

Paul Daly

Subject: FW: Soil Validation

From: Daniel Forkin <DanielForkin@urbansplash.co.uk>
Sent: 28 April 2021 10:19
To: Paul Daly <p.daly@shr.studio>; David Farr <David.Farr@turntown.co.uk>
Subject: FW: Soil Validation

From: Bradley Massey <bm@groundtechconsulting.com>
Sent: 16 April 2021 15:44
To: Craig Williamson <CraigWilliamson@urbansplash.co.uk>
Subject: FW: Soil Validation

Good afternoon Craig,

The hang up is related to the delineation, removal and verification of the hydrocarbon impacted soils relating to a ground gas risk as outlined in the below Condition 23 a planning condition and the initial BSL report.

Condition 23 a (Contaminated Land)
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On the basis of compliance with the recommendations in the :

Brownfield Solutions Ltd Geo-Environmental Assessment Report DV/C3419/7106 dated September 2017, Report on dated 18-12-18 in relation to gas protection requirements, Brownfield Solutions Ltd Borehole Log and Dwg SK-022;

ACS REFURBISHMENT/DEMOLITION ASBESTOS SURVEY REPORT
recommendations

the pre-commencement part of the condition is discharged

After completion of site works, a verification report is required to validate that the work undertaken conforms to the remediation proposals received and agreed by this Section. It is recommended that any remediation carried out on the site is validated and suitable documentary evidence provided in a Site Completion Report, such as photographs, consignment documents and analytical results. This should include as a minimum:

- *Provision of waste transfer documents.
- *Information on the installation of protective pipes and / or sterile trenches.
- *Details of any unexpected contamination identified onsite, suitably risk assessed and / or validated.
- *Confirmation of the removal of the hydrocarbon hotspot as well and samples from the base and sides of the excavation to confirm that it has been successfully removed.

The elevated values are related to longer chain hydrocarbons which are unlikely to be volatile and therefore pose no ground gas risk.

Groundtech Consulting have undertaken multiple stages of supplementary investigation and produced a final report in August 2018 (Ref: 18042/304) which has addressed the ground gas issue raised in the initial BSL report.

Please see the below extract from the report which nicely summarises the issue.

A ground gas risk assessment was previously carried out and has been submitted and accepted Manchester City Council planning department. The ground gas risk assessment found that ground precautions within the building footprint place the development within Characteristic Situation 1, therefore not requiring any ground gas precautions.

Elevated methane concentrations were detected within WS5 which is located within a historic canal. The elevated methane concentrations were attributed to the presence of hydrocarbon contaminated silt used to backfill the historic canal arm and hotspot removal was recommended. However, groundwater is high in this standpipe during all visits (0.32m to 0.65m) during the initial monitoring and above the response zone, this was not discussed in the assessment and has likely caused anomalous methane readings which have been concentrated in the small volume of standpipe above the groundwater level. This is supported by the steady state concentrations being significantly lower than the peak concentrations.

Furthermore, after review of the Geo-Environmental Report it appears the source is likely to be the residual soft black organic clay which is representative of the historic waterbody. Ground conditions in TP9 are very similar to WS5. Only slight odours were noted in WS5 and they were described as hydrocarbon, but in TP9 they were described as humic. There is little contamination in the lighter fractions and no BTEX which are the carbon fractions which generate vapours/gas, further indicating that the source is most likely the organic clay.

Groundtech Consulting carried out further ground gas monitoring visits of the existing installations which confirmed the findings of the original ground gas risk assessment.

Best regards,

Bradley Massey
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