

Contaminated Soil Stabilisation - Feasibility

Celtic has since 2004 developed an in-house capability for laboratory and field based feasibility assessment for contaminated soil stabilisation. This has led to the development of our materials mixing and testing laboratory which provides a key service in the advancement of our remediation offer and risk management of contract deliverability.

Services

- Fast track (2 to 7 working days) assessment of soil stabilisation feasibility
- Fixed cost stabilisation schemes prior to written regulatory approval
- Improved contract risk management through use of in-house team
- Complete Design and Implementation Service for Soil Stabilisation

All binder assessment and on-site implementation works are undertaken by in-house Remediation Engineers which enables us to provide:

- Continued assessment and evaluation of material behavior, instant feedback and adaptive testing regime
- Consistency of assessment and Quality Assurance throughout contract works with the same Engineers responsible for laboratory testing and on-site validation
- Continuous assessment of on-site stabilised materials, ensuring real-time validation against bench scale design
- Rapid response to changes in soil and contaminant conditions during contract works, with the ability to adapt design without needing to stop works
- In-house sampling, transport and laboratory reception ensuring sample integrity
- An extensive data base of soils and binder systems previously used, including contaminant-binder interactions.

Soil Stabilisation

Testing Regime

- Initial set, providing a semi-quantitative assessment of curing speed and indication of possible handling issues
- Unconfined Compressive Strength (UCS) to British Standard BS 1377 Part 7, including strength gain with time, 28 day strength and effect of immersion.
- 64 day tank testing in accordance with EA NEN 7375. Leachate production and interpretation of leachate analysis, assessment of matrix stability and dominant leaching mechanism
- Leachate production 'short' test developed in house based on the principles of EA NEN 7375
- Contract specific geotechnical and physical testing is carried out as required by an accredited third party laboratory
- Soil and leachate analysis is undertaken by an accredited third party laboratory