UNIVERSITY OF BIRMINGHAM

LEARNING DEVELOPMENT PROJECT OVERVIEW FORM

Project title	Petroleum exploration exercise using computerized interpretation of industry 3D seismic data		Project ID No	**CLAD – HIST028**
Strategy area/theme	Geography, earth and environmental sciences			
Start date	March 2006	Completion date	July 2007	
Project type	Learner enhancement project			
Level	Undergraduate and postgraduate	Programme of study		
Aims	To develop web-based software, giving classes of up to 30 Level H and M students doing the Petroleum Exploration Geology module experience in the management, analysis and interpretation of a modern petroleum industry dataset.			
Objectives	1. Use the network licence server provided by SMT Inc., purveyors of our *Kingdom* seismic interpretation software, to enable the *Kingdom* software to be accessed through WebCT 2. Select (a subsample of) one of the School's industry 3D seismic datasets, and supporting borehole data, and load these data in *Kingdom* and other software (mainly MS Excel) such that they can be accessed through WebCT 3. Design an exercise and assessment protocol based on evaluating the prospectivity of the basin covered by the seismic data 4. Produce a bespoke online tutorial within WebCT that provides technical details on i) use of the *Kingdom* software, ii) data processing methods required to complete the individual tasks that make up this exercise (mainly MS Excel, including use of the Sharable Resources IT tutorials provided by IS for use by WebCT designers), iii) report preparation including production of seismic profiles and 3D images, maps, borehole logs, etc., and iv) background on the general petroleum geology of the basin being evaluated in this exercise 5. Test the robustness of what is produced in plenty of time for its use in semester 2 of the 2006/7 academic year and thereafter			
Overview	A WebCT-based undergraduate practical exercise was developed using one of the School's industry 3D seismic datasets to evaluate the petroleum geology of a prospective basin. Instruction in modern interpretation and visualization methods gives students hands-on experience of the unique and exciting views of the subsurface afforded by 3D seismic data. To date, a comparable exercise has employed paper copies of 2D seismic data. The recent introduction of a network licence server by SMT, the US company who donate their seismic software to the School, makes possible for the first time a whole-class exercise using 3D seismic data. The software runs on any PC which can connect to WebCT, assuming it has sufficient graphics capability.			
Further Information	For further information on this project please contact CLAD at University of Birmingham cladprojects@contacts.bham.ac.uk quoting CLAD projects HIST028			