IGSL Ltd

NDFA Social Housing Bundles 4/5
Lot 1 – Stanley Street

Ground Investigation Report

Project No. 25000-1

February 2024

M7 Business Park
Naas
Co. Kildare
Ireland

T: +353 (45) 846176
E: info@igsl.ie
W: www.igsl.ie

DOCUMENT ISSUE REGISTER

Distribution	Report Status	Revision	Date of Issue	Prepared By:	Approved By:
MORCE	Draft PDF by email	0	20-02-2024	J. Lawler BSc MSc PGeo EurGeol FGS	P. Quigley BEng CEng MICE MIEI FGS RoGEP Adviser

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FOREWORD
The following conditions and notes on the geotechnical site investigation procedures should be read in conjunction with this report.

Standards
The ground investigation works for this project (**NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street**) have been carried out by IGSL in accordance with Eurocode 7 - Part 2: Ground Investigation & Testing (EN 1997-2:2007). This has been used together with complementary documents such as Engineers Ireland Specification for Ground Investigation (2nd Ed, 2016), BS 5930 (2015+A1:2020) and BS 1377 (Parts 1 to 9) and the following European Norms:

- EN 1997-2 Eurocode 7: 2007 – Geotechnical Design – Part 2: Ground Investigation & Testing
- EN ISO 22475-1:2006 Geotechnical Investigation and Sampling – Sampling Methods & Groundwater Measurements
- EN ISO 14688-1:2017 Geotechnical Investigation and Testing – Identification and Classification of Soil, Part 1: Identification and Description
- EN ISO 14688-2:2017 Geotechnical Investigation and Testing – Identification and Classification of Soil, Part 2: Principles for a classification
- EN ISO 14689-1:2017 Geotechnical Investigation and Testing – Identification, description & classification of rock

The Eurocode 7, Part 2 – Ground Investigation and Testing GI specification shall be read in conjunction with the Specification and Related Documents for Ground Investigation in Ireland, 2nd Edition, published by Engineers Ireland in 2016.

Reporting
No responsibility can be held by IGSL Ltd for ground conditions between exploratory hole locations. The engineering logs provide ground profiles and configuration of strata relevant to the investigation depths achieved and caution should be taken when extrapolating between exploratory points. No liability is accepted for ground conditions extraneous to the investigation points. Unless specifically stated, no account has been taken of possible subsidence due to mineral extraction, mining works or karstification below or close to the site.

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Boring Procedures
Where required, 'shell and auger' or cable percussive boring technique is employed as defined by Section 6.3 of IS EN ISO 22475-1:2006. The boring operations, sampling and in-situ testing meet with the recommendations set out in IS EN 1997-2:2007 and BS 1377:1990 and EN ISO 22476-3:2005. The shell and auger boring technique allows for continuous sampling in clay and silt above the water table and sand and gravel below the water table (Table 2 of IS EN ISO 22475-1:2006).

It is highlighted that some disturbance and variation is unavoidable in particular ground (e.g. blowing sands, gravel / cobble dominant glacial deposits etc). Attention is drawn to this condition, whenever it is suspected. Where cobbles and boulders are recorded, no conclusion should be drawn concerning the size, presence, lithological nature, or numbers per unit volume of ground.

In-Situ Testing
Where required, Standard Penetration Tests (SPT's) are conducted strictly in accordance with Section 4.6 of IS EN 1997-2:2007. The SPT equipment (hammer energy test) has been calibrated in accordance with EN ISO 22476-3:2005 and the Energy Ratio (E_r). A calibration certificate is

available upon request. The E_r is defined as the ratio of the actual energy E_{meas} (measured energy during calibration) delivered to the drive weight assembly into the drive rod below the anvil, to the theoretical energy (E_{theor}) as calculated from the drive weight assembly. The measured number of blows (N) reported on the engineering logs are uncorrected. In sands, the energy losses due to rod length and the effect of the overburden pressure should be taken into account (see IS EN ISO 22476-3:2005).

Soil Sampling

Three categories of sampling methods are outlined in EN ISO 22475-1:2006. The categories are referenced A, B and C for any given ground conditions and are shown in Tables 1 and 2 of EN ISO 22475-1:2006. Reference should be made to EN 1997-2:2002 for guidelines on sample class and quality for strength and compressibility testing. Samples of quality classes 1 or 2 can only be obtained by using Category A sampling methods.

Class 1 thin wall undisturbed tube samples (UT100) were obtained in fine grained soils and strictly meet the requirements of EN 1997-2:2002 and EN ISO 22475-1:2006. Soil samples for laboratory tests are divided into five classes with respect to the soil properties that are assumed to remain unchanged during sampling, handling transport and storage. The minimum sample quality required for testing purposes to Eurocode 7 compatibility (EN 1997-2:2002) is shown in Table A.

Table A – Details of Sample Quality Requirements

EN 1997 Clause	Test	Minimum Sample Quality Class
5.5.3	Water Content	3
5.5.4	Bulk Density	2
5.5.5	Particle Density	N/S
5.5.6	Particle Size Analysis	N/S
5.5.7	Consistency Limits	4
5.5.8	Density Index	N/S
5.5.9	Soil Dispersivity	N/S
5.5.10	Frost Susceptibility	N/S
5.6.2	Organic Content	4
5.6.3	Carbonate Content	3
5.6.4	Sulphate Content	3
5.6.5	pH	3
5.6.6	Chloride Content	3
5.7	Strength Index	1
5.8	Strength Tests	1
5.9	Compressibility Tests	1
5.10	Compaction Tests	N/S
5.11	Permeability	2

N/S – not stated. Presume a representative sample of appropriate size.

Samples recovered from trial pits or trenches meet the requirements of IS EN ISO 22475-1. It is highlighted that unforeseen circumstances such as variations in geological strata may lead to lower quality sample classes being obtained.

Groundwater

The depth of entry of any influx of groundwater is recorded during the course of boring operations. However, the normal rate of boring does not usually permit the recording of an equilibrium level for any one water strike. Where possible, drilling is suspended for a period of twenty minutes to monitor the subsequent rise in water level. Groundwater conditions observed in the borings or pits are those appertaining to the period of investigation. It should be noted however, that groundwater levels are

subject to diurnal, seasonal and climatic variations and can also be affected by drainage conditions, tidal variations etc.

Engineering Logging

Soil and rock identification has been based on the examination of the samples recovered and conforms with IS EN ISO 14688-1:2017 and IS EN ISO 14688-2:2017. Rock weathering classification conforms to IS EN ISO 14689-1:2017 along with discontinuities (bedding planes, joints, cleavages, faults etc) as classified in Section 6.4 of IS EN ISO 14689-1:2017 and Annex C of same. Rock mechanical indices (TCR, SCR, RQD) are defined in accordance with IS EN ISO 22475-1:2006.

Where peat has been encountered, samples have been logged in accordance with the Von Post Classification (ref. Von Post, L. 1992. Sveriges Gologiska Undersoknings torvinventering och nogra av dess hittils vunna resultat (SGU peat inventory and some preliminary results) Svenska Mosskulturforeningens Tidskrift, Jonkoping, Swedden, 36, 1-37 and Hobbs N. B. Mire morphology and the properties of some British and foreign peats. QJEG, Vol. 19, 1986.

Retention of Samples

After satisfactory completion of all the scheduled laboratory tests on any sample, the remaining material will be discarded. Unless a period of retention of samples is agreed, it is our normal practice to discard all soil samples one month after submission of our final report.

1. INTRODUCTION

An investigation of subsoil conditions was undertaken by IGSL Limited at the site of a proposed social housing development at Stanley Street, Dublin 7. The works were undertaken for Malone O'Regan Consulting Engineers [MORCE] on behalf of the National Development Finance Agency (the "NDFA"). The site is currently a Dublin City Council Mechanical Division Depot used as a Fire Maintenance Depot. The site consists of a number of covered sheds and office buildings fronting on to both Grangegorman Lower and Brunswick Street North. The site is accessed off Brunswick Street from the south. A terraced row of houses bounds the northern aspect of the site at Stanhope Street and Stanhope Green. The western flank of the site backs on to the rear of the premises fronting on to the R805 Regional Road (Figure 1).

Figure 1 - Location Plan

Retrieved from Google Earth Professional (Dated 07/2022)

The investigations comprised cable percussion boreholes, machine-dug trial pits, foundation inspection pits and soakaway tests (to BRE365). The investigations were executed in accordance with BS 5930, Code of Practice for Site Investigations (2015+A1:2020) and EN 1997-2 Eurocode 7 Part 2 Ground Investigation & Testing and supervised by an IGSL geotechnical engineer.

Geotechnical, chemical and environmental laboratory testing was scheduled on a range of soil samples. The geotechnical soil testing included moisture contents, Atterberg Limits and particle size distribution [PSD] testing in addition to hydrometer testing. Suites of both chemical testing and environmental testing were undertaken on soils. This report presents an interpretation of the data and an assessment of the key geotechnical issues. The exploratory hole locations are plotted on the site plan in Appendix 8.

2. FIELDWORK

2.1 General

The fieldworks were undertaken during November and December 2023 and comprised the following:

- Trial Pit (11 No.) of which 6 no. are Foundation Inspection Pits
- Cable Percussion Boring (16 No.[1])
- Soakaway Tests (to BRE 365) (2 No.)
- Rotary Core Drilling
- Surveying of Exploratory Hole Locations

[1] Additional boreholes (BH02A & BH11A) were undertaken adjacent to location BH02 after encountering a buried concrete pipe.

2.2 Trial Pits & Foundation Inspection Pits

Trial pitting was performed at eleven locations across the site. Six of the trial pits prefixed TP/FP were undertaken adjacent to existing structures to examine the depth of building footings on site. All eleven trial pits were excavated, logged and sampled under the direction of an IGSL geotechnical engineer in accordance with BS 5930 (2015+A1:2020). Bulk disturbed samples (typically 20 to 30kg) were taken as the pits progressed.

The bulk samples were placed in heavy-duty polyethylene bags. The trial pits were backfilled with the as-dug arisings and reinstated to the satisfaction of IGSL's site geotechnical engineer. The trial pit logs and photos are presented in Appendix 1 and include descriptions of the soils encountered, groundwater conditions and stability of the pit sidewalls.

As mentioned, in order to establish the depth and projection of existing foundations associated with the buildings currently occupying the site, foundation inspection pits were undertaken at six locations at the base of external facing walls for both single-storey and two-storey structures as well as existing sheds / warehousing. As with pits, the inspection pits were excavated and logged under the direction of an IGSL geotechnical engineer in accordance with BS 5930 (2015+A1:2020). Machine-assisted hand digging was used at each location with pits ranging in depth from 0.65 to 2.60m bgl. The pit logs and photos are presented in Appendix 2 and include descriptions of the soils encountered, the foundations exposed and any groundwater conditions noted during the excavation, if observed.

2.3 Cable Percussion Boreholes

Cable percussive boring (200mm diameter) was conducted at sixteen locations [BH_] using a Dando 2000 rig. The boreholes extended to depths of between 0.70m and 8.60m. Re-setups were conducted at both BH02A and BH11A due to shallow obstructions. At each location, boring commenced through hand-dug service inspection pits. Disturbed bulk samples were recovered at 1m intervals or change of strata during boring and these are denoted 'B' on the engineering logs.

Standard Penetration Tests (SPT's) were performed in the boreholes and given the nature of the soils, a solid cone was used. It is noted that the SPT N-Values reported are the number of blows for 300mm increment penetration (e.g. BH01 at 2.0m where N=15). These exclude the seating blow values, which represent the initial 150mm depth of penetration. Where partial penetration was achieved during testing, the number of blows is shown for the actual penetration depth achieved (e.g. BH01 at 5.0m where N=50/75mm). It is highlighted that the SPT N-Values reported on the engineering logs are uncorrected for energy ratio.

Descriptions of the soils encountered, in-situ tests undertaken and samples recovered are presented on the borehole records in Appendix 3. Details of groundwater strikes and hard strata boring (i.e. chiselling) are also presented on the aforementioned records.

Figure 2 – Cable Percussion boring in the covered shed at BH01

2.4 Soakaway Tests (to BRE 365)

Two number infiltration tests were performed to assess the suitability of the sub-soils for dispersion of storm water through a soakaway system. The infiltration tests were each performed in accordance with BRE Digest 365 'Soakaway Design'. To obtain a measure of the infiltration rate of the sub-soils, water was poured into each test pit, with records taken of the fall in water level against time. Following the first soak cycle, the procedure was repeated to ensure saturation of the sub-soils. The infiltration rate is the volume of water dispersed per unit of exposed area per unit of time, and is generally expressed as metres / minute or metres / second. Designs are based on the slowest infiltration rate, which is generally calculated from the final soak cycle. The soakaway design logs are presented in Appendix 4.

2.5 Rotary Core Drillholes

To be completed

2.6 Surveying of Exploratory Hole Locations

Following completion of the exploratory works, surveying was carried out using GPS techniques. Co-ordinates (x, y) were measured to Irish Transverse Mercator and ground levels (z) established to Malin Head. The co-ordinates and ground levels are incorporated on the exploratory hole logs with locations shown on the exploratory hole plans in Appendix 8.

3. LABORATORY TESTING

Geotechnical laboratory testing was carried out at IGSL's INAB-accredited laboratory in accordance with the methods set out in BS1377; British Standard Methods of Test for Soils for Civil Engineering Purposes; British Standards Institute:1990. The laboratory applies best practice management systems as per International Standard IS EN ISO/IEC 17025. The geotechnical testing included moisture contents, Atterberg Limits, particle size distribution [PSD] and hydrometer testing. The results from geotechnical testing on selected trial pit and cable percussive borehole soil samples are presented in Appendix 6.

Chemical analysis incorporating BRE SD1 Suite B (Brownfield – Pyrite Present) was scheduled on recovered soils. The soil chemical results are presented in Appendix 7. A total of twenty-eight soil samples were selected for Waste Acceptance Criteria (WAC) analysis as per the *Rilta* Suite of testing. The results can be used to classify the material with regard to its potential for disposal to landfill. The results are enclosed in the report in Appendix 7.

4. DESK STUDY

4.1 GSI / OSI Database Information

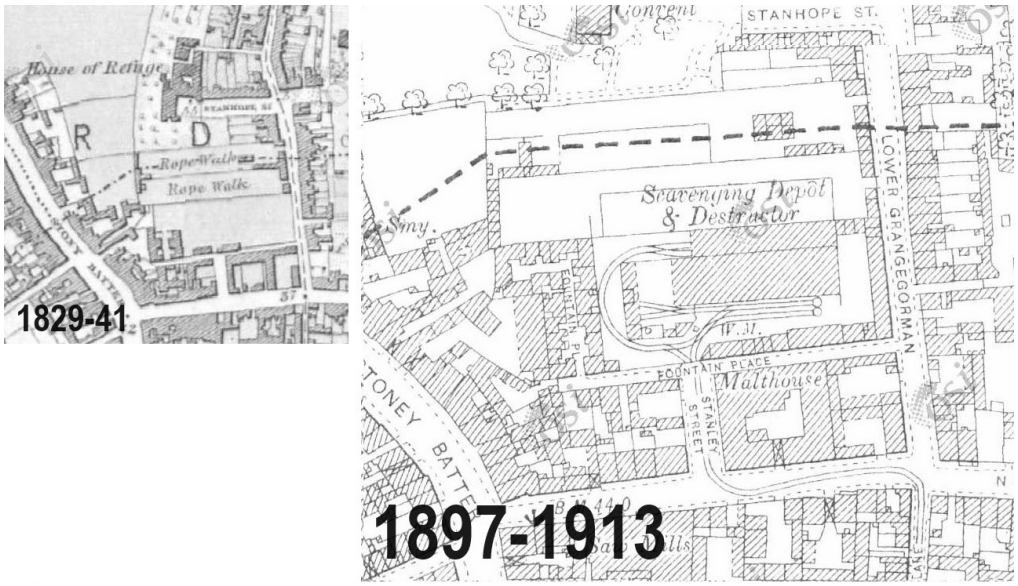
Reference to the OSI drawings from the nineteenth century (1829-41) shows vacant ground bound to the north by a '*Rope Walk*'. A 'ropewalk' is a long straight narrow lane, or a covered pathway, where long strands of material are laid before being twisted into rope. It is likely that tarred hemp cables were once stretched and twisted here to make ropes for rigging. There were many such 'rope walks' all over Dublin and its docklands. Each one needed to be 100 yards long to wind a single rope.

The early twentieth century drawing indicates the presence of a '*Scavenging Depot & Destructor*' plant on the site. It is noted that a common Borough Boundary exists as a dashed line in both this and the early nineteenth century drawing.

The National Inventory of Architectural Heritage (October, 2012) references the tramlines which still exist in the cobbled laneway that is Stanley Street. The tram lines can be seen to extend into the depot and circuitously meander around and into the warehouses that then occupied the site. The websites report on the site notes;

> *These tram lines formed part of Dublin Corporations waste disposal system for the city in the opening decades of the twentieth century. Rubbish and street sweepings were collected by horse-drawn carts and brought to a Destructor Plant at Stanley Street, with the waste from this subsequently loaded into specially-constructed tipping wagons, which travelled along track laid from the North Quays up Queen Street, Redcow Lane and North Brunswick Street and carried to the Fairview sloblands, working at night to avoid pedestrians and traffic. Although the tracks and 70 specifically-designed tipping wagons were supplied by Dublin Corporation, DUTC provided power for the lines at a reduced rate. The layout at the Stanley Street Depot incorporated sidings, turntables and point work. The system ceased to operate in 1925.*

Figure 3 – Tailte Éireann (OSI) drawing dated 1829-1841 and 1897-1913 drawing showing the evolution of the site in the nineteenth and early twentieth centuries. A common E-W trending Borough Boundary exists as a dashed line in both drawings.



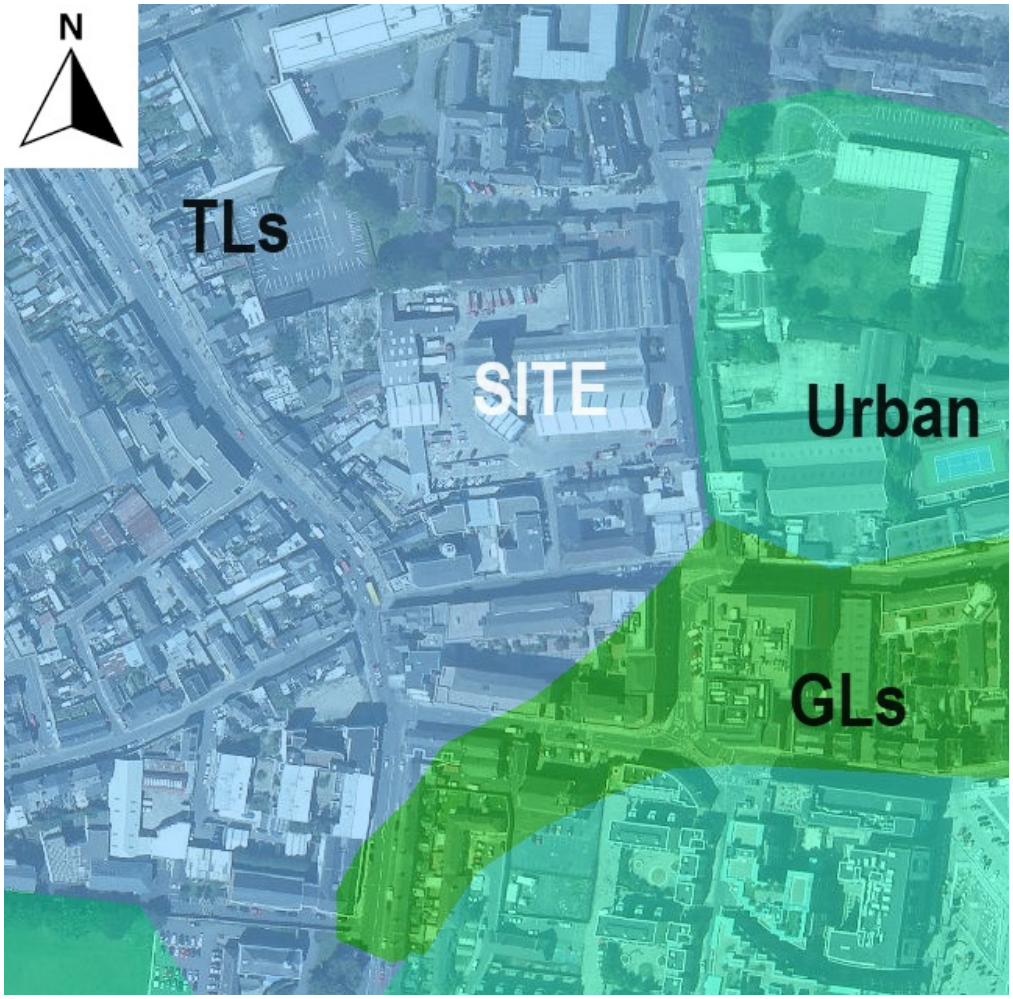
Images taken from Tailte Éireann 'Townland and Historical Map Viewer'

The coloured aerial orthophotographs and Google Earth imagery depict little change in site layout since the turn of the century. Warehousing and sheds form a cover over much of the site. It is not known whether the same perimeter buildings along the Lower Grangegorman street survive from the early twentieth century drawing (See Figure 3). It is likely that the stone-built buildings in rough-hewn Calp Limestone do. Fountain Place and its collection of terraced housing no longer exists to the west of the site. This area appears to have been built over by the extension westwards of the yard space. The site is currently used as the Dublin Fire Brigade Maintenance Section of Dublin City Council.

Figure 4 – Tailte Éireann (OSI) aerial orthophotographs showing the site in 1996-2000 and again in 2013-2018. Google Earth Professional image dated 07/2022.

The Quaternary Soils plot for the area (Figure 5 - retrieved from GSI website) reaffirms the findings of the investigation and highlights the underlying clay-dominant till derived from the ubiquitous Carboniferous Limestone of the area.

Figure 5 – Quaternary Soils Plot for the Stanley Street Site

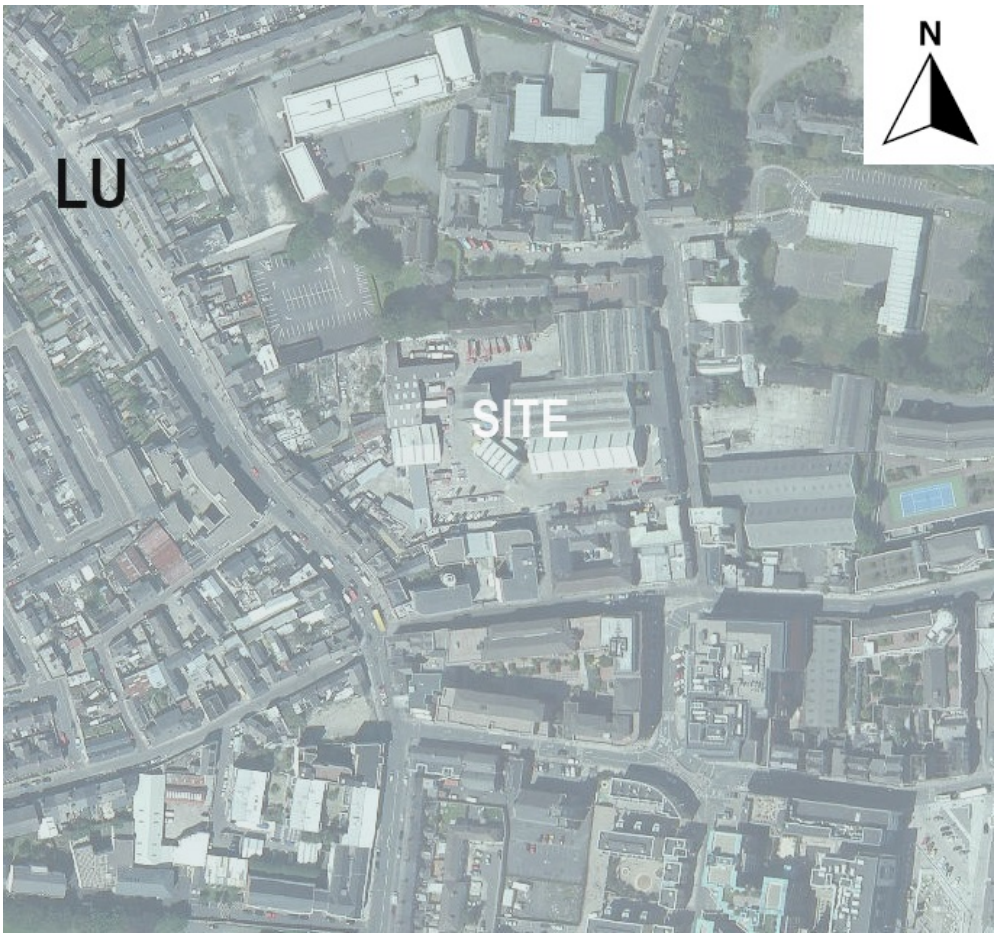


Map Key	**Urban**	- Unclassified Urban Cover
	TLs	- Till derived from Limestones
	GLs	- Gravels derived from Limestones

Reference to the GSI map for the area (Figure 6, 1:100,000 Solid Geology series) shows that the site is underlain by Lower Carboniferous, Lucan Formation. The Lucan Formation (Nolan 1986, 1989) forms the bulk of the basinal rocks throughout the geologically termed 'Dublin Basin', and is characterised by graded, intraclastic skeletal packstone/grainstone interbedded with anoxic calcareous mudstone / black shale, laminated calcisiltite and argillaceous micrite (i.e. impure limestone with clay minerals).

Its base is defined by the first appearance of thick graded beds of limestone, and a marked decrease in the proportion of interbedded shale, compared with the underlying Tober Colleen Formation. The Lucan Formation is widely known as the Calp Limestone (Marchant and Sevastopulo, 1980) but is also referred to as the Upper Dark Limestone and has long been a source of building materials and aggregate for Dublin. The Calp is largely undifferentiated geologically.

Figure 6 - Bedrock Geological Map for the Stanley Street Site (retrieved from the GSI website)



Key: **LU** = Lucan Formation

4.2 Archived Reports

There are a number of reports presented online on the GSI database which by inference, shed light on the possible ground conditions on site.

4.2.1 Site Investigation for Proposed Bus Station at Broadstone Station, Dublin (Materials Testing Station, Queen's University Belfast, 1948) [1]

The project comprised six boreholes. The southern end of the site (closest to the Stanley Street site) found seven feet of fill underlain by six feet of 'yellow Marl'. The underlying boulder clay was remarked as being 'extremely hard and stony'. An attempt was made at one borehole to reach rockhead. At a depth of 38 feet (11.50m) further progress was found to be impossible and boring was discontinued.

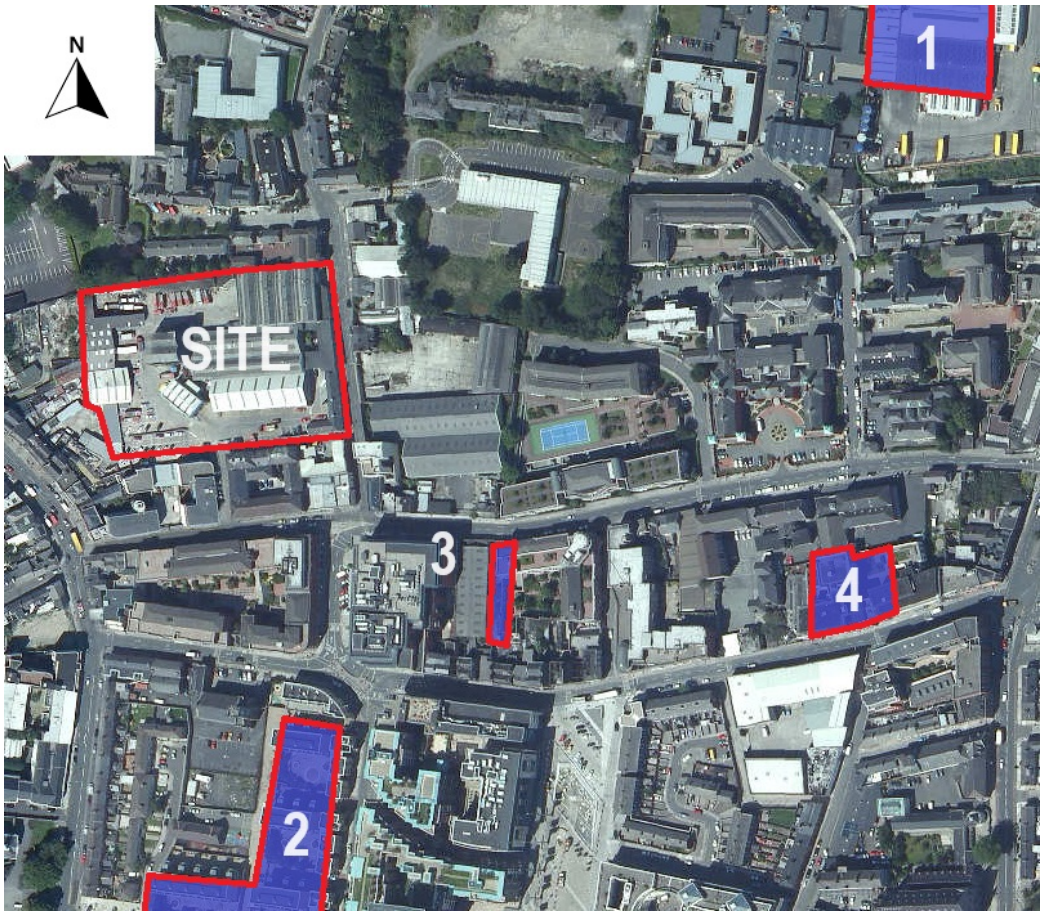
4.2.2 Trial Borings at Queen Street / Blackhall Place (The Irish Piling & Construction Company, 1981) [2]

The project comprised six boreholes. Sketched logs revealed depths achieved of between 12ft 5ins and 21feet 5ins depth, an equivalent of ca. 6.50m. Borehole 1 ended in 'Boulders with little brown clay'.

4.2.3 Report on a Site Investigation at 84, North King Street (IGSL, 2003) [3]
Two boreholes were constructed at a site off North King Street to the southeast of the site. The bores were completed at 16.60m and 14.0m. The end depths imply bedrock lies at even greater depth.

4.2.4 Report on a Site Investigation at James Crean & Sons, 145-149 North King Street (GSI, n.d.) [4]
A scanned written note lists 'Calp Limestone' bedrock at 55 feet or 16.70m bgl.

Figure 7 – Archived Reports near Stanley Street site (adapted from the GSI website)



Key
1. Site Investigation for Proposed Bus Station at Broadstone Station, Dublin
2. Trial Borings at Queen Street / Blackhall Place
3. Report on a Site Investigation at 84, North King Street
4. Report on a Site Investigation at James Crean & Sons, 145-149 North King Street

5. GROUND CONDITIONS & GROUNDWATER

5.1 Ground Profile – Superficial Deposits

The following is a summary of the ground conditions encountered across the site.

MADE GROUND

- Given the layout of the site with its concrete paved yard areas and shed spaces, all trial pits and boreholes required removal of a concrete pavement. The concrete ranged in thickness from 140mm to 300mm thick (as viewed in trial pit excavations) and was often complete with integral reinforcing mesh. A concrete thickness of 350mm was reported in BH13.

- Underlying the concrete pavement, there was little evidence of engineered backfill / gravel hardcore in a number of pits. Instead, the underlying Made Ground was described as dark grey brown sandy gravelly CLAY with red brick, concrete rubble, sea shells, pottery fragments and mortar (TP01). Ash fill, cabling, glass shards and cobbles were also unearthed in other pits. This layer was reported as extending to depths ranging 0.80m to 1.10m bgl. A cemented gravelly ASH-type material was logged from 0.17m in TP02 to its base at 1.50m (11.72m OD). No further digging was possible in this very stiff layer.

- In total, across trial pits, mixed clay Made Ground was observed to range in depth from 0.85m bgl (12.53m OD) in TP03 to at least 2.0m bgl (9.47m OD) in TP10 (no base was found to the Made Ground in TP10). In boreholes, a 'black sandy gravelly CLAY with red brick fragments' was logged in BH02A to a depth of 2.0m (11.60m OD) with grey brown gravelly Clay with red brick fragments noted to a depth of 2.90m (10.02m OD) in BH10.

- Where an engineered gravel hardcore was observed beneath the concrete, such pits were positioned near more recently constructed structures such as at TP/FP11 in the east of the site where a grey angular Gravel and Cobble FILL was observed from 0.20m to 1.25m bgl. Similar grey gravel hardcore was observed in TP/FP06 to the side of a rising wall (to 2.0m bgl / 11.52m OD). In TP10, angular Gravel and Cobble FILL was also witnessed to a depth of 1.50m before passing into brown mottled grey sandy gravelly CLAY with red brick, mortar and shells. Minor placed gravel layers were reported in each of TP/FP05, TP/FP07, TP08 and TP/FP09.

- Borehole BH09, towards the west of the site, reported Clay Made Ground with Cl.804-type angular stone Fill to a depth of 2.80m bgl.

- Overall, there appears to be a lower accumulation of Made Ground towards the southeast and south of the site. This is evidenced in both BH13 and TP08 where no Clay Made Ground was recorded with firm to stiff indigenous soils in their place.

Possible ALLUVIUM / Glaciolacustrine Sediments

- Beneath the upper cover of concrete and Made Ground, the natural soils were often reported as soft in consistency. This is especially true to the north and east of the site. Trial pit TP01, positioned along the northern boundary adjacent to Grangecourt Apartments on Stanhope Street, found 'soft brownish grey sandy gravelly CLAY with cobbles' from 0.95m bgl (12.57m OD) to 1.90m bgl (11.62m OD). This soil layer exhibited a strong hydrocarbon odour. In nearby TP03, a soft yellowish brown slightly sandy CLAY was logged from 0.85m (12.53m OD) to 1.10m (12.28m OD) where it passed to a soft brown slightly sandy slightly gravelly CLAY with a high cobble content. This extended to 1.80m bgl (11.58m OD). This equates very well with the extent of the "soft" layer in TP01.

- As with TP01 and TP03, trial pit TP05 recorded a base of soft to firm soils at 1.90m bgl (11.53m OD). The soft to firm deposits extended from the base of Made Ground at 1.20m bgl.

- Trial Pit TP04 suggests soft ground pushes to greater depths locally. The pit ended at 2.70m (10.82m OD) without a visibly obvious improvement in strength. Similarly, in TP11 a 'soft brown slightly sandy gravelly SILT with cobbles' was logged from 1.60m (10.39m OD) to the base of the pit at 2.20m (9.79m OD).

- No soft natural soils were intercepted in either TP07 or TP08.

- Boreholes encountered soft natural overburden in a number of holes, namely boreholes BH04, BH07 and BH08 and in BH12 and BH14. Each of BH04, 07 and 08 uncovered soft to firm black and soft black sandy gravelly CLAY to depths of 3.40m bgl (9.96m OD), 3.70m (9.78m OD) and 3.30m (9.96m OD). The consistency in base depth suggests the soil layer is laterally extensive in the area of the three adjacent bores. At BH07, the particular soil horizon displayed a strong hydrocarbon odour.

- In the case of BH12, based on SPT results the soft nature of the ground continues to a depth of 3.20m bgl (8.29m OD). At this depth, a stiff to very stiff over-consolidated glacial till is found. Soft soils are present in BH14 to a depth of 1.50m (10.32m OD) with the soil described as a 'Soft black slightly gravelly SILT/CLAY'. This may be a lateral equivalent of the soft black-coloured upper stratum intercepted in each of BH04, BH07 an BH08.

- An SPT plot in Figure 9 illustrates the occurrence of soft and soft to firm soil deposits (inclusive of Made Ground) in the upper 2m, occasionally 3m.

Figures 8A & 8B – Sidewall profiles photographed during trial pitting. Fig 8A TP03 Clay Made Ground onto natural soft yellow brown CLAY and soft brown CLAY underlain by firm to stiff grey brown CLAY with cobbles from 1.80m to pit base at 2.50m. Slow water ingress at 1.70m. **Fig 8B** At TP08, concrete over angular Gravel FILL over firm to stiff brown slightly sandy gravelly CLAY and stiff to very stiff brown slightly sandy gravelly CLAY from 2.10m to pit base at 2.70m bgl.

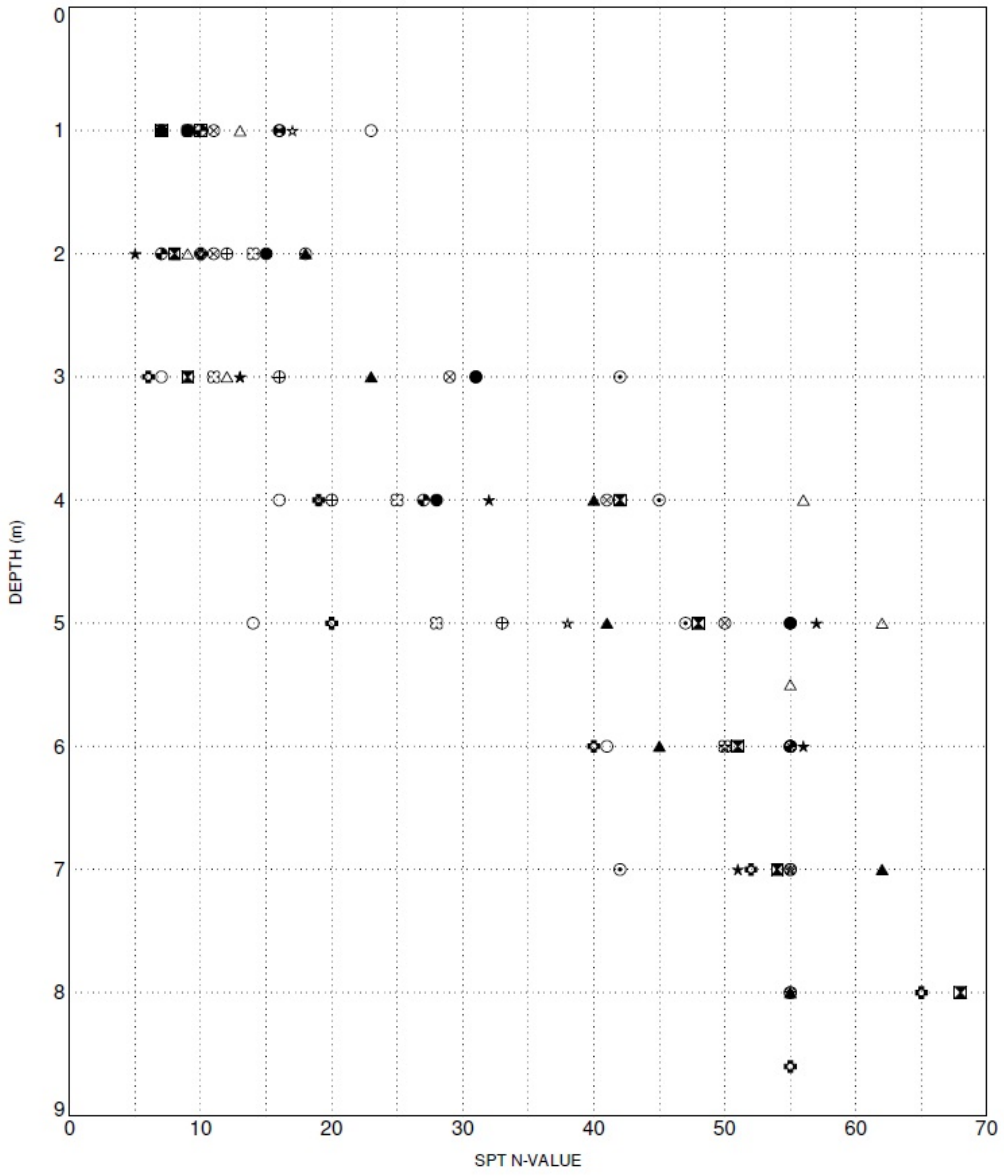
Fig 8A

Fig 8B

In-situ testing was undertaken during the construction of the sixteen drillholes. The standard penetration test [SPT] allows for an appraisal of the ground stiffness. A plot showing the blowcounts generated from testing at each hole is presented in Figure 9.

It highlights the general soft nature of soils in test drives in shallow Made Ground and underlying clay overburden. 'Low strength' deposits are those where N values of <10 blows are present.

