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North West Regional Group

Meeting

Thursday 25th September 2014

Remediation of the Catalyst Park, Widnes for the Second Mersey Crossing.



Halton Borough Council (HBC) is procuring a £686M road crossing of the River Mersey between Widnes and Runcorn, known as the Mersey Gateway Project, one of the UK government's Top 40 priority projects in the National Infrastructure Plan. Part of the advance works has been the remediation of Catalyst Trade Park, a 5.6ha site to be covered by embankment and road junction associated with the new bridge.

Historically, the site was an alkali works and then ICI's 'Widnes Experimental Site' which resulted in a legacy of chlorinated solvent contamination. During site investigation works dissolved phase Total Chlorinated Volatile Organic Compound (CVOC's) concentrations as high as 939% of the combined effective solubility were observed, though no DNAPL free product was observed in monitoring wells. These contaminants posed significant cost and programme risks if left in-situ for the main construction works. The remediation was a 'critical path' item so completion on time and prompt 'sign off' were key expectations of HBC and the Project Company.

Key areas for remediation were identified through extensive investigation of likely locations of solvent DNAPL, assessing the cumulative concentration of chlorinated solvents and their combined effective solubility. An innovative remediation strategy was designed to recover the solvents; combining the efficiencies of four techniques to achieve the required balance of neat solvent recovery and groundwater treatment. In total 46million litres of water was treated and re-injected to ground, the neat solvent was successfully located, and 17 tonnes of solvents were recovered.

CPD: These events may be considered for contributing to a recognised Continuing Professional Development (CPD) scheme as part of personal development. Delegates should check their individual scheme requirements.

Damian Watkin is a contaminated land Associate for Ramboll working on a diverse range of projects in the UK as well as overseas. He has worked extensively on the Mersey Gateway Project from the design of ground investigation works, authoring a chapter of the Environmental Statement and co-ordinating the advance works activities leading up to and including the remediation works at Catalyst Trade Park. Damian is now the lead technical advisor for contaminated land to the Mersey Gateway Crossings Board overseeing the construction of the new bridge and is also assisting them with the management of long term contamination issues associated with the Project".

Jon Freeman is Regional Director for Celtic Technologies managing a range of contaminated land remediation projects, principally in the North-West and Yorkshire. Jon originally trained as a geologist with a B.Sc. in Geology and Ph.D. in Geochemistry before spending 2 years with the British Geological Survey working on a range of geochemistry based projects in the UK and Morocco. Jon has worked in the contaminated land industry for the last 15 years, mainly as a remediation contractor and was Contract Director for the remediation works at the Catalyst Trade Park site.



Lecture start promptly at 6:30pm.

Venue:

Catalyst Museum, Mersey Rd, Widnes, Cheshire WA8 0DF

Organised by the North West Regional Group of the Geological Society of London For further information contact the Group Secretary, Nik Reynolds at:

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