



SOIL STABILISATION AT STUBLACH GAS STORAGE, NORTHWICH

Client:

A E Yates



Project:

Stublach Gas Storage, Northwich

PROJECT DETAILS

When Combined Soil Stabilisation Ltd joined the A E Yates Group all involved knew it would be the start of a strong working relationship. This was proven as the 2 companies worked together on the Stublach Gas Storage Project, Northwich

Design and Testing

After attending site and retrieving samples, laboratory testing was undertaken to assess the material for suitability and mix design testing for the contract was undertaken.

Initially material classification tests were undertaken including Plastic Limit, Liquid Limit, Plastic Index, PSD, Organic Matter, TRL 447, followed by rapid modification tests to ascertain lime additions required to render the material as acceptable fill.

For the modified fill material CBR specimens at the upper and lower moisture contents with the lime addition decided upon by the rapid modification tests were made for 7 and 28 day soaked testing to ensure required strengths were achieved.

Further CBR specimens were made for the capping replacement which was to be a lime and cement stabilized material. These were constructed at the upper and lower moisture contents with two cement additions for at 7 and 28 days soaked testing.



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PROJECT DETAILS (cont.)

The foregoing design complied with the requirements of HA74/07 and allowed CSSL to ascertain the powder contents required for both the lime modified fill and the lime/cement stabilized capping replacement material.

CSSL instructed an independent UKAS accredited Laboratory to undertake the site testing to ensure the material complied with the specified requirements of the contract.

Construction

Once the required mix design had been decided on, Combined Soil Stabilisation and A E Yates then worked together, with A E Yates preparing the host material to enable Combined Soil Stabilisation to carry out the stabilisation works, which consisted of 18,000 cu.m Lime Modified Bulk Fill and 15,000 sq.m. Lime/Cement addition to form a Capping Replacement.

Combined Soil Stabilisation successfully completed the contract well within the program with test results showing 100% compliance for all the material modified and stabilised.