Figure 9 – SPT Plot versus Depth for Cable Percussion Boreholes



GLACIAL DEPOSITS (Glacial Lodgement Till)

- At depth across the pits and bores which achieved greatest depth, there was reported an underlying glacial till comprising an initially firm, becoming firm to stiff and stiff grey brown to dark grey brown slightly sandy gravelly cobbly CLAY. Appreciable thicknesses of firm to stiff brown slightly sandy gravelly CLAY were encountered in both TP07 (1.10-2.50m) and TP08 (0.40-2.10m) ahead of the underlying stiff to very stiff brown till (from 2.10m / 9.40m OD in TP08).

- Boreholes demonstrate the entry more succinctly of the stiff to very stiff CLAY flagged by the higher SPT N-values obtained in test drives. Figure 9 shows that from 3.0m, the higher SPT N-values were generally obtained typical of stiff and very stiff CLAY or dense GRAVEL deposits.

- Boreholes terminated in the stiff to very stiff CLAY across all holes save for BH02, BH11 and BH11A, those holes not achieving a significant depth. The bores which terminated in the over-consolidated CLAY ended at depths of between 5.0m and 8.60m. The thickness of the basal stiff to very stiff CLAY prior to termination in the till ranged from 1.40m (BH01) to 5.50m (BH05).

- Minor clayey/silty very sandy Gravel layers were also intercepted in the boreholes from 2.80-3.40m (BH03), from 2.80-4.30m in BH09 and from 3.0m to 3.20m (BH13). In the absence of an actual strike during boring, groundwater was later dipped in or around the Gravel layers in each of the three named bores.

5.2 Bedrock

Consultation of the GSI map for the area suggests the bedrock underlying the site is that of the Lucan Formation limestone and shales (See Section 4). Rotary drilling had not yet been completed at the time of draft reporting.

5.3 Groundwater

Water ingress was noted in open excavations in trial pits TP01, TP03, TP04 and TP05 towards their respective bases between 1.70m and 2.50m. In boreholes, there was generally an absence of water strikes being recorded during hole construction save for two boreholes BH04 and BH05 where water strikes were remarked at 5.50m (7.86m OD) and 4.0m (9.43m OD).

The trend of noting groundwater upon completion of boring (in six of sixteen boreholes) is likely to be a result of casing-off strikes in the impermeable CLAY, thus preventing water entry along the length of the respective holes until casing was removed. Table 1 outlines where water was met in each of the exploratory holes. The potential does exist for there to be seasonal changes in groundwater level. The works were carried out during late autumn / winter 2023.

Table 1 – Water measurements in on-site exploratory holes

	Exploratory Hole No.	Water Struck **m bgl** (m OD)	Stratum Description	Rate of Flow	Remarks / Stratum of water ingress (m OD)
Cable Percussion Boreholes	BH02A	-	-	-	Water was noted at **4.0m** bgl (9.60m OD) in the borehole upon removal of the drill casing. BH ended at 8.50m. (03-11-23)
	BH03	-	-	-	Water was noted at **2.0m** bgl (11.48m OD) in the borehole upon removal of the drill casing. BH ended at 8.10m. (26-10-23)
	BH04	**5.50** (7.86)	Very stiff black slightly sandy gravelly CLAY with cobbles and boulders	Slow – water rose to **5.0m** in 20min	Water was noted at **5.0m** bgl (8.36m OD) in the borehole upon removal of the drill casing. BH ended at 8.0m. (31-10-23)
	BH05	**4.0** (9.43)	Very stiff black slightly sandy gravelly CLAY with cobbles and boulders	Slow – water rose to **3.50m** in 20min	Water was noted at **2.0m** bgl (11.43m OD) in the borehole upon removal of the drill casing. BH ended at 8.30m. (25-10-23)
	BH06	-	-	-	Water was noted at **5.0m** bgl (8.56m OD) in the borehole upon removal of the drill casing. BH ended at 8.60m. (07-11-23)

Cont.

Cable Percussion Boreholes	BH09	-	-	-	Water was noted at **3.0m** bgl (10.49m OD) in the borehole upon removal of the drill casing. BH ended at 8.0m. (15-11-23)
	BH13	-	-	-	Water was noted at **3.0m** bgl (8.70m OD) in the borehole upon removal of the drill casing. BH ended at 7.0m. (28-11-23)
	BH14	-	-	-	Water was noted at **3.50m** bgl (8.32m OD) in the borehole upon removal of the drill casing. BH ended at 6.20m. (01-12-23)
Trial Pits	TP01	**2.30** (11.22)	Firm grey brown slightly sandy gravelly SILT/CLAY with a medium cobble content	Moderate	Trial Pit remarked as unstable. Strong hydrocarbon contamination noted from 0.95-2.50m (pit base)
	TP/SA03	**1.70** (11.68)	Soft brown slightly sandy slightly gravelly CLAY with a low cobble content	Slow	Trial Pit unstable to 1.80m bgl
	TP04	**2.50** (11.02)	Very soft brown slightly sandy gravelly CLAY with a medium cobble content (Possible very clayey sandy GRAVEL)	Slow	Trial Pit slightly unstable
	TP05	**2.30** (11.13)	Firm brown slightly sandy gravelly SILT/CLAY with a high cobble content	Moderate	Trial Pit slightly unstable

6. GROUND ASSESSMENT & ENGINEERING RECOMMENDATIONS

6.1 General

In light of the ground investigation findings, the following geotechnical issues are developed and discussed:

- Foundations
- Groundwater / Infiltration
- Slopes / Batters
- Buried Concrete
- Waste Acceptance Criteria [WAC] & Environmental Testing
  - Soils destined for Landfill

6.2 Foundations

The ground investigation findings demonstrate a variable sequence of soils mantling the site. The findings from some trial pits and almost all boreholes suggest a stiff to very stiff over-consolidated CLAY underlies a cover of initial MADE GROUND overlying natural soft and soft to firm compressible CLAY. The depth to the basal very stiff and stiff till is quite consistent in that it ranges from 3 to 4m below ground level. There is potential to intercept Made Ground to appreciable depths (up to 2.80m / 10.69m OD in BH09) suggesting there is a significant variability in soil composition on the site, most likely attributable to historical periods of excavation and/or infilling at the site. Based on SPT N values, there are areas with soft deposits to depths of ca. 3.0m.

Foundation inspection pits positioned at a range of existing buildings on the site suggest the use of variable foundation types. Extensive rising walls, where no footing was observed to a depth of 2.0m, appear in FP06. It is known from nearby BH06 that a firm brown sandy gravelly CLAY exists from 1.30m bgl and that a stiff brown CLAY extends from 3.50m. It is likely the footings were placed on the natural firm to stiff soils in this case.

At FP11, Made Ground was found to extend to 1.60m with a possible strip footing measured at 1.55m bgl. Trial pitting at TP11 suggest soft brown sandy gravelly CLAY. Given the light bearing capacities envisaged for the single-storey building at FP11, this was likely deemed sufficient for the loading involved.

No footing was observed in pit FP05. Instead only a ground slab was measured to 0.20m bgl. This potentially implies a piled foundation solution.

Given the prominence of Made Ground (varying from 0.40m to 2.80m) and presence of soft and soft to firm soils, the selected foundation solution will have to be founded within deeper competent strata to support structural loads.

Piles are recommended to support the structural loads and negate the risk of unacceptable settlement in the Made Ground and underlying low to medium strength soils. The use of piles would also eliminate the need to form excavations in potentially water-bearing near-surface soils (refer to Section 6.3). The use of a bored displacement pile system would curb the volume of arisings which would otherwise be generated using bored / CFA piles. However, advice should be sought from the piling contractor (or their designer) with regard to the most suitable pile type for the ground conditions.

Given the depth of rockhead (likely >8m), it is expected that adequate embedment in the lower CLAY layer will mobilise skin friction and end bearing. Ahead of coring, pile safe working load capacity (compression) should not be dependent on achieving end-bearing on the bedrock – the GSI GeoUrban Viewer predicts rock in the range 15-20m with nearby archived projects suggesting rockhead in the region of 17m bgl (See Section 4.2). Trial piling (at least 2 No.) would be advised to

confirm embedment or penetration depths and more importantly validate that settlements would be acceptable at safe working load (SWL).

The pile designer should consider negative skin friction from the Made Ground and soft to firm CLAY (upper 2-3m) on the selected piling technique. Floor slab loadings for the building unit are unknown but a suspended floor slab is recommended in view of the presence of soft and compressible Made Ground across the site. It may be possible, if the existing fill is rolled and capped with a layer of SR21 Annex E compliant granular material, an adequate support for floor slabs could be generated, unless unusually high pressures are envisaged. Given the high concentrations of total organic carbon detected in shallow soils (See Section 6.6), ground gas may be present on site. Measures should be incorporated in the ground slab design for the inclusion of a barrier to any such subterranean gases.

An engineered fill platform or piling mat to support the piling plant should be designed in accordance with BRE 470. The thickness and granular fill type (most likely T0 to SR21) should be selected for the ground conditions and specific rig loadings. It is assumed that imported granular fill used will remain in situ under the footprint of the building after piling works are completed, therefore it should meet the chemical and durability / soundness parameters listed in Annex E of SR21:2014+A1:2016. Drainage and maintenance are key factors or considerations in pile platform design and to ensure successful piling operations. It is noted that T0 will not permit free draining conditions, hence surface water management and maintenance of the piling is advised as set out in BRE 470.

Plate bearing tests could be undertaken across the site to assess the performance of the existing Made Ground layer and the results used design platform thickness. Assuming the Made Ground is to be left in place, compaction using a smooth drum roller without vibration with a mass per metre of roll of not less than 5400 kg should be used and achieve an improvement in the performance (stiffness) of the Made Ground before constructing a piling platform.

6.3 Groundwater / Infiltration

As noted in Section 5.3, shallow groundwater strikes were present in the open excavations ranging from slow to moderate ingress at depths ranging 1.70m to 2.50m. Ingress in four of the eleven pits saw water enter in the very soft and soft brown CLAY (TP04 &TP/SA03), as well as in the firm brown and grey brown gravelly CLAY (TP01 & TP05). The absence of water entry in the remaining seven pits may be attributed to the permeability of the natural CLAY (or lack thereof). This should limit the ingress of groundwater where excavations are formed solely in fine soils. Therefore, shallow temporary excavation should generally see an absence of water ingress in natural deposits. It should be noted that groundwater can exist in perched waterbodies often hosted in mixed Made Ground.

Deeper-seated water entry was observed in the boreholes during their construction, from 4.0m to 5.50m bgl. In six of the remaining sixteen bores, water was noted post-borehole construction at depths ranging 2.0m to 5.0m bgl.

Should water be encountered during deeper digs / excavations it is likely that de-watering will be required through a combination of strategic sump pumping and / or perimeter drains. As mentioned in Section 5.3, the potential does exist for there to be seasonal changes in groundwater level. The works were carried out during winter 2023. It may be the case that the various waterbodies at depth are subject to seasonal variations.

Two soakaway tests were conducted on the site. Both tests were carried out primarily in the natural overburden soils within open excavations. The impermeable nature of the soils may account for the low infiltration rates obtained.

It is likely that such soils would not be suitable for conventional soakaways being classified as offering only low natural infiltration (Table 2).

Table 2 – Measured infiltration rates (f) expressed as exposed area (metre) per unit time (minute)

Soakaway Test No.	Depth of Test (m bgl)	*f* (m/min)	*f* (m/sec)
TP/SA03	2.50	0.00017 m/min	2.77E -06 m/sec
TP/SA11	2.20	0.00028 m/min	4.74E -06 m/sec

6.4 Slopes / Batters

A maximum temporary slope angle of 1V to 1.5H (33º) is anticipated for batters constructed within the upper medium strength fine grained soils. A slope angle of 1V to 2H (26°) should be appropriate for long term batters in the same soils. Instability was noted during pitting with sidewall collapse and general instability displayed by the Made Ground and uppermost lower strength deposits. Where deep excavation works are required in the superficial deposits, the use of trench box support is advised. In addition, the uppermost fine subsoils will be susceptible to softening and degradation and surface water or groundwater ingress can lead to a significant reduction in shear strength. Perched water can exist locally and this should be considered in risk assessments for excavations. Presence of ground gas should also be a consideration given the drape of Made Ground on the site coupled with the hydrcarbon signature identified detected in some of the pits.

Site operatives or personnel should not enter unsupported excavations and should be informed of potential risks. Where site operatives or engineering staff work in close proximity to temporary slopes or batters, these should be inspected and approved by a suitably experienced civil engineer, preferably with geotechnical experience. Where there is a risk of spalling of battered slopes, the use of a geogrid is recommended. The geogrid should be anchored at the top and bottom of the ridge face to contain particles such as gravel, cobbles and / or boulders, anthropogenic materials that may become dislodged.

6.5 Buried Concrete

The chemical analysis tests on natural soil samples (BRE SD1 analysis suite) show pH (2.5:1) values ranging from 8.0 to 9.3. The sulphate aqueous extract (SO_4) results from borehole and trial pit samples determined values of <10 and 770mg/l. This would suggest the 'as-received' soil samples tested could be categorised as BRE Class DS-2.

Table C2 ACEC for brownfield sites in BRE SD 1 (2005) can be used in the selection and design of concrete. If mobile groundwater conditions prevail at the site and given the pH values obtained from the testing, then ACEC class AC-2 would be expected to be appropriate for buried concrete in the soils. In line with I.S. EN 206-1:2013, given the elevated acid soluble sulphate contents reported, concrete could be manufactured to Class XA2 where founded or positioned in the upper soils (Class XA2 being >3000 and ≤ 12000 SO_4^{2-} mg/kg).

6.6 Waste Acceptance Criteria [WAC] & Environmental Testing – *Soils destined for Landfill*

Twenty-eight soil samples from boreholes and trial pits were analysed for their compliance to the criteria set out in the 2002 European Landfill Directive (2003/33/EC). Table 3 lists the samples, their origin and sample description. A note is made as to whether or not they exhibited a hydrocarbon odour or not at the time of sampling.

For at least one parameter, twenty-one of the twenty-eight samples failed to meet the inert landfill acceptance criteria (See Table 4).

A total of eighteen soil specimens were noted to contain at a minimum non-hazardous quantities of Total Organic Carbon, and, in the case of five of these samples, hazardous quantities. The samples would therefore not be accepted by an inert landfill but should instead be dealt with by a suitably licensed waste facilitator.

Table 3 – Samples subject to WAC Testing

Trial Pit / Borehole	Sample Depth	Sample Description	Soil Type
BH01	1.0	Sand and Gravel with red brick and steel fragments	**MG**
BH02A	1.0	Large red brick fragments, concrete, stone and gravel.	**MG**
BH03	2.0	Firm brown gravelly SILT/CLAY. **HC odour**	Poss **MG**
BH03	3.0	Medium dense black silty very sandy GRAVEL. **HC odour**	Sa Gr
BH04	1.0	Black sandy Clay with red brick fragments	**MG**
BH05	2.0	Firm brown/black sandy slightly gravelly SILT/CLAY	sa gr CL
BH06	1.0	Black Clay with timber and red bricks	**MG**
BH07	2.0	Loose to medium dense grey brown sandy silty GRAVEL	sa si Gr
BH08	1.0	Black gravelly Clay	**MG**
BH09	1.0	black sandy gravelly Clay with Cl.804-type angular stone Fill	**MG**
BH10	2.0	Grey/brown gravelly Clay with red brick fragments	**MG**
BH11	1.0	Firm black gravelly CLAY with occasional cobbles	Gr Cl
BH12	1.0	Soft brown slightly gravelly SILT/CLAY	sl gr SI/CL
BH13	1.0	Firm black slightly gravelly SILT/CLAY with occasional small cobbles	sl gr SI/CL
BH14	1.0	Soft black slightly gravelly SILT/CLAY	sl gr SI/CL
TP01	0.70	Dark grey/brown sandy gravelly Clay with red brick, concrete rubble, sea shells, pottery pieces and mortar	**MG**
TP01	1.50	Soft brownish grey sandy gravelly CLAY with a medium cobbles content. **HC odour**	sa gr CL
TP01	2.30	Firm grey brown slightly sandy gravelly SILT/CLAY with a medium subangular to subrounded cobbles content. **HC odour**	sl sa gr SI/CL
TP02	0.70	Dark grey/black cemented ASH Gravel with red brick fragments, small pottery and glass shards and cobbles.	**MG**
TP03	0.50	Black sandy gravelly Clay with red brick, mortar, roots, concrete blocks, old cable and ash fill.	**MG**
TP04	0.70	Dark grey/black sandy gravelly Clay with red brick fragments, mortar and sea shells	**MG**
TP05	0.40	(Very dense) dark grey sandy Gravel. **HC odour**	**MG**
TP05	1.60	Soft to firm brown sandy gravelly CLAY with a low cobble content	sa gr Cl
TP06	1.80	Grey slightly sandy angular Gravel with many angular small cobbles	**MG**
TP07	0.60	Dark grey black sandy gravelly Clay with angular gravel, brown fine sand, ash and pottery fragments, cobbles.	**MG**
TP08	1.40	Firm to stiff brown slightly sandy gravelly CLAY with a medium cobble content	sl sa gr Cl
TP10	1.60	Brown mottled grey sandy gravelly Clay with red brick, mortar and shells fragments.	**MG**
TP11	1.30	Dark grey mottled grey sandy gravelly Clay with red brick and mortar fragments	**MG**

Key MG – Logged as Made Ground
HC – Hydrocarbon odour detected during sampling

Table 4 below lists the exceedance in each of the aforementioned twenty-one shallow soil samples compared with the published inert, non-hazardous and hazardous landfill limits.

Table 4 – Elevated values (WAC Testing) (Exceedances listed in red)

Parameter	Inert Landfill Limit (mg/kg)	Stable, Non-reactive hazardous waste in non-hazardous Landfill Limit (mg/kg)	Hazardous Waste Landfill Limit (mg/kg)	BH01 1.0m MADE GROUND	BH02A 1.0m MADE GROUND	BH03 3.0m HC Odour	BH04 1.0m MADE GROUND	BH06 1.0m MADE GROUND
Total Organic Carbon	3	5	6	*4.9*	*6.8*		*13*	*9.8*
Dissolved Organic Carbon	500	800	1000	<50	59		<50	98
Loss on Ignition	-	-	10%	0.76%	8.2%		*12%*	*21%*
Dissolved Sulphate	1000	20000	50000	*2600*		*1900*	*3400*	
Total Dissolved Solids [TDS]	4000	60000	100000	3200		2800	*4400*	

Key MG – Logged as Made Ground
HC – Hydrocarbon odour detected during sampling

Table 4 – Elevated values (WAC Testing) (Exceedances listed in red) [continued]

Parameter	Inert Landfill Limit (mg/kg)	Stable, Non-reactive hazardous waste in non-hazardous Landfill Limit (mg/kg)	Hazardous Waste Landfill Limit (mg/kg)	BH07 2.0m	BH08 1.0m MADE GROUND	BH09 1.0m MADE GROUND	BH10 2.0m MADE GROUND	BH11 1.0m
Total Organic Carbon	3	5	6	*4.2*	*3.2*		*3.9*	*3.3*
Dissolved Organic Carbon	500	800	1000	<50	<50		80	<50
Loss on Ignition	-	-	10%	0.92%	0.84%		1.3%	0.59%
Dissolved Sulphate	1000	20000	50000	*2400*	*2400*	*3500*		*2900*
Total Dissolved Solids [TDS]	4000	60000	100000	3100	3000	4000		*4100*
TPH Total WAC	500	-	-				*8100*	

Key MG – Logged as Made Ground
HC – Hydrocarbon odour detected during sampling

Table 4 – Elevated values (WAC Testing) (Exceedances listed in red) [continued]

Parameter	Inert Landfill Limit (mg/kg)	Stable, Non-reactive hazardous waste in non-hazardous Landfill Limit (mg/kg)	Hazardous Waste Landfill Limit (mg/kg)	BH13 1.0m	BH14 1.0m	TP01 0.70m MADE GROUND	TP01 1.50m	TP02 0.70m MADE GROUND
Total Organic Carbon	3	5	6	*4*	*4.9*	*9.6*		*4.0*
Dissolved Organic Carbon	500	800	1000	<50	51	99		54
Loss on Ignition	-	-	10%	0.87%	2.8%	*11%*		*35%*
Dissolved Sulphate	1000	20000	50000	*2300*				
Total Dissolved Solids [TDS]	4000	60000	100000	3000				
Dissolved Antimony	0.06	0.7	5					*0.10*
Dissolved Molydenum	0.5	10	30					
TPH Total WAC	500	-	-				*1500*	

Key MG – Logged as Made Ground
HC – Hydrocarbon odour detected during sampling

Table 4 – Elevated values (WAC Testing) (Exceedances listed in red) [continued]

Parameter	Inert Landfill Limit (mg/kg)	Stable, Non-reactive hazardous waste in non-hazardous Landfill Limit (mg/kg)	Hazardous Waste Landfill Limit (mg/kg)	TP03 0.50m MADE GROUND	TP04 0.70m MADE GROUND	TP05 0.40m MADE GROUND	TP06 1.80m MADE GROUND	TP07 0.60m MADE GROUND
Total Organic Carbon	3	5	6	*5.5*	*3.2*	*13*	*3.2*	*3.1*
Dissolved Organic Carbon	500	800	1000	70	<50	71	52	52
Loss on Ignition	-	-	10%	5.8%	1.5%	8.8%	0.69%	2.0%
Dissolved Sulphate	1000	20000	50000				*2400*	*7300*
Total Dissolved Solids [TDS]	4000	60000	100000				3000	*7500*
Dissolved Antimony	0.06	0.7	5	*0.10*		*0.23*		
TPH Total WAC	500	-	-			*1500*		

Key MG – Logged as Made Ground
HC – Hydrocarbon odour detected during sampling

Table 4 – Elevated values (WAC Testing) (Exceedances listed in red) [continued]

Parameter	Inert Landfill Limit (mg/kg)	Stable, Non-reactive hazardous waste in non-hazardous Landfill Limit (mg/kg)	Hazardous Waste Landfill Limit (mg/kg)	TP11 1.30m MADE GROUND
Total Organic Carbon	3	5	6	*4.2*
Dissolved Organic Carbon	500	800	1000	91
Loss on Ignition	-	-	10%	6.8%
Dissolved Molydenum	0.5	10	30	*0.51*

Key MG – Logged as Made Ground

Where the inert value for TOC is exceeded, the EU Landfill Directive allows for the following dispensation:

> *"In the case of soils, a higher limit value may be admitted by the competent authority, provided the DOC value of 500 mg/kg is achieved at L/S = 10 l/kg, either at the soil's own pH or at a pH value between 7.5 and 8.0."*

Notably the DOC [Dissolved Organic Carbon] content did not exceed 500mg/kg for any of the named eighteen samples (ranging in concentration from <50mg/kg to 99mg/kg). In certain inert landfills, an additional criterion is set whereby samples with elevated TOC levels must also exhibit Loss on Ignition (LOI) levels that are less than 5% by weight. This test returned values ranging 0.59% to 35% indicative of high organic concentrations.

Any relaxation of the criteria as outlined here should be confirmed with the respective inert landfill ahead of soil removal from site.

There are other samples which, in the case of dissolved metal concentrations (dissolved antimony and molybdenum), were found to have exceeded inert levels. Additionally, samples also failed based on dissolved sulphate and/or Total Dissolved Sulphates [TDS]. In the case of the samples in Table 4, they should not be accepted by an inert landfill. However, the Council Decision states that "in certain circumstances, up to **three** times the higher limit values for specific parameters" can be accepted by an inert landfill. As the values for dissolved antimony (except TP05 at 0.40m), dissolved molybdenum and for a number of dissolved sulphate and TDS would fall under three times the limit, this would imply that such a value would be acceptable.

In the case of the dissolved sulphate content, in Section 2.3.1 of the 2002 European Council Decision (2003/33/EC), it is stated that;

> *"the values for TDS [Total Dissolved Solids] can be used alternatively to the values for sulphate".*

Therefore, it seems possible that where an exceedance is reported for dissolved sulphate but the TDS falls under the cut-off, that those samples would be accepted by an inert landfill. **The relaxation of the criteria as outlined here should be confirmed with the respective inert landfill ahead of soil removal from site**.

It would be prudent, given the volume of analysis, that a waste characterisation assessment of the results would be carried out in accordance with the Environmental Protection Agency (EPA) Guidelines on the Classification of Waste (2015). We would recommend that a specialist environmental consultant (such as O'Callaghan Moran Consultants) be engaged to undertake this assessment.

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Appendix 1

Trial Pit Logs & Photographs

TRIAL PIT RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**TRIAL PIT NO.**	**TP01**
		SHEET	Sheet 1 of 1
LOGGED BY	IR	**CO-ORDINATES**	714,473.89 E 734,871.82 N
		DATE STARTED	14/11/2023
		DATE COMPLETED	14/11/2023
CLIENT	NDFA	**GROUND LEVEL (m)**	13.52
ENGINEER	MORCE	**EXCAVATION METHOD**	5T tracked excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 CONCRETE									
MADE GROUND comprised of dark grey/brown sandy gravelly Clay with red brick, concrete rubble, sea shells, pottery pieces and mortar.		0.30	13.22		AA209906	B	0.70		
1.0 Soft brownish grey sandy gravelly CLAY with a medium cobbles content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular to subrounded. - Strong hydrocarbon contamination.		0.95	12.57		AA209907	B	1.50		
2.0 Firm grey brown slightly sandy gravelly SILT/CLAY with a medium subangular to subrounded cobbles content. Gravel is subangular to subrounded fine to coarse. Strong hydrocarbon contamination.		1.90	11.62	(Moderate)	AA209908	B	2.30		
Pit terminated due to major instability from 1.90m End of Trial Pit at 2.50m		2.50	11.02						

Groundwater Conditions
Moderate water flow at 2.30m

Stability
TP unstable

General Remarks
Strong hydrocarbon contamination from 0.95m

TRIAL PIT RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**TRIAL PIT NO.**	**TP02**
		SHEET	Sheet 1 of 1
LOGGED BY	IR	**CO-ORDINATES**	714,449.45 E 734,846.37 N
		DATE STARTED	15/11/2023
		DATE COMPLETED	15/11/2023
CLIENT	NDFA	**GROUND LEVEL (m)**	13.22
ENGINEER	MORCE	**EXCAVATION METHOD**	5T tracked excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Reinforced CONCRETE		0.17	13.05						
MADE GROUND comprised of dark grey/black cemented ASH Gravel with red brick fragments, small pottery and glass shards and cobbles.					AA204950	B	0.70		
1.0									
Pit terminated due to cemented stratum End of Trial Pit at 1.50m		1.50	11.72						
2.0									

Groundwater Conditions
Dry

Stability
Good

General Remarks
Pit terminated at 1.50m due to slow progress in very stiff stratum.

TRIAL PIT RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**TRIAL PIT NO.**	**TP03**
		SHEET	Sheet 1 of 1
LOGGED BY	IR	**CO-ORDINATES**	714,421.78 E 734,868.01 N
		DATE STARTED	14/11/2023
		DATE COMPLETED	14/11/2023
CLIENT	NDFA	**GROUND LEVEL (m)**	13.38
ENGINEER	MORCE	**EXCAVATION METHOD**	5T tracked excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 CONCRETE		0.17	13.21						
MADE GROUND comprised of black sandy gravelly Clay with red brick, mortar, roots, concrete blocks, old cable and ash fill.		0.55	12.83		AA204947	B	0.50		
Soft brown slightly sandy slightly gravelly CLAY with some roots and occasional red brick pieces (MADE GROUND)		0.85	12.53						
1.0 Soft yellowish brown slightly sandy CLAY		1.10	12.28						
Soft brown slightly sandy slightly gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular.				1 (Slow)	AA204948	B	1.30		
Firm to stiff greyish brown slightly sandy slightly gravelly CLAY with a high cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular to subrounded.		1.80	11.58						
2.0					AA204949	B	2.00		
End of Trial Pit at 2.50m		2.50	10.88						

Groundwater Conditions
Slow water flow at 1.70m

Stability
TP unstable up to 1.80m

General Remarks
Soakaway test carried out in pit - see SA03 log

TRIAL PIT RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**TRIAL PIT NO.**	**TP04**
		SHEET	Sheet 1 of 1
LOGGED BY	IR	**CO-ORDINATES**	714,426.62 E 734,855.46 N
		DATE STARTED	14/11/2023
		DATE COMPLETED	14/11/2023
CLIENT	NDFA	**GROUND LEVEL (m)**	13.52
ENGINEER	MORCE	**EXCAVATION METHOD**	5T tracked excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 CONCRETE		0.14	13.38						
MADE GROUND comprised of dark grey/black sandy gravelly Clay with red brick fragments, mortar and sea shells					AA204944	B	0.70		
1.0 Soft brown sandy slightly gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular to subrounded.		1.10	12.42		AA204945	B	1.40		
2.0 Very soft brown slightly sandy gravelly CLAY with a medium cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular to subrounded. (Possible very clayey sandy gravel)		1.90	11.62	1 (Slow)	AA204946	B	2.20		
End of Trial Pit at 2.70m		2.70	10.82						

Groundwater Conditions
Slow water flow at 2.50m

Stability
TP slightly unstable

General Remarks
Foundation of existing building exposed - see FP04 log.

TRIAL PIT RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**TRIAL PIT NO.**	**TP05**
		SHEET	Sheet 1 of 1
LOGGED BY	IR	**CO-ORDINATES**	714,411.29 E 734,836.48 N
		DATE STARTED	14/11/2023
		DATE COMPLETED	14/11/2023
CLIENT	NDFA	**GROUND LEVEL (m)**	13.43
ENGINEER	MORCE	**EXCAVATION METHOD**	5T tracked excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 CONCRETE		0.18	13.25						
MADE GROUND comprised of (very dense) dark grey sandy Gravel. Strong hydrocarbon contamination up to 0.50m.		0.50	12.93		AA209902	B	0.40		
MADE GROUND comprised of dark grey and grey black sandy gravelly Clay with red brick, pottery fragments and mortar.					AA209903	B	0.90		
1.0 Soft to firm brown sandy gravelly CLAY with a low cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular.		1.20	12.23		AA209904	B	1.60		
2.0 Firm brown slightly sandy gravelly SILT/CLAY with a high subangular to subrounded cobble content. Gravel is subangular to subrounded fine to coarse.		1.90	11.53	(Moderate)	AA209905	B	2.40		
End of Trial Pit at 2.60m		2.60	10.83						

Groundwater Conditions
Moderate water flow at 2.30m

Stability
TP slightly unstable

General Remarks
Foundation of existing building exposed - see FP05 log.

TRIAL PIT RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**TRIAL PIT NO.**	**TP06**
		SHEET	Sheet 1 of 1
LOGGED BY	IR	**CO-ORDINATES**	714,418.77 E 734,823.85 N
		DATE STARTED	15/11/2023
		DATE COMPLETED	15/11/2023
CLIENT	NDFA	**GROUND LEVEL (m)**	13.52
ENGINEER	MORCE	**EXCAVATION METHOD**	5T tracked excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Reinforced CONCRETE		0.18	13.34						
MADE GROUND comprised of grey slightly sandy angular Gravel with many angular small cobbles					AA209912	B	0.80		
1.0									
					AA209913	B	1.80		
2.0 Pit terminated due to major instability End of Trial Pit at 2.00m		2.00	11.52						

Groundwater Conditions
Dry

Stability
TP very unstable

General Remarks
Foundation of existing building exposed - see FP06 log.

TRIAL PIT RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**TRIAL PIT NO.**	**TP07**
		SHEET	Sheet 1 of 1
LOGGED BY	IR	**CO-ORDINATES**	714,447.13 E 734,824.46 N
		DATE STARTED	15/11/2023
		DATE COMPLETED	15/11/2023
CLIENT	NDFA	**GROUND LEVEL (m)**	13.10
ENGINEER	MORCE	**EXCAVATION METHOD**	5T tracked excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Reinforced CONCRETE									
MADE GROUND comprised of dark grey black sandy gravelly Clay with angular gravel, brown fine sand, ash and pottery fragments, cobbles.		0.23	12.87						
0.65m - 50mm diameter gas pipe					AA209909	B	0.60		
1.0 Firm brown slightly sandy slightly gravelly SILT/CLAY with a high cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular.		1.10	12.00						
					AA209910	B	1.40		
2.0									
					AA209911	B	2.40		
End of Trial Pit at 2.50m		2.50	10.60						

Groundwater Conditions
Dry

Stability
Good

General Remarks
50mm diameter gas pipe found at 0.65m depth. Foundation of existing building exposed - see FP07 log.

TRIAL PIT RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**TRIAL PIT NO.**	**TP08**
		SHEET	Sheet 1 of 1
LOGGED BY	IR	**CO-ORDINATES**	714,476.36 E 734,792.97 N
		DATE STARTED	21/11/2023
		DATE COMPLETED	21/11/2023
CLIENT	NDFA	**GROUND LEVEL (m)**	11.50
ENGINEER	MORCE	**EXCAVATION METHOD**	5T tracked excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Reinforced CONCRETE									
MADE GROUND comprised of dark grey slightly clayey angular Gravel and cobbles		0.23	11.27						
Firm to stiff brown slightly sandy gravelly CLAY with a medium cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular to subrounded.		0.40	11.10		AA209920	B	0.60		
1.0					AA209921	B	1.40		
2.0									
Stiff to very stiff brown slightly sandy gravelly CLAY with a high cobble and low boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Cobbles and boulders are subangular to subrounded.		2.10	9.40		AA209922	B	2.40		
End of Trial Pit at 2.70m		2.70	8.80						

Groundwater Conditions
Dry

Stability
Good

General Remarks

TRIAL PIT RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**TRIAL PIT NO.**	**TP09**
		SHEET	Sheet 1 of 1
LOGGED BY	IR	**CO-ORDINATES**	714,504.84 E 734,808.03 N
		DATE STARTED	20/11/2023
		DATE COMPLETED	20/11/2023
CLIENT	NDFA	**GROUND LEVEL (m)**	11.67
ENGINEER	MORCE	**EXCAVATION METHOD**	5T tracked excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0									
Reinforced CONCRETE									
MADE GROUND comprised of grey to dark grey sandy gravelly Clay with angular gravel fragments, red brick and mortar.		0.30	11.37		AA209916	B	0.50		
Pit terminated due to concrete slab obstruction End of Trial Pit at 0.65m		0.65	11.02						
1.0									
2.0									

Groundwater Conditions
Dry

Stability
Good

General Remarks
TP terminated at 0.65m due to possible concrete slab - unable to repeat hole due to underground services. Foundation of existing building exposed - see FP09 log.

TRIAL PIT RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**TRIAL PIT NO.**	**TP10**
		SHEET	Sheet 1 of 1
LOGGED BY	IR	**CO-ORDINATES**	714,503.50 E 734,795.56 N
		DATE STARTED	20/11/2023
		DATE COMPLETED	20/11/2023
CLIENT	NDFA	**GROUND LEVEL (m)**	11.47
ENGINEER	MORCE	**EXCAVATION METHOD**	5T tracked excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Reinforced CONCRETE									
		0.22	11.25						
MADE GROUND comprised of grey slightly clayey slightly sandy angular Gravel and Cobbles 0.35m - 200mm concrete pipe at front of pit					AA209914	B	0.70		
1.0									
MADE GROUND comprised of brown mottled grey sandy gravelly Clay with red brick, mortar and shells fragments.		1.50	9.97		AA209915	B	1.60		
2.0 Pit terminated due to major instability End of Trial Pit at 2.00m		2.00	9.47						

Groundwater Conditions
Dry

Stability
TP very unstable up to 1.50m

General Remarks
TP terminated at 2.0m due to major instability.

TRIAL PIT RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**TRIAL PIT NO.**	**TP11**
		SHEET	Sheet 1 of 1
LOGGED BY	IR	**CO-ORDINATES**	714,521.20 E 734,818.77 N
		DATE STARTED	21/11/2023
		DATE COMPLETED	21/11/2023
CLIENT	NDFA	**GROUND LEVEL (m)**	11.99
ENGINEER	MORCE	**EXCAVATION METHOD**	5T tracked excavator

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 Reinforced CONCRETE									
MADE GROUND comprised of grey slightly clayey angular Gravel and Cobbles		0.20	11.79		AA209917	B	0.80		
1.0 MADE GROUND comprised of dark grey mottled grey sandy gravelly Clay with red brick and mortar fragments		1.25	10.74		AA209918	B	1.30		
Soft brown slightly sandy gravelly SILT with a medium cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Cobbles are angular to subangular.		1.60	10.39		AA209919	B	1.80		
2.0 Pit terminated due to major instability End of Trial Pit at 2.20m		2.20	9.79						

Groundwater Conditions
Dry

Stability
TP very unstable up to 1.20m

General Remarks
Soakaway test carried out in pit - see SA11 log. TP terminated at 2.20m due to major instability. Foundation of existing building exposed - see FP11 log.

