

# Advanced Chemistry for Risk Assessment

A one day course

## Date and venue

This course will be held on **1<sup>st</sup> December 2010** at our offices in Beeston, **Nottingham**. This one-day course will run from approximately 9am to 5pm. Full joining instructions will be sent to each delegate prior to each course.

## Does Chemistry Matter?

An understanding of contaminant chemistry is vital to understanding the likely health impacts of contaminants and the likely fate and transport processes that will affect their migration and exposure. Therefore, it is important to identify suitable physical-chemical input parameters for contaminants for use in exposure modeling and to understand the sensitivity of exposure predictions to the parameters employed.

## Course Content

The course will teach delegates

- consideration of the chemistry of mixtures and residual phases;
- forensic techniques within contaminated land site investigations;
- understanding and sourcing of physical-chemical input data for human health risk assessment;
- importance of fate and transport parameters under ambient conditions in risk estimation;
- sensitivity of some key exposure pathways to model inputs; and
- risk estimation and evaluation for petroleum hydrocarbons including the UK approach.

This course is also designed to develop further understanding for those previously attending the Introduction to Chemistry course run by LQM.

## How will you benefit from this course?

By the end of the course you should be better able to:

- utilise forensic techniques for sites under Part 2A and Planning Control;
- consider additive effects for petroleum hydrocarbons;
- to obtain or measure physical and chemical properties of contaminants;
- predict the likely seriousness of contamination with various substances;
- identify key exposure and migration pathways that should be considered for different contaminants; and
- undertake Detailed Quantitative Risk Assessments.

All delegates will be issued with a **Certificate of Attendance** – which should be retained and used to provide evidence of CPD activity when required by employers or professional bodies.

## Who should attend?

The courses will be of relevance to:

- Regulatory and local authority staff involved with contaminated land issues

- Consultants
- Problem holders and developers needing a more in-depth understanding of contaminated land issues
- Anyone producing contaminated land reports
- Anyone reviewing third party reports

## Tutors

Land Quality Management courses are renowned for their relevance and quality. This comes from our belief that training should be interesting, relevant and make a difference to the way our delegates go about their normal contaminated land related business. We always select top quality tutors with both the experience to communicate and the knowledge to share – as well as the enthusiasm to improve the way land contamination issues are tackled.

Course tutors include Paul Nathanail, Caroline McCaffrey, Judith Nathanail, Richard Ogden, Andy Gillett and Duncan Scott.

## Cost

**Private Sector rate:** £175 per day (excluding VAT)

**Public Sector Rate\*:** £125 per day (excluding VAT)

*VAT is chargeable at the prevailing rate.*

*\* Applies to Local Authority, Health Authority, Environment Agency and SEPA staff etc.*

**Discounts:** We offer a 5% discount for 3 delegates; 10% discount for 4 delegates and 15% discount for 5 or more delegates. Discounts apply only where full (private sector) rates are paid and when payment of delegate fees is undertaken in one transaction (e.g. one invoice issued).

**Please note:** Payment must be received before commencement of the course. Cancellations will only be accepted up to 14 days before the course runs and an administration charge of 25% of the course fees will apply. Cancellations received less than 14 days prior to the course will incur full costs. Personnel may be substituted at any time.

LQM reserve the right to cancel a course; at least 7 days notice will be given. LQM cannot accept any liability for costs incurred as a result of such cancellation (e.g. train tickets) although of course any fees already paid for the course would be returned in full.

All courses are undertaken in accordance with our terms and conditions. These can be viewed at [www.lqm.co.uk](http://www.lqm.co.uk)

## Booking

To book a place(s) on this course, please complete and return the booking form at the back of this brochure. Please note that our QA system requires all bookings on an official LQM booking form. Unfortunately, we cannot accept bookings by email or telephone.

## For more information:

More information about these and other courses run by LQM is available on our website at [www.lqm.co.uk/training](http://www.lqm.co.uk/training).

