all our equipment. He researches new products and alternatives, troubleshoots problems with our customers when onsite and is trained to repair broken items.

In the time he has been at Van Walt he has attended training in Holland and more extensively in the USA. Recently he attended the world renowned Nielsen Environmental Field Course in Denver, passing with flying colours.

Today he is our industry expert on environmental sampling equipment. He manages our rental fleet which has experienced growth of more than 90% in the last 12 months.





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Course Program

Time Scale

Programme

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1**

Arriving at 10:00am

Run programme (10:15-12:30)*

Lunch

Run programme (13:30-17:15)*

Welcome, coffee and introductions

Module 1 - Introduction to contaminated land & water

Module 2 - Background & introduction to environmental standards & reporting

Module 3 - Geohydrology & soil classification

Module 4 - Soil sampling

Module 5 - Sediment & Sludge sampling

Practical - Soil sampling

Practical - Oil detection

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2**

Breakfast

Run programme (08:30-12:15)*

Lunch

Run programme (13:15-17:30)*

Dinner and Accommodation

Module 6 - Chemistry behind remediation

Module 7 - Conceptual site modelling & risk assessment

Module 8 - Installation of monitoring wells

Module 9 - Water quality measurements

Practical - Sediment sampling

Practical - Water quality measurements

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3**

Breakfast

Run practicals (08:30-12:15)*

Lunch

Run programme (13:00-15:30)*

Delegates exchange details

Receive certificate of attendance

Course completed

Module 10 - Remediation techniques

Module 11 - Remediation of contaminated sites

Module 12 - Groundwater sampling

Practical - Water pumps

Practical - Groundwater sampling

Practical - Remediation equipment

Evaluation of the course

*Short breaks between the programme