Project Number: 25000-1
Project: NDFA Social Housing Bundles 4/5 – Lot 1 - Stanley Street
Engineer: MORCE

TRIAL PIT PHOTOGRAPHY RECORD

TP 01

TP 01 – spoil

Project Number: 25000-1
Project: NDFA Social Housing Bundles 4/5 – Lot 1 - Stanley Street
Engineer: MORCE

TRIAL PIT PHOTOGRAPHY RECORD
TP 02

TP 02 – spoil

Project Number: 25000-1
Project: NDFA Social Housing Bundles 4/5 – Lot 1 - Stanley Street
Engineer: MORCE

TRIAL PIT PHOTOGRAPHY RECORD
TP 03

TP 03 – spoil

Project Number: 25000-1
Project: NDFA Social Housing Bundles 4/5 – Lot 1 - Stanley Street
Engineer: MORCE

TRIAL PIT PHOTOGRAPHY RECORD

TP 04

TP 04 – spoil

Project Number: 25000-1
Project: NDFA Social Housing Bundles 4/5 – Lot 1 - Stanley Street
Engineer: MORCE

TRIAL PIT PHOTOGRAPHY RECORD
TP 05

TP 05 – spoil

Project Number: 25000-1
Project: NDFA Social Housing Bundles 4/5 – Lot 1 - Stanley Street
Engineer: MORCE

TRIAL PIT PHOTOGRAPHY RECORD

TP 06

TP 06 – spoil

Project Number: 25000-1
Project: NDFA Social Housing Bundles 4/5 – Lot 1 - Stanley Street
Engineer: MORCE

TRIAL PIT PHOTOGRAPHY RECORD
TP 07

TP 07 – spoil

Project Number: 25000-1
Project: NDFA Social Housing Bundles 4/5 – Lot 1 - Stanley Street
Engineer: MORCE

TRIAL PIT PHOTOGRAPHY RECORD
TP 08

TP 08 – spoil

Project Number: 25000-1
Project: NDFA Social Housing Bundles 4/5 – Lot 1 - Stanley Street
Engineer: MORCE

TRIAL PIT PHOTOGRAPHY RECORD
TP 09

TP 09 – spoil

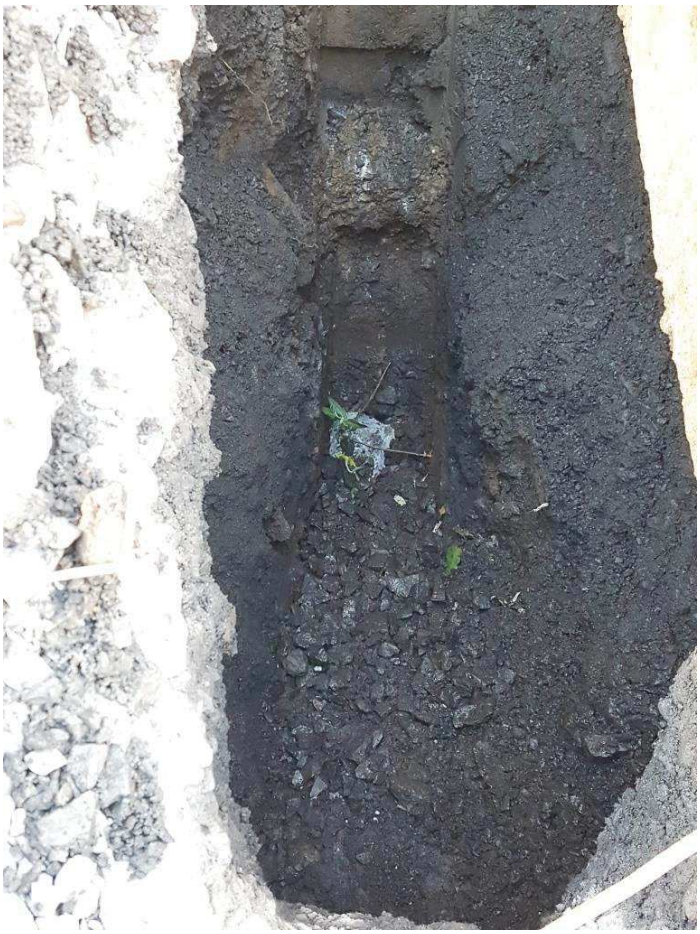
Project Number: 25000-1
Project: NDFA Social Housing Bundles 4/5 – Lot 1 - Stanley Street
Engineer: MORCE

TRIAL PIT PHOTOGRAPHY RECORD
TP 10

TP 10 – spoil

Project Number: 25000-1
Project: NDFA Social Housing Bundles 4/5 – Lot 1 - Stanley Street
Engineer: MORCE

TRIAL PIT PHOTOGRAPHY RECORD
TP 11



TP 11 – spoil

Appendix 2

Foundation Pit Logs & Photographs

FOUNDATION INSPECTION PIT RECORD

REPORT NUMBER

25000-1

TRIAL PIT NO. **FP04**

SHEET Sheet 1 of 1

CONTRACT: NDFA Social Housing Bundles 4/5 - Lot 1 – Stanley Street

LOCATION: FP04 (at TP04)

LOGGED BY: I.Reder

Date of survey: 14/11/2023

Summary of ground conditions

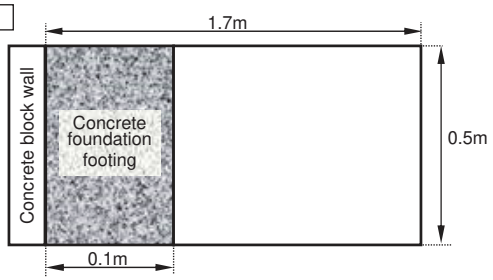
from	to	Description	Ground water
0.00	0.14	CONCRETE	Slow water at 2.5m
0.14	1.10	MADE GROUND comprised of dark grey/black sandy gravelly Clay with red brick fragments, mortar and sea shells	
1.10	1.90	Soft brown sandy slightly gravelly CLAY with a low cobble content	
1.90	2.50	Very soft brown slightly sandy gravelly CLAY with a medium cobble content	

NOTE: See also TP04 log

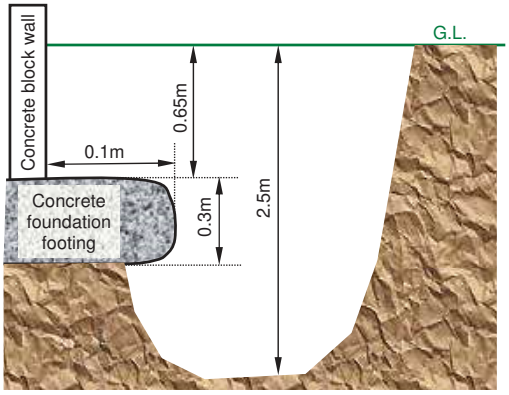
LOCATION **FP04**

Location Details: E:714426.619, N:734855.455, Elev. 13.518mOD

Plan



Elevation



FOUNDATION INSPECTION PIT RECORD

REPORT NUMBER

25000-1

CONTRACT: NDFA Social Housing Bundles 4/5 - Lot 1 – Stanley Street

LOCATION: FP05 (at TP05)

LOGGED BY: I.Reder

Date of survey: 14/11/2023

TRIAL PIT NO. **FP05**

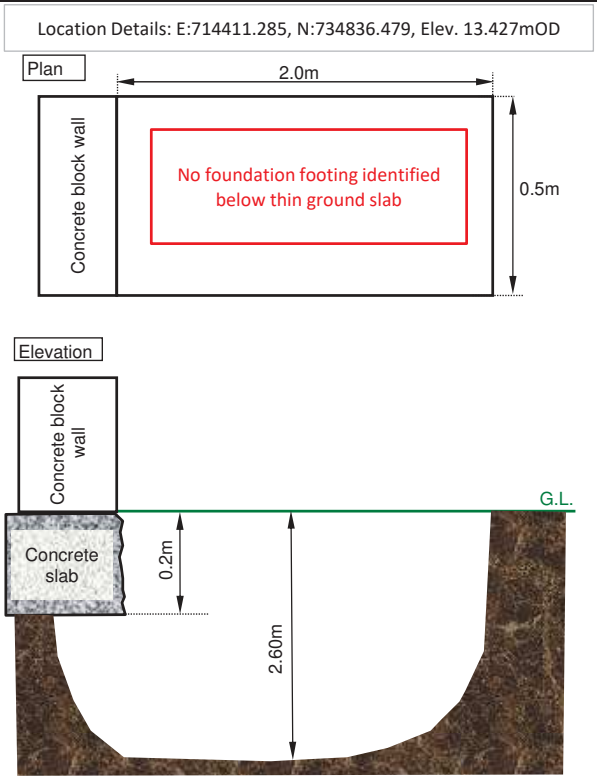
SHEET Sheet 1 of 1

Summary of ground conditions

from	to	Description	Ground water
0.00	0.18	CONCRETE	Moderate water at 2.30m
0.18	0.50	MADE GROUND: (Very dense) Dark grey sandy Gravel. Strong hydrocarbon contamination	
0.50	1.20	MADE GROUND: Dark grey and grey black sandy gravelly Clay with red brick, pottery & mortar	
1.20	1.90	Soft to firm brown sandy gravelly CLAY with a low cobble content	
1.90	2.60	Firm brown slightly sandy gravelly SILT/CLAY with a high subangular to subrounded cobble content	

NOTE: See also TP05 log

LOCATION **FP05**



FOUNDATION INSPECTION PIT RECORD

REPORT NUMBER

25000-1

TRIAL PIT NO. **FP06**

SHEET Sheet 1 of 1

CONTRACT: NDFA Social Housing Bundles 4/5 - Lot 1 – Stanley Street

LOCATION: FP06 (at TP06)

LOGGED BY: I.Reder

Date of survey: 15/11/2023

Summary of ground conditions

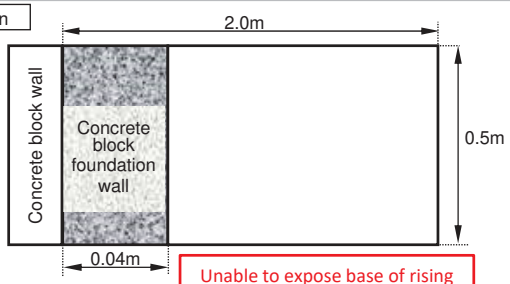
from	to	Description	Ground water
0.00	0.18	CONCRETE	
0.18	2.00	MADE GROUND comprised of grey slightly sandy angular Gravel with many angular small cobbles	
2.00		Hole terminated due to major instablility	DRY

NOTE: See also TP06 log

LOCATION **FP06**

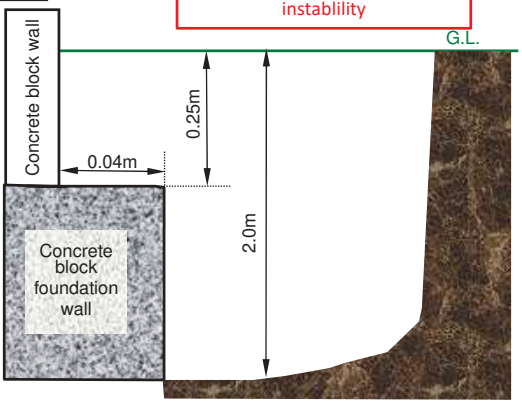
Location Details: E:714418.767, N:734823.853, Elev. 13.518mOD

Plan



Unable to expose base of rising wall due to granular fill instablility

Elevation



FOUNDATION INSPECTION PIT RECORD

REPORT NUMBER

25000-1

CONTRACT: NDFA Social Housing Bundles 4/5 - Lot 1 – Stanley Street

LOCATION: FP07 (at TP07)

LOGGED BY: I.Reder

Date of survey: 15/11/2023

TRIAL PIT NO. **FP07**

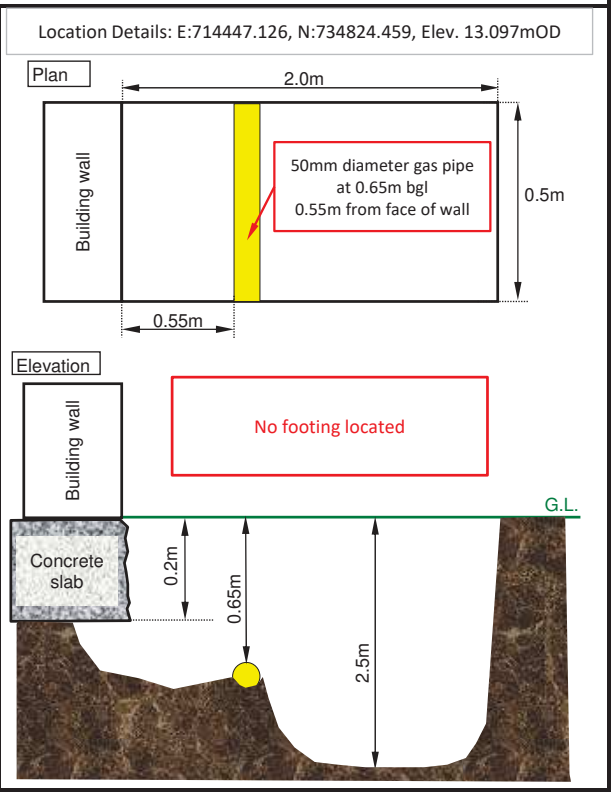
SHEET Sheet 1 of 1

Summary of ground conditions

from	to	Description	Ground water
0.00	0.23	Reinforced CONCRETE	DRY
0.23	1.10	MADE GROUND comprised of dark grey black sandy gravelly Clay with angular gravel, brown fine sand, ash and pottery fragments, cobbles.	
1.10	2.50	Firm brown slightly sandy slightly gravelly SILT/CLAY with a high cobble content	

NOTE: See also TP07 log

LOCATION **FP07**



FOUNDATION INSPECTION PIT RECORD

REPORT NUMBER

25000-1

TRIAL PIT NO. **FP09**

SHEET Sheet 1 of 1

CONTRACT: NDFA Social Housing Bundles 4/5 - Lot 1 – Stanley Street

LOCATION: FP09 (at TP09)

LOGGED BY: I.Reder

Date of survey: 20/11/2023

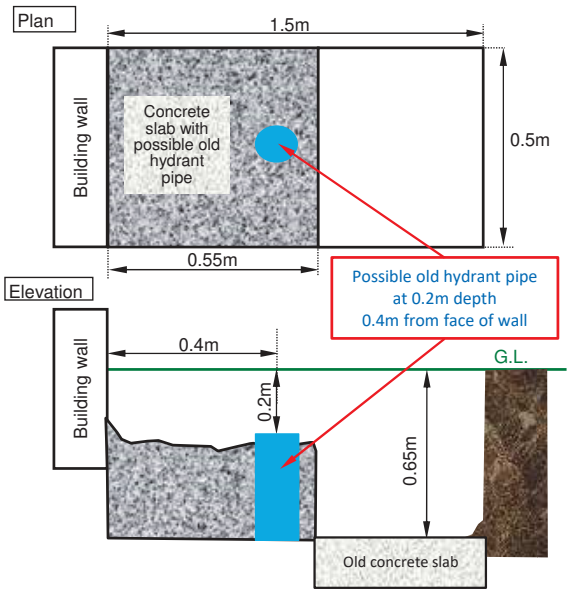
Summary of ground conditions

from	to	Description	Ground water
0.00	0.30	Reinforced CONCRETE	
0.30	0.65	MADE GROUND comprised of grey to dark grey sandy gravelly Clay with angular gravel fragments, red brick and mortar.	DRY
0.65		Pit terminated due to concrete slab obstruction	

NOTE: See also TP09 log

LOCATION **FP09**

Location Details: E:714504.838, N:734808.032, Elev. 11.669mOD



FOUNDATION INSPECTION PIT RECORD

REPORT NUMBER

25000-1

CONTRACT: NDFA Social Housing Bundles 4/5 - Lot 1 – Stanley Street

LOCATION: FP11 (at TP11)

LOGGED BY: I.Reder

Date of survey: 21/11/2023

TRIAL PIT NO. **FP11**

SHEET Sheet 1 of 1

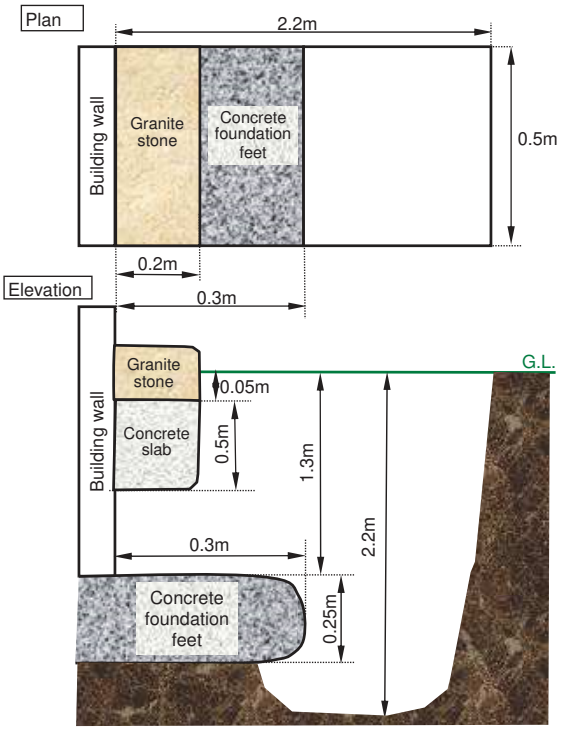
Summary of ground conditions

from	to	Description	Ground water
0.00	0.20	Reinforced CONCRETE	Dry
0.20	1.25	MADE GROUND comprised of grey slightly clayey angular Gravel and Cobbles	
1.25	1.60	MADE GROUND comprised of dark grey mottled grey sandy gravelly Clay with red brick and mortar fragments	
1.60	2.20	Soft brown slightly sandy gravelly SILT with a medium cobble content	

NOTE: See also TP11 log

LOCATION **FP11**

Location Details: E:714521.198, N:734818.766, Elev. 11.986mOD



Appendix 3

Cable Percussion Borehole Logs

SPT Calibration Sheet (Er)

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH01**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,499.00 E 734,869.00 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	13.50	**BOREHOLE DEPTH (m)**	5.00
		DATE COMMENCED	05/12/2023
		DATE COMPLETED	06/12/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		13.20	0.30						
	MADE GROUND comprised of Sand and Gravel with red brick and steel fragments		12.00	1.50	AA198277	B	1.00		N = 9 (1, 2, 2, 2, 3, 2)	
2	Firm to stiff brown sandy gravelly CLAY with occasional cobbles				AA198278	B	2.00		N = 15 (2, 3, 3, 3, 4, 5)	
3			9.90	3.60	AA198279	B	3.00		N = 31 (2, 3, 4, 6, 9, 12)	
4	Stiff to very stiff black slightly sandy gravelly CLAY with occasional cobbles		8.50	5.00	AA198280	B	4.00		N = 28 (2, 4, 4, 5, 9, 10)	
5	Obstruction End of Borehole at 5.00 m				AA198281	B	5.00		N = 50/75 mm (25, 50)	
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Borehole sited internally in shed. CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH02**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,473.99 E 734,857.08 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	13.56	**BOREHOLE DEPTH (m)**	0.70
		DATE COMMENCED	01/11/2023
		DATE COMPLETED	01/11/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Samples: Sample Type	Samples: Depth (m)	Samples: Recovery	Field Test Results	Standpipe Details
0	CONCRETE		13.26	0.30						
	MADE GROUND comprised of brown sandy gravelly Clay with cobbles and red brick fragments		13.06	0.50						
1	MADE GROUND comprised of black sandy gravelly Clay with cobbles and red brick fragments		12.86	0.70						
	Obstruction - Concrete pipe (buried service) End of Borehole at 0.70 m									
2										
3										
4										
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
0.00	0.30	2	Breaking out concrete

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CAT scanned location and hand dug inpection pit carried out. Concrete pipe encountered. Moved to BH02A and attempted rebore.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH02A**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,474.00 E 734,857.00 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	13.60	**BOREHOLE DEPTH (m)**	8.50
		DATE COMMENCED	01/11/2023
		DATE COMPLETED	03/11/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		13.30	0.30						
	MADE GROUND comprised of brown sandy gravelly Clay with cobbles and red brick fragments		13.10	0.50						
	MADE GROUND comprised of tarmacadam, red brick fragments, glass and concrete fragments		12.80	0.80						
1	MADE GROUND comprised of large red brick fragments, concrete, stone and gravel. (Possible old wall)		12.50	1.10	AA193265	B	1.00		N = 7 (1, 2, 2, 2, 1, 2)	
	MADE GROUND comprised of black sandy gravelly Clay with red brick fragments		11.60	2.00						
2	Firm grey/brown sandy gravelly CLAY with some angular cobbles				AA193266	B	2.00		N = 8 (1, 1, 2, 2, 2, 2)	
3			10.30	3.30	AA193267	B	3.00		N = 9 (2, 2, 2, 3, 2, 2)	
	Very stiff black slightly sandy slightly gravelly CLAY with cobbles and occasional boulders									
4					AA193268	B	4.00		N = 42 (4, 6, 9, 12, 10, 11)	
5					AA193269	B	5.00		N = 48 (3, 8, 9, 12, 15, 12)	
6					AA193270	B	6.00		N = 51 (5, 9, 12, 14, 13, 12)	
7					AA193271	B	7.00		N = 54 (6, 19, 12, 12, 16, 14)	
			5.60	8.00						
8	Very stiff grey brown sandy very gravelly SILT		5.10	8.50	AA193272	B	8.00		N = 68 (5, 12, 15, 21, 14, 18)	
	Obstruction End of Borehole at 8.50 m									
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
4.50	4.80	1	
6.70	6.90	0.75	
8.30	8.50	2	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
03-11-23	8.30	Nil	4.00	End of Bh

REMARKS CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH03**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,449.83 E 734,864.24 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	13.48	**BOREHOLE DEPTH (m)**	8.10
		DATE COMMENCED	26/10/2023
		DATE COMPLETED	26/10/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		13.18	0.30						
	MADE GROUND comprised of Gravel Fill		13.08	0.40						
1	MADE GROUND comprised of black sandy Clay with red brick fragments and a strong hydrocarbon odour				AA208549	B	1.00		N = 7 (1, 1, 2, 1, 2, 2)	
			11.58	1.90						
2	Firm brown gravelly SILT/CLAY. Hydrocarbon odour noted (Possible Made Ground)				AA208550	B	2.00		N = 18 (2, 3, 9, 3, 3, 3)	
			10.68	2.80						
3	Medium dense black silty very sandy GRAVEL (Hydrocarbon odour)				AA208551	B	3.00		N = 23 (2, 3, 4, 6, 6, 7)	
			10.08	3.40						
4	Very stiff black slightly sandy gravelly CLAY with some cobbles and occasional small boulders				AA208552	B	4.00		N = 40 (3, 5, 10, 9, 10, 11)	
5					AA208553	B	5.00		N = 41 (4, 6, 9, 10, 10, 12)	
6					AA208554	B	6.00		N = 45 (4, 12, 11, 10, 10, 14)	
7					AA208555	B	7.00		N = 62 (5, 10, 12, 14, 16, 20)	
8			5.38	8.10	AA208556	B	8.00		N = 50/75 mm (50, 20, 50)	
	Obstruction End of Borehole at 8.10 m									
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
5.70	8.90	1.25	
6.40	6.60	1	
8.00	8.10	2	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
26-10-23	8.10	Nil	2.00	End of BH

REMARKS CAT scanned location and hand dug inpection pit carried out. Strong hydrocarbon odour noted 0.50-2.80m.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH04**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,445.44 E 734,844.69 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	13.36	**BOREHOLE DEPTH (m)**	8.00
		DATE COMMENCED	27/10/2023
		DATE COMPLETED	31/10/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		13.16	0.20						
	MADE GROUND comprised of Gravel Fill		13.06	0.30						
1	MADE GROUND comprised of black sandy Clay with red brick fragments				AA208557	B	1.00		N = 7 (1, 1, 2, 1, 2, 2)	
			11.56	1.80						
2	Soft to firm black sandy gravelly CLAY. Gravel is fine.				AA208558	B	2.00		N = 5 (2, 1, 2, 1, 1, 1)	
3					AA208559	B	3.00		N = 13 (2, 3, 4, 3, 3, 3)	
			9.96	3.40						
4	Very stiff black slightly sandy gravelly CLAY with some cobbles and occasional small boulders				AA208560	B	4.00		N = 32 (2, 3, 4, 9, 7, 12)	
5					AA208561	B	5.00		N = 57 (4, 9, 12, 16, 14, 15)	
6					AA208562	B	6.00		N = 56 (5, 15, 12, 18, 12, 14)	
7					AA208563	B	7.00		N = 51 (4, 17, 10, 10, 17, 14)	
			5.36	8.00						
8	Obstruction End of Borehole at 8.00 m				AA208564	B	8.00		N = 50/75 mm (15, 10, 50)	
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
5.50	6.00	1.5	
7.80	8.00	1.5	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.50	5.50	6.00	5.00	20	Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
31-10-23	8.00	Nil	5.00	End of BH

REMARKS CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH05**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,421.20 E 734,864.75 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	13.43	**BOREHOLE DEPTH (m)**	8.30
		DATE COMMENCED	24/10/2023
		DATE COMPLETED	25/10/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		13.23	0.20						
	MADE GROUND comprised of Gravel Fill		13.18	0.25						
	MADE GROUND comprised of black sandy gravelly Clay material with red brick fragments		12.53	0.90						
1	Firm brown/black sandy slightly gravelly SILT/CLAY. Gravel is fine.				AA208541	B	1.00		N = 16 (2, 4, 4, 4, 4, 4)	
2					AA208542	B	2.00		N = 18 (2, 3, 5, 4, 5, 4)	
			10.63	2.80						
3	Very stiff black slightly sandy gravelly CLAY with occasional cobbles and boulders				AA208543	B	3.00		N = 42 (4, 5, 6, 13, 13, 10)	
4					AA208544	B	4.00		N = 45 (3, 6, 10, 12, 11, 12)	
5					AA208545	B	5.00		N = 47 (3, 4, 9, 12, 14, 12)	
6					AA208546	B	6.00		N = 55 (5, 12, 14, 12, 19, 10)	
7					AA208547	B	7.00		N = 42 (9, 9, 10, 9, 10, 13)	
8					AA208548	B	8.00		N = 50/150 mm (5, 12, 17, 33)	
			5.13	8.30						
	Obstruction End of Borehole at 8.30 m									
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
3.50	8.30	0.5	
6.30	6.40	0.75	
8.10	8.30	2	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.00	4.00	5.10	3.50	20	Slow

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
25-10-23	8.30	Nil	2.00	End of BH

REMARKS CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH06**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,414.24 E 734,837.48 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	13.56	**BOREHOLE DEPTH (m)**	8.60
		DATE COMMENCED	06/11/2023
		DATE COMPLETED	07/11/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		13.36	0.20						
	MADE GROUND comprised of tarmacadam and red brick fragments		13.06	0.50						
1	MADE GROUND comprised of black Clay with timber and red bricks)		12.26	1.30	AA193273	B	1.00		N = 7 (1, 2, 2, 1, 2, 2)	
2	Firm brown sandy gravelly CLAY with occasional cobbles				AA193274	B	2.00		N = 10 (2, 3, 2, 2, 3, 3)	
3			10.06	3.50	AA193275	B	3.00		N = 6 (2, 1, 1, 2, 2, 1)	
4	Stiff brown slightly sandy slightly gravelly CLAY with some subangular cobbles				AA193276	B	4.00		N = 19 (2, 3, 5, 4, 5, 5)	
5					AA193277	B	5.00		N = 20 (2, 3, 3, 4, 6, 7)	
6	Very stiff black slightly sandy slightly gravelly CLAY with cobbles		7.76	5.80	AA193278	B	6.00		N = 40 (3, 5, 9, 12, 10, 9)	
7					AA193279	B	7.00		N = 52 (4, 11, 12, 14, 15, 11)	
8					AA193280	B	8.00		N = 65 (5, 12, 19, 22, 10, 14)	
			4.96	8.60					N = 50/75 mm (25, 50)	
9	Obstruction End of Borehole at 8.60 m									

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
7.30	7.50	1.25	
8.40	8.60	1.75	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
07-11-23	8.00	Nil	5.00	End of BH

REMARKS CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH07**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,423.07 E 734,812.50 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	13.48	**BOREHOLE DEPTH (m)**	7.40
		DATE COMMENCED	09/11/2023
		DATE COMPLETED	10/11/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		13.18	0.30						
1	Soft to firm brown slightly gravelly SILT/CLAY. Gravel is fine.		11.48	2.00	AA193286	B	1.00		N = 23 (2, 3, 4, 4, 9, 6)	
2	Loose to medium dense grey brown sandy silty GRAVEL		11.18	2.30	AA193287	B	2.00		N = 10 (2, 2, 3, 3, 2, 2)	
3	Soft black gravelly SILT/CLAY (Strong hydrocarbon odour)		9.78	3.70	AA193288	B	3.00		N = 7 (1, 2, 2, 1, 2, 2)	
4	Firm grey slightly sandy slightly gravelly CLAY with some cobbles				AA193289	B	4.00		N = 16 (2, 3, 4, 4, 4, 4)	
5					AA193290	B	5.00		N = 14 (3, 4, 4, 3, 3, 4)	
6	Very stiff grey slightly sandy slightly gravelly CLAY with cobbles		7.68	5.80	AA193291	B	6.00		N = 41 (3, 5, 9, 12, 10, 10)	
7					AA193292	B	7.00		N = 50/225 mm (4, 8, 14, 19, 17)	
8	Obstruction End of Borehole at 7.40 m		6.08	7.40						
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
7.30	7.40	1.5	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS Standing 6hrs on vehicles to be moved. CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH08**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,440.74 E 734,824.81 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	13.26	**BOREHOLE DEPTH (m)**	5.90
		DATE COMMENCED	08/11/2023
		DATE COMPLETED	08/11/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		13.01	0.25						
	MADE GROUND comprised of black gravelly Clay. Gravel is angular.				AA193281	B	1.00		N = 13 (1, 2, 3, 3, 4, 3)	
1			11.76	1.50						
	Soft to firm black sandy gravelly CLAY				AA193282	B	2.00		N = 9 (1, 1, 2, 3, 2, 2)	
2										
					AA193283	B	3.00		N = 12 (2, 3, 3, 3, 3, 3)	
3			9.96	3.30						
	Very stiff black slightly sandy slightly gravelly CLAY with some subangular cobbles				AA193284	B	4.00		N = 56 (4, 9, 12, 16, 14, 14)	
4										
					AA193285	B	5.00		N = 62 (5, 19, 17, 12, 15, 18)	
5									N = 50/75 mm (25, 50)	
			7.36	5.90						
6	Obstruction End of Borehole at 5.90 m									
7										
8										
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
4.30	4.50	0.75	
5.70	5.90	1.5	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH09**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,419.40 E 734,798.95 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	13.49	**BOREHOLE DEPTH (m)**	8.00
		DATE COMMENCED	13/11/2023
		DATE COMPLETED	15/11/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		13.19	0.30						
	MADE GROUND comprised of black sandy gravelly Clay with Cl.804-type angular stone Fill				AA193293	B	1.00		N = 11 (2, 2, 3, 2, 3, 3)	
1										
					AA193294	B	2.00		N = 11 (2, 2, 3, 2, 3, 3)	
2			10.69	2.80						
	Dense grey clayey/silty very sandy GRAVEL				AA193295	B	3.00		N = 29 (3, 4, 9, 7, 6, 7)	
3										
					AA193296	B	4.00		N = 41 (3, 6, 10, 12, 9, 10)	
4			9.19	4.30						
	Very stiff black slightly sandy gravelly CLAY				AA193297	B	5.00		N = 50 (4, 9, 11, 14, 16, 9)	
5										
					AA193298	B	6.00		N = 50/225 mm (3, 8, 10, 19, 21)	
6										
					AA193299	B	7.00		N = 50/150 mm (5, 18, 20, 30)	
7			5.49	8.00						
	Obstruction End of Borehole at 8.00 m				AA193300	B	8.00		N = 50/75 mm (25, 50)	
8										
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
15-11-23	8.00	Nil	3.00	End of BH

REMARKS CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH10**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,443.75 E 734,799.45 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	12.92	**BOREHOLE DEPTH (m)**	6.00
		DATE COMMENCED	20/11/2023
		DATE COMPLETED	21/11/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		12.62	0.30						
	MADE GROUND comprised of Cl.804-type angular stone Fill		11.97	0.95						
1	MADE GROUND comprised of grey/brown gravelly Clay with red brick fragments				AA191709	B	1.00		N = 9 (2, 3, 3, 2, 2, 2)	
2					AA191710	B	2.00		N = 12 (2, 2, 3, 4, 2, 3)	
			10.02	2.90						
3	Stiff to very stiff black slightly sandy slightly gravelly CLAY with some cobbles				AA191711	B	3.00		N = 16 (2, 3, 3, 4, 5, 4)	
4					AA191712	B	4.00		N = 20 (2, 5, 9, 3, 4, 4)	
5					AA191713	B	5.00		N = 33 (3, 4, 9, 7, 8, 9)	
			6.92	6.00						
6	Obstruction End of Borehole at 6.00 m				AA191714	B	6.00		N = 50/75 mm (4, 3, 50)	
7										
8										
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
5.90	6.00	1	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH11**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,462.37 E 734,817.76 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	13.04	**BOREHOLE DEPTH (m)**	1.80
		DATE COMMENCED	02/12/2023
		DATE COMPLETED	04/12/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Samples: Sample Type	Samples: Depth (m)	Samples: Recovery	Field Test Results	Standpipe Details
0	CONCRETE		12.84	0.20						
	MADE GROUND comprised of Cl.804-type angular stone Fill		12.14	0.90						
1	Firm black gravelly CLAY with occasional cobbles		11.24	1.80	AA198276	B	1.00		N = 10 (2, 2, 2, 3, 2, 3)	
2	Obstruction End of Borehole at 1.80 m									
3										
4										
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
1.70	1.80	1	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CAT scanned location and hand dug inpection pit carried out. Obstruction encountered. Relocated to BH11A and attempted rebore.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street

BOREHOLE NO. BH11A
SHEET Sheet 1 of 1

CO-ORDINATES 714,462.00 E, 734,817.00 N
GROUND LEVEL (mOD) 13.00
RIG TYPE Dando 2000
BOREHOLE DIAMETER (mm) 200
BOREHOLE DEPTH (m) 1.80
DATE COMMENCED 04/12/2023
DATE COMPLETED 04/12/2023

CLIENT NDFA
ENGINEER MORCE
SPT HAMMER REF. NO. WB1
ENERGY RATIO (%) 80.95
BORED BY WB
PROCESSED BY FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Samples: Sample Type	Samples: Depth (m)	Samples: Recovery	Field Test Results	Standpipe Details
0	CONCRETE		12.80	0.20						
	MADE GROUND comprised of Cl.804-type angular stone Fill		12.10	0.90						
1	Firm black gravelly CLAY				AA191715	B	1.50		N = 16 (4, 3, 3, 4, 4, 5)	
			11.20	1.80						
2	Obstruction End of Borehole at 1.80 m									
3										
4										
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH12**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,480.22 E 734,789.59 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	11.49	**BOREHOLE DEPTH (m)**	6.00
		DATE COMMENCED	22/11/2023
		DATE COMPLETED	27/11/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		11.24	0.25						
	MADE GROUND comprised of Cl.804-type angular stone Fill		10.69	0.80						
1	Soft brown slightly gravelly SILT/CLAY		9.99	1.50	AA189257	B	1.00		N = 10 (2, 2, 2, 3, 3, 2)	
2	Soft brown sandy gravelly CLAY with occasional cobbles				AA189258	B	2.00		N = 7 (1, 2, 1, 2, 2, 2)	
3			8.29	3.20	AA189259	B	3.00		N = 31 (3, 5, 6, 7, 9, 9)	
4	Stiff to very stiff black slightly sandy gravelly CLAY with some cobbles				AA189260	B	4.00		N = 27 (3, 4, 7, 7, 6, 7)	
5					AA189261	B	5.00		N = 55 (5, 9, 17, 14, 14, 10)	
6	Obstruction End of Borehole at 6.00 m		5.49	6.00	AA189262	B	6.00		N = 30/75 mm (25, 30)	
7										
8										
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
5.80	6.00	1.5	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH13**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,511.24 E 734,798.16 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	11.70	**BOREHOLE DEPTH (m)**	7.00
		DATE COMMENCED	27/11/2023
		DATE COMPLETED	28/11/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		11.35	0.35						
	MADE GROUND comprised of brown slightly clayey angular Gravel Fill		11.30	0.40						
1	Firm black slightly gravelly SILT/CLAY with occasional small cobbles				AA198263	B	1.00		N = 17 (3, 4, 4, 3, 5, 5)	
2					AA198264	B	2.00		N = 10 (2, 2, 3, 2, 2, 3)	
			8.70	3.00						
3	Medium dense grey brown sandy silty GRAVEL		8.50	3.20	AA198265	B	3.00		N = 13 (2, 2, 3, 3, 3, 4)	
	Firm light brown/grey gravelly SILT/CLAY		8.20	3.50						
	Firm to stiff brown sandy gravelly CLAY									
4					AA198266	B	4.00		N = 19 (2, 3, 4, 4, 5, 6)	
			6.70	5.00						
5	Very stiff black and brown slightly sandy gravelly CLAY with occasional cobbles				AA198267	B	5.00		N = 38 (3, 3, 5, 9, 12, 12)	
6					AA198268	B	6.00		N = 50 (4, 9, 11, 11, 14, 14)	
			4.70	7.00						
7	Obstruction End of Borehole at 7.00 m				AA198269	B	7.00		N = 50/75 mm (25, 50)	
8										
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
6.90	7.00	1	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
28-11-23	7.00	Nil	3.00	End of BH

REMARKS CAT scanned location and hand dug inpection pit carried out.

Sample Legend
D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

GEOTECHNICAL BORING RECORD

REPORT NUMBER 25000-1

CONTRACT	NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street	**BOREHOLE NO.**	**BH14**
		SHEET	Sheet 1 of 1
CO-ORDINATES	714,514.46 E 734,823.56 N	**RIG TYPE**	Dando 2000
		BOREHOLE DIAMETER (mm)	200
GROUND LEVEL (mOD)	11.82	**BOREHOLE DEPTH (m)**	6.20
		DATE COMMENCED	30/11/2023
		DATE COMPLETED	01/12/2023
CLIENT	NDFA	**SPT HAMMER REF. NO.**	WB1
ENGINEER	MORCE	**ENERGY RATIO (%)**	80.95
		BORED BY	WB
		PROCESSED BY	FC

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples: Ref. Number	Sample Type	Depth (m)	Recovery	Field Test Results	Standpipe Details
0	CONCRETE		11.52	0.30						
	MADE GROUND comprised of Cl.804-type angular stone Fill		10.82	1.00						
1	Soft black slightly gravelly SILT/CLAY		10.32	1.50	AA198270	B	1.00		N = 9 (1, 2, 2, 3, 2, 2)	
2	Firm grey very gravelly CLAY		9.12	2.70	AA198271	B	2.00		N = 14 (2, 3, 4, 3, 3, 4)	
3	Firm and firm to stiff brown very gravelly CLAY				AA198272	B	3.00		N = 11 (2, 2, 2, 3, 2, 4)	
4			7.52	4.30	AA198273	B	4.00		N = 25 (3, 5, 6, 6, 7, 6)	
5	Stiff to very stiff black slightly sandy slightly gravelly CLAY with occasional cobbles				AA198274	B	5.00		N = 28 (3, 4, 4, 5, 9, 10)	
6			5.62	6.20	AA198275	B	6.00		N = 50 (4, 9, 10, 12, 19, 9)	
	Obstruction End of Borehole at 6.20 m									
7										
8										
9										

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
6.00	6.20	1	

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					No water strike

GROUNDWATER PROGRESS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
01-12-23	6.20	Nil	3.50	End of BH

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS CAT scanned location and hand dug inpection pit carried out.