Alternatively, contact our Administrator at:

Land Quality Management Ltd, Unit 8, The Business Centre, Technology Drive, Beeston, Nottingham, NG9 2ND.

**Tel:** 0115 951 8030

**Fax:** 0115 967 8798

**E-mail:** [administrator@lqm.co.uk](mailto:administrator@lqm.co.uk)

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# Publications available from LQM Press

## Contaminated Land Ready Reference

For all professionals working with contaminated sites who need to have up-to-date key data at their fingertips. The Ready Reference is designed to provide an easy to use source of key technical information about the investigation, characterization and remediation of contaminated land.

This book is presented in a concise, tabular format. Each table addresses a specific topic and provides decision support by means of checklists, flow charts and option screening grids. Each table is also supported by full references to key documents.

The book is in loose-leaf format and updates will be issued to take account of the latest developments in legislation, guidance and technology. Release 2 incorporating the first series of updates was published in July 2007.

**Usual Price: £129.00 (inc P&P); £29.00 for updates only (inc P&P)**

**Delegates on LQM courses can pre-purchase copies of the Ready Reference Guide at the reduced price of £100. The updates can be pre-purchased for £25.00. This reduced price applies only to pre-purchased copies collected during the course and does not apply to copies ordered after completion of the course when postage and packaging will be required. Copies can be reserved on the attached booking form. Payment must be received prior to the course.**

## LQM/CIEH GAC Publication (2<sup>nd</sup> Edition)

The 2<sup>nd</sup> Edition LQM/CIEH GAC publication, published in July 2009 presents generic assessment criteria (GAC) for over 80 substances.

Changes in UK technical guidance on human health risk assessment since the release of the 1<sup>st</sup> Edition in 2006 prompted the revision and expansion of the GAC publication. As with the widely accepted 1<sup>st</sup> Edition, this publication describes the outcome of a workshop, held in January 2009, which brought together a number of practitioners who sourced contaminant specific toxicological and physical chemical input data for over 80 substances.

The workshop resulted in the development of generic assessment criteria (GAC) for use in generic quantitative human health risk assessment.

The delegates were guided in their preparation and during the workshop by LQM staff, who have also subjected the workshop outputs to rigorous review and prepared them for publication.

The 2<sup>nd</sup> Edition LQM/CIEH GAC values were derived using the CLEA v1.04 risk assessment tool to be compliant with UK policy and guidance.

For further details on the publication please visit our website at [www.lqm.co.uk](http://www.lqm.co.uk).

**2<sup>nd</sup> Edition Usual Price: £195.00 (inc P&P)**

**Delegates on LQM courses can pre purchase copies of the LQM/CIEH GAC Publication 2<sup>nd</sup> Edition at the reduced price of £175 for collection during the course. This reduced price does not apply to copies ordered after completion of the course when postage and packaging will be required. Copies can be reserved on the attached booking form. Payment must be received prior to the course.**

## Chemical Analysis of Contaminated Land

This book is edited by K. Clive Thompson of Alcontrol Laboratories and Paul Nathanail of LQM and provides a one-stop reference for the analysis and delivery of contaminated land samples and subsequent presentation of the data. Problems of analysis and solutions are provided, along with a chapter on the new techniques of ecotoxicity measurement. This book is suitable for environmental consultants, analytical chemists, environmental chemists, laboratory managers, ecotoxicologists and environmental regulators.

**Usual Price: £92.25 (inc P&P)**

## KeyCSM – Software for Conceptual Site Modelling (Updated version 2.1)

A conceptual site model (CSM) describes and depicts the environmental features of a site and its surrounding area and identifies the pollutant linkages. The CSM underpins the planning of each stage of site investigation and will drive the risk assessment.

Land Quality Management Ltd (LQM) worked with Keynetix Ltd to develop software to facilitate the rapid creation and updating of conceptual site models. Amongst its many capabilities, KeyCSM can be used to create detailed plans, cross sections, network diagrams and matrix diagrams to represent the sources, pathways and receptors associated with a potentially contaminated site. More information on KeyCSM can be found at [www.keynetix.com/keycsm](http://www.keynetix.com/keycsm).

