

**PHASE I ENVIRONMENTAL ASSESSMENT SUMMARY TABLE
HEOL Y DOLL, MACHYNLLETH
DELTA-SIMONS PROJECT NO. 08-3243.01**

Authorisation, Context and Purpose	Delta-Simons was instructed by Pinnacle Consulting Engineers Limited, on behalf of Tesco Stores Limited, to carry out a Phase I Environmental Assessment of the Site, prior to it being redeveloped for a commercial end use. The Assessment adheres to the principal aims of BS10175:2001 with regard to the consideration of potential soil and groundwater contamination and ground gas, and also provides a general land quality statement to highlight any commercial implications of the proposed development.
Current Site Use	The Site is currently occupied by an active cattle market and a disused builder's yard. From a walkover at the Site the following potential sources of contamination were identified as being associated with the builders yard and cattle market: potential chemical storage areas, vehicle wash down area and an electricity substation
Geology Hydrogeology Hydrology Radon Coal Mining	<p>The Site is underlain by Made Ground, beneath which are Alluvial fan deposits. The bedrock consists of the Devils bridge formation of the Silurian age (sandstones and mudstones interbedded).</p> <p>A Minor Aquifer associated with the Alluvial Fan Deposits underlies the south-west of Site. A Non-Aquifer underlies the north-east of the Site. The underlying soils are classified as having a low soil leaching potential.</p> <p>The nearest surface water feature is an unnamed stream located approximately 125 m to the south-west of the Site. There are no surface water abstractions within 1 km of the Site, as reported in the Envirocheck report.</p> <p>Between 3% and 10% of domestic properties are above the "action level" for Radon. Using the BRE guidance, a geological assessment is recommended to determine whether protection measures are required, given that the area has a high potential for radon.</p> <p>A Coal Authority report is not required for properties in the location of the Site.</p>
Historical Land Use Site: Surrounding Area:	<p>In the earliest map edition of 1889, a timber yard with associated buildings is present in the south of the Site and by the map edition of 1995, it is labelled as a builder's yard. The Site remains unchanged until sometime between circa 1964 and 1974, when a cattle market was developed in the east of the Site. In addition, an electricity sub-station is located within the builder's yard. By circa 1995, the cattle market is redeveloped and extended into the north of the Site.</p> <p>There are a number of historic potentially contaminative uses within the surrounding area of the Site which include: a clothing factory/distribution centre, petrol station; railway station and sidings, a bus depot, a quarry and printers all between 20 and 100 m from the Site.</p>
Envirocheck Report Summary	<p>From the Envirocheck report, the potential on-Site sources of contamination identified are associated with the builder's yard, electricity sub station and cattle market. In addition, the following have been identified as potential off-Site sources of contamination:</p> <ul style="list-style-type: none"> Δ Local Authority (LA) pollution prevention and controls relating to a petrol filling station within 100 m of the Site; Δ One LA recorded landfill site located within 500 m of the Site; Δ Contemporary trade directory entries relating to railways, printers, garage services, clothing factory/distribution centre and bus depot, all within 250 m of the Site; and Δ A fuel station located approximately 125 m west of the Site.

Conceptual Site Model	<p>Following a source-pathway-receptor risk assessment, carried out in accordance with Part IIA of the Environmental Protection Act 1990, there is the potential for contamination to be present from the identified potential sources of contamination, which are an electricity sub station, the former builder's yard and the active cattle market with associated buildings, potential chemical storage areas and vehicle wash down area at the Site. Possible pollutant linkages have, therefore, been identified relating to the potential for contamination to be present at the Site.</p>
Conclusions and Recommendations	<p>On the basis of the information obtained and reviewed as part of this assessment and the conclusions drawn above, Delta-Simons considers that a Phase II Environmental Assessment is required to support the discharge of any Planning Condition relating to contamination. Any investigation should include a preliminary Anthrax assessment in the area of the cattle market in order to allow for appropriate health and safety procedures to be implemented for the main investigation, if required.</p> <p>A geological assessment is recommended due to the potential for high radon levels in the location of the Site. It is recommended that a detailed Radon report be obtained for the Site.</p> <p>In addition, development abnormalities should be considered in the context of the redevelopment, which include:</p> <ul style="list-style-type: none"> △ Potentially a QRA and any subsequent soil and groundwater remediation following the Phase II Environmental Assessment; △ A waste classification exercise and elevated disposal costs of soils due to the Landfill Directive and Landfill Tax; △ The potential for ground gas and radon protection measures; △ The use of PPE for construction workers; △ The use of upgraded water supply pipes; △ The use of clean and certified topsoil and subsoil in any new areas of landscaping and inert material in service runs; △ Appropriate asbestos survey(s) and removal of asbestos by a specialist contractor prior to any demolition works; and △ Appropriate Invasive weeds/ecology survey(s) and extraction prior to developments works.
Statements of Risk Statutory Liability Third Party Liability Commercial Risk	<p>In the context of the proposed redevelopment and on the basis of the information reviewed, the following statements of risk are considered to apply to the Site in relation to soil and groundwater contamination and ground gas:</p> <p>Low to Medium</p> <p>Medium</p> <p>Medium, which is due to the potential development abnormalities identified above, and can be dealt with during the redevelopment of the Site.</p>
<p><i>This sheet is intended as a summary only. Further detail and limitations of the assessment is provided within the main body of the Report.</i></p>	