Sample Legend

D - Small Disturbed (tub)
B - Bulk Disturbed
LB - Large Bulk Disturbed
Env - Environmental Sample (Jar + Vial + Tub)
UT - Undisturbed 100mm Diameter Sample
P - Undisturbed Piston Sample
W - Water Sample

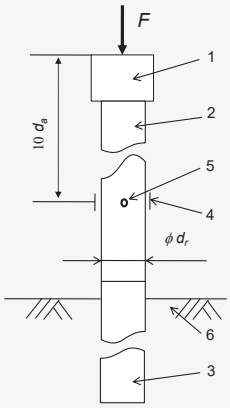
IGSL BH LOG 25000 - SITE1.GPJ IGSL.GDT 20/2/24

SPT Calibration Report

Hammer Energy Measurement Report

Type of Hammer		SPT Hammer
Test No		EQU2023_57
Client		IGSL
Test Depth (m)		9.70
Mass of hammer	m =	63.5kg
Falling height	h =	0.76m
E_{theor} =	$m \times g \times h$ =	473J

Characteristics of the instrumented rod



Key

1 Anvil
2 Part of instrumented rod
3 Drive Rod
4 Strain Gauge
5 Accelerometer
6 Ground

F Force
d_r Diameter of rod

Fig. B.1 and B.2
BS EN ISO 22476-3 : 2005 + A1 : 2011

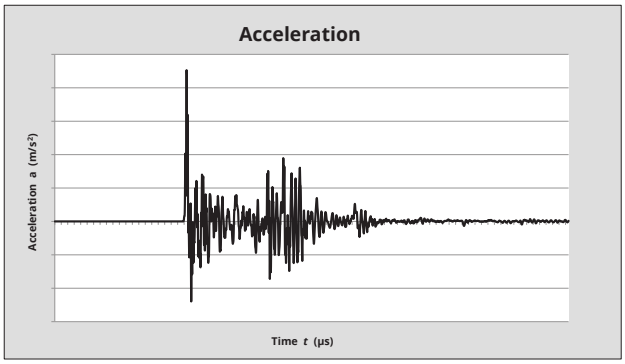
Diameter	d_r =	0.052 m
Length of instrumented rod		0.558 m
Area	A =	11.61 cm²
Modulus	E_a =	206843 MPa

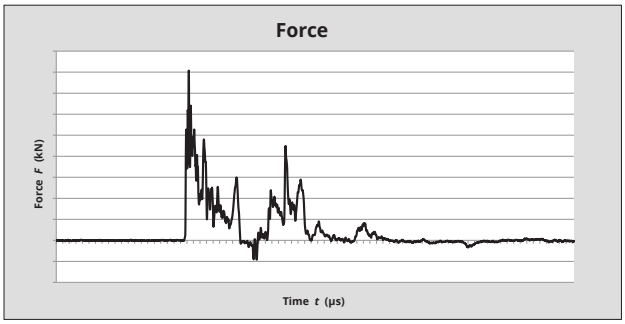
DATE OF TEST	VALID UNTIL	HAMMER ID
06/03/2023	05/03/2024	WB1

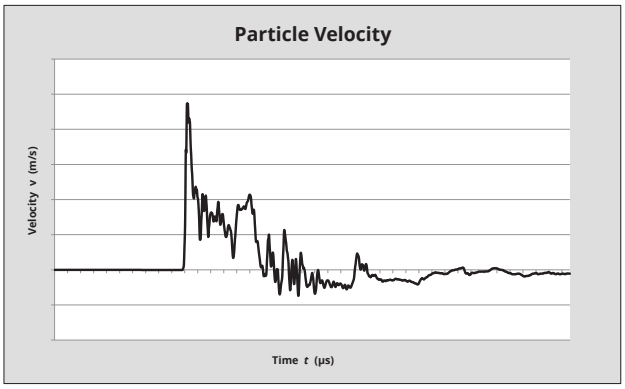
E_{meas} = **0.383** kN-m

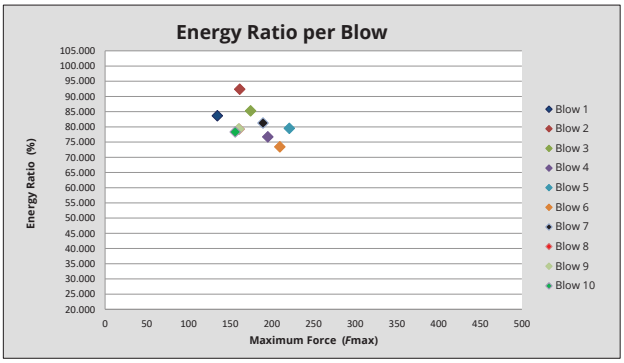
E_{theor} = **0.473** kN-m

Comments









Energy Ratio (Er) = $\frac{E_{meas}}{E_{theor}}$ **80.95%**

Equipe SPT Analyzer Operator	Certificate prepared by	Certificate checked by	Certificate date
JL			10/03/2023

 Equipe Group, The Paddocks, Home Farm Offices, The Upton Estate, Banbury, Oxfordshire, OX15 6HU
Tel: +44 (0)1295 670990 Fax: +44 (0)1295 678232 Email: info@equipegroup.com

Appendix 4

Soakaway Records

Soakaway Design f -value from field tests

IGSL

Contract:	NDFA Social Housing Bundles 4/5 - Lot 1 – Stanley Street	Contract No.	25000-1
Test No.	SA03	Easting	714421.776
Engineer	MORCE	Northing	734868.012
Date:	14/11/2023	Elevation (m OD)	13.383

Summary of ground conditions

from	to	Description	Ground water
0.00	0.17	CONCRETE	Slow water at 1.7m
0.17	0.55	MADE GROUND comprised of black sandy gravelly Clay with red brick, mortar, roots, concrete blocks, old cable and ash fill.	
0.55	0.85	Soft brown slightly sandy slightly gravelly CLAY with some roots and occasional red brick pieces (MADE GROUND)	
0.85	1.10	Soft yellowish brown slightly sandy CLAY	
1.10	1.80	Soft brown slightly sandy slightly gravelly CLAY with a low cobble content	
1.80	2.50	Firm to stiff greyish brown slightly sandy slightly gravelly CLAY with a high cobble content	

Notes: SA03 undertaken in trial pit TP03 - see TP03 log

Field Data

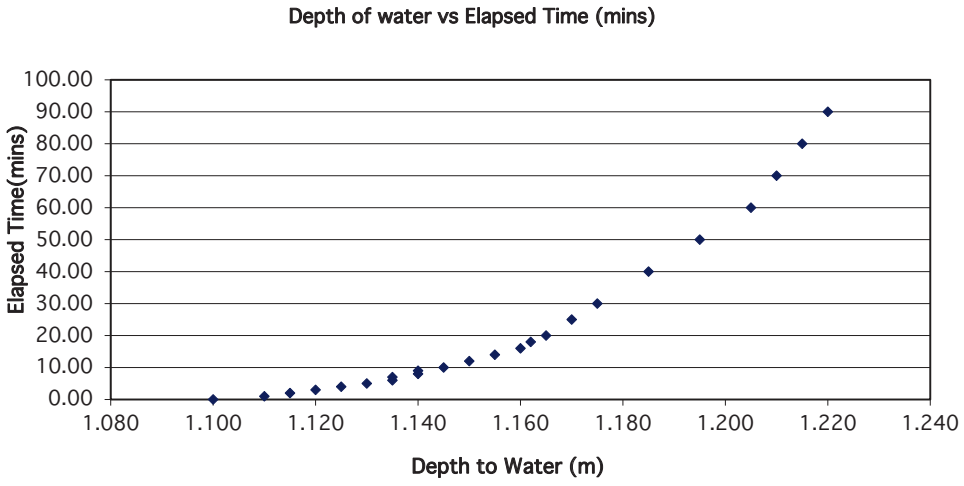
Depth to Water (m)	Elapsed Time (min)
1.100	0.00
1.110	1.00
1.115	2.00
1.120	3.00
1.125	4.00
1.130	5.00
1.135	6.00
1.135	7.00
1.140	8.00
1.140	9.00
1.145	10.00
1.150	12.00
1.155	14.00
1.160	16.00
1.162	18.00
1.165	20.00
1.170	25.00
1.175	30.00
1.185	40.00
1.195	50.00
1.205	60.00
1.210	70.00
1.215	80.00
1.220	90.00

Field Test

Depth of Pit (D)	2.50	m
Width of Pit (B)	0.50	m
Length of Pit (L)	1.60	m
Initial depth to Water =	1.10	m
Final depth to water =	1.220	m
Elapsed time (mins)=	90.00	
Top of permeable soil		m
Base of permeable soil		m
Base area=	0.8	m2
*Av. side area of permeable stratum over test period	5.628	m2
Total Exposed area =	6.428	m2

Infiltration rate (f) = Volume of water used/unit exposed area / unit time

f= 0.00017 m/min or 2.76568E-06 m/sec



Soakaway Design f -value from field tests

IGSL

Contract:	NDFA Social Housing Bundles 4/5 - Lot 1 – Stanley Street	Contract No.	25000-1
Test No.	SA11	Easting	714521.198
Engineer	MORCE	Northing	734818.766
Date:	14/11/2023	Elevation (m OD)	11.986

Summary of ground conditions

from	to	Description	Ground water
0.00	0.20	Reinforced CONCRETE	DRY
0.20	1.25	MADE GROUND comprised of grey slightly clayey angular Gravel and Cobbles	
1.25	1.60	MADE GROUND comprised of dark grey mottled grey sandy gravelly Clay with red brick and mortar fragments	
1.60	2.20	Soft brown slightly sandy gravelly SILT with a medium cobble content	

Notes: SA11 undertaken in TP11 - see TP11 log

Field Data

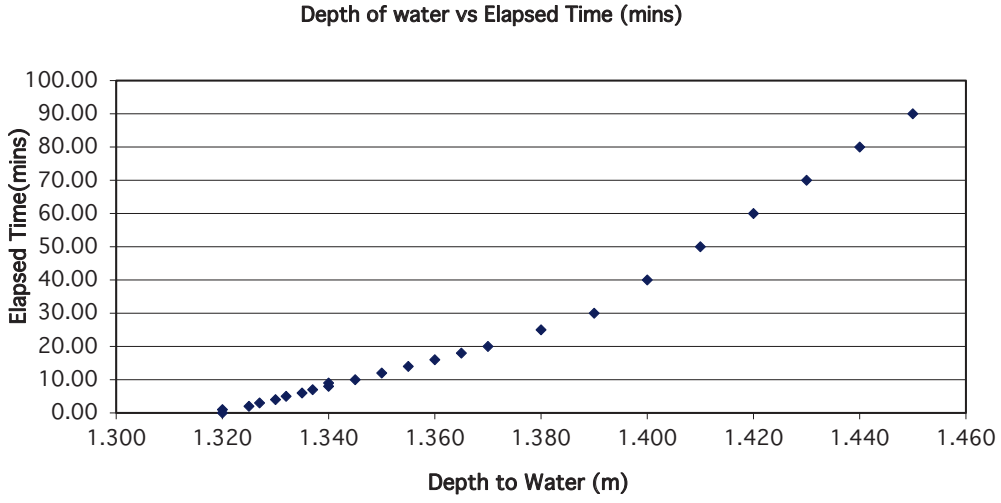
Depth to Water (m)	Elapsed Time (min)
1.320	0.00
1.320	1.00
1.325	2.00
1.327	3.00
1.330	4.00
1.332	5.00
1.335	6.00
1.337	7.00
1.340	8.00
1.340	9.00
1.345	10.00
1.350	12.00
1.355	14.00
1.360	16.00
1.365	18.00
1.370	20.00
1.380	25.00
1.390	30.00
1.400	40.00
1.410	50.00
1.420	60.00
1.430	70.00
1.440	80.00
1.450	90.00

Field Test

Depth of Pit (D)	2.20	m
Width of Pit (B)	0.50	m
Length of Pit (L)	2.00	m
Initial depth to Water =	1.32	m
Final depth to water =	1.45	m
Elapsed time (mins)=	90.00	
Top of permeable soil		m
Base of permeable soil		m
Base area=	1	m2
*Av. side area of permeable stratum over test perio	4.075	m2
Total Exposed area =	5.075	m2

Infiltration rate (f) = Volume of water used/unit exposed area / unit time

f= 0.00028 m/min or 4.74366E-06 m/sec



Appendix 5

Rotary Drillhole Logs & Core Photographs

SPT Calibration Sheet (Er)

Appendix 6

Geotechnical Laboratory Results (Soil)

IGSL Ltd
Materials Laboratory
Unit J5, M7 Business Park
Newhall, Naas
Co. Kildare
045 846176

Test Report

Determination of Moisture Content, Liquid & Plastic Limits

Tested in accordance with BS1377:Part 2:1990, clauses 3.2, 4.3, 4.4 & 5.3**

Report No. **R152717** Contract No. 2500-1 Contract Name: NDFA Social Housing - Site 1 Stanley Street , Dublin 7

Customer MORCE

Samples Received: 03/01/24 Date Tested: 03/01/24

BH/TP*	Sample No.	Depth* (m)	Lab. Ref	Sample Type*	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Preparation	Liquid Limit Clause	Classification (BS5930)	Description
BH01	AA198278	2.0	A23/5210	B	14	29	14	15	59	WS	4.4	C L	Black/grey sandy gravelly CLAY
BH01	AA198281	5.0	A23/5211	B	10	32	16	16	60	WS	4.4	C L	Grey/Black slightly sandy, gravelly, CLAY
BH02A	AA193267	3.0	A23/5212	B	14	31	18	13	55	WS	4.4	C L	Brown sandy gravelly CLAY
BH02A	AA193269	5.0	A23/5213	B	10	30	16	14	58	WS	4.4	C L	Grey/Brown slightly sandy, slightly gravelly, CLAY
BH02A	AA193272	8.0	A23/5214	B	12	28	NP	NP	12	WS	4.4		Grey/brown sandy very gravelly SILT
BH03	AA208552	4.0	A23/5216	B	14	29	16	13	59	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH03	AA208554	6.0	A23/5217	B	12	31	17	14	57	WS	4.4	C L	Grey/Brown slightly sandy, gravelly, CLAY
BH03	AA208556	8.0	A23/5218	B	11	29	17	12	54	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH04	AA208558	2.0	A23/5219	B	30	42	21	21	71	WS	4.4	C I	Brown sandy gravelly CLAY
BH04	AA208560	4.0	A23/5220	B	11	25	15	10	52	WS	4.4	C L	Grey/Brown slightly sandy, gravelly, CLAY
BH04	AA208563	7.0	A23/5221	B	14	26	13	13	57	WS	4.4	C L	Grey/Brown slightly sandy, gravelly, CLAY
BH05	AA208543	3.0	A23/5222	B	10	63	12	51	60	WS	4.4	C H	Grey/brown sandy gravelly CLAY
BH05	AA208545	5.0	A23/5223	B	12	28	13	15	52	WS	4.4	C L	Black/grey slightly sandy, slightly gravelly, CLAY
BH05	AA208547	7.0	A23/5224	B	11	29	12	17	55	WS	4.4	C L	Black/grey slightly sandy, gravelly, CLAY
BH06	AA193275	3.0	A23/5225	B	11	24	15	9	41	WS	4.4	C L	Brown sandy gravelly CLAY

Preparation: WS - Wet sieved
AR - As received
NP - Non plastic

Liquid Limit Clause: 4.3 Cone Penetrometer definitive method
4.4 Cone Penetrometer one point method

Sample Type: B - Bulk Disturbed
U - Undisturbed

Remarks:
Results relate only to the specimen tested,in as received condition unless otherwise noted.
NOTE: **These clauses have been superceded by EN 17892-1 and EN17892-12.
Opinions and interpretations are outside the scope of accreditation. * denotes Customer supplied information.

IGSL Ltd Materials Laboratory

Persons authorized to approve reports
H Byrne (Laboratory Manager)

Approved by: H Byrne

Date: 26/01/24

Page: 1 of 1

IGSL Ltd
Materials Laboratory
Unit J5, M7 Business Park
Newhall, Naas
Co. Kildare
045 846176

Test Report

Determination of Moisture Content, Liquid & Plastic Limits

Tested in accordance with BS1377:Part 2:1990, clauses 3.2, 4.3, 4.4 & 5.3**

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

Report No. **R152718** Contract No. 2500-1 Contract Name: NDFA Social Housing - Site 1 Stanley Street , Dublin 7

Customer MORCE

Samples Received: 03/01/24 Date Tested: 03/01/24

BH/TP*	Sample No.	Depth* (m)	Lab. Ref	Sample Type*	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Preparation	Liquid Limit Clause	Classification (BS5930)	Description
BH06	AA193277	5.0	A23/5226	B	12	24	13	11	58	WS	4.4	C L	Brown/grey slightly sandy, slightly gravelly, CLAY
BH06	AA193279	7.0	A23/5227	B	12	29	15	14	63	WS	4.4	C L	Grey/brown slightly sandy, slightly gravelly, CLAY
BH07	AA193287	2.0	A23/5228	B	6.8	24	NP	NP	27	WS	4.4		Grey/brown sandy silty GRAVEL
BH07	AA193289	4.0	A23/5229	B	12	30	16	14	57	WS	4.4	C L	Grey/brown slightly sandy, slightly gravelly, CLAY
BH07	AA193292	7.0	A23/5230	B	14	36	16	20	63	WS	4.4	C I	Grey/brown slightly sandy, slightly gravelly, CLAY
BH08	AA193282	2.0	A23/5231	B	12	24	15	9	43	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH08	AA193284	4.0	A23/5232	B	11	57	15	42	55	WS	4.4	C H	Grey/brown slightly sandy, slightly gravelly, CLAY
BH09	AA193297	5.0	A23/5233	B	9.7	34	17	17	49	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH09	AA193300	8.0	A23/5235	B	11	27	16	11	56	WS	4.4	C L	Grey/brown slightly sandy, gravelly, CLAY
BH10	AA191711	3.0	A23/5236	B	12	33	17	16	49	WS	4.4	C L	Brown sandy gravelly CLAY
BH10	AA191713	5.0	A23/5237	B	12	25	16	9	72	WS	4.4	C L	Grey/brown slightly sandy, slightly gravelly, CLAY
BH12	AA189258	2.0	A23/5238	B	11	31	17	14	55	WS	4.4	C L	Brown sandy gravelly CLAY
BH12	AA189260	4.0	A23/5239	B	13	28	15	13	57	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH12	AA189262	6.0	A23/5240	B	8.7	31	14	17	54	WS	4.4	C L	Grey/brown slightly sandy, gravelly, CLAY
BH13	AA198265	3.0	A23/5241	B	9.8	37	NP	NP	27	WS	4.4		Grey/brown sandy silty GRAVEL

Preparation: WS - Wet sieved
AR - As received
NP - Non plastic

Liquid Limit Clause: 4.3 Cone Penetrometer definitive method
4.4 Cone Penetrometer one point method

Sample Type: B - Bulk Disturbed
U - Undisturbed

Remarks:
Results relate only to the specimen tested,in as received condition unless otherwise noted.
NOTE: **These clauses have been superceded by EN 17892-1 and EN17892-12.
Opinions and interpretations are outside the scope of accreditation. * denotes Customer supplied information.

IGSL Ltd Materials Laboratory

Persons authorized to approve reports
H Byrne (Laboratory Manager)

Approved by: H Byrne

Date: 26/01/24

IGSL Ltd
Materials Laboratory
Unit J5, M7 Business Park
Newhall, Naas
Co. Kildare
045 846176

Test Report

Determination of Moisture Content, Liquid & Plastic Limits

Tested in accordance with BS1377:Part 2:1990, clauses 3.2, 4.3, 4.4 & 5.3**

Report No. **R152719** Contract No. 2500-1 Contract Name: NDFA Social Housing - Site 1 Stanley Street , Dublin 7

Customer MORCE

Samples Received: 03/01/24 Date Tested: 03/01/24

BH/TP*	Sample No.	Depth* (m)	Lab. Ref	Sample Type*	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Preparation	Liquid Limit Clause	Classification (BS5930)	Description
BH13	AA198267	5.0	A23/5241	B	12	29	14	15	53	WS	4.4	C L	Grey/brown sandy gravelly CLAY
BH13	AA198269	7.0	A23/5243	B	11	27	16	11	63	WS	4.4	C L	Grey/brown slightly sandy, gravelly, CLAY with many cobbles
BH14	AA198271	2.0	A23/5244	B	10	26	14	12	53	WS	4.4	C L	Brown sandy very clayey GRAVEL
BH14	AA198273	4.0	A23/5245	B	9.5	32	15	17	56	WS	4.4	C L	Brown sandy clayey GRAVEL
BH14	AA198275	6.0	A23/5246	B	11	35	15	20	60	WS	4.4	C L	Grey/brown slightly sandy, slightly gravelly, CLAY
TP03	AA204948	1.3	A23/5248	B	19	32	17	15	73	WS	4.4	C L	Brown slightly sandy, slightly gravelly, CLAY
TP04	AA204946	2.2	A23/5250	B	12	31	14	17	47	WS	4.4	C L	Brown slightly sandy, gravelly, CLAY
TP05	AA209904	1.6	A23/5251	B	26	46	23	23	60	WS	4.4	C I	Brown sandy gravelly CLAY
TP11	AA209919	1.8	A23/5254	B	17	36	NP	NP	38	WS	4.4		Brown slightly sandy, gravelly, SILT

Preparation: WS - Wet sieved
AR - As received
NP - Non plastic

Liquid Limit Clause: 4.3 Cone Penetrometer definitive method
4.4 Cone Penetrometer one point method

Sample Type: B - Bulk Disturbed
U - Undisturbed

Remarks:
Results relate only to the specimen tested,in as received condition unless otherwise noted.
NOTE: **These clauses have been superceded by EN 17892-1 and EN17892-12.
Opinions and interpretations are outside the scope of accreditation. * denotes Customer supplied information.

IGSL Ltd Materials Laboratory

Persons authorized to approve reports
H Byrne (Laboratory Manager)

Approved by | Date: 26/01/24 | Page: 1 of 1

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	91	GRAVEL
37.5	91	
28	89	
20	83	
14	80	
10	76	
6.3	71	
5	69	
3.35	63	
2	57	
1.18	52	SAND
0.6	47	
0.425	44	
0.3	42	
0.15	39	
0.063	36	SILT/CLAY
0.038	32	
0.027	29	
0.017	27	
0.010	23	
0.007	21	
0.005	18	
0.002	13	

Contract No. 25000-1 Report No. R152692
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH01
Sample No.* AA198281 Lab. Sample No. A23/5211
Sample Type: B
Depth* (m) 5.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 04/01/2024
Description: Grey/Black slightly sandy, gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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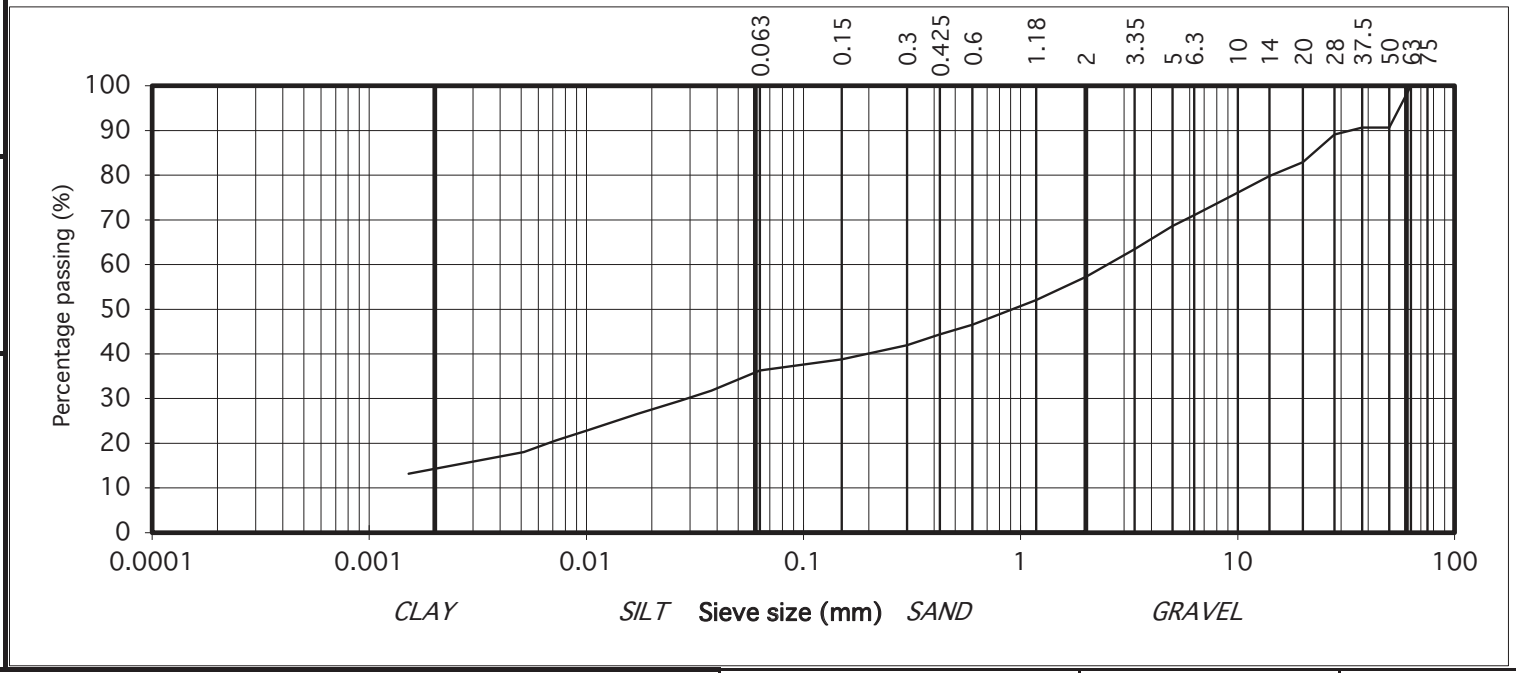

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Approved by:	Date:	Page no:
H Byrne	23/01/24	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution

Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	92	
14	89	
10	86	
6.3	81	
5	78	
3.35	72	
2	66	
1.18	62	SAND
0.6	57	
0.425	55	
0.3	52	
0.15	47	
0.063	41	SILT/CLAY
0.037	35	
0.027	31	
0.017	28	
0.010	25	
0.007	22	
0.005	19	
0.002	13	

Contract No. 25000-1 Report No. R152693
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH02A
Sample No.* AA193269 Lab. Sample No. A23/5213
Sample Type: B
Depth* (m) 5.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/Brown slightly sandy, slightly gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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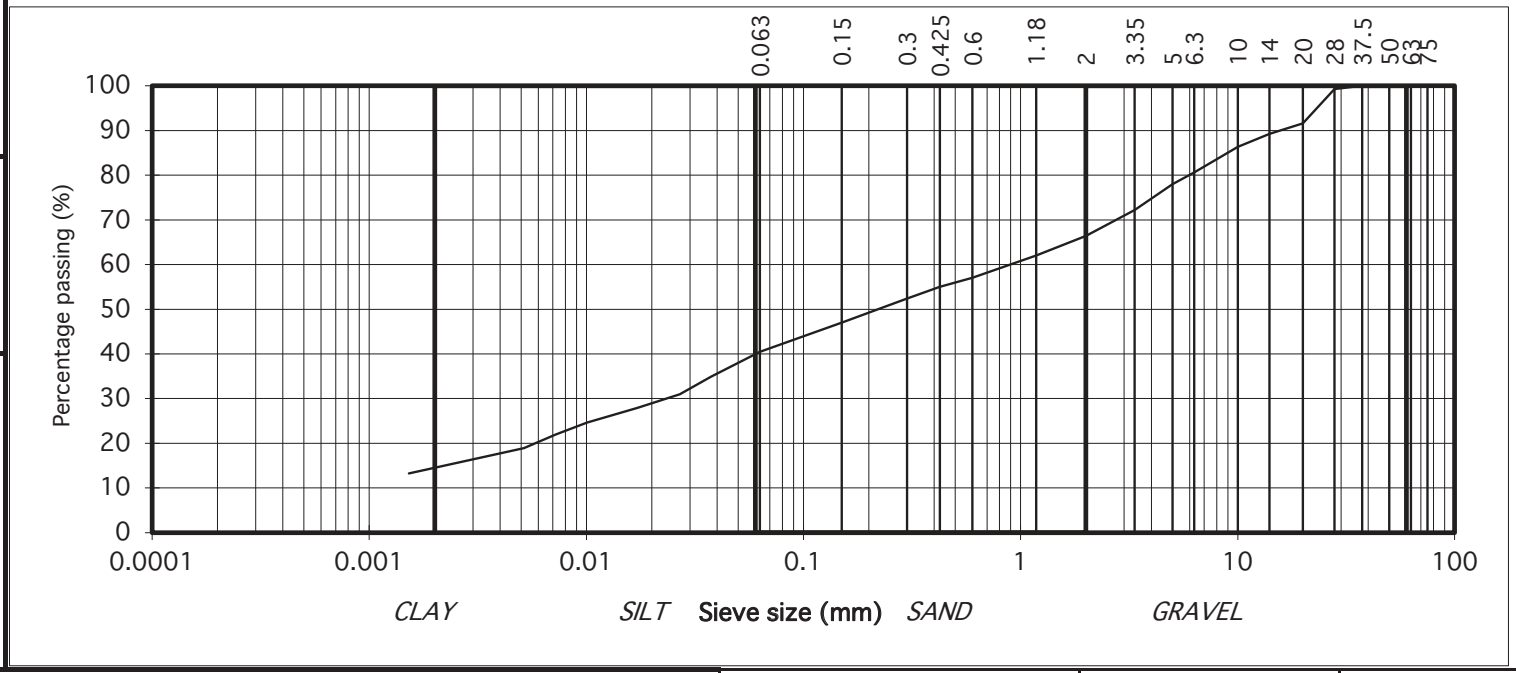

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H Byrne	23/01/24	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	91	
14	74	
10	60	
6.3	54	
5	52	
3.35	41	
2	28	
1.18	21	SAND
0.6	15	
0.425	13	
0.3	11	
0.15	10	
0.063	8	SILT/CLAY

Contract No. 25000-1 Report No. R152694
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH03
Sample No.* AA208551 Lab. Sample No. A23/5215
Sample Type: B
Depth* (m) 3.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 04/01/2024
Description: Grey/Brown clayey/silty, very sandy, GRAVEL

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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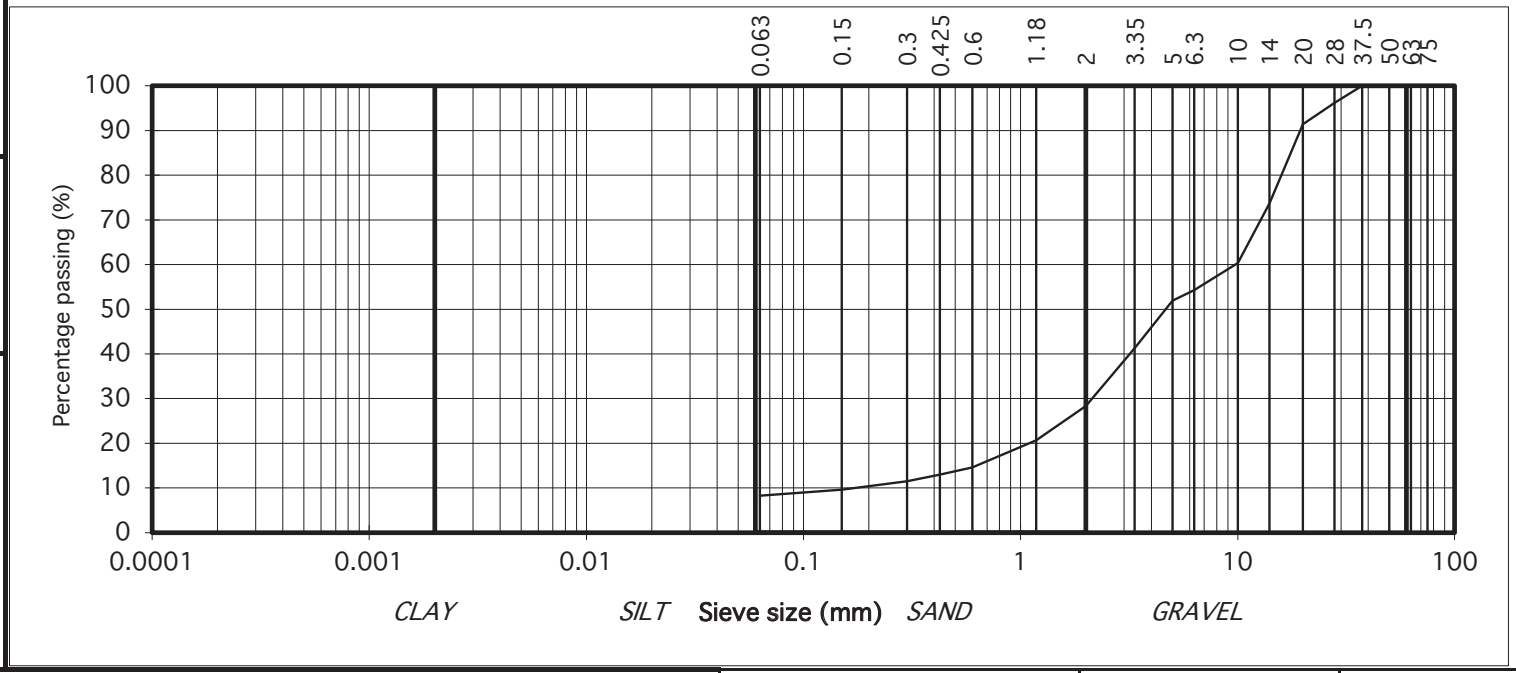

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Approved by:	Date:	Page no:
H Byrne	23/01/24	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	95	
20	86	
14	84	
10	81	
6.3	76	
5	73	
3.35	70	
2	65	
1.18	60	SAND
0.6	54	
0.425	51	
0.3	48	
0.15	43	
0.063	37	SILT/CLAY
0.037	31	
0.027	28	
0.017	25	
0.010	22	
0.007	20	
0.005	18	
0.002	13	

Contract No. 25000-1 Report No. R152695
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH03
Sample No.* AA208554 Lab. Sample No. A23/5217
Sample Type: B
Depth* (m) 6.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 04/01/2024
Description: Grey/Brown slightly sandy, gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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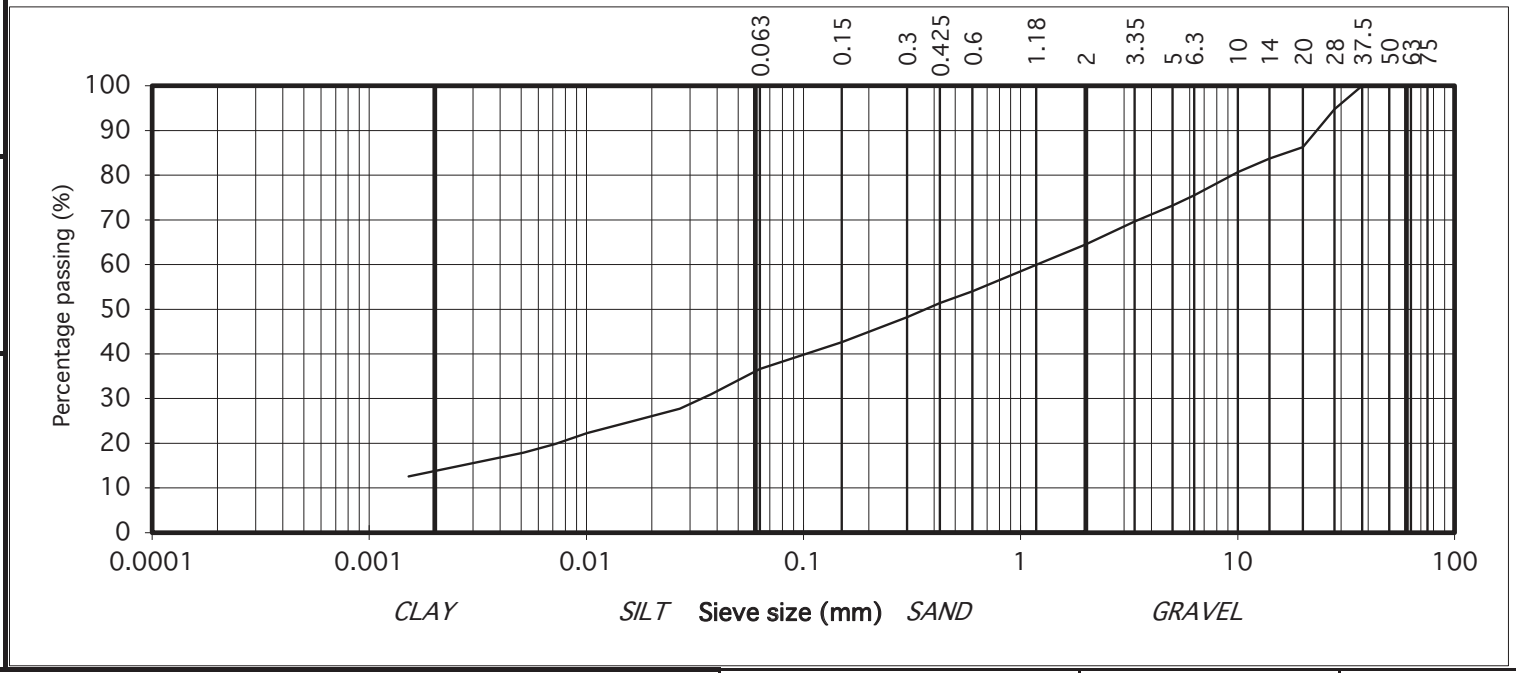

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Approved by:	Date:	Page no:
H Byrne	23/01/24	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	96	
20	92	
14	88	
10	85	
6.3	79	
5	76	
3.35	70	
2	63	
1.18	57	SAND
0.6	49	
0.425	45	
0.3	41	
0.15	36	
0.063	28	SILT/CLAY
0.038	24	
0.027	22	
0.017	20	
0.010	18	
0.007	16	
0.005	14	
0.002	11	

Contract No. 25000-1 Report No. 152696
Contract Name : NDFA Social Housing - Site 1Stanley Street , Dublin 7
BH/TP No. BH04
Sample No.* AA208560 Lab. Sample No. A23/5220
Sample Type: B
Depth* (m) 4.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/Brown slightly sandy, gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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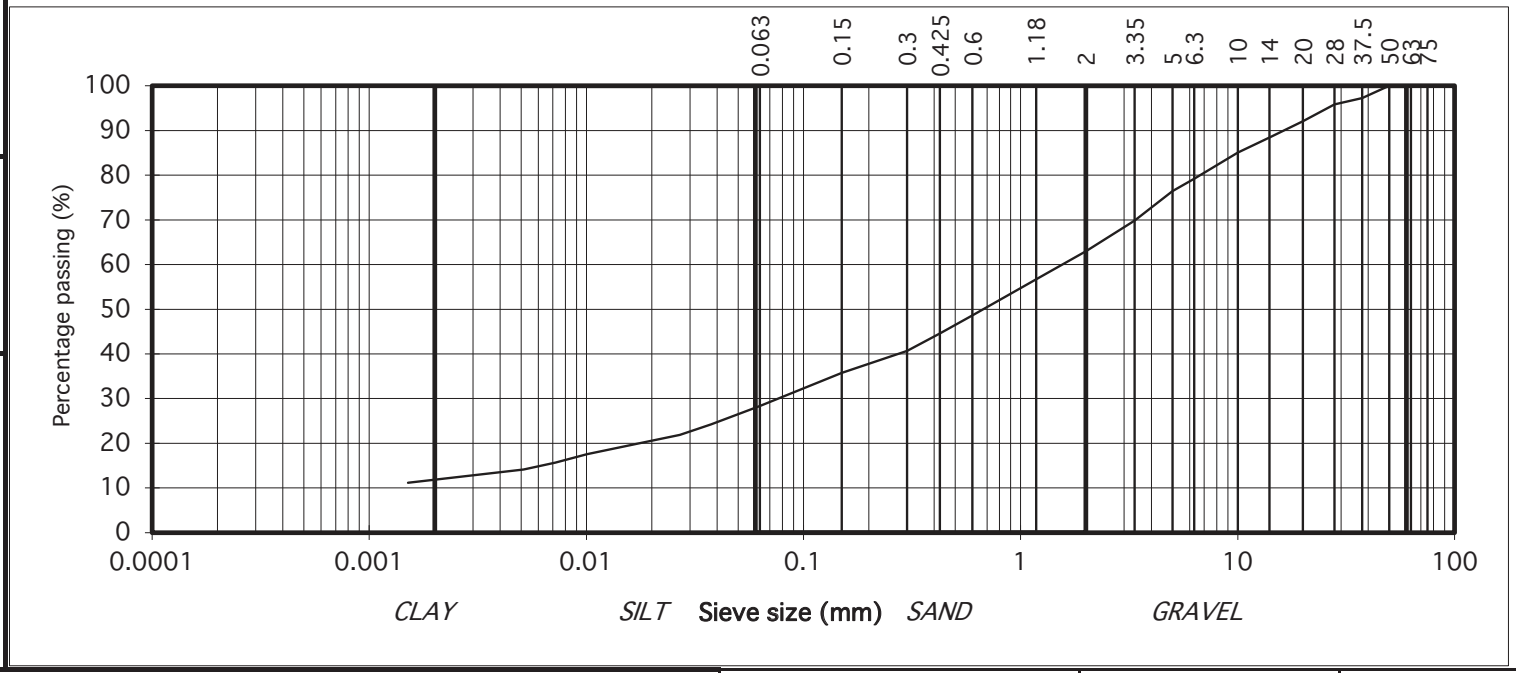

IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
H Byrne	24/01/24	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	90	
14	83	
10	79	
6.3	73	
5	71	
3.35	68	
2	63	
1.18	58	SAND
0.6	53	
0.425	50	
0.3	47	
0.15	41	
0.063	36	SILT/CLAY
0.037	31	
0.027	27	
0.017	25	
0.010	21	
0.007	17	
0.005	15	
0.002	10	

Contract No. 25000-1 Report No. R152697
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH04
Sample No.* AA208563 Lab. Sample No. A23/5221
Sample Type: B
Depth* (m) 7.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/Brown slightly sandy, gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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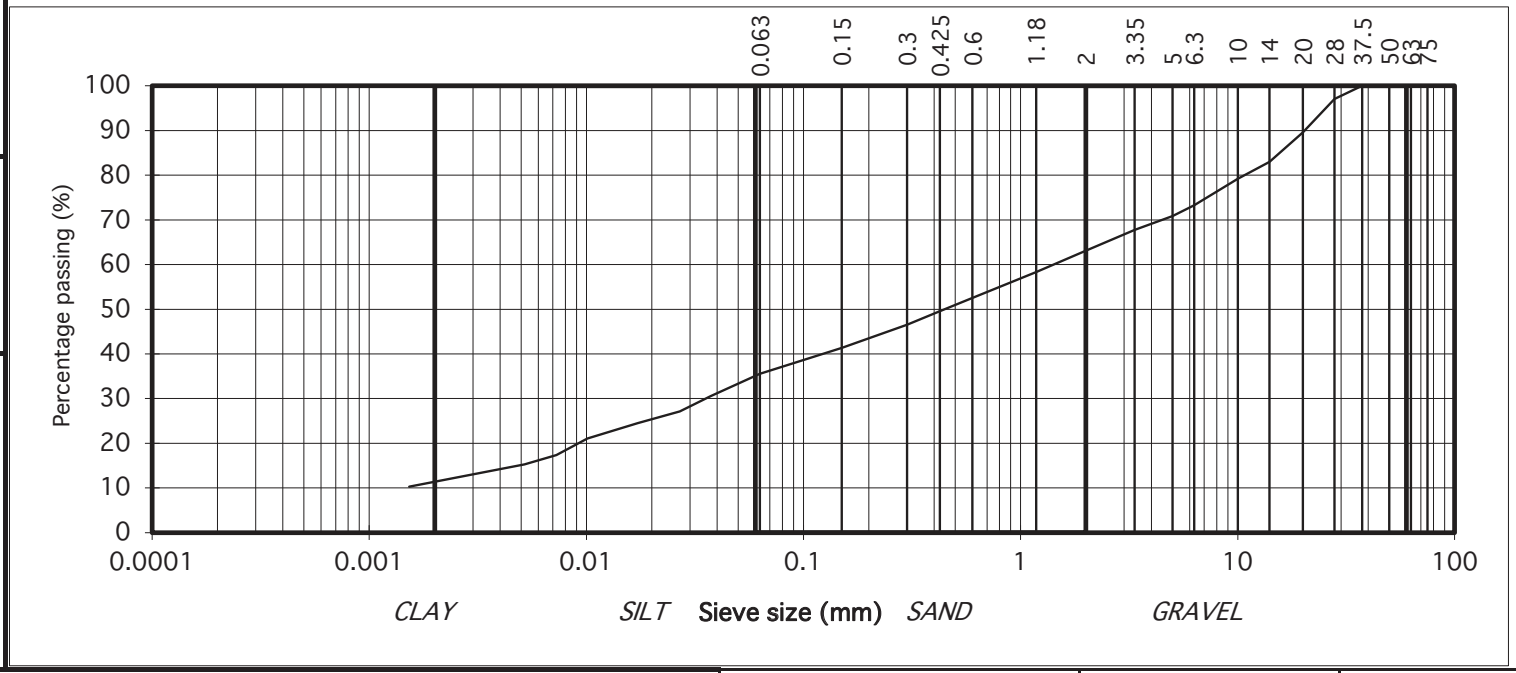