**Usual Price: Single User Licence (SUL) £ 495; can only be installed/used on a single PC/laptop. Concurrent User Licence (CUL) £745; can be installed/used on a number of PCs/laptops (via a network or dongle system) but only by a single user at any one time.**

**Delegates on LQM courses can pre-purchase the KeyCSM Software at the reduced price of £450 (Single User Licence) and £650 (Concurrent User Licence). To qualify for this discount, payment must have been received prior to the course. The software will be provided via internet download.**

## Ordering

Copies of these titles and several others can be ordered through LQM Press. Please see our website at [www.lqm.co.uk/lqmpress/](http://www.lqm.co.uk/lqmpress/) for more details and ordering information.

**However, delegates on LQM courses can pre purchase copies of selected titles at reduced rates for collection during the course by completing the attached course booking form. (see above for details).**

## For more information:

For more information on these and other titles available through LQM Press, please visit our website at [www.lqm.co.uk](http://www.lqm.co.uk) or contact our Administrator at: Land Quality Management Ltd, Unit 8, The Business Centre, Technology Drive, Beeston, Nottingham NG9 2ND  
Tel: 0115 951 8030  
Fax: 0115 967 8798  
E-mail: [administrator@lqm.co.uk](mailto:administrator@lqm.co.uk)



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# Please book places on Advanced Chemistry for Risk Assessment: 1<sup>st</sup> December 2010

Course Date	Delegate Name	Company/Organisation	Delegate Email	Delegate Telephone	Cost £175 <small>(£125 public sector)</small>	VAT
I wish to pre-purchase the following publications for collection at the course (Please indicate the number of copies of each publication required):						
Ready Reference @ £100.00 per copy <input type="checkbox"/> / Ready Reference <b>Updates only</b> @ £25.00 per copy <input type="checkbox"/> / GAC publication (2 <sup>nd</sup> Edition) @ £175.00 per copy <input type="checkbox"/>						VAT exempt
Pre-purchase the KeyCSM software for collection at the course: <input type="checkbox"/> copies @ £450 (excl VAT) per SUL <b>or</b> <input type="checkbox"/> copies @ £650 (excl VAT) per CUL						
<b>Total</b>						

<p>I will be paying by credit card / please invoice me / cheque enclosed (<i>Delete as appropriate</i>)  <i>Cheques should be payable to "Land Quality Management Ltd", Unit 8, The Business Centre, Technology Drive, Beeston, Nottingham. NG9 2ND</i></p>			
<b>Invoicing details (if applicable):</b>		<b>Credit card details (if applicable):</b> <span style="float: right;"><i>Sorry no American Express</i></span>	
Purchase Order No.		Card Number:	
Contact Name:		Expiry Date:	
Contact Telephone:		Name on Card:	
Invoicing Address: <b>(Invoices will be issued by email unless specified):</b>		Card Billing Address <b>(Receipt will be sent to the billing address unless an email is specified):</b>	
Email for invoice:		Email for receipt:	
Special Requirements ( <i>e.g. dietary etc.</i> ):		Cardholder's Signature:	

**Please note:** 1. All courses are offered under LQM's Terms & Conditions (see [www.lqm.co.uk](http://www.lqm.co.uk)). 2. Payment must be received before commencement of the course. 3. Cancellations will be accepted up to 14 days before the course, an administration charge of 25% of the course fees will apply. Cancellations received less than 14 days prior to the course date will incur full costs. Personnel may be substituted at any time. 4. LQM reserve the right to cancel a course; at least 7 days notice will be given. LQM cannot accept any liability for costs incurred as a result of such cancellation although all course fees will be returned in full.

<b>For office use only</b>	Acknowledgment sent:	Draft invoice sent:	Paid:
Date:			