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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	98	
14	93	
10	88	
6.3	82	
5	79	
3.35	75	
2	68	
1.18	63	SAND
0.6	57	
0.425	55	
0.3	52	
0.15	47	
0.063	40	SILT/CLAY
0.038	36	
0.027	32	
0.017	28	
0.010	25	
0.007	23	
0.005	20	
0.002	14	

Contract No. 25000-1 Report No. R152698
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH05
Sample No.* AA208545 Lab. Sample No. A23/5223
Sample Type: B
Depth* (m) 5.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 04/01/2024
Description: Black/grey slightly sandy, slightly gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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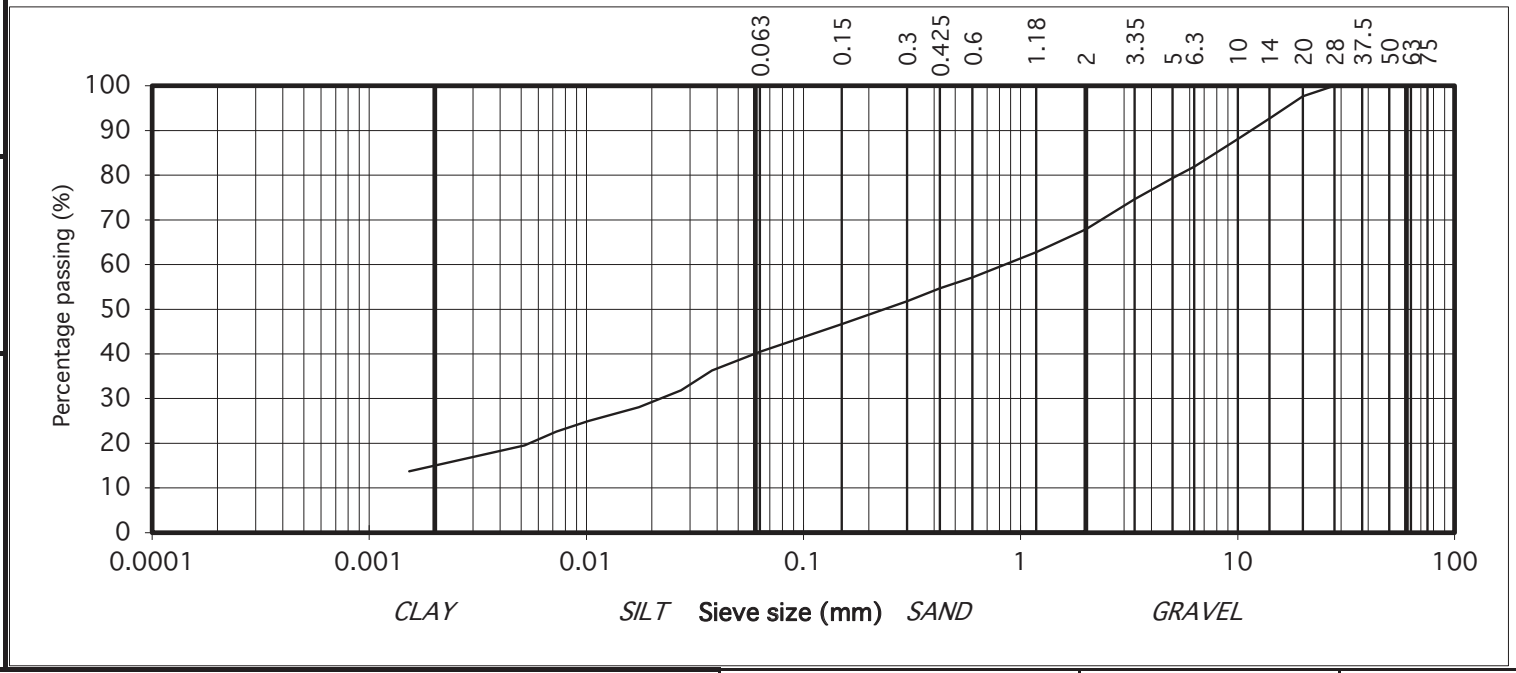

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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	95	
20	91	
14	87	
10	83	
6.3	77	
5	74	
3.35	68	
2	62	
1.18	57	SAND
0.6	51	
0.425	49	
0.3	47	
0.15	42	
0.063	37	SILT/CLAY
0.037	31	
0.027	28	
0.017	25	
0.010	22	
0.007	20	
0.005	18	
0.002	14	

Contract No. 25000-1 Report No. R152699
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH05
Sample No.* AA208547 Lab. Sample No. A23/5224
Sample Type: B
Depth* (m) 7.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 04/01/2024
Description: Black/grey slightly sandy, gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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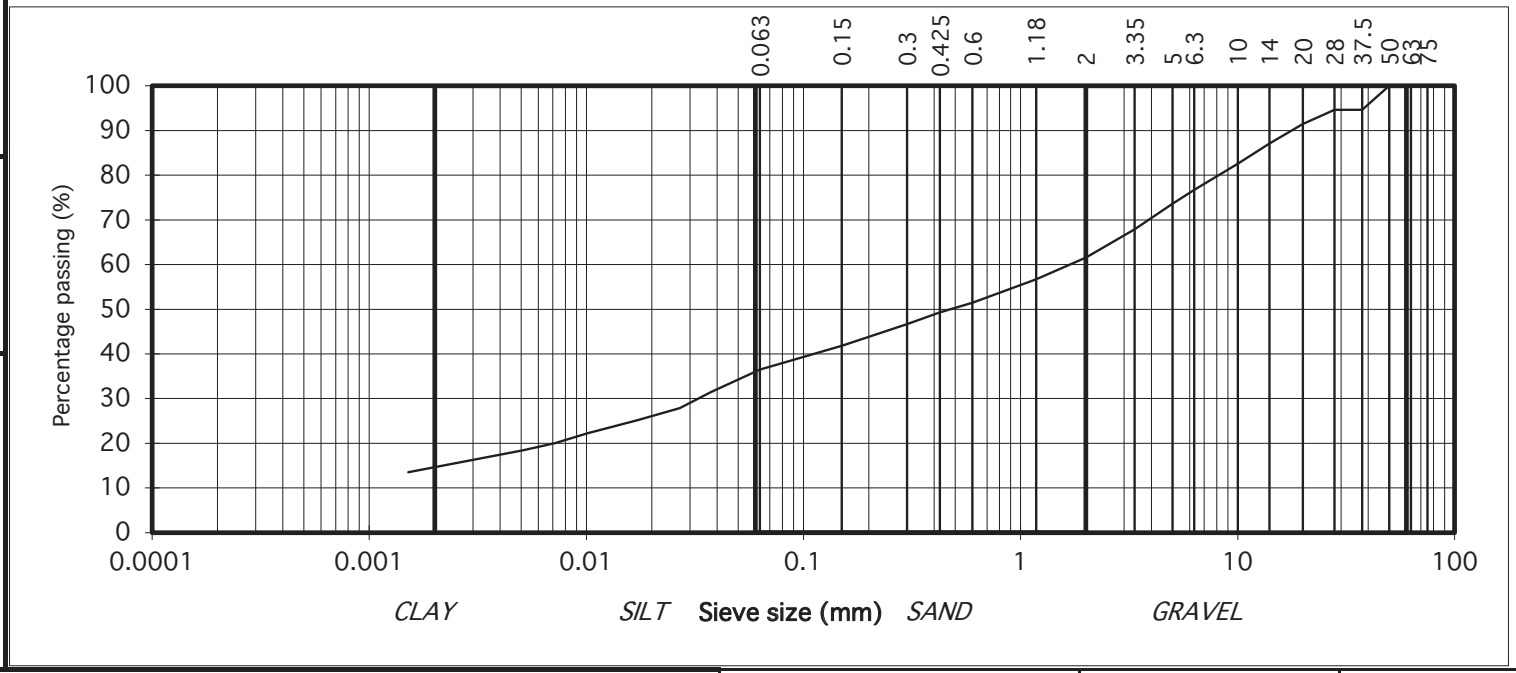

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	99	
14	94	
10	92	
6.3	88	
5	85	
3.35	82	
2	77	
1.18	71	SAND
0.6	65	
0.425	63	
0.3	59	
0.15	53	
0.063	46	SILT/CLAY
0.038	38	
0.027	33	
0.017	28	
0.010	22	
0.007	20	
0.005	17	
0.002	10	

Contract No. 25000-1 Report No. R152700
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH06
Sample No.* AA193277 Lab. Sample No. A23/5226
Sample Type: B
Depth* (m) 5.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 04/01/2024
Description: Brown/grey slightly sandy, slightly gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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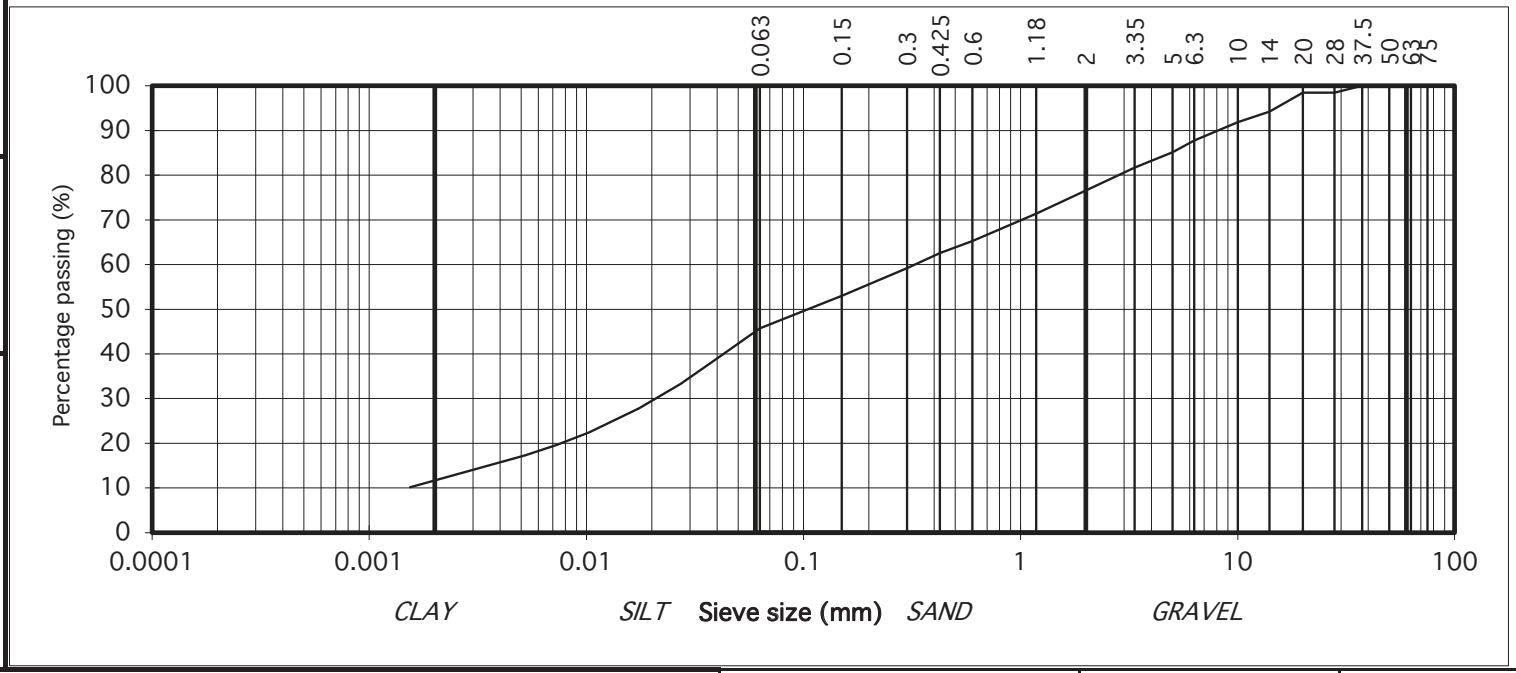

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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	98	
20	94	
14	94	
10	92	
6.3	88	
5	85	
3.35	80	
2	74	
1.18	69	SAND
0.6	63	
0.425	60	
0.3	58	
0.15	53	
0.063	46	SILT/CLAY
0.037	41	
0.027	36	
0.017	33	
0.010	28	
0.007	25	
0.005	21	
0.002	13	

Contract No. 25000-1 Report No. R152701
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH06
Sample No.* AA193279 Lab. Sample No. A23/5229
Sample Type: B
Depth* (m) 7.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/brown slightly sandy, slightly gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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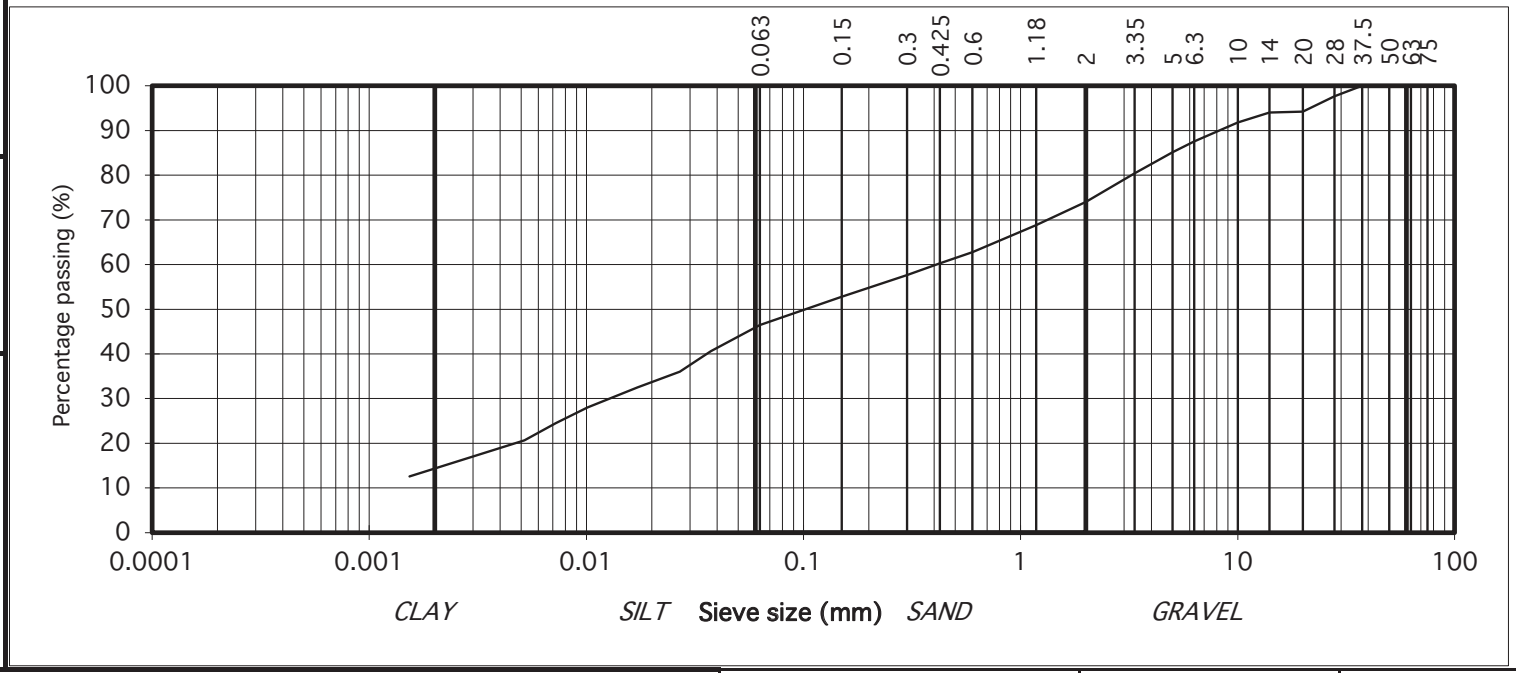

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	94	
28	91	
20	90	
14	88	
10	84	
6.3	79	
5	76	
3.35	71	
2	65	
1.18	60	SAND
0.6	54	
0.425	52	
0.3	49	
0.15	44	
0.063	39	SILT/CLAY
0.037	34	
0.027	30	
0.017	27	
0.010	23	
0.007	20	
0.005	18	
0.002	12	

Contract No. 25000-1 Report No. R152702
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH07
Sample No.* AA193289 Lab. Sample No. A23/5229
Sample Type: B
Depth* (m) 4.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/brown slightly sandy, slightly gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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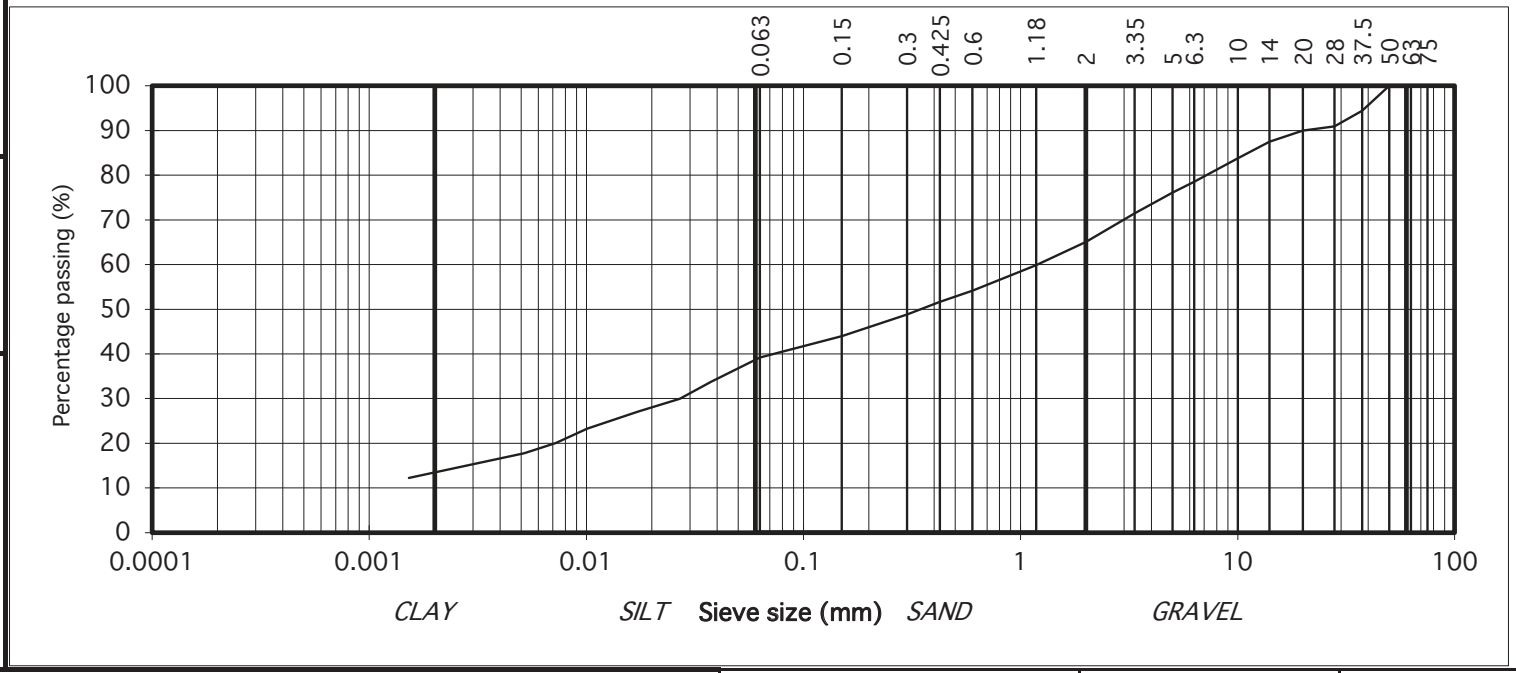

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	95	
20	92	
14	89	
10	86	
6.3	82	
5	79	
3.35	75	
2	69	
1.18	64	SAND
0.6	59	
0.425	56	
0.3	53	
0.15	48	
0.063	42	SILT/CLAY
0.037	36	
0.027	32	
0.017	29	
0.010	25	
0.007	21	
0.005	17	
0.002	11	

Contract No. 25000-1 Report No. R152703
Contract Name : NDFA Social Housing - Site 1Stanley Street , Dublin 7
BH/TP No. BH07
Sample No.* AA193292 Lab. Sample No. A23/5230
Sample Type: B
Depth* (m) 7.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/brown slightly sandy, slightly gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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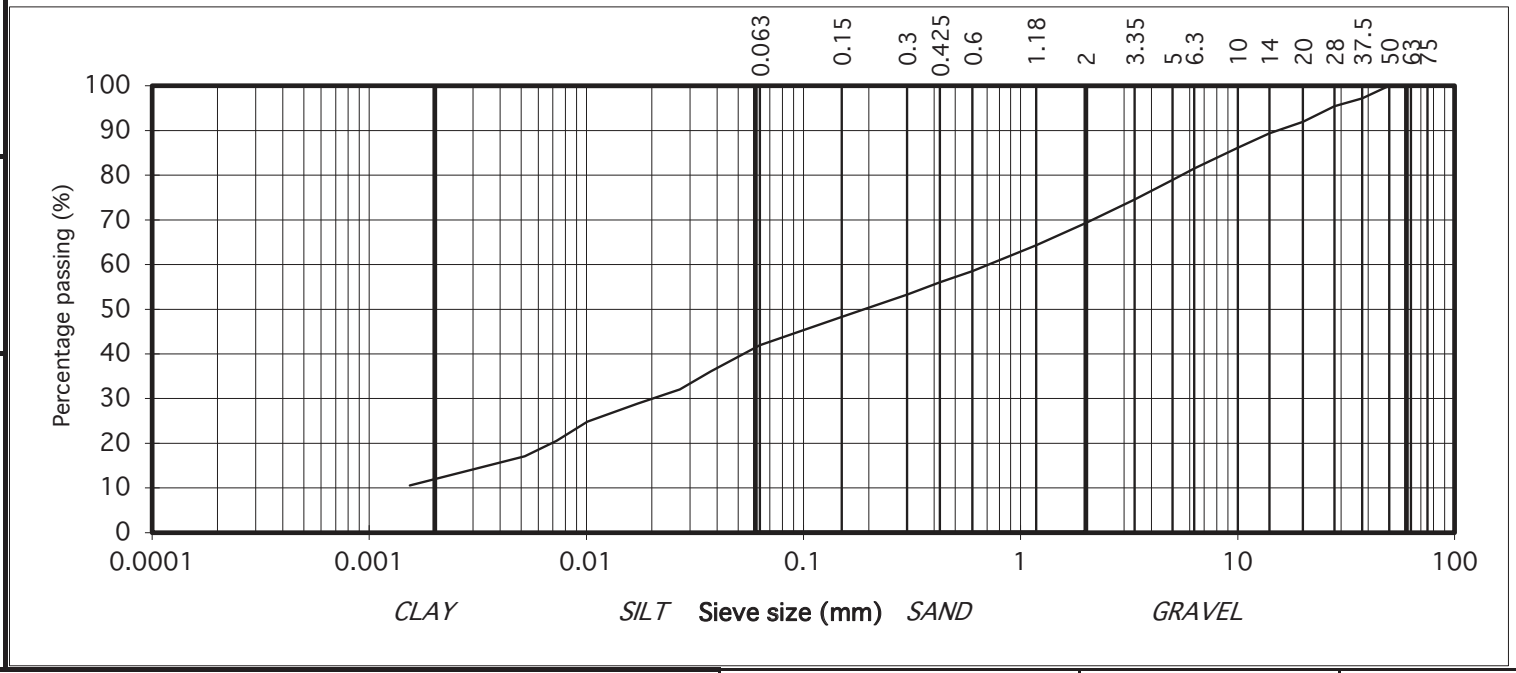

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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	100	
20	97	
14	97	
10	94	
6.3	88	
5	86	
3.35	82	
2	77	
1.18	73	SAND
0.6	66	
0.425	64	
0.3	60	
0.15	54	
0.063	46	SILT/CLAY
0.038	38	
0.027	33	
0.017	28	
0.010	24	
0.007	20	
0.005	17	
0.002	12	

Contract No. 25000-1 Report No. R152704
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH08
Sample No.* AA193284 Lab. Sample No. A23/5232
Sample Type: B
Depth* (m) 4.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/brown slightly sandy, slightly gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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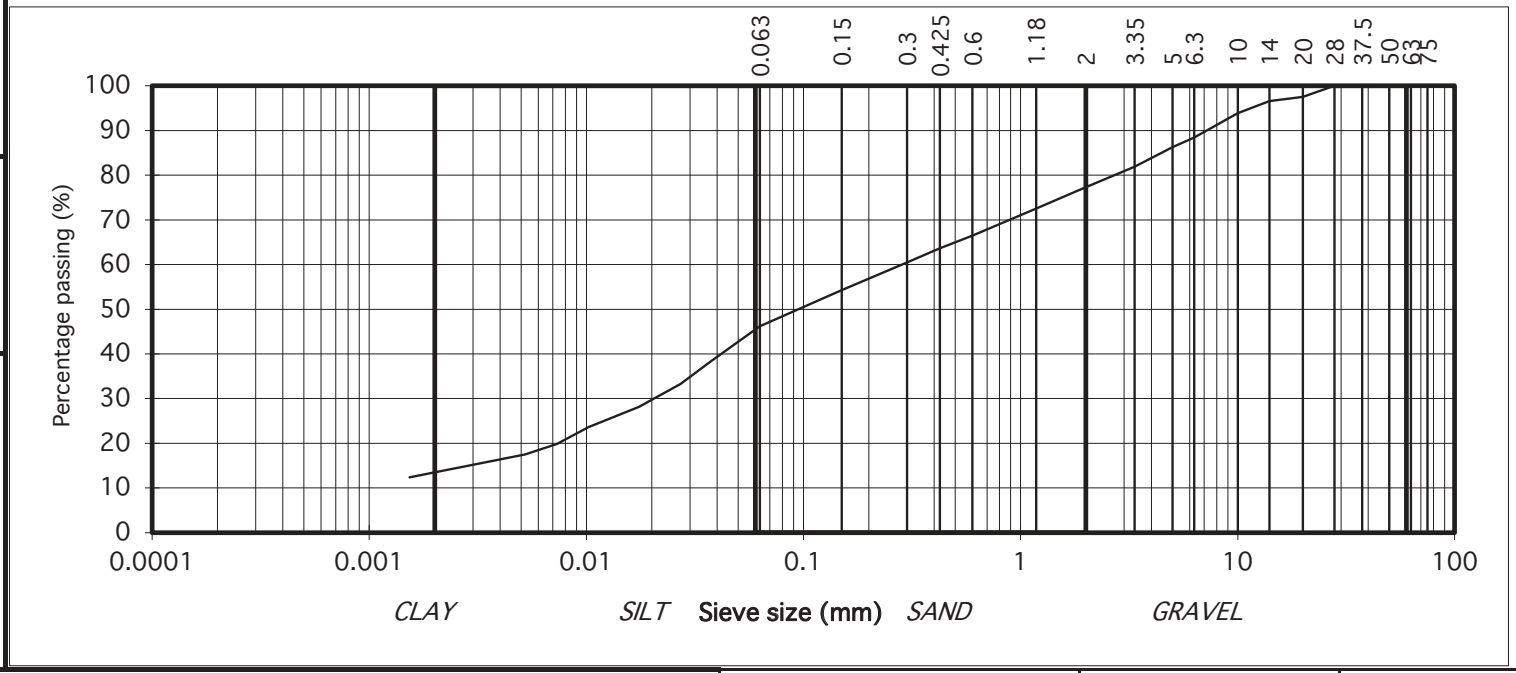

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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	99	
20	95	
14	81	
10	69	
6.3	63	
5	60	
3.35	52	
2	39	
1.18	31	SAND
0.6	23	
0.425	21	
0.3	18	
0.15	15	
0.063	10	SILT/CLAY

Contract No. 25000-1 Report No. R152705
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH09
Sample No.* AA193295 Lab. Sample No. A23/5233
Sample Type: B
Depth* (m) 3.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/brown clayey/silty, very sandy, GRAVEL

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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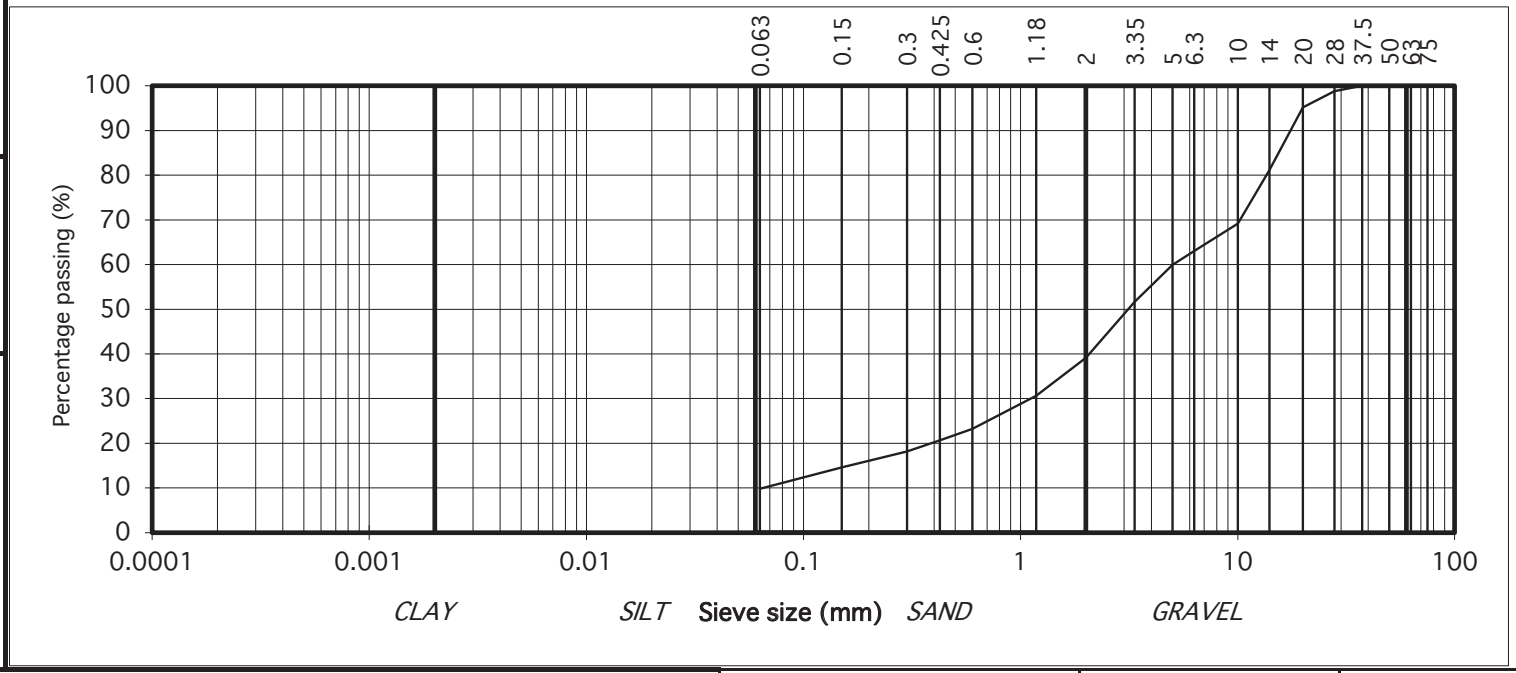

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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

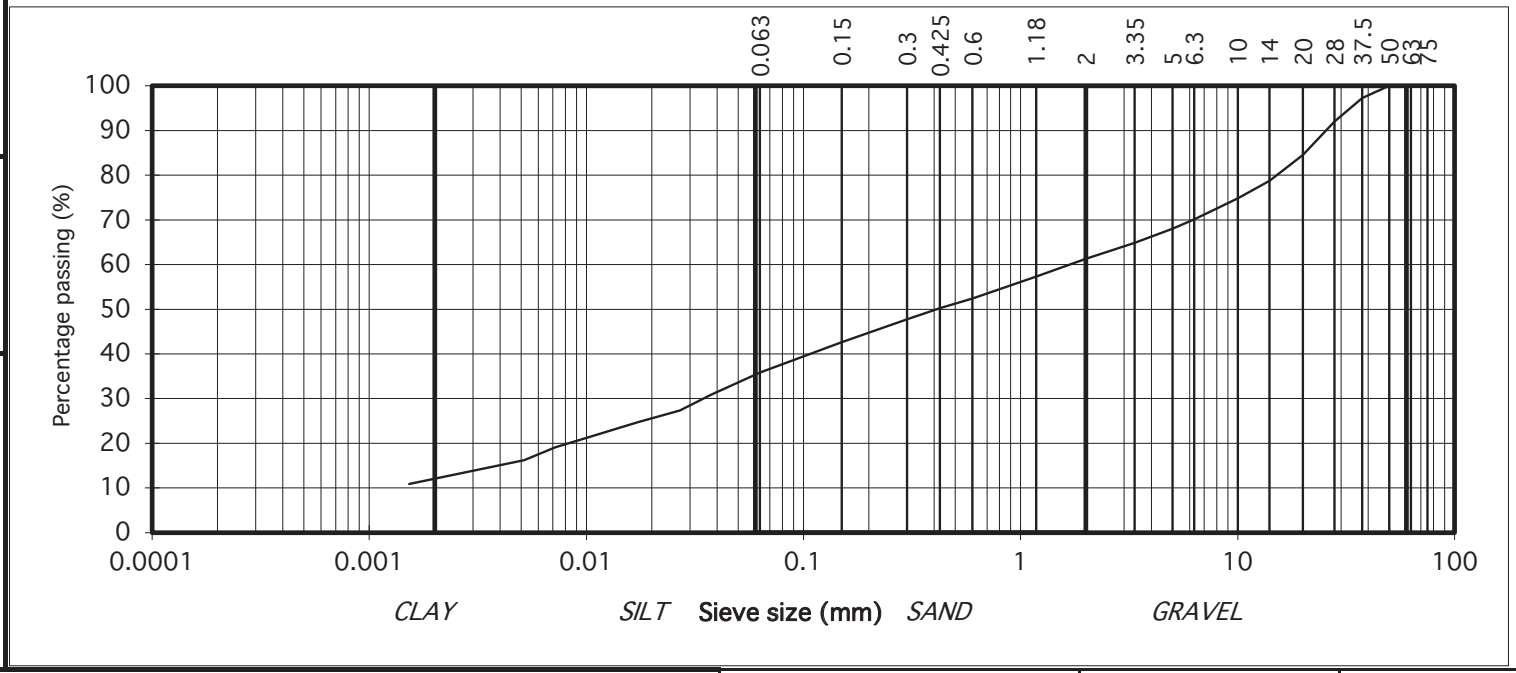
ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	97	
28	92	
20	85	
14	79	
10	75	
6.3	70	
5	68	
3.35	65	
2	61	
1.18	57	SAND
0.6	52	
0.425	50	
0.3	48	
0.15	43	
0.063	36	SILT/CLAY
0.037	31	
0.027	27	
0.017	25	
0.010	21	
0.007	19	
0.005	16	
0.002	11	

Contract No. 25000-1 Report No. R152706
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH09
Sample No.* AA193300 Lab. Sample No. A23/5235
Sample Type: B
Depth* (m) 8.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/brown slightly sandy, gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
This report shall not be reproduced except in full without the written approval of the Laboratory.



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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	98	
20	91	
14	89	
10	84	
6.3	79	
5	76	
3.35	71	
2	65	
1.18	60	SAND
0.6	55	
0.425	53	
0.3	50	
0.15	45	
0.063	38	SILT/CLAY
0.037	33	
0.027	29	
0.017	26	
0.010	23	
0.007	20	
0.005	19	
0.002	13	

Contract No. 25000-1 Report No. R152707
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH10
Sample No.* AA191713 Lab. Sample No. A23/5237
Sample Type: B
Depth* (m) 5.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/brown slightly sandy, slightly gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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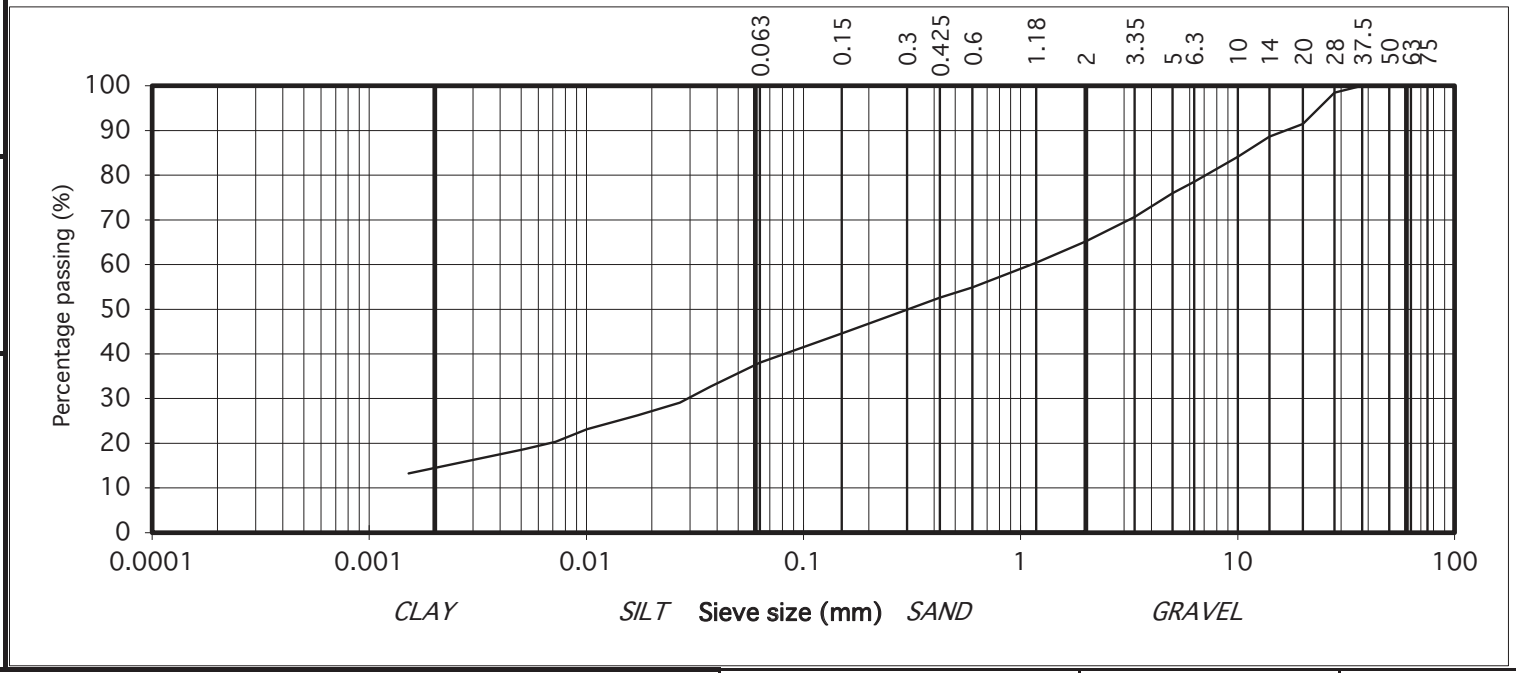

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	81	GRAVEL
37.5	72	
28	62	
20	57	
14	53	
10	49	
6.3	46	
5	45	
3.35	42	
2	40	
1.18	37	SAND
0.6	34	
0.425	32	
0.3	31	
0.15	28	
0.063	24	SILT/CLAY
0.037	20	
0.027	18	
0.017	16	
0.010	14	
0.007	13	
0.005	11	
0.002	9	

Contract No. 25000-1 Report No. R152708
Contract Name : NDFA Social Housing - Site 1Stanley Street , Dublin 7
BH/TP No. BH12
Sample No.* AA189262 Lab. Sample No. A23/5240
Sample Type: B
Depth* (m) 6.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/brown slightly sandy, gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2 Sample size did not meet the requirements of BS1377

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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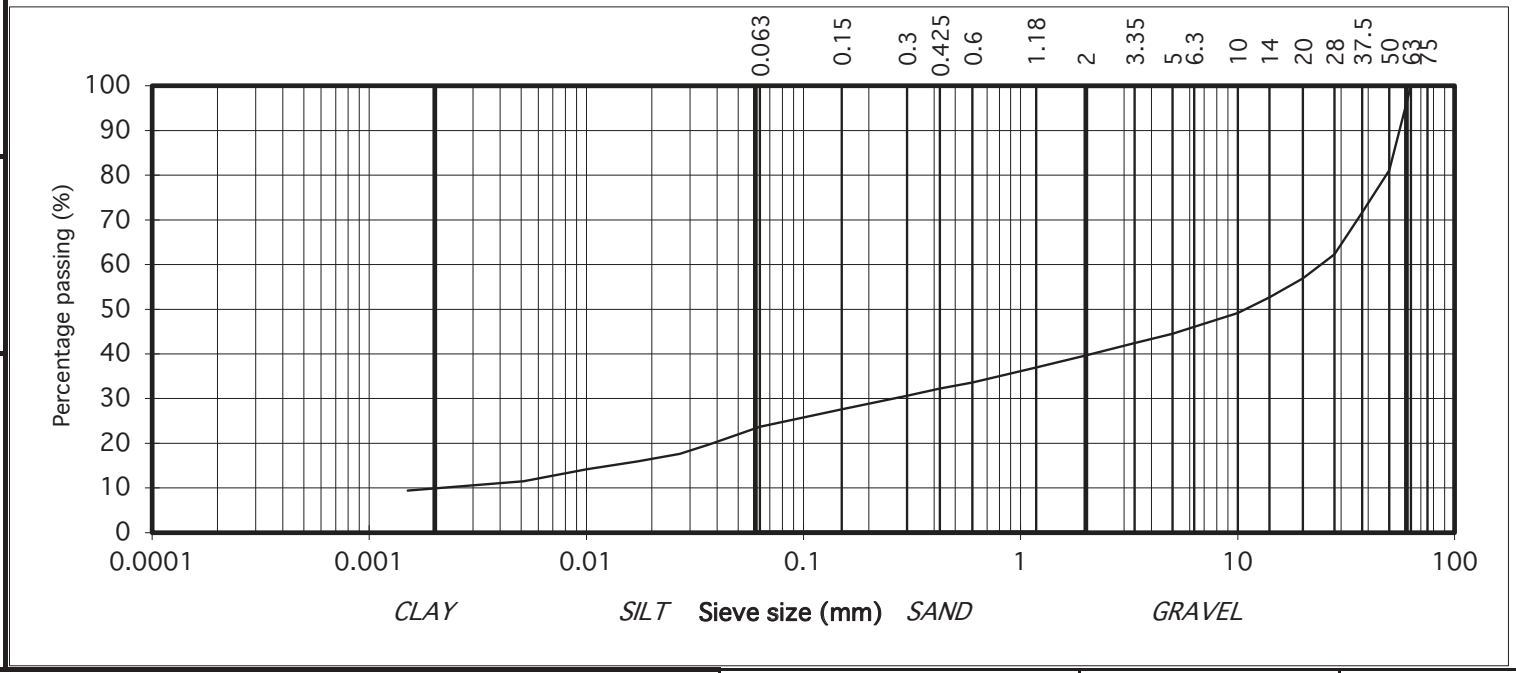

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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	83	COBBLES
63	70	
50	70	GRAVEL
37.5	67	
28	65	
20	63	
14	61	
10	59	
6.3	55	
5	53	
3.35	51	
2	47	
1.18	45	SAND
0.6	41	
0.425	40	
0.3	38	
0.15	34	
0.063	29	SILT/CLAY
0.038	26	
0.027	23	
0.017	20	
0.010	18	
0.007	16	
0.005	14	
0.002	11	

Contract No. 25000-1 Report No. R152709
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH13
Sample No.* AA198269 Lab. Sample No. A23/5243
Sample Type: B
Depth* (m) 7.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/brown slightly sandy, gravelly, CLAY with many cobbles

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2 Sample size did not meet the requirements of BS1377

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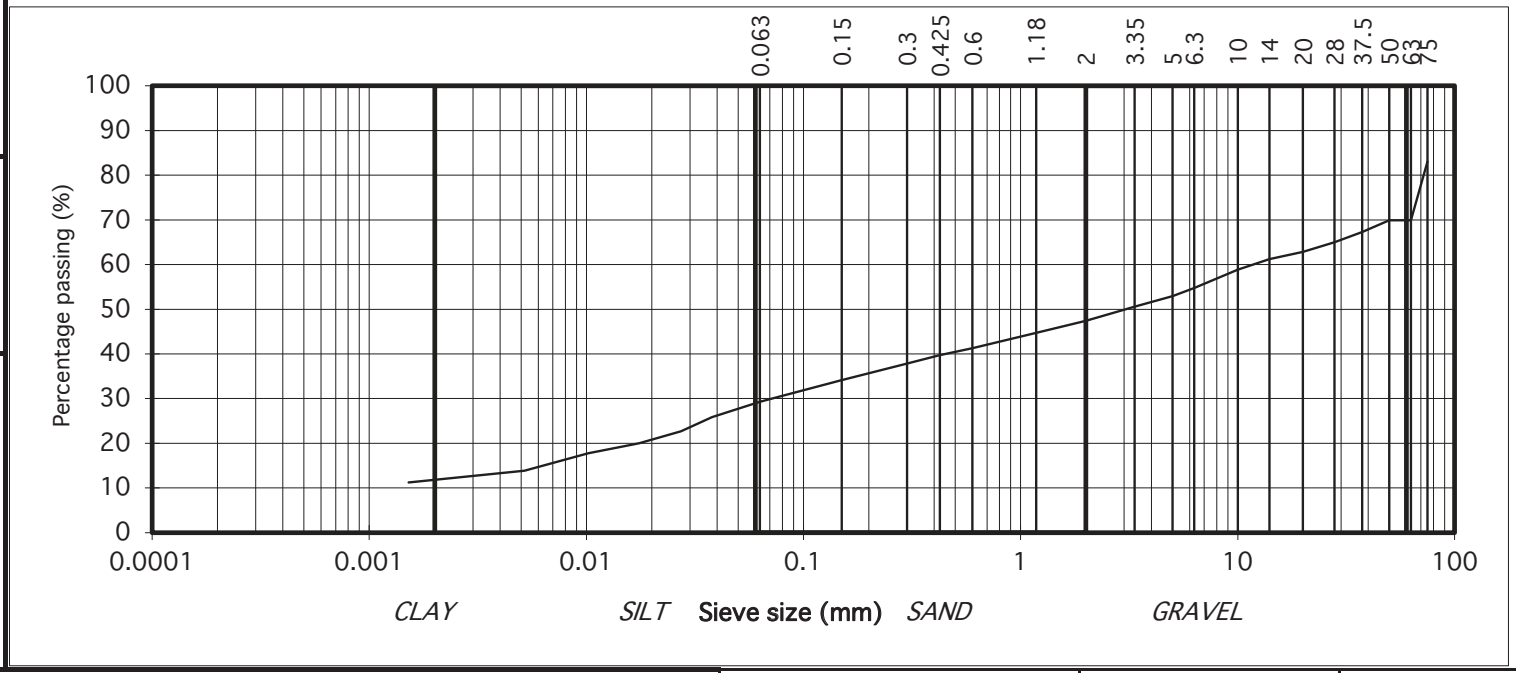

IGSL Ltd Materials Laboratory

Approved by:	Date:	Page no:
H Byrne	24/01/24	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	97	
20	92	
14	87	
10	84	
6.3	79	
5	76	
3.35	72	
2	68	
1.18	63	SAND
0.6	58	
0.425	56	
0.3	53	
0.15	47	
0.063	40	SILT/CLAY
0.037	36	
0.027	33	
0.017	29	
0.010	24	
0.007	22	
0.005	20	
0.002	14	

Contract No. 25000-1 Report No. R152710
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. BH14
Sample No.* AA198275 Lab. Sample No. A23/5246
Sample Type: B
Depth* (m) 6.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/brown slightly sandy, slightly gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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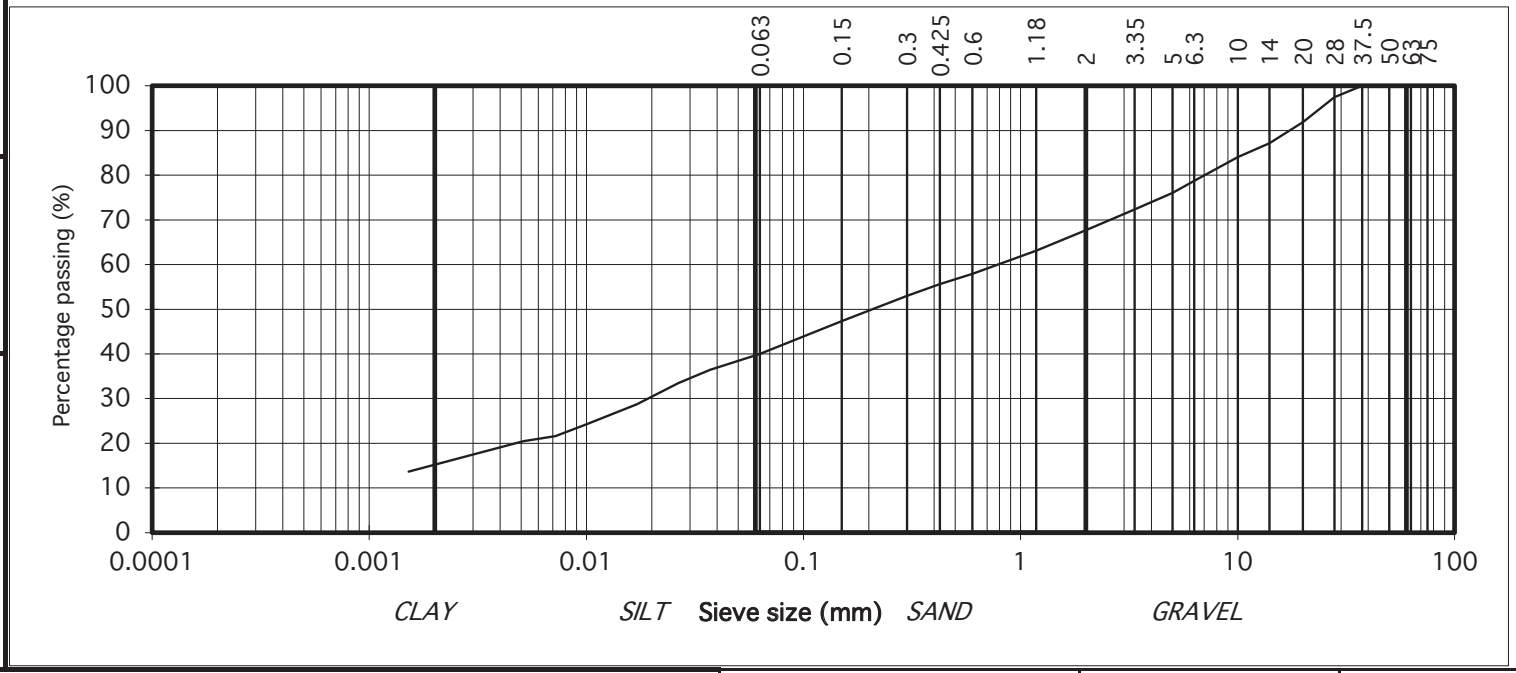

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	90	
20	82	
14	75	
10	69	
6.3	63	
5	60	
3.35	56	
2	52	
1.18	48	SAND
0.6	44	
0.425	42	
0.3	40	
0.15	36	
0.063	28	SILT/CLAY
0.037	24	
0.027	21	
0.017	19	
0.010	17	
0.007	14	
0.005	13	
0.002	9	

Contract No. 25000-1 Report No. R152711
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. TP01
Sample No.* AA209908 Lab. Sample No. A23/5247
Sample Type: B
Depth* (m) 2.30 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Grey/brown slightly sandy, gravelly, SILT/CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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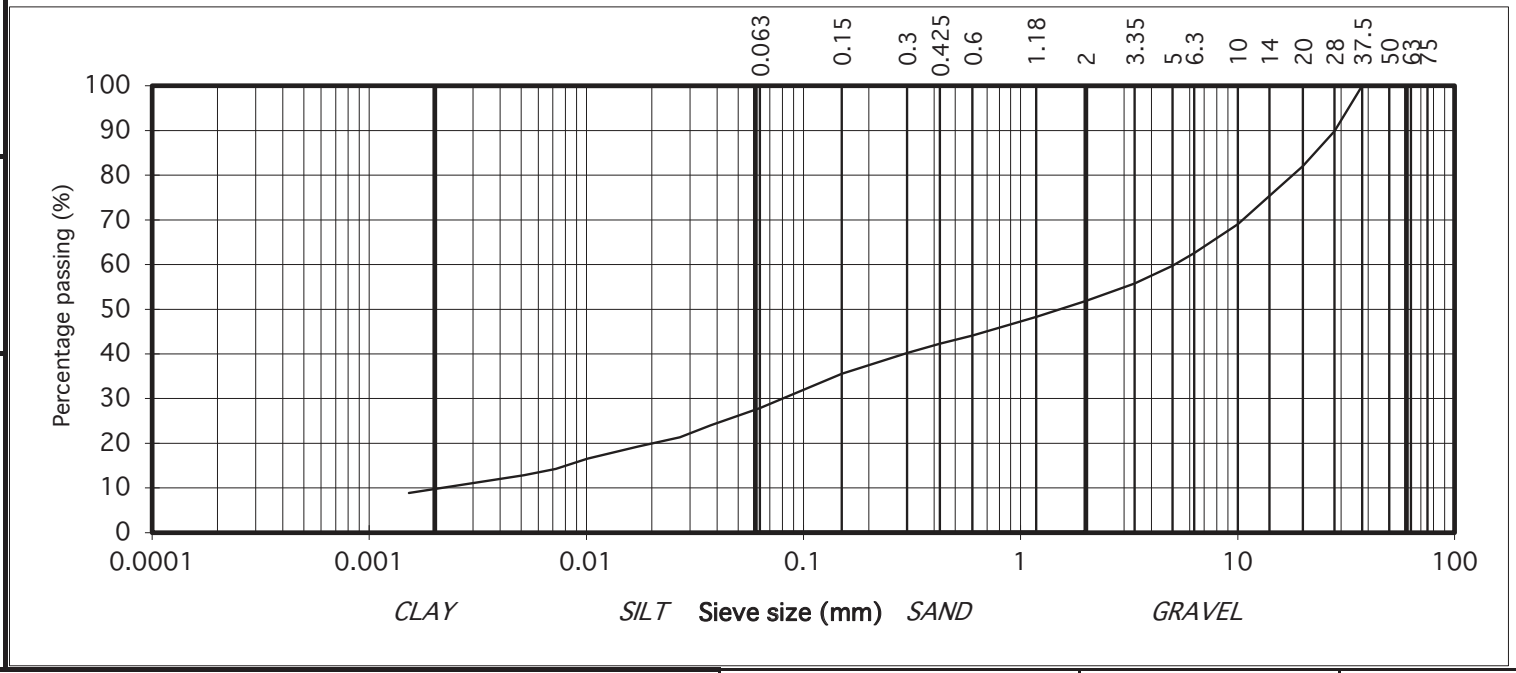

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	100	
28	96	
20	92	
14	90	
10	88	
6.3	84	
5	82	
3.35	79	
2	76	
1.18	73	SAND
0.6	70	
0.425	68	
0.3	66	
0.15	62	
0.063	57	SILT/CLAY
0.038	50	
0.027	46	
0.017	42	
0.010	37	
0.007	33	
0.005	30	
0.002	16	

Contract No. 25000-1 Report No. R152712
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. TP03
Sample No.* AA204949 Lab. Sample No. A23/5249
Sample Type: B
Depth* (m) 2.00 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Brown slightly sandy, slightly gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

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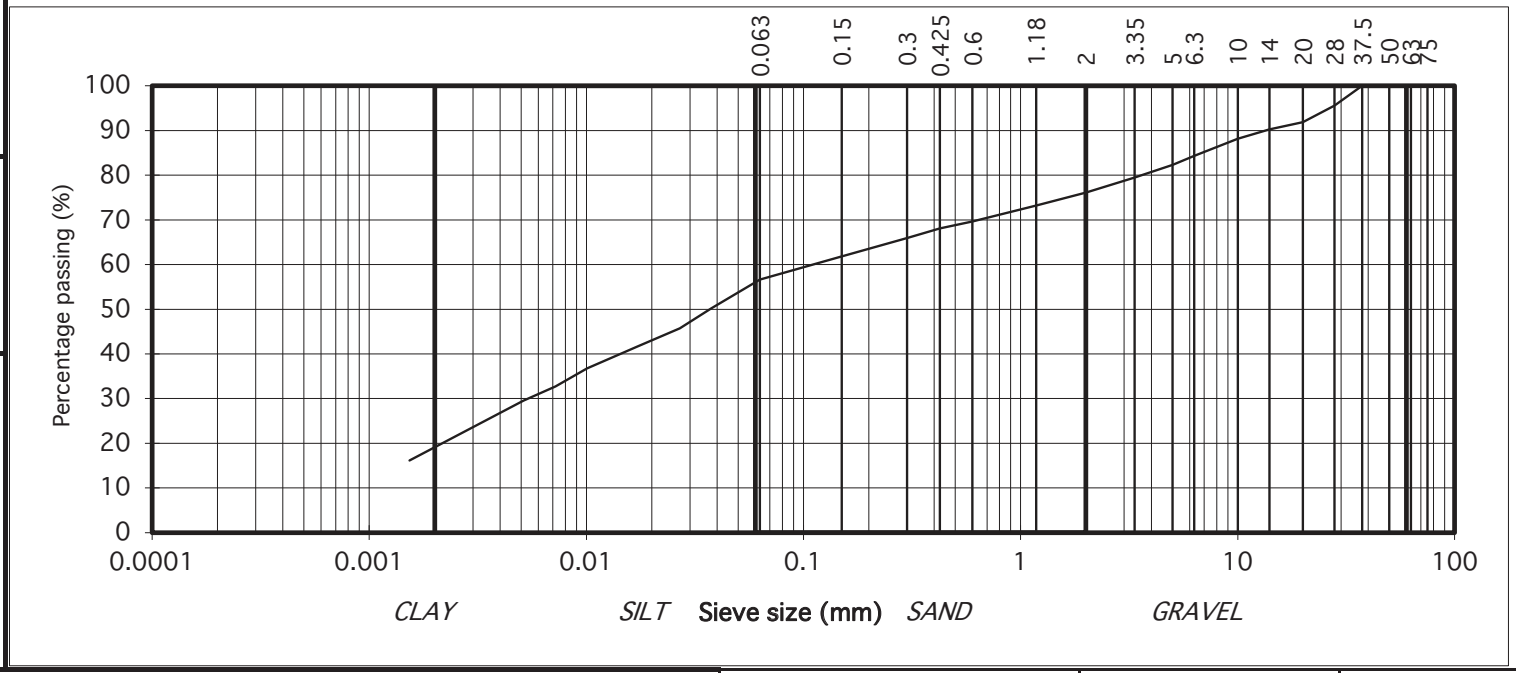

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Approved by:	Date:	Page no:
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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	95	
28	90	
20	84	
14	76	
10	71	
6.3	64	
5	62	
3.35	56	
2	50	
1.18	45	SAND
0.6	39	
0.425	36	
0.3	34	
0.15	29	
0.063	23	SILT/CLAY
0.038	20	
0.027	18	
0.017	16	
0.010	15	
0.007	14	
0.005	12	
0.002	9	

Contract No. 25000-1 Report No. R152713
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. TP04
Sample No.* AA204946 Lab. Sample No. A23/5250
Sample Type: B
Depth* (m) 2.20 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Brown slightly sandy, gravelly, CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

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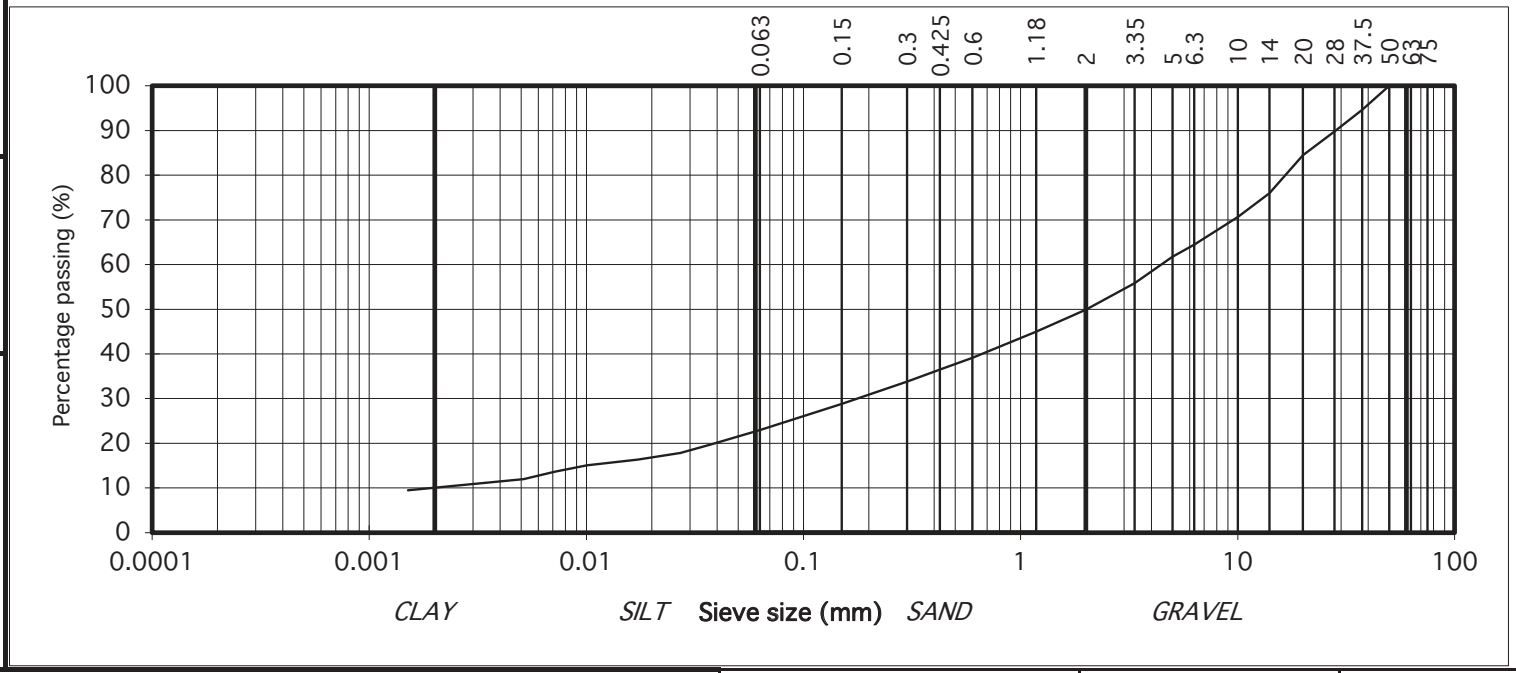

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	89	GRAVEL
37.5	87	
28	84	
20	76	
14	72	
10	67	
6.3	61	
5	58	
3.35	52	
2	46	
1.18	42	SAND
0.6	38	
0.425	36	
0.3	34	
0.15	30	
0.063	25	SILT/CLAY
0.038	21	
0.027	19	
0.017	17	
0.010	14	
0.007	12	
0.005	11	
0.002	7	

Contract No. 25000-1 Report No. R152714
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. TP05
Sample No.* AA209905 Lab. Sample No. A23/5252
Sample Type: B
Depth* (m) 2.40 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Brown slightly sandy, gravelly, SILT/CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2 Sample size did not meet the requirements of BS1377

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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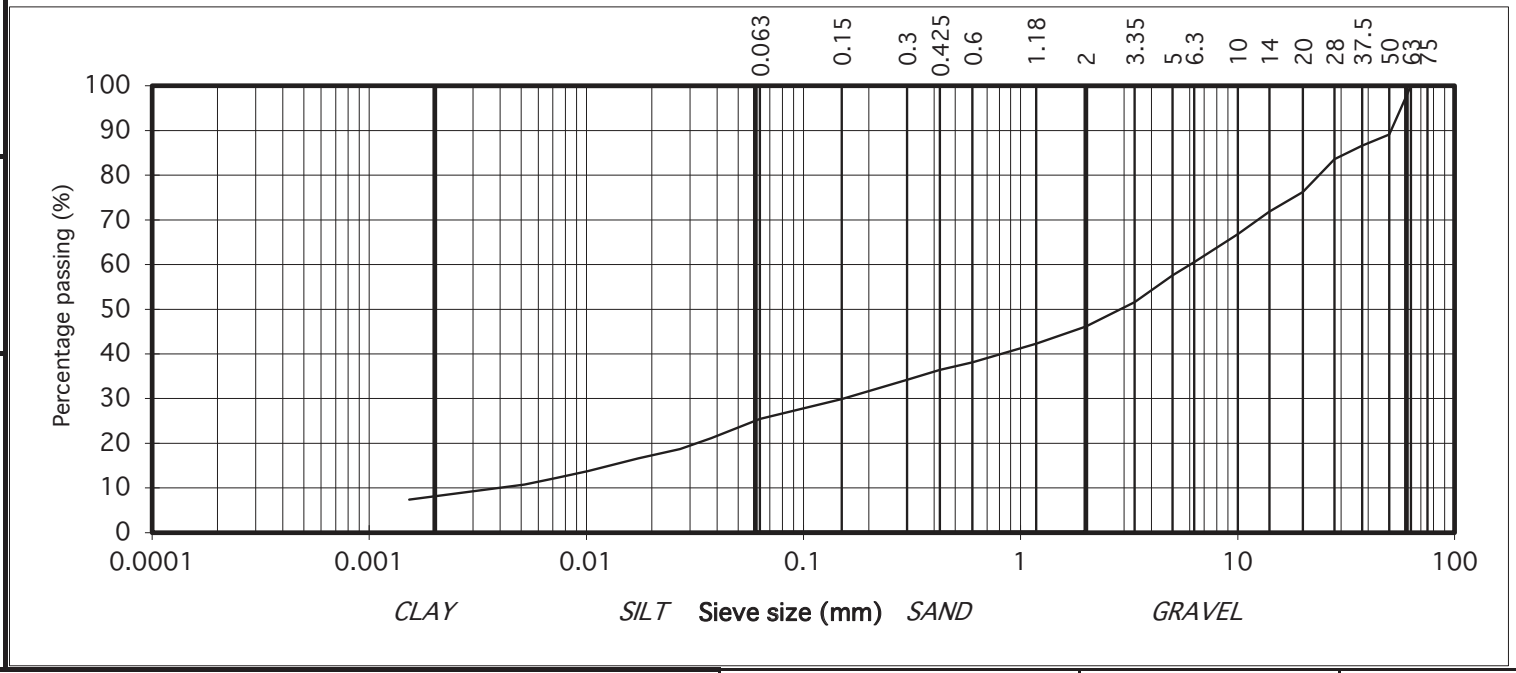

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TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	96	GRAVEL
37.5	96	
28	90	
20	87	
14	84	
10	81	
6.3	76	
5	74	
3.35	70	
2	66	
1.18	62	SAND
0.6	57	
0.425	55	
0.3	53	
0.15	48	
0.063	42	SILT/CLAY
0.037	36	
0.027	32	
0.017	29	
0.010	25	
0.007	22	
0.005	18	
0.002	10	

Contract No. 25000-1 Report No. R152715
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. TP07
Sample No.* AA209911 Lab. Sample No. A23/5253
Sample Type: B
Depth* (m) 2.40 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Brown slightly sandy, slightly gravelly, SILT/CLAY

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

Results relate only to the specimen tested in as received condition unless otherwise noted. * denotes Customer supplied information. Opinions and interpretations are outside the scope of accreditation.
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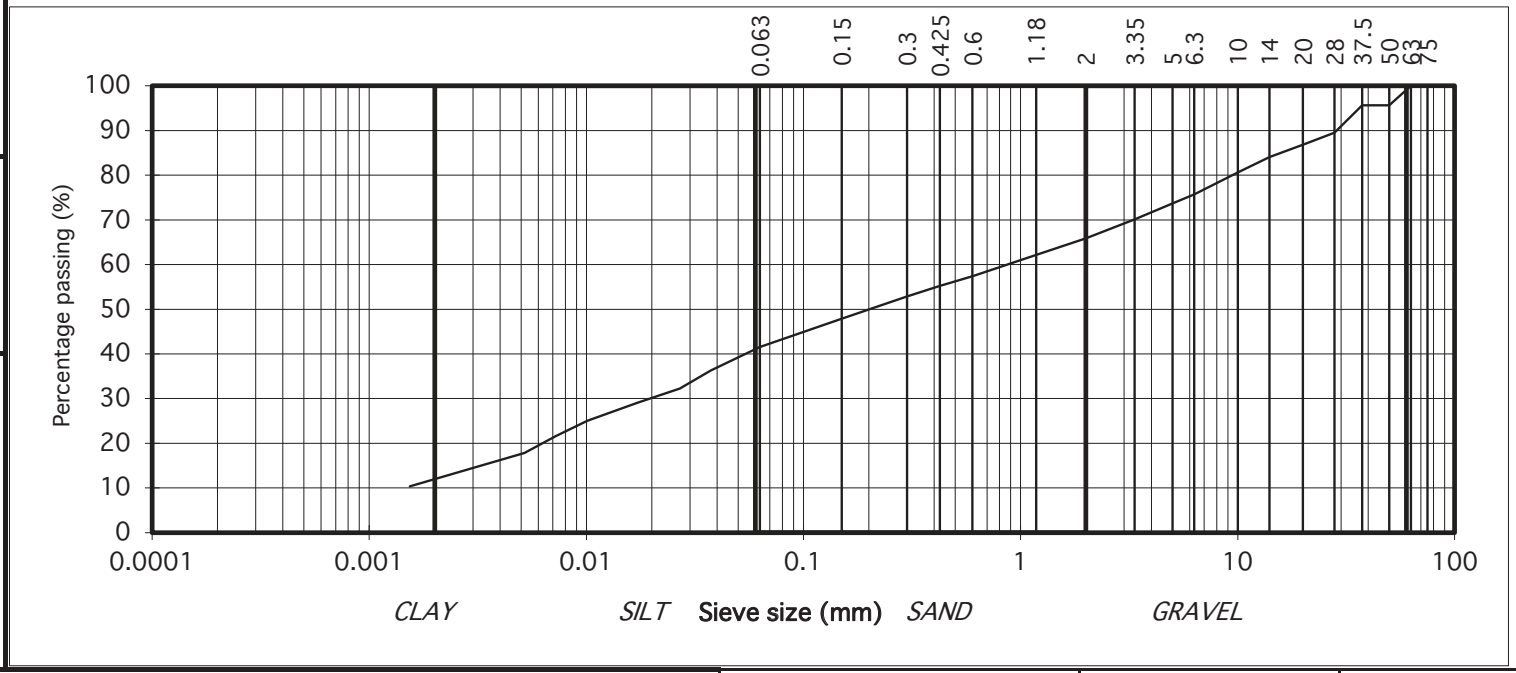

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5**
(note: Sedimentation stage not accredited)

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 133T

particle size	% passing	
75	100	COBBLES
63	100	
50	100	GRAVEL
37.5	94	
28	88	
20	79	
14	74	
10	70	
6.3	65	
5	62	
3.35	58	
2	52	
1.18	48	SAND
0.6	43	
0.425	40	
0.3	38	
0.15	32	
0.063	25	SILT/CLAY
0.037	20	
0.027	18	
0.017	16	
0.010	15	
0.007	13	
0.005	12	
0.002	9	

Contract No. 25000-1 Report No. R152716
Contract Name : NDFA Social Housing - Site 1 Stanley Street , Dublin 7
BH/TP No. TP11
Sample No.* AA209919 Lab. Sample No. A23/5254
Sample Type: B
Depth* (m) 1.80 Customer: MORCE
Date Received 03/01/2024 Date Testing started 03/01/2024
Description: Brown slightly sandy, gravelly, SILT

Remarks Note: **Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 .

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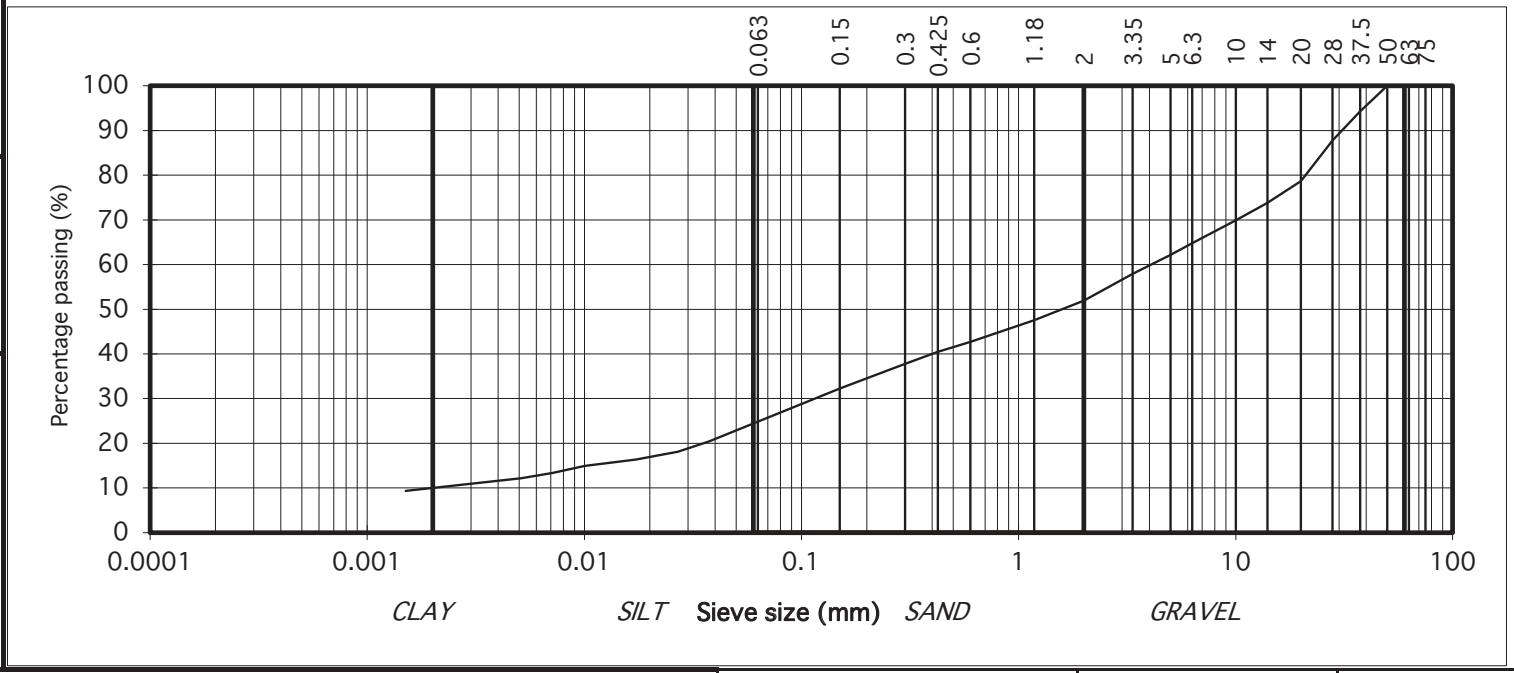

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Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

Appendix 7

Geo-Environmental & Chemical Laboratory Results (Soils)

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-00484-1
Initial Date of Issue:	17-Jan-2024
Re-Issue Details:	
Client	IGSL
Client Address:	M7 Business Park Naas County Kildare Ireland
Contact(s):	Darren Keogh
Project	25000-1 Site 1 NDFA Social Housing

Quotation No.:	Q20-21693	**Date Received:**	09-Jan-2024
Order No.:		**Date Instructed:**	09-Jan-2024
No. of Samples:	42		
Turnaround (Wkdays):	7	**Results Due:**	17-Jan-2024
Date Approved:	17-Jan-2024		

Approved By:

Details: Stuart Henderson, Technical Manager

Results - Leachate

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL						**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693						**Chemtest Sample ID.:**	1751890	1751892	1751894	1751895	1751896	1751898	1751900	1751903	1751905	1751907	1751908
Order No.:						Client Sample Ref.:	AA198277	AA193265	AA208550	AA208551	AA208557	AA208542	AA193273	AA193287	AA193281	AA193293	AA191710
						Sample Location:	BH01	BH02A	BH03	BH03	BH04	BH05	BH06	BH07	BH08	BH09	BH10
						Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
						Top Depth (m):	1.00	1.00	2.00	3.00	1.00	2.00	1.00	2.00	1.00	1.00	2.00
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**												
Ammonium	U	1220	10:1	mg/l	0.050		0.059	< 0.050	< 0.050	0.052	0.065	0.064	0.14	0.068	0.090	0.070	0.070
Ammonium	N	1220	10:1	mg/kg	0.10		0.59	0.47	0.66	0.53	0.66	0.68	1.5	0.71	0.98	0.74	0.73

Results - Leachate

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL						**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693						**Chemtest Sample ID.:**	1751909	1751910	1751912	1751914	1751916	1751917	1751918	1751919	1751920	1751922	1751924
Order No.:						Client Sample Ref.:	AA198276	AA189257	AA198263	AA198270	AA209906	AA209907	AA209908	AA204950	AA204947	AA204944	AA209902
						Sample Location:	BH11	BH12	BH13	BH14	TP01	TP01	TP01	TP02	TP03	TP04	TP05
						Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
						Top Depth (m):	1.00	1.00	1.00	1.00	0.70	1.50	2.30	0.70	0.50	0.70	0.40
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**												
Ammonium	U	1220	10:1	mg/l	0.050	< 0.050	0.051	< 0.050	0.056	0.080	< 0.050	0.12	< 0.050	< 0.050	< 0.050	< 0.050
Ammonium	N	1220	10:1	mg/kg	0.10	0.45	0.98	0.52	0.69	1.1	0.37	1.2	0.23	0.60	0.59	0.15

Results - Leachate

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL						**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693						**Chemtest Sample ID.:**	1751925	1751926	1751927	1751929	1751930	1751931
Order No.:						Client Sample Ref.:	AA209904	AA209913	AA209909	AA209921	AA209915	AA209918
						Sample Location:	TP05	TP06	TP07	TP08	TP10	TP11
						Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
						Top Depth (m):	1.60	1.80	0.60	1.40	1.60	1.30
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**							
Ammonium	U	1220	10:1	mg/l	0.050		0.053	0.076	0.11	0.086	0.081	3.4
Ammonium	N	1220	10:1	mg/kg	0.10		0.60	0.83	1.1	0.94	0.94	36

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL						**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693						**Chemtest Sample ID.:**	1751890	1751891	1751892	1751893	1751894	1751895	1751896	1751897
Order No.:						Client Sample Ref.:	AA198277	AA198278	AA193265	AA193267	AA208550	AA208551	AA208557	AA208558
						Sample Location:	BH01	BH01	BH02A	BH02A	BH03	BH03	BH04	BH04
						Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
						Top Depth (m):	1.00	2.00	1.00	3.00	2.00	3.00	1.00	2.00
						Asbestos Lab:	DURHAM		DURHAM		DURHAM	DURHAM	DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type		U	2192		N/A		-		-		-	-	-	
Asbestos Identification		U	2192		N/A		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	
Moisture		N	2030	%	0.020		5.7	16	16	9.8	19	11	19	24
Soil Colour		N	2040		N/A		Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A		Stones	Stones	Stones	Stones	Stones	Stones	Stones and Roots	Stones
Soil Texture		N	2040		N/A		Loam	Clay	Loam	Sand	Sand	Sand	Sand	Sand
pH at 20C		M	2010		4.0		[A] 8.2		[A] 9.2		[A] 8.3	[A] 8.1	[A] 8.1	
pH (2.5:1) at 20C		N	2010		4.0			[A] 8.4		[A] 8.9				[A] 8.4
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40		[A] < 0.40		[A] 2.4		[A] 2.7	[A] 0.80	[A] 8.2	
Magnesium (Water Soluble)		N	2120	g/l	0.010			[A] 0.010		[A] < 0.010				[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010			[A] 0.095		[A] 0.023				[A] 0.073
Total Sulphur		U	2175	%	0.010			[A] 0.061		[A] < 0.010				[A] 0.073
Sulphur (Elemental)		M	2180	mg/kg	1.0		[A] 4.2		[A] 11		[A] 2.4	[A] 150	[A] 31	
Chloride (Water Soluble)		M	2220	g/l	0.010			[A] < 0.010		[A] < 0.010				[A] 0.013
Nitrate (Water Soluble)		N	2220	g/l	0.010			0.067		< 0.010				0.021
Cyanide (Total)		M	2300	mg/kg	0.50		[A] < 0.50		[A] < 0.50		[A] < 0.50	[A] 2.5	[A] < 0.50	
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50		[A] 7.5		[A] 7.8		[A] 6.1	[A] 22	[A] 5.1	
Ammonium (Water Soluble)		M	2220	g/l	0.01			< 0.01		< 0.01				< 0.01
Sulphate (Total)		U	2430	%	0.010		[A] 1.3		[A] 0.16		[A] 0.57	[A] 3.9	[A] 0.89	
Sulphate (Acid Soluble)		U	2430	%	0.010			[A] 0.11		[A] 0.027				[A] 0.14
Arsenic		M	2455	mg/kg	0.5		84		15		43	4.9	49	
Barium		M	2455	mg/kg	0		650		130		310	85	330	
Cadmium		M	2455	mg/kg	0.10		1.8		2.2		1.0	3.8	1.3	
Chromium		M	2455	mg/kg	0.5		12		23		27	18	28	
Molybdenum		M	2455	mg/kg	0.5		1.2		3.9		9.5	11	12	
Antimony		N	2455	mg/kg	2.0		19		2.2		7.9	< 2.0	24	
Copper		M	2455	mg/kg	0.50		370		62		210	42	380	
Mercury		M	2455	mg/kg	0.05		0.20		0.22		1.2	0.13	0.50	
Nickel		M	2455	mg/kg	0.50		26		50		75	54	100	
Lead		M	2455	mg/kg	0.50		470		89		540	31	1500	
Selenium		M	2455	mg/kg	0.25		1.1		1.2		1.3	1.9	2.0	
Zinc		M	2455	mg/kg	0.50		300		140		230	120	390	
Chromium (Trivalent)		N	2490	mg/kg	1.0		12		23		27	18	28	
Chromium (Hexavalent)		N	2490	mg/kg	0.50		< 0.50		< 0.50		< 0.50	< 0.50	< 0.50	
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05		[A] < 0.05		[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05		[A] < 0.05		[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05		[A] < 0.05		[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL				**Chemtest Job No.:**		24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693				**Chemtest Sample ID.:**		1751890	1751891	1751892	1751893	1751894	1751895	1751896	1751897
Order No.:				Client Sample Ref.:		AA198277	AA198278	AA193265	AA193267	AA208550	AA208551	AA208557	AA208558
				Sample Location:		BH01	BH01	BH02A	BH02A	BH03	BH03	BH04	BH04
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		1.00	2.00	1.00	3.00	2.00	3.00	1.00	2.00
				Asbestos Lab:		DURHAM		DURHAM		DURHAM	DURHAM	DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	[A] < 0.25		[A] < 0.25		[A] < 0.25	[A] < 0.25	[A] < 0.25	
Aliphatic EPH >C10-C12	EH_2D_AL_#1	M	2690	mg/kg	2.00	[A] < 2.0		[A] < 2.0		[A] < 2.0	[A] < 2.0	[A] < 2.0	
Aliphatic EPH >C12-C16	EH_2D_AL_#1	M	2690	mg/kg	1.00	[A] 4.2		[A] 3.2		[A] < 1.0	[A] 4.3	[A] < 1.0	
Aliphatic EPH >C16-C21	EH_2D_AL_#1	M	2690	mg/kg	2.00	[A] < 2.0		[A] < 2.0		[A] < 2.0	[A] 3.6	[A] < 2.0	
Aliphatic EPH >C21-C35	EH_2D_AL_#1	M	2690	mg/kg	3.00	[A] 7.1		[A] 15		[A] 7.8	[A] 5.1	[A] 5.7	
Aliphatic EPH >C35-C40	EH_2D_AL_#1	N	2690	mg/kg	10.00	[A] < 10		[A] < 10		[A] 11	[A] < 10	[A] < 10	
Total Aliphatic EPH >C10-C35	EH_2D_AL_#1	M	2690	mg/kg	5.00	[A] 14		[A] 19		[A] 7.8	[A] 13	[A] 5.7	
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	[A] < 0.25		[A] < 0.25		[A] < 0.25	[A] < 0.25	[A] < 0.25	
Aromatic EPH >C10-C12	EH_2D_AR_#1	U	2690	mg/kg	1.00	[A] < 1.0		[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aromatic EPH >C12-C16	EH_2D_AR_#1	U	2690	mg/kg	1.00	[A] < 1.0		[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aromatic EPH >C16-C21	EH_2D_AR_#1	U	2690	mg/kg	2.00	[A] 5.2		[A] 7.6		[A] 7.3	[A] 6.1	[A] 7.6	
Aromatic EPH >C21-C35	EH_2D_AR_#1	U	2690	mg/kg	2.00	[A] 5.4		[A] 6.7		[A] 5.6	[A] 4.4	[A] 6.2	
Aromatic EPH >C35-C40	EH_2D_AR_#1	N	2690	mg/kg	1.00	[A] 3.0		[A] 4.2		[A] 3.0	[A] 2.8	[A] 2.3	
Total Aromatic EPH >C10-C35	EH_2D_AR_#1	U	2690	mg/kg	5.00	[A] 11		[A] 14		[A] 13	[A] 11	[A] 14	
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	[A] < 0.50		[A] < 0.50		[A] < 0.50	[A] < 0.50	[A] < 0.50	
Total EPH >C10-C35	EH_2D_Total_#1	U	2690	mg/kg	10.00	[A] 24		[A] 34		[A] 21	[A] 24	[A] 20	
Total Organic Carbon		M	2625	%	0.20	[A] 4.9		[A] 6.8		[A] 2.5	[A] 1.6	[A] 13	
Mineral Oil EPH	EH_2D_AL_#1	N	2670	mg/kg	10	14		19		19	13	< 10	
Benzene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	
Toluene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	
Ethylbenzene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	
m & p-Xylene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	
o-Xylene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	
Naphthalene		M	2800	mg/kg	0.10	< 0.10		< 0.10		< 0.10	< 0.10	0.22	
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10		< 0.10		< 0.10	< 0.10	< 0.10	
Acenaphthene		M	2800	mg/kg	0.10	< 0.10		< 0.10		< 0.10	< 0.10	< 0.10	
Fluorene		M	2800	mg/kg	0.10	< 0.10		< 0.10		< 0.10	< 0.10	< 0.10	
Phenanthrene		M	2800	mg/kg	0.10	0.40		0.26		0.54	< 0.10	1.4	
Anthracene		M	2800	mg/kg	0.10	< 0.10		< 0.10		0.14	< 0.10	0.26	
Fluoranthene		M	2800	mg/kg	0.10	0.58		0.35		0.84	< 0.10	2.2	
Pyrene		M	2800	mg/kg	0.10	0.51		0.35		0.69	< 0.10	1.8	
Benzo[a]anthracene		M	2800	mg/kg	0.10	0.31		0.26		0.46	< 0.10	0.90	
Chrysene		M	2800	mg/kg	0.10	0.25		0.26		0.34	< 0.10	0.94	

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL					**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693					**Chemtest Sample ID.:**	1751890	1751891	1751892	1751893	1751894	1751895	1751896	1751897
Order No.:					Client Sample Ref.:	AA198277	AA198278	AA193265	AA193267	AA208550	AA208551	AA208557	AA208558
					Sample Location:	BH01	BH01	BH02A	BH02A	BH03	BH03	BH04	BH04
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.00	2.00	1.00	3.00	2.00	3.00	1.00	2.00
					Asbestos Lab:	DURHAM		DURHAM		DURHAM	DURHAM	DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10		0.44		0.49	< 0.10	1.4	
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10		< 0.10		0.16	< 0.10	0.51	
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10		0.28		0.39	< 0.10	1.1	
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10		< 0.10		0.24	< 0.10	0.75	
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10		< 0.10		< 0.10	< 0.10	< 0.10	
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10		0.24		0.21	< 0.10	0.96	
Coronene		N	2800	mg/kg	0.10	< 0.10		< 0.10		< 0.10	< 0.10	< 0.10	
Total Of 17 PAH's Lower		N	2800	mg/kg	1.0	2.1		2.4		4.5	< 1.0	12	
PCB 28		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 52		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 101		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 118		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 153		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 138		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 180		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	
Tot PCBs Low (7 Congeners)		N	2815	mg/kg	0.05	[A] < 0.05		[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	
Total Phenols		M	2920	mg/kg	0.10	< 0.10		< 0.10		< 0.10	< 0.10	< 0.10	

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL					**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693					**Chemtest Sample ID.:**	1751898	1751899	1751900	1751901	1751902	1751903	1751904	1751905
Order No.:					Client Sample Ref.:	AA208542	AA208543	AA193273	AA193274	AA193277	AA193287	AA193288	AA193281
					Sample Location:	BH05	BH05	BH06	BH06	BH06	BH07	BH07	BH08
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	2.00	3.00	1.00	2.00	5.00	2.00	3.00	1.00
					Asbestos Lab:	DURHAM		DURHAM			DURHAM		DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type		U	2192		N/A	-		-			-		-
Asbestos Identification		U	2192		N/A	No Asbestos Detected		No Asbestos Detected			No Asbestos Detected		No Asbestos Detected
Moisture		N	2030	%	0.020	18	11	25	18	8.8	5.7	11	5.8
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH at 20C		M	2010		4.0	[A] 8.3		[A] 8.4			[A] 8.2		[A] 8.6
pH (2.5:1) at 20C		N	2010		4.0		[A] 8.2		[A] 8.5	[A] 9.3		[A] 8.0	
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	[A] 2.0		[A] 5.3			[A] < 0.40		[A] < 0.40
Magnesium (Water Soluble)		N	2120	g/l	0.010		[A] 0.022		[A] 0.011	[A] < 0.010		[A] 0.019	
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010		[A] 0.77		[A] 0.13	[A] 0.30		[A] 0.67	
Total Sulphur		U	2175	%	0.010		[A] 0.71		[A] 0.077	[A] 0.37		[A] 0.52	
Sulphur (Elemental)		M	2180	mg/kg	1.0	[A] 20		[A] 17			[A] 4.4		[A] 6.6
Chloride (Water Soluble)		M	2220	g/l	0.010		[A] < 0.010		[A] < 0.010	[A] 0.057		[A] < 0.010	
Nitrate (Water Soluble)		N	2220	g/l	0.010		< 0.010		0.043	< 0.010		< 0.010	
Cyanide (Total)		M	2300	mg/kg	0.50	[A] < 0.50		[A] 2.4			[A] < 0.50		[A] < 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	[A] 4.5		[A] 11			[A] 5.3		[A] 5.5
Ammonium (Water Soluble)		M	2220	g/l	0.01		< 0.01		< 0.01	< 0.01		< 0.01	
Sulphate (Total)		U	2430	%	0.010	[A] 0.15		[A] 0.30			[A] 1.2		[A] 1.7
Sulphate (Acid Soluble)		U	2430	%	0.010		[A] 0.19		[A] 0.15	[A] 0.26		[A] 0.58	
Arsenic		M	2455	mg/kg	0.5	13		40			57		73
Barium		M	2455	mg/kg	0	110		220			750		580
Cadmium		M	2455	mg/kg	0.10	2.1		0.75			1.1		1.6
Chromium		M	2455	mg/kg	0.5	20		20			9.7		10
Molybdenum		M	2455	mg/kg	0.5	3.9		9.8			1.2		1.3
Antimony		N	2455	mg/kg	2.0	2.0		5.4			14		18
Copper		M	2455	mg/kg	0.50	33		180			75		170
Mercury		M	2455	mg/kg	0.05	0.11		3.0			0.16		0.25
Nickel		M	2455	mg/kg	0.50	39		78			24		31
Lead		M	2455	mg/kg	0.50	55		1100			390		460
Selenium		M	2455	mg/kg	0.25	0.95		1.5			0.91		1.0
Zinc		M	2455	mg/kg	0.50	100		260			230		400
Chromium (Trivalent)		N	2490	mg/kg	1.0	20		20			9.7		10
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50		< 0.50			< 0.50		< 0.50
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05			[A] < 0.05		[A] < 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05			[A] < 0.05		[A] < 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05			[A] < 0.05		[A] < 0.05

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL				**Chemtest Job No.:**		24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693				**Chemtest Sample ID.:**		1751898	1751899	1751900	1751901	1751902	1751903	1751904	1751905
Order No.:				Client Sample Ref.:		AA208542	AA208543	AA193273	AA193274	AA193277	AA193287	AA193288	AA193281
				Sample Location:		BH05	BH05	BH06	BH06	BH06	BH07	BH07	BH08
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		2.00	3.00	1.00	2.00	5.00	2.00	3.00	1.00
				Asbestos Lab:		DURHAM		DURHAM			DURHAM		DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05			[A] < 0.05		[A] < 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	[A] < 0.25		[A] < 0.25			[A] < 0.25		[A] < 0.25
Aliphatic EPH >C10-C12	EH_2D_AL_#1	M	2690	mg/kg	2.00	[A] < 2.0		[A] < 2.0			[A] < 2.0		[A] < 2.0
Aliphatic EPH >C12-C16	EH_2D_AL_#1	M	2690	mg/kg	1.00	[A] < 1.0		[A] < 1.0			[A] 4.6		[A] < 1.0
Aliphatic EPH >C16-C21	EH_2D_AL_#1	M	2690	mg/kg	2.00	[A] < 2.0		[A] < 2.0			[A] 3.7		[A] < 2.0
Aliphatic EPH >C21-C35	EH_2D_AL_#1	M	2690	mg/kg	3.00	[A] 4.5		[A] 6.3			[A] 9.5		[A] 3.2
Aliphatic EPH >C35-C40	EH_2D_AL_#1	N	2690	mg/kg	10.00	[A] < 10		[A] 12			[A] < 10		[A] < 10
Total Aliphatic EPH >C10-C35	EH_2D_AL_#1	M	2690	mg/kg	5.00	[A] < 5.0		[A] 6.3			[A] 19		[A] < 5.0
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05			[A] < 0.05		[A] < 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05			[A] < 0.05		[A] < 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05			[A] < 0.05		[A] < 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	[A] < 0.25		[A] < 0.25			[A] < 0.25		[A] < 0.25
Aromatic EPH >C10-C12	EH_2D_AR_#1	U	2690	mg/kg	1.00	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
Aromatic EPH >C12-C16	EH_2D_AR_#1	U	2690	mg/kg	1.00	[A] < 1.0		[A] 6.7			[A] < 1.0		[A] < 1.0
Aromatic EPH >C16-C21	EH_2D_AR_#1	U	2690	mg/kg	2.00	[A] 6.7		[A] 82			[A] 6.2		[A] 6.8
Aromatic EPH >C21-C35	EH_2D_AR_#1	U	2690	mg/kg	2.00	[A] < 2.0		[A] 160			[A] 5.5		[A] < 2.0
Aromatic EPH >C35-C40	EH_2D_AR_#1	N	2690	mg/kg	1.00	[A] 1.9		[A] 11			[A] 4.2		[A] 3.1
Total Aromatic EPH >C10-C35	EH_2D_AR_#1	U	2690	mg/kg	5.00	[A] 8.4		[A] 250			[A] 12		[A] 8.5
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	[A] < 0.50		[A] < 0.50			[A] < 0.50		[A] < 0.50
Total EPH >C10-C35	EH_2D_Total_#1	U	2690	mg/kg	10.00	[A] 13		[A] 260			[A] 30		[A] 12
Total Organic Carbon		M	2625	%	0.20	[A] 1.2		[A] 9.8			[A] 4.2		[A] 3.2
Mineral Oil EPH	EH_2D_AL_#1	N	2670	mg/kg	10	< 10		18			19		< 10
Benzene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
Toluene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
Ethylbenzene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
m & p-Xylene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
o-Xylene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0			[A] < 1.0		[A] < 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10		1.2			< 0.10		< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10		< 0.10			< 0.10		< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10		2.8			< 0.10		< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10		2.3			< 0.10		< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10		19			< 0.10		< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10		2.4			< 0.10		< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10		21			< 0.10		< 0.10
Pyrene		M	2800	mg/kg	0.10	< 0.10		18			< 0.10		< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10		7.5			< 0.10		< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10		10			< 0.10		< 0.10

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL					**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693					**Chemtest Sample ID.:**	1751898	1751899	1751900	1751901	1751902	1751903	1751904	1751905
Order No.:					Client Sample Ref.:	AA208542	AA208543	AA193273	AA193274	AA193277	AA193287	AA193288	AA193281
					Sample Location:	BH05	BH05	BH06	BH06	BH06	BH07	BH07	BH08
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	2.00	3.00	1.00	2.00	5.00	2.00	3.00	1.00
					Asbestos Lab:	DURHAM		DURHAM			DURHAM		DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10		10			< 0.10		< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10		4.5			< 0.10		< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10		9.8			< 0.10		< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10		5.3			< 0.10		< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10		1.1			< 0.10		< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10		5.1			< 0.10		< 0.10
Coronene		N	2800	mg/kg	0.10	< 0.10		< 0.10			< 0.10		< 0.10
Total Of 17 PAH's Lower		N	2800	mg/kg	1.0	< 1.0		120			< 1.0		< 1.0
PCB 28		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010			[A] < 0.010		[A] < 0.010
PCB 52		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010			[A] < 0.010		[A] < 0.010
PCB 101		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010			[A] < 0.010		[A] < 0.010
PCB 118		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010			[A] < 0.010		[A] < 0.010
PCB 153		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010			[A] < 0.010		[A] < 0.010
PCB 138		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010			[A] < 0.010		[A] < 0.010
PCB 180		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010			[A] < 0.010		[A] < 0.010
Tot PCBs Low (7 Congeners)		N	2815	mg/kg	0.05	[A] < 0.05		[A] < 0.05			[A] < 0.05		[A] < 0.05
Total Phenols		M	2920	mg/kg	0.10	< 0.10		< 0.10			< 0.10		< 0.10

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL					**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693					**Chemtest Sample ID.:**	1751906	1751907	1751908	1751909	1751910	1751911	1751912	1751913
Order No.:					Client Sample Ref.:	AA193282	AA193293	AA191710	AA198276	AA189257	AA189258	AA198263	AA198265
					Sample Location:	BH08	BH09	BH10	BH11	BH12	BH12	BH13	BH13
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	2.00	1.00	2.00	1.00	1.00	2.00	1.00	3.00
					Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM		DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type		U	2192		N/A		-	-	-	-		-	
Asbestos Identification		U	2192		N/A		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	
Moisture		N	2030	%	0.020	9.7	6.3	10	7.9	11	9.2	7.0	10
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH at 20C		M	2010		4.0		[A] 8.5	[A] 8.4	[A] 8.7	[A] 8.8		[A] 8.6	
pH (2.5:1) at 20C		N	2010		4.0	[A] 9.0					[A] 9.1		[A] 8.2
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40		[A] < 0.40	[A] 1.1	[A] < 0.40	[A] < 0.40		[A] < 0.40	
Magnesium (Water Soluble)		N	2120	g/l	0.010	[A] < 0.010					[A] < 0.010		[A] 0.020
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	[A] 0.24					[A] < 0.010		[A] 0.65
Total Sulphur		U	2175	%	0.010	[A] 0.12					[A] 0.024		[A] 0.45
Sulphur (Elemental)		M	2180	mg/kg	1.0		[A] 7.7	[A] 37	[A] 3.3	[A] 1.5		[A] 5.4	
Chloride (Water Soluble)		M	2220	g/l	0.010	[A] < 0.010					[A] 0.061		[A] 0.020
Nitrate (Water Soluble)		N	2220	g/l	0.010	< 0.010					0.011		< 0.010
Cyanide (Total)		M	2300	mg/kg	0.50		[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50		[A] < 0.50	
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50		[A] 7.8	[A] 5.7	[A] 5.1	[A] 6.6		[A] 4.2	
Ammonium (Water Soluble)		M	2220	g/l	0.01	< 0.01					< 0.01		< 0.01
Sulphate (Total)		U	2430	%	0.010		[A] 1.6	[A] 0.30	[A] 0.97	[A] 0.30		[A] 1.1	
Sulphate (Acid Soluble)		U	2430	%	0.010	[A] 0.12					[A] 0.072		[A] 0.53
Arsenic		M	2455	mg/kg	0.5		90	11	48	35		64	
Barium		M	2455	mg/kg	0		490	71	340	370		740	
Cadmium		M	2455	mg/kg	0.10		2.5	2.0	1.4	3.6		1.5	
Chromium		M	2455	mg/kg	0.5		13	13	9.0	20		9.8	
Molybdenum		M	2455	mg/kg	0.5		1.5	4.7	1.2	5.4		1.1	
Antimony		N	2455	mg/kg	2.0		20	2.1	12	9.4		17	
Copper		M	2455	mg/kg	0.50		110	29	290	85		260	
Mercury		M	2455	mg/kg	0.05		0.20	0.05	0.10	0.18		0.17	
Nickel		M	2455	mg/kg	0.50		34	40	23	60		24	
Lead		M	2455	mg/kg	0.50		460	24	300	160		310	
Selenium		M	2455	mg/kg	0.25		1.1	1.0	1.0	1.7		0.87	
Zinc		M	2455	mg/kg	0.50		410	73	240	310		330	
Chromium (Trivalent)		N	2490	mg/kg	1.0		13	13	9.0	20		9.8	
Chromium (Hexavalent)		N	2490	mg/kg	0.50		< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05	
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05	
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05	

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL				**Chemtest Job No.:**		24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693				**Chemtest Sample ID.:**		1751906	1751907	1751908	1751909	1751910	1751911	1751912	1751913
Order No.:				Client Sample Ref.:		AA193282	AA193293	AA191710	AA198276	AA189257	AA189258	AA198263	AA198265
				Sample Location:		BH08	BH09	BH10	BH11	BH12	BH12	BH13	BH13
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		2.00	1.00	2.00	1.00	1.00	2.00	1.00	3.00
				Asbestos Lab:			DURHAM	DURHAM	DURHAM	DURHAM		DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05	
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25		[A] < 0.25	[A] < 0.25	[A] < 0.25	[A] < 0.25		[A] < 0.25	
Aliphatic EPH >C10-C12	EH_2D_AL_#1	M	2690	mg/kg	2.00		[A] < 2.0	[A] < 2.0	[A] 2.1	[A] < 2.0		[A] < 2.0	
Aliphatic EPH >C12-C16	EH_2D_AL_#1	M	2690	mg/kg	1.00		[A] < 1.0	[A] 5.9	[A] 4.5	[A] 2.5		[A] < 1.0	
Aliphatic EPH >C16-C21	EH_2D_AL_#1	M	2690	mg/kg	2.00		[A] < 2.0	[A] 170	[A] 3.4	[A] < 2.0		[A] < 2.0	
Aliphatic EPH >C21-C35	EH_2D_AL_#1	M	2690	mg/kg	3.00		[A] < 3.0	[A] 3200	[A] 6.8	[A] < 3.0		[A] < 3.0	
Aliphatic EPH >C35-C40	EH_2D_AL_#1	N	2690	mg/kg	10.00		[A] < 10	[A] 290	[A] < 10	[A] < 10		[A] < 10	
Total Aliphatic EPH >C10-C35	EH_2D_AL_#1	M	2690	mg/kg	5.00		[A] < 5.0	[A] 3400	[A] 17	[A] 5.8		[A] < 5.0	
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05	
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05	
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05	
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25		[A] < 0.25	[A] < 0.25	[A] < 0.25	[A] < 0.25		[A] < 0.25	
Aromatic EPH >C10-C12	EH_2D_AR_#1	U	2690	mg/kg	1.00		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	
Aromatic EPH >C12-C16	EH_2D_AR_#1	U	2690	mg/kg	1.00		[A] < 1.0	[A] 8.7	[A] < 1.0	[A] < 1.0		[A] < 1.0	
Aromatic EPH >C16-C21	EH_2D_AR_#1	U	2690	mg/kg	2.00		[A] 6.7	[A] 150	[A] 2.5	[A] 2.4		[A] 2.7	
Aromatic EPH >C21-C35	EH_2D_AR_#1	U	2690	mg/kg	2.00		[A] < 2.0	[A] 430	[A] 4.9	[A] 2.8		[A] 2.4	
Aromatic EPH >C35-C40	EH_2D_AR_#1	N	2690	mg/kg	1.00		[A] 2.5	[A] 11	[A] 3.5	[A] 2.7		[A] 2.6	
Total Aromatic EPH >C10-C35	EH_2D_AR_#1	U	2690	mg/kg	5.00		[A] 8.2	[A] 590	[A] 7.4	[A] 5.2		[A] 5.0	
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50		[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50		[A] < 0.50	
Total EPH >C10-C35	EH_2D_Total_#1	U	2690	mg/kg	10.00		[A] 10	[A] 4000	[A] 24	[A] 11		[A] < 10	
Total Organic Carbon		M	2625	%	0.20		[A] 3.0	[A] 3.9	[A] 3.3	[A] 0.97		[A] 4.0	
Mineral Oil EPH	EH_2D_AL_#1	N	2670	mg/kg	10		< 10	3700	17	< 10		< 10	
Benzene		M	2760	µg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	
Toluene		M	2760	µg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	
Ethylbenzene		M	2760	µg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	
m & p-Xylene		M	2760	µg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	
o-Xylene		M	2760	µg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	
Naphthalene		M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10		0.18	
Acenaphthylene		N	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Acenaphthene		M	2800	mg/kg	0.10		< 0.10	2.0	< 0.10	< 0.10		< 0.10	
Fluorene		M	2800	mg/kg	0.10		< 0.10	1.5	< 0.10	< 0.10		< 0.10	
Phenanthrene		M	2800	mg/kg	0.10		< 0.10	0.22	< 0.10	< 0.10		0.90	
Anthracene		M	2800	mg/kg	0.10		< 0.10	0.33	< 0.10	< 0.10		0.21	
Fluoranthene		M	2800	mg/kg	0.10		< 0.10	1.4	< 0.10	< 0.10		1.1	
Pyrene		M	2800	mg/kg	0.10		< 0.10	1.2	< 0.10	< 0.10		0.96	
Benzo[a]anthracene		M	2800	mg/kg	0.10		< 0.10	1.5	< 0.10	< 0.10		0.42	
Chrysene		M	2800	mg/kg	0.10		< 0.10	1.7	< 0.10	< 0.10		0.58	

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL					**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693					**Chemtest Sample ID.:**	1751906	1751907	1751908	1751909	1751910	1751911	1751912	1751913
Order No.:					Client Sample Ref.:	AA193282	AA193293	AA191710	AA198276	AA189257	AA189258	AA198263	AA198265
					Sample Location:	BH08	BH09	BH10	BH11	BH12	BH12	BH13	BH13
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	2.00	1.00	2.00	1.00	1.00	2.00	1.00	3.00
					Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM		DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Benzo[b]fluoranthene		M	2800	mg/kg	0.10		< 0.10	1.8	< 0.10	< 0.10		0.51	
Benzo[k]fluoranthene		M	2800	mg/kg	0.10		< 0.10	1.4	< 0.10	< 0.10		0.22	
Benzo[a]pyrene		M	2800	mg/kg	0.10		< 0.10	1.2	< 0.10	< 0.10		0.30	
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10		< 0.10	5.3	< 0.10	< 0.10		0.23	
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10		< 0.10	6.8	< 0.10	< 0.10		0.18	
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10		< 0.10	4.4	< 0.10	< 0.10		0.19	
Coronene		N	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Total Of 17 PAH's Lower		N	2800	mg/kg	1.0		< 1.0	31	< 1.0	< 1.0		6.0	
PCB 28		U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010	
PCB 52		U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010	
PCB 101		U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010	
PCB 118		U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010	
PCB 153		U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010	
PCB 138		U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010	
PCB 180		U	2815	mg/kg	0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010	
Tot PCBs Low (7 Congeners)		N	2815	mg/kg	0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05	
Total Phenols		M	2920	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL					**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693					**Chemtest Sample ID.:**	1751914	1751915	1751916	1751917	1751918	1751919	1751920	1751921
Order No.:					Client Sample Ref.:	AA198270	AA198271	AA209906	AA209907	AA209908	AA204950	AA204947	AA204948
					Sample Location:	BH14	BH14	TP01	TP01	TP01	TP02	TP03	TP03
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.00	2.00	0.70	1.50	2.30	0.70	0.50	1.30
					Asbestos Lab:	DURHAM		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type		U	2192		N/A	-		-	-	-	-	-	
Asbestos Identification		U	2192		N/A	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	
Moisture		N	2030	%	0.020	8.4	9.7	9.1	20	12	9.1	7.8	14
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones and Roots
Soil Texture		N	2040		N/A	Sand	Sand	Loam	Clay	Clay	Loam	Loam	Clay
pH at 20C		M	2010		4.0	[A] 8.2		[A] 8.8	[A] 8.1	[A] 8.7	[A] 9.2	[A] 11.0	
pH (2.5:1) at 20C		N	2010		4.0		[A] 8.7		[A] 8.1				[A] 8.9
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	[A] 0.47		[A] 1.6	[A] 2.0	[A] 1.3	[A] 1.1	[A] 1.6	
Magnesium (Water Soluble)		N	2120	g/l	0.010		[A] < 0.010		[A] < 0.010				[A] < 0.010
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010		[A] 0.37		[A] 0.26				[A] 0.096
Total Sulphur		U	2175	%	0.010		[A] 0.59		[A] 0.14				[A] 0.010
Sulphur (Elemental)		M	2180	mg/kg	1.0	[A] 36		[A] 5.9	[A] 320	[A] 63	[A] 190	[A] 190	
Chloride (Water Soluble)		M	2220	g/l	0.010		[A] 0.021		[A] < 0.010				[A] < 0.010
Nitrate (Water Soluble)		N	2220	g/l	0.010		< 0.010		< 0.010				< 0.010
Cyanide (Total)		M	2300	mg/kg	0.50	[A] < 0.50		[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	[A] 64		[A] 11	[A] 8.0	[A] 8.9	[A] 11	[A] 79	
Ammonium (Water Soluble)		M	2220	g/l	0.01		< 0.01		< 0.01				< 0.01
Sulphate (Total)		U	2430	%	0.010	[A] 0.93		[A] 0.32	[A] 0.36	[A] 0.20	[A] 1.1	[A] 0.91	
Sulphate (Acid Soluble)		U	2430	%	0.010		[A] 0.18		[A] 0.17				[A] 0.047
Arsenic		M	2455	mg/kg	0.5	27		20	13	20	48	38	
Barium		M	2455	mg/kg	0	360		160	100	210	730	670	
Cadmium		M	2455	mg/kg	0.10	0.71		0.65	1.9	3.1	0.45	0.21	
Chromium		M	2455	mg/kg	0.5	11		16	20	26	41	42	
Molybdenum		M	2455	mg/kg	0.5	1.4		4.1	3.4	6.6	16	14	
Antimony		N	2455	mg/kg	2.0	22		4.1	2.3	4.0	15	18	
Copper		M	2455	mg/kg	0.50	54		210	43	80	550	460	
Mercury		M	2455	mg/kg	0.05	0.11		0.46	0.15	0.57	0.22	0.06	
Nickel		M	2455	mg/kg	0.50	17		40	40	74	96	88	
Lead		M	2455	mg/kg	0.50	920		390	68	160	700	730	
Selenium		M	2455	mg/kg	0.25	0.83		0.82	0.99	1.3	1.4	1.2	
Zinc		M	2455	mg/kg	0.50	110		150	120	210	220	200	
Chromium (Trivalent)		N	2490	mg/kg	1.0	11		16	20	26	41	42	
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL				**Chemtest Job No.:**		24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693				**Chemtest Sample ID.:**		1751914	1751915	1751916	1751917	1751918	1751919	1751920	1751921
Order No.:				Client Sample Ref.:		AA198270	AA198271	AA209906	AA209907	AA209908	AA204950	AA204947	AA204948
				Sample Location:		BH14	BH14	TP01	TP01	TP01	TP02	TP03	TP03
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		1.00	2.00	0.70	1.50	2.30	0.70	0.50	1.30
				Asbestos Lab:		DURHAM		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] 0.30	[A] 0.29	[A] < 0.05	[A] < 0.05	
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	[A] < 0.25		[A] < 0.25	[A] 0.30	[A] 0.29	[A] < 0.25	[A] < 0.25	
Aliphatic EPH >C10-C12	EH_2D_AL_#1	M	2690	mg/kg	2.00	[A] < 2.0		[A] 2.1	[A] 91	[A] 50	[A] < 2.0	[A] < 2.0	
Aliphatic EPH >C12-C16	EH_2D_AL_#1	M	2690	mg/kg	1.00	[A] < 1.0		[A] 13	[A] 610	[A] 210	[A] 1.9	[A] 3.8	
Aliphatic EPH >C16-C21	EH_2D_AL_#1	M	2690	mg/kg	2.00	[A] < 2.0		[A] 19	[A] 840	[A] 270	[A] 2.7	[A] 3.1	
Aliphatic EPH >C21-C35	EH_2D_AL_#1	M	2690	mg/kg	3.00	[A] < 3.0		[A] 15	[A] 420	[A] 120	[A] 3.2	[A] 5.1	
Aliphatic EPH >C35-C40	EH_2D_AL_#1	N	2690	mg/kg	10.00	[A] < 10		[A] < 10	[A] 34	[A] 15	[A] < 10	[A] < 10	
Total Aliphatic EPH >C10-C35	EH_2D_AL_#1	M	2690	mg/kg	5.00	[A] < 5.0		[A] 49	[A] 2000	[A] 650	[A] 8.9	[A] 13	
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	[A] < 0.25		[A] < 0.25	[A] < 0.25	[A] < 0.25	[A] < 0.25	[A] < 0.25	
Aromatic EPH >C10-C12	EH_2D_AR_#1	U	2690	mg/kg	1.00	[A] < 1.0		[A] < 1.0	[A] 29	[A] 11	[A] < 1.0	[A] < 1.0	
Aromatic EPH >C12-C16	EH_2D_AR_#1	U	2690	mg/kg	1.00	[A] < 1.0		[A] < 1.0	[A] 340	[A] 130	[A] < 1.0	[A] < 1.0	
Aromatic EPH >C16-C21	EH_2D_AR_#1	U	2690	mg/kg	2.00	[A] 2.5		[A] 4.8	[A] 440	[A] 130	[A] 11	[A] 2.2	
Aromatic EPH >C21-C35	EH_2D_AR_#1	U	2690	mg/kg	2.00	[A] < 2.0		[A] 16	[A] 120	[A] 33	[A] 10	[A] 5.1	
Aromatic EPH >C35-C40	EH_2D_AR_#1	N	2690	mg/kg	1.00	[A] 2.8		[A] 7.4	[A] 10	[A] 6.1	[A] 2.9	[A] 4.1	
Total Aromatic EPH >C10-C35	EH_2D_AR_#1	U	2690	mg/kg	5.00	[A] < 5.0		[A] 21	[A] 930	[A] 300	[A] 22	[A] 7.3	
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	[A] < 0.50		[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	
Total EPH >C10-C35	EH_2D_Total_#1	U	2690	mg/kg	10.00	[A] < 10		[A] 70	[A] 2900	[A] 950	[A] 30	[A] 21	
Total Organic Carbon		M	2625	%	0.20	[A] 4.9		[A] 9.6	[A] 2.4	[A] 1.9	[A] 4.0	[A] 5.5	
Mineral Oil EPH	EH_2D_AL_#1	N	2670	mg/kg	10	< 10		49	2000	970	< 10	13	
Benzene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Toluene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Ethylbenzene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
m & p-Xylene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
o-Xylene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Naphthalene		M	2800	mg/kg	0.10	0.18		0.17	< 0.10	0.14	0.73	0.56	
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
Acenaphthene		M	2800	mg/kg	0.10	< 0.10		< 0.10	< 0.10	1.2	0.90	0.91	
Fluorene		M	2800	mg/kg	0.10	< 0.10		< 0.10	< 0.10	1.1	0.58	0.59	
Phenanthrene		M	2800	mg/kg	0.10	0.38		1.2	0.70	2.1	4.8	5.5	
Anthracene		M	2800	mg/kg	0.10	< 0.10		0.21	< 0.10	< 0.10	0.44	0.54	
Fluoranthene		M	2800	mg/kg	0.10	0.34		1.5	0.53	< 0.10	3.3	4.4	
Pyrene		M	2800	mg/kg	0.10	0.32		1.3	0.50	< 0.10	2.6	3.5	
Benzo[a]anthracene		M	2800	mg/kg	0.10	0.15		0.74	0.23	< 0.10	1.2	1.7	
Chrysene		M	2800	mg/kg	0.10	< 0.10		0.54	0.16	< 0.10	1.3	1.4	

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL					**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693					**Chemtest Sample ID.:**	1751914	1751915	1751916	1751917	1751918	1751919	1751920	1751921
Order No.:					Client Sample Ref.:	AA198270	AA198271	AA209906	AA209907	AA209908	AA204950	AA204947	AA204948
					Sample Location:	BH14	BH14	TP01	TP01	TP01	TP02	TP03	TP03
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.00	2.00	0.70	1.50	2.30	0.70	0.50	1.30
					Asbestos Lab:	DURHAM		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10		0.92	0.24	< 0.10	1.6	2.3	
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10		0.21	< 0.10	< 0.10	0.42	0.53	
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10		0.59	< 0.10	< 0.10	1.0	1.6	
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10		0.51	< 0.10	< 0.10	0.62	0.82	
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10		0.45	< 0.10	< 0.10	0.60	0.79	
Coronene		N	2800	mg/kg	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
Total Of 17 PAH's Lower		N	2800	mg/kg	1.0	1.4		8.3	2.4	4.5	20	25	
PCB 28		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 52		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 101		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 118		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 153		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 138		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	
PCB 180		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	
Tot PCBs Low (7 Congeners)		N	2815	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05	
Total Phenols		M	2920	mg/kg	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL					**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693					**Chemtest Sample ID.:**	1751922	1751923	1751924	1751925	1751926	1751927	1751928	1751929
Order No.:					Client Sample Ref.:	AA204944	AA204946	AA209902	AA209904	AA209913	AA209909	AA209911	AA209921
					Sample Location:	TP04	TP04	TP05	TP05	TP06	TP07	TP07	TP08
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.70	2.20	0.40	1.60	1.80	0.60	2.40	1.40
					Asbestos Lab:	DURHAM		DURHAM	DURHAM	DURHAM	DURHAM		DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type		U	2192		N/A	-		-	-	-	-		-
Asbestos Identification		U	2192		N/A	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected
Moisture		N	2030	%	0.020	13	8.3	8.4	15	2.3	12	7.8	8.1
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Loam	Clay	Loam	Clay	Loam	Clay	Clay	Clay
pH at 20C		M	2010		4.0	[A] 9.8		[A] 9.0	[A] 8.6	[A] 8.6	[A] 8.6		[A] 8.4
pH (2.5:1) at 20C		N	2010		4.0		[A] 9.2					[A] 8.8	
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	[A] 1.2		[A] 1.7	[A] 1.0	[A] < 0.40	[A] 0.83		[A] < 0.40
Magnesium (Water Soluble)		N	2120	g/l	0.010		[A] < 0.010					[A] < 0.010	
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010		[A] < 0.010					[A] 0.21	
Total Sulphur		U	2175	%	0.010		[A] 0.015					[A] 0.21	
Sulphur (Elemental)		M	2180	mg/kg	1.0	[A] 7.5		[A] 88	[A] 1.4	[A] 3.6	[A] 3.3		[A] 1.0
Chloride (Water Soluble)		M	2220	g/l	0.010		[A] < 0.010					[A] < 0.010	
Nitrate (Water Soluble)		N	2220	g/l	0.010		< 0.010					< 0.010	
Cyanide (Total)		M	2300	mg/kg	0.50	[A] < 0.50		[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50		[A] < 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	[A] 6.8		[A] 15	[A] 43	[A] 6.7	[A] 9.7		[A] 6.3
Ammonium (Water Soluble)		M	2220	g/l	0.01		< 0.01					< 0.01	
Sulphate (Total)		U	2430	%	0.010	[A] 0.22		[A] 0.85	[A] 0.087	[A] 0.71	[A] 0.36		[A] 0.10
Sulphate (Acid Soluble)		U	2430	%	0.010		[A] 0.027					[A] 0.19	
Arsenic		M	2455	mg/kg	0.5	21		40	17	54	12		16
Barium		M	2455	mg/kg	0	100		630	110	340	84		76
Cadmium		M	2455	mg/kg	0.10	1.2		0.29	2.8	0.99	0.55		2.8
Chromium		M	2455	mg/kg	0.5	14		37	25	9.4	5.3		20
Molybdenum		M	2455	mg/kg	0.5	2.9		14	4.4	1.1	1.0		5.4
Antimony		N	2455	mg/kg	2.0	2.2		16	2.1	8.7	2.4		2.4
Copper		M	2455	mg/kg	0.50	75		540	44	110	38		41
Mercury		M	2455	mg/kg	0.05	1.0		1.3	0.14	0.12	0.35		0.08
Nickel		M	2455	mg/kg	0.50	34		110	54	21	11		59
Lead		M	2455	mg/kg	0.50	290		630	52	220	110		34
Selenium		M	2455	mg/kg	0.25	0.75		1.6	1.1	1.1	0.70		1.9
Zinc		M	2455	mg/kg	0.50	130		250	160	190	61		130
Chromium (Trivalent)		N	2490	mg/kg	1.0	14		37	25	9.4	5.3		20
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50		< 0.50
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL				**Chemtest Job No.:**		24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693				**Chemtest Sample ID.:**		1751922	1751923	1751924	1751925	1751926	1751927	1751928	1751929
Order No.:				Client Sample Ref.:		AA204944	AA204946	AA209902	AA209904	AA209913	AA209909	AA209911	AA209921
				Sample Location:		TP04	TP04	TP05	TP05	TP06	TP07	TP07	TP08
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		0.70	2.20	0.40	1.60	1.80	0.60	2.40	1.40
				Asbestos Lab:		DURHAM		DURHAM	DURHAM	DURHAM	DURHAM		DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	[A] < 0.25		[A] < 0.25	[A] < 0.25	[A] < 0.25	[A] < 0.25		[A] < 0.25
Aliphatic EPH >C10-C12	EH_2D_AL_#1	M	2690	mg/kg	2.00	[A] < 2.0		[A] 20	[A] 2.3	[A] < 2.0	[A] < 2.0		[A] < 2.0
Aliphatic EPH >C12-C16	EH_2D_AL_#1	M	2690	mg/kg	1.00	[A] 1.9		[A] 240	[A] 5.5	[A] 2.4	[A] 2.9		[A] 4.0
Aliphatic EPH >C16-C21	EH_2D_AL_#1	M	2690	mg/kg	2.00	[A] 2.1		[A] 340	[A] 4.9	[A] < 2.0	[A] 3.1		[A] 2.3
Aliphatic EPH >C21-C35	EH_2D_AL_#1	M	2690	mg/kg	3.00	[A] 4.7		[A] 170	[A] 8.3	[A] < 3.0	[A] 4.5		[A] < 3.0
Aliphatic EPH >C35-C40	EH_2D_AL_#1	N	2690	mg/kg	10.00	[A] < 10		[A] 11	[A] < 10	[A] < 10	[A] < 10		[A] < 10
Total Aliphatic EPH >C10-C35	EH_2D_AL_#1	M	2690	mg/kg	5.00	[A] 10		[A] 760	[A] 21	[A] 7.3	[A] 12		[A] 11
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	[A] < 0.25		[A] < 0.25	[A] < 0.25	[A] < 0.25	[A] < 0.25		[A] < 0.25
Aromatic EPH >C10-C12	EH_2D_AR_#1	U	2690	mg/kg	1.00	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0
Aromatic EPH >C12-C16	EH_2D_AR_#1	U	2690	mg/kg	1.00	[A] < 1.0		[A] 46	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0
Aromatic EPH >C16-C21	EH_2D_AR_#1	U	2690	mg/kg	2.00	[A] 14		[A] 96	[A] < 2.0	[A] 2.6	[A] 2.9		[A] 2.4
Aromatic EPH >C21-C35	EH_2D_AR_#1	U	2690	mg/kg	2.00	[A] 19		[A] 140	[A] 8.0	[A] 2.9	[A] 6.0		[A] 3.8
Aromatic EPH >C35-C40	EH_2D_AR_#1	N	2690	mg/kg	1.00	[A] 3.3		[A] 28	[A] 3.2	[A] 2.4	[A] 2.9		[A] 2.1
Total Aromatic EPH >C10-C35	EH_2D_AR_#1	U	2690	mg/kg	5.00	[A] 33		[A] 280	[A] 9.9	[A] 5.4	[A] 8.9		[A] 6.2
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	[A] < 0.50		[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50		[A] < 0.50
Total EPH >C10-C35	EH_2D_Total_#1	U	2690	mg/kg	10.00	[A] 43		[A] 1000	[A] 31	[A] 13	[A] 21		[A] 17
Total Organic Carbon		M	2625	%	0.20	[A] 3.2		[A] 13	[A] 0.92	[A] 3.2	[A] 3.1		[A] 0.41
Mineral Oil EPH	EH_2D_AL_#1	N	2670	mg/kg	10	10		770	21	< 10	12		11
Benzene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0
Toluene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0
Ethylbenzene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0
m & p-Xylene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0
o-Xylene		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0
Naphthalene		M	2800	mg/kg	0.10	0.28		0.48	< 0.10	< 0.10	< 0.10		< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10		0.19	< 0.10	< 0.10	< 0.10		< 0.10
Acenaphthene		M	2800	mg/kg	0.10	1.1		1.0	< 0.10	< 0.10	< 0.10		< 0.10
Fluorene		M	2800	mg/kg	0.10	0.87		0.98	< 0.10	< 0.10	< 0.10		< 0.10
Phenanthrene		M	2800	mg/kg	0.10	9.4		7.9	< 0.10	< 0.10	0.28		< 0.10
Anthracene		M	2800	mg/kg	0.10	1.3		1.2	< 0.10	< 0.10	< 0.10		< 0.10
Fluoranthene		M	2800	mg/kg	0.10	8.9		14	< 0.10	< 0.10	0.19		< 0.10
Pyrene		M	2800	mg/kg	0.10	7.2		11	< 0.10	< 0.10	0.12		< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	3.3		7.2	< 0.10	< 0.10	< 0.10		< 0.10
Chrysene		M	2800	mg/kg	0.10	3.3		5.4	< 0.10	< 0.10	< 0.10		< 0.10

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL					**Chemtest Job No.:**	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484	24-00484
Quotation No.: Q20-21693					**Chemtest Sample ID.:**	1751922	1751923	1751924	1751925	1751926	1751927	1751928	1751929
Order No.:					Client Sample Ref.:	AA204944	AA204946	AA209902	AA209904	AA209913	AA209909	AA209911	AA209921
					Sample Location:	TP04	TP04	TP05	TP05	TP06	TP07	TP07	TP08
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.70	2.20	0.40	1.60	1.80	0.60	2.40	1.40
					Asbestos Lab:	DURHAM		DURHAM	DURHAM	DURHAM	DURHAM		DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	3.7		11	< 0.10	< 0.10	< 0.10		< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	0.92		3.2	< 0.10	< 0.10	< 0.10		< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	2.7		8.4	< 0.10	< 0.10	< 0.10		< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	1.6		5.0	< 0.10	< 0.10	< 0.10		< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	0.29		0.94	< 0.10	< 0.10	< 0.10		< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	1.7		4.9	< 0.10	< 0.10	< 0.10		< 0.10
Coronene		N	2800	mg/kg	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10		< 0.10
Total Of 17 PAH's Lower		N	2800	mg/kg	1.0	47		83	< 1.0	< 1.0	< 1.0		< 1.0
PCB 28		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010
PCB 52		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010
PCB 101		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010
PCB 118		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010
PCB 153		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010
PCB 138		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010
PCB 180		U	2815	mg/kg	0.010	[A] < 0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010		[A] < 0.010
Tot PCBs Low (7 Congeners)		N	2815	mg/kg	0.05	[A] < 0.05		[A] < 0.05	[A] < 0.05	[A] < 0.05	[A] < 0.05		[A] < 0.05
Total Phenols		M	2920	mg/kg	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10		< 0.10

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL				**Chemtest Job No.:**		24-00484	24-00484
Quotation No.: Q20-21693				**Chemtest Sample ID.:**		1751930	1751931
Order No.:				Client Sample Ref.:		AA209915	AA209918
				Sample Location:		TP10	TP11
				Sample Type:		SOIL	SOIL
				Top Depth (m):		1.60	1.30
				Asbestos Lab:		DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**		
ACM Type		U	2192		N/A	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	14	11
Soil Colour		N	2040		N/A	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones
Soil Texture		N	2040		N/A	Clay	Loam
pH at 20C		M	2010		4.0	[A] 9.1	[A] 8.6
pH (2.5:1) at 20C		N	2010		4.0		
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	[A] 0.64	[A] 2.2
Magnesium (Water Soluble)		N	2120	g/l	0.010		
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010		
Total Sulphur		U	2175	%	0.010		
Sulphur (Elemental)		M	2180	mg/kg	1.0	[A] 11	[A] 59
Chloride (Water Soluble)		M	2220	g/l	0.010		
Nitrate (Water Soluble)		N	2220	g/l	0.010		
Cyanide (Total)		M	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	[A] 6.0	[A] 4.6
Ammonium (Water Soluble)		M	2220	g/l	0.01		
Sulphate (Total)		U	2430	%	0.010	[A] 0.18	[A] 0.44
Sulphate (Acid Soluble)		U	2430	%	0.010		
Arsenic		M	2455	mg/kg	0.5	21	16
Barium		M	2455	mg/kg	0	160	66
Cadmium		M	2455	mg/kg	0.10	1.8	1.1
Chromium		M	2455	mg/kg	0.5	16	11
Molybdenum		M	2455	mg/kg	0.5	5.0	3.6
Antimony		N	2455	mg/kg	2.0	3.9	2.4
Copper		M	2455	mg/kg	0.50	100	66
Mercury		M	2455	mg/kg	0.05	0.23	0.47
Nickel		M	2455	mg/kg	0.50	53	31
Lead		M	2455	mg/kg	0.50	130	260
Selenium		M	2455	mg/kg	0.25	1.1	1.8
Zinc		M	2455	mg/kg	0.50	140	110
Chromium (Trivalent)		N	2490	mg/kg	1.0	16	11
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05	[A] < 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05	[A] < 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05	[A] < 0.05

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL				**Chemtest Job No.:**		24-00484	24-00484
Quotation No.: Q20-21693				**Chemtest Sample ID.:**		1751930	1751931
Order No.:				Client Sample Ref.:		AA209915	AA209918
				Sample Location:		TP10	TP11
				Sample Type:		SOIL	SOIL
				Top Depth (m):		1.60	1.30
				Asbestos Lab:		DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**		
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	[A] < 0.05	[A] < 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	[A] < 0.25	[A] < 0.25
Aliphatic EPH >C10-C12	EH_2D_AL_#1	M	2690	mg/kg	2.00	[A] 2.3	[A] < 2.0
Aliphatic EPH >C12-C16	EH_2D_AL_#1	M	2690	mg/kg	1.00	[A] 4.6	[A] 3.4
Aliphatic EPH >C16-C21	EH_2D_AL_#1	M	2690	mg/kg	2.00	[A] 3.7	[A] 2.4
Aliphatic EPH >C21-C35	EH_2D_AL_#1	M	2690	mg/kg	3.00	[A] 5.6	[A] 4.8
Aliphatic EPH >C35-C40	EH_2D_AL_#1	N	2690	mg/kg	10.00	[A] < 10	[A] < 10
Total Aliphatic EPH >C10-C35	EH_2D_AL_#1	M	2690	mg/kg	5.00	[A] 16	[A] 12
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05	[A] < 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05	[A] < 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	[A] < 0.05	[A] < 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	[A] < 0.25	[A] < 0.25
Aromatic EPH >C10-C12	EH_2D_AR_#1	U	2690	mg/kg	1.00	[A] < 1.0	[A] < 1.0
Aromatic EPH >C12-C16	EH_2D_AR_#1	U	2690	mg/kg	1.00	[A] < 1.0	[A] < 1.0
Aromatic EPH >C16-C21	EH_2D_AR_#1	U	2690	mg/kg	2.00	[A] 2.4	[A] 7.0
Aromatic EPH >C21-C35	EH_2D_AR_#1	U	2690	mg/kg	2.00	[A] 6.2	[A] 22
Aromatic EPH >C35-C40	EH_2D_AR_#1	N	2690	mg/kg	1.00	[A] 3.9	[A] 5.0
Total Aromatic EPH >C10-C35	EH_2D_AR_#1	U	2690	mg/kg	5.00	[A] 8.6	[A] 29
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	[A] < 0.50	[A] < 0.50
Total EPH >C10-C35	EH_2D_Total_#1	U	2690	mg/kg	10.00	[A] 25	[A] 41
Total Organic Carbon		M	2625	%	0.20	[A] 0.84	[A] 4.2
Mineral Oil EPH	EH_2D_AL_#1	N	2670	mg/kg	10	16	12
Benzene		M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Toluene		M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Ethylbenzene		M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
m & p-Xylene		M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
o-Xylene		M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10

Results - Soil

Project: 25000-1 Site 1 NDFA Social Housing

Client: IGSL				**Chemtest Job No.:**		24-00484	24-00484
Quotation No.: Q20-21693				**Chemtest Sample ID.:**		1751930	1751931
Order No.:				Client Sample Ref.:		AA209915	AA209918
				Sample Location:		TP10	TP11
				Sample Type:		SOIL	SOIL
				Top Depth (m):		1.60	1.30
				Asbestos Lab:		DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**		
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Coronene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Total Of 17 PAH's Lower		N	2800	mg/kg	1.0	< 1.0	< 1.0
PCB 28		U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010
PCB 52		U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010
PCB 101		U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010
PCB 118		U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010
PCB 153		U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010
PCB 138		U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010
PCB 180		U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010
Tot PCBs Low (7 Congeners)		N	2815	mg/kg	0.05	[A] < 0.05	[A] < 0.05
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751890							
Sample Ref:	AA198277							
Sample ID:								
Sample Location:	BH01							
Top Depth(m):	1.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 4.9	3	5	6
Loss On Ignition	2610		M	%	0.76	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.2	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.011	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0012	0.012	0.5	2	25
Barium	1455		U	0.021	0.21	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0035	0.035	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0019	0.019	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0013	0.013	0.06	0.7	5
Selenium	1455		U	0.0010	0.010	0.1	0.5	7
Zinc	1455		U	0.046	0.46	4	50	200
Chloride	1220		U	1.7	17	800	15000	25000
Fluoride	1220		U	0.13	1.3	10	150	500
Sulphate	1220		U	260	2600	1000	20000	50000
Total Dissolved Solids	1020		N	320	3200	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	4.4	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	5.7

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751892							
Sample Ref:	AA193265							
Sample ID:								
Sample Location:	BH02A							
Top Depth(m):	1.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 6.8	3	5	6
Loss On Ignition	2610		M	%	8.2	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		9.2	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.011	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.012	0.12	0.5	2	25
Barium	1455		U	0.005	0.051	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0009	0.0087	0.5	10	70
Copper	1455		U	0.0036	0.036	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0061	0.061	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0043	0.043	0.06	0.7	5
Selenium	1455		U	0.0011	0.011	0.1	0.5	7
Zinc	1455		U	0.014	0.14	4	50	200
Chloride	1220		U	3.2	32	800	15000	25000
Fluoride	1220		U	0.62	6.2	10	150	500
Sulphate	1220		U	41	410	1000	20000	50000
Total Dissolved Solids	1020		N	110	1100	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	5.9	59	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	16

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751894							
Sample Ref:	AA208550							
Sample ID:								
Sample Location:	BH03							
Top Depth(m):	2.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 2.5	3	5	6
Loss On Ignition	2610		M	%	3.9	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.3	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.011	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0006	0.0061	0.5	2	25
Barium	1455		U	0.007	0.074	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0012	0.012	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0025	0.025	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455		U	0.0007	0.0072	0.1	0.5	7
Zinc	1455		U	0.022	0.22	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.18	1.8	10	150	500
Sulphate	1220		U	17	170	1000	20000	50000
Total Dissolved Solids	1020		N	65	650	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	6.5	65	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	19

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751895							
Sample Ref:	AA208551							
Sample ID:								
Sample Location:	BH03							
Top Depth(m):	3.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 1.6	3	5	6
Loss On Ignition	2610		M	%	1.6	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.1	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.013	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0003	0.0026	0.5	2	25
Barium	1455		U	0.032	0.32	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	< 0.0005	< 0.0050	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.014	0.14	0.5	10	30
Nickel	1455		U	0.0070	0.070	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0007	0.0071	0.06	0.7	5
Selenium	1455		U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455		U	0.010	0.10	4	50	200
Chloride	1220		U	1.2	12	800	15000	25000
Fluoride	1220		U	0.38	3.8	10	150	500
Sulphate	1220		U	190	1900	1000	20000	50000
Total Dissolved Solids	1020		N	290	2800	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	4.1	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751896							
Sample Ref:	AA208557							
Sample ID:								
Sample Location:	BH04							
Top Depth(m):	1.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 13	3	5	6
Loss On Ignition	2610		M	%	12	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.1	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.015	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0007	0.0070	0.5	2	25
Barium	1455		U	0.023	0.23	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0022	0.022	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.013	0.13	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0034	0.034	0.06	0.7	5
Selenium	1455		U	0.0017	0.017	0.1	0.5	7
Zinc	1455		U	0.017	0.17	4	50	200
Chloride	1220		U	2.6	26	800	15000	25000
Fluoride	1220		U	0.26	2.6	10	150	500
Sulphate	1220		U	340	3400	1000	20000	50000
Total Dissolved Solids	1020		N	440	4400	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	4.3	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	19

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751898							
Sample Ref:	AA208542							
Sample ID:								
Sample Location:	BH05							
Top Depth(m):	2.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 1.2	3	5	6
Loss On Ignition	2610		M	%	3.6	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.3	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.014	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0005	0.0052	0.5	2	25
Barium	1455		U	0.006	0.062	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0012	0.012	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0051	0.051	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455		U	0.0009	0.0086	0.1	0.5	7
Zinc	1455		U	0.022	0.22	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.27	2.7	10	150	500
Sulphate	1220		U	26	260	1000	20000	50000
Total Dissolved Solids	1020		N	100	990	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	6.6	66	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	18

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751900							
Sample Ref:	AA193273							
Sample ID:								
Sample Location:	BH06							
Top Depth(m):	1.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 9.8	3	5	6
Loss On Ignition	2610		M	%	21	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] 200	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.4	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.0070	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0048	0.047	0.5	2	25
Barium	1455		U	0.019	0.19	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0008	0.0080	0.5	10	70
Copper	1455		U	0.0048	0.048	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0089	0.089	0.5	10	30
Nickel	1455		U	0.0026	0.026	0.4	10	40
Lead	1455		U	0.0093	0.092	0.5	10	50
Antimony	1455		U	0.0024	0.024	0.06	0.7	5
Selenium	1455		U	0.0010	0.010	0.1	0.5	7
Zinc	1455		U	0.034	0.34	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.33	3.3	10	150	500
Sulphate	1220		U	18	180	1000	20000	50000
Total Dissolved Solids	1020		N	86	850	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	9.8	98	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	25

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751903							
Sample Ref:	AA193287							
Sample ID:								
Sample Location:	BH07							
Top Depth(m):	2.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 4.2	3	5	6
Loss On Ignition	2610		M	%	0.92	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.2	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.0090	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0003	0.0032	0.5	2	25
Barium	1455		U	0.023	0.23	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0006	0.0063	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0016	0.016	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455		U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455		U	0.013	0.13	4	50	200
Chloride	1220		U	7.2	72	800	15000	25000
Fluoride	1220		U	0.19	1.9	10	150	500
Sulphate	1220		U	240	2400	1000	20000	50000
Total Dissolved Solids	1020		N	310	3100	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	3.9	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	5.7

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751905							
Sample Ref:	AA193281							
Sample ID:								
Sample Location:	BH08							
Top Depth(m):	1.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 3.2	3	5	6
Loss On Ignition	2610		M	%	0.84	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.6	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.012	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0027	0.027	0.5	2	25
Barium	1455		U	0.024	0.24	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0011	0.011	0.5	10	70
Copper	1455		U	0.0018	0.018	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0011	0.011	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0014	0.014	0.06	0.7	5
Selenium	1455		U	0.0014	0.014	0.1	0.5	7
Zinc	1455		U	0.014	0.14	4	50	200
Chloride	1220		U	1.1	11	800	15000	25000
Fluoride	1220		U	0.095	< 1.0	10	150	500
Sulphate	1220		U	240	2400	1000	20000	50000
Total Dissolved Solids	1020		N	300	3000	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	3.7	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	5.8

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751907							
Sample Ref:	AA193293							
Sample ID:								
Sample Location:	BH09							
Top Depth(m):	1.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 3.0	3	5	6
Loss On Ignition	2610		M	%	1.4	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.5	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.013	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0003	0.0029	0.5	2	25
Barium	1455		U	0.018	0.18	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	< 0.0005	< 0.0050	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0013	0.013	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0006	0.0064	0.06	0.7	5
Selenium	1455		U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455		U	0.013	0.13	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.12	1.2	10	150	500
Sulphate	1220		U	350	3500	1000	20000	50000
Total Dissolved Solids	1020		N	410	4000	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	4.0	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	6.3

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751908							
Sample Ref:	AA191710							
Sample ID:								
Sample Location:	BH10							
Top Depth(m):	2.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 3.9	3	5	6
Loss On Ignition	2610		M	%	1.3	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] 8100	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.4	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.013	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0004	0.0040	0.5	2	25
Barium	1455		U	0.031	0.31	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0009	0.0091	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.024	0.24	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0037	0.037	0.06	0.7	5
Selenium	1455		U	0.0012	0.012	0.1	0.5	7
Zinc	1455		U	0.010	0.10	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.24	2.4	10	150	500
Sulphate	1220		U	47	470	1000	20000	50000
Total Dissolved Solids	1020		N	140	1400	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	8.0	80	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	10

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751909							
Sample Ref:	AA198276							
Sample ID:								
Sample Location:	BH11							
Top Depth(m):	1.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 3.3	3	5	6
Loss On Ignition	2610		M	%	0.59	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.7	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.015	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0012	0.012	0.5	2	25
Barium	1455		U	0.021	0.21	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0015	0.015	0.5	10	70
Copper	1455		U	0.023	0.23	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0065	0.065	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0009	0.0093	0.06	0.7	5
Selenium	1455		U	0.0009	0.0085	0.1	0.5	7
Zinc	1455		U	< 0.003	< 0.025	4	50	200
Chloride	1220		U	2.4	24	800	15000	25000
Fluoride	1220		U	0.14	1.4	10	150	500
Sulphate	1220		U	290	2900	1000	20000	50000
Total Dissolved Solids	1020		N	410	4100	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	4.8	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	7.9

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751910							
Sample Ref:	AA189257							
Sample ID:								
Sample Location:	BH12							
Top Depth(m):	1.00							
Bottom Depth(m):								
Sampling Date:								
						Inert Waste Landfill	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**				
Total Organic Carbon	2625		M	%	[A] 0.97	3	5	6
Loss On Ignition	2610		M	%	1.7	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.8	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.014	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0008	0.0083	0.5	2	25
Barium	1455		U	0.018	0.18	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0015	0.015	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.010	0.10	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0008	0.0080	0.06	0.7	5
Selenium	1455		U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455		U	0.011	0.11	4	50	200
Chloride	1220		U	1.2	12	800	15000	25000
Fluoride	1220		U	0.31	3.1	10	150	500
Sulphate	1220		U	19	190	1000	20000	50000
Total Dissolved Solids	1020		N	83	830	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	9.4	94	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751912							
Sample Ref:	AA198263							
Sample ID:								
Sample Location:	BH13							
Top Depth(m):	1.00							
Bottom Depth(m):								
Sampling Date:						**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**				
Total Organic Carbon	2625		M	%	[A] 4.0	3	5	6
Loss On Ignition	2610		M	%	0.87	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.6	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.012	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0006	0.0055	0.5	2	25
Barium	1455		U	0.021	0.21	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0028	0.028	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0018	0.018	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0011	0.011	0.06	0.7	5
Selenium	1455		U	0.0006	0.0060	0.1	0.5	7
Zinc	1455		U	0.014	0.14	4	50	200
Chloride	1220		U	1.2	12	800	15000	25000
Fluoride	1220		U	0.12	1.2	10	150	500
Sulphate	1220		U	230	2300	1000	20000	50000
Total Dissolved Solids	1020		N	300	3000	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	4.2	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	7.0

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751914							
Sample Ref:	AA198270							
Sample ID:								
Sample Location:	BH14							
Top Depth(m):	1.00							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 4.9	3	5	6
Loss On Ignition	2610		M	%	2.8	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.2	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.0080	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0021	0.021	0.5	2	25
Barium	1455		U	0.032	0.32	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0017	0.017	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0029	0.029	0.5	10	30
Nickel	1455		U	0.0006	0.0057	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0018	0.018	0.06	0.7	5
Selenium	1455		U	0.0025	0.025	0.1	0.5	7
Zinc	1455		U	0.012	0.12	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.12	1.2	10	150	500
Sulphate	1220		U	52	520	1000	20000	50000
Total Dissolved Solids	1020		N	110	1100	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	5.1	51	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	8.4

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751916							
Sample Ref:	AA209906							
Sample ID:								
Sample Location:	TP01							
Top Depth(m):	0.70							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 9.6	3	5	6
Loss On Ignition	2610		M	%	11	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.8	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.016	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0078	0.078	0.5	2	25
Barium	1455		U	0.007	0.067	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0089	0.089	0.5	10	70
Copper	1455		U	0.0074	0.074	2	50	100
Mercury	1455		U	0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0094	0.094	0.5	10	30
Nickel	1455		U	0.0008	0.0082	0.4	10	40
Lead	1455		U	0.0041	0.041	0.5	10	50
Antimony	1455		U	0.0047	0.047	0.06	0.7	5
Selenium	1455		U	0.0019	0.019	0.1	0.5	7
Zinc	1455		U	0.013	0.13	4	50	200
Chloride	1220		U	2.7	27	800	15000	25000
Fluoride	1220		U	0.25	2.5	10	150	500
Sulphate	1220		U	34	340	1000	20000	50000
Total Dissolved Solids	1020		N	100	990	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	9.9	99	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	9.1

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751917							
Sample Ref:	AA209907							
Sample ID:								
Sample Location:	TP01							
Top Depth(m):	1.50							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 2.4	3	5	6
Loss On Ignition	2610		M	%	5.8	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] 1500	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.1	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.014	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0014	0.014	0.5	2	25
Barium	1455		U	0.010	0.10	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0025	0.025	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0055	0.054	0.5	10	30
Nickel	1455		U	0.0023	0.023	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0023	0.023	0.06	0.7	5
Selenium	1455		U	0.0006	0.0060	0.1	0.5	7
Zinc	1455		U	0.034	0.34	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.10	1.0	10	150	500
Sulphate	1220		U	31	310	1000	20000	50000
Total Dissolved Solids	1020		N	73	730	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	9.7	97	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	20

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751918							
Sample Ref:	AA209908							
Sample ID:								
Sample Location:	TP01							
Top Depth(m):	2.30							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 1.9	3	5	6
Loss On Ignition	2610		M	%	31	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] 360	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.7	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.013	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0025	0.025	0.5	2	25
Barium	1455		U	0.043	0.43	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0033	0.033	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.024	0.24	0.5	10	30
Nickel	1455		U	0.0035	0.035	0.4	10	40
Lead	1455		U	0.0007	0.0067	0.5	10	50
Antimony	1455		U	0.0045	0.045	0.06	0.7	5
Selenium	1455		U	0.0009	0.0090	0.1	0.5	7
Zinc	1455		U	0.013	0.13	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.20	2.0	10	150	500
Sulphate	1220		U	11	110	1000	20000	50000
Total Dissolved Solids	1020		N	81	810	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	9.9	99	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	12

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751919							
Sample Ref:	AA204950							
Sample ID:								
Sample Location:	TP02							
Top Depth(m):	0.70							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 4.0	3	5	6
Loss On Ignition	2610		M	%	35	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] 200	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		9.2	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.011	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0091	0.091	0.5	2	25
Barium	1455		U	0.010	0.10	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0020	0.020	0.5	10	70
Copper	1455		U	0.0033	0.034	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0077	0.077	0.5	10	30
Nickel	1455		U	0.0014	0.014	0.4	10	40
Lead	1455		U	0.0014	0.014	0.5	10	50
Antimony	1455		U	0.011	0.10	0.06	0.7	5
Selenium	1455		U	0.0018	0.018	0.1	0.5	7
Zinc	1455		U	0.014	0.14	4	50	200
Chloride	1220		U	2.5	25	800	15000	25000
Fluoride	1220		U	0.45	4.5	10	150	500
Sulphate	1220		U	45	450	1000	20000	50000
Total Dissolved Solids	1020		N	140	1400	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	5.4	54	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	9.1

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751920							
Sample Ref:	AA204947							
Sample ID:								
Sample Location:	TP03							
Top Depth(m):	0.50							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 5.5	3	5	6
Loss On Ignition	2610		M	%	5.8	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		11.0	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.0090	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.028	0.28	0.5	2	25
Barium	1455		U	0.006	0.062	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0010	0.0096	0.5	10	70
Copper	1455		U	0.0060	0.060	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.010	0.10	0.5	10	30
Nickel	1455		U	0.0006	0.0065	0.4	10	40
Lead	1455		U	0.0040	0.040	0.5	10	50
Antimony	1455		U	0.011	0.10	0.06	0.7	5
Selenium	1455		U	0.0017	0.017	0.1	0.5	7
Zinc	1455		U	0.009	0.087	4	50	200
Chloride	1220		U	2.7	27	800	15000	25000
Fluoride	1220		U	0.44	4.4	10	150	500
Sulphate	1220		U	25	250	1000	20000	50000
Total Dissolved Solids	1020		N	87	870	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	7.0	70	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	7.8

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751922							
Sample Ref:	AA204944							
Sample ID:								
Sample Location:	TP04							
Top Depth(m):	0.70							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 3.2	3	5	6
Loss On Ignition	2610		M	%	5.4	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] 54	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		9.8	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.015	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0063	0.063	0.5	2	25
Barium	1455		U	< 0.005	< 0.050	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0035	0.035	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0045	0.045	0.5	10	30
Nickel	1455		U	0.0010	0.010	0.4	10	40
Lead	1455		U	0.0041	0.041	0.5	10	50
Antimony	1455		U	0.0017	0.017	0.06	0.7	5
Selenium	1455		U	0.0013	0.013	0.1	0.5	7
Zinc	1455		U	0.012	0.12	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.12	1.2	10	150	500
Sulphate	1220		U	3.6	36	1000	20000	50000
Total Dissolved Solids	1020		N	55	550	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	9.3	93	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	13

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751924							
Sample Ref:	AA209902							
Sample ID:								
Sample Location:	TP05							
Top Depth(m):	0.40							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 13	3	5	6
Loss On Ignition	2610		M	%	8.8	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] 1500	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		9.0	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.012	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0078	0.078	0.5	2	25
Barium	1455		U	0.027	0.27	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0008	0.0079	0.5	10	70
Copper	1455		U	0.0064	0.064	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.017	0.17	0.5	10	30
Nickel	1455		U	0.0024	0.024	0.4	10	40
Lead	1455		U	0.0028	0.028	0.5	10	50
Antimony	1455		U	0.024	0.23	0.06	0.7	5
Selenium	1455		U	0.0026	0.026	0.1	0.5	7
Zinc	1455		U	0.014	0.14	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.21	2.1	10	150	500
Sulphate	1220		U	45	450	1000	20000	50000
Total Dissolved Solids	1020		N	58	580	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	7.1	71	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	8.4

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751925							
Sample Ref:	AA209904							
Sample ID:								
Sample Location:	TP05							
Top Depth(m):	1.60							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 0.92	3	5	6
Loss On Ignition	2610		M	%	2.8	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.6	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.012	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0008	0.0081	0.5	2	25
Barium	1455		U	< 0.005	< 0.050	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0010	0.011	0.5	10	70
Copper	1455		U	0.0017	0.017	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0051	0.051	0.5	10	30
Nickel	1455		U	0.0009	0.0088	0.4	10	40
Lead	1455		U	0.0005	0.0053	0.5	10	50
Antimony	1455		U	0.0006	0.0062	0.06	0.7	5
Selenium	1455		U	0.0010	0.0095	0.1	0.5	7
Zinc	1455		U	0.034	0.34	4	50	200
Chloride	1220		U	9.3	93	800	15000	25000
Fluoride	1220		U	0.23	2.3	10	150	500
Sulphate	1220		U	5.5	55	1000	20000	50000
Total Dissolved Solids	1020		N	64	640	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	7.5	75	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	15

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751926							
Sample Ref:	AA209913							
Sample ID:								
Sample Location:	TP06							
Top Depth(m):	1.80							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 3.2	3	5	6
Loss On Ignition	2610		M	%	0.69	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.6	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.017	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0016	0.016	0.5	2	25
Barium	1455		U	0.020	0.20	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0023	0.024	0.5	10	70
Copper	1455		U	0.0014	0.014	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0032	0.032	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0011	0.011	0.06	0.7	5
Selenium	1455		U	0.0011	0.011	0.1	0.5	7
Zinc	1455		U	0.015	0.15	4	50	200
Chloride	1220		U	1.2	12	800	15000	25000
Fluoride	1220		U	0.13	1.3	10	150	500
Sulphate	1220		U	240	2400	1000	20000	50000
Total Dissolved Solids	1020		N	300	3000	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	5.2	52	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	2.3

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751927							
Sample Ref:	AA209909							
Sample ID:								
Sample Location:	TP07							
Top Depth(m):	0.60							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 3.1	3	5	6
Loss On Ignition	2610		M	%	2.0	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] 30	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.6	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.014	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0013	0.013	0.5	2	25
Barium	1455		U	0.022	0.22	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0030	0.030	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.010	0.10	0.5	10	30
Nickel	1455		U	0.0021	0.021	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	0.0015	0.015	0.06	0.7	5
Selenium	1455		U	0.0017	0.017	0.1	0.5	7
Zinc	1455		U	0.017	0.17	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.19	1.9	10	150	500
Sulphate	1220		U	730	7300	1000	20000	50000
Total Dissolved Solids	1020		N	750	7500	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	5.2	52	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	12

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751929							
Sample Ref:	AA209921							
Sample ID:								
Sample Location:	TP08							
Top Depth(m):	1.40							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 0.41	3	5	6
Loss On Ignition	2610		M	%	1.6	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.4	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.0070	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0003	0.0028	0.5	2	25
Barium	1455		U	< 0.005	< 0.050	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0006	0.0065	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0061	0.061	0.5	10	30
Nickel	1455		U	< 0.0005	< 0.0050	0.4	10	40
Lead	1455		U	< 0.0005	< 0.0050	0.5	10	50
Antimony	1455		U	< 0.0005	< 0.0050	0.06	0.7	5
Selenium	1455		U	< 0.0005	< 0.0050	0.1	0.5	7
Zinc	1455		U	0.009	0.085	4	50	200
Chloride	1220		U	2.6	26	800	15000	25000
Fluoride	1220		U	0.14	1.4	10	150	500
Sulphate	1220		U	9.6	96	1000	20000	50000
Total Dissolved Solids	1020		N	53	530	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	5.9	59	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	8.1

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751930							
Sample Ref:	AA209915							
Sample ID:								
Sample Location:	TP10							
Top Depth(m):	1.60							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 0.84	3	5	6
Loss On Ignition	2610		M	%	4.4	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] < 10	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		9.1	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.0060	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0044	0.043	0.5	2	25
Barium	1455		U	< 0.005	< 0.050	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	0.0008	0.0078	0.5	10	70
Copper	1455		U	0.0035	0.035	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.0061	0.061	0.5	10	30
Nickel	1455		U	0.0006	0.0056	0.4	10	40
Lead	1455		U	0.0011	0.011	0.5	10	50
Antimony	1455		U	0.0021	0.021	0.06	0.7	5
Selenium	1455		U	0.0006	0.0059	0.1	0.5	7
Zinc	1455		U	0.026	0.26	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.18	1.8	10	150	500
Sulphate	1220		U	12	120	1000	20000	50000
Total Dissolved Solids	1020		N	76	760	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	9.4	94	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	14

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 25000-1 Site 1 NDFA Social Housing

						Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	24-00484							
Chemtest Sample ID:	1751931							
Sample Ref:	AA209918							
Sample ID:								
Sample Location:	TP11							
Top Depth(m):	1.30							
Bottom Depth(m):								
Sampling Date:								
Determinand	**SOP**	**HWOL Code**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625		M	%	[A] 4.2	3	5	6
Loss On Ignition	2610		M	%	6.8	--	--	10
Total BTEX	2760		M	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.10	1	--	--
TPH Total WAC	2670	EH_1D_Total_CU	M	mg/kg	[A] 61	500	--	--
Total (of 17) PAHs						100	--	--
pH at 20C	2010		M		8.6	--	>6	--
Acid Neutralisation Capacity	2015		N	mol/kg	0.0070	--	To evaluate	To evaluate
Eluate Analysis				**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455		U	0.0043	0.043	0.5	2	25
Barium	1455		U	0.014	0.14	20	100	300
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5
Chromium	1455		U	< 0.0005	< 0.0050	0.5	10	70
Copper	1455		U	0.0072	0.072	2	50	100
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2
Molybdenum	1455		U	0.051	0.51	0.5	10	30
Nickel	1455		U	0.0046	0.046	0.4	10	40
Lead	1455		U	0.0005	0.0052	0.5	10	50
Antimony	1455		U	0.0056	0.056	0.06	0.7	5
Selenium	1455		U	0.0027	0.027	0.1	0.5	7
Zinc	1455		U	0.012	0.12	4	50	200
Chloride	1220		U	< 1.0	< 10	800	15000	25000
Fluoride	1220		U	0.18	1.8	10	150	500
Sulphate	1220		U	73	730	1000	20000	50000
Total Dissolved Solids	1020		N	200	2000	4000	60000	100000
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610		U	9.1	91	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1751890	AA198277		BH01		A	Amber Glass 250ml
1751890	AA198277		BH01		A	Plastic Tub 500g
1751891	AA198278		BH01		A	Amber Glass 250ml
1751891	AA198278		BH01		A	Plastic Tub 500g
1751892	AA193265		BH02A		A	Amber Glass 250ml
1751892	AA193265		BH02A		A	Plastic Tub 500g
1751893	AA193267		BH02A		A	Amber Glass 250ml
1751893	AA193267		BH02A		A	Plastic Tub 500g
1751894	AA208550		BH03		A	Amber Glass 250ml
1751894	AA208550		BH03		A	Plastic Tub 500g
1751895	AA208551		BH03		A	Amber Glass 250ml
1751895	AA208551		BH03		A	Plastic Tub 500g
1751896	AA208557		BH04		A	Amber Glass 250ml
1751896	AA208557		BH04		A	Plastic Tub 500g
1751897	AA208558		BH04		A	Amber Glass 250ml
1751897	AA208558		BH04		A	Plastic Tub 500g
1751898	AA208542		BH05		A	Amber Glass 250ml
1751898	AA208542		BH05		A	Plastic Tub 500g
1751899	AA208543		BH05		A	Amber Glass 250ml
1751899	AA208543		BH05		A	Plastic Tub 500g
1751900	AA193273		BH06		A	Amber Glass 250ml
1751900	AA193273		BH06		A	Plastic Tub 500g

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1751901	AA193274		BH06		A	Amber Glass 250ml
1751901	AA193274		BH06		A	Plastic Tub 500g
1751902	AA193277		BH06		A	Amber Glass 250ml
1751902	AA193277		BH06		A	Plastic Tub 500g
1751903	AA193287		BH07		A	Amber Glass 250ml
1751903	AA193287		BH07		A	Plastic Tub 500g
1751904	AA193288		BH07		A	Amber Glass 250ml
1751904	AA193288		BH07		A	Plastic Tub 500g
1751905	AA193281		BH08		A	Amber Glass 250ml
1751905	AA193281		BH08		A	Plastic Tub 500g
1751906	AA193282		BH08		A	Amber Glass 250ml
1751906	AA193282		BH08		A	Plastic Tub 500g
1751907	AA193293		BH09		A	Amber Glass 250ml
1751907	AA193293		BH09		A	Plastic Tub 500g
1751908	AA191710		BH10		A	Amber Glass 250ml
1751908	AA191710		BH10		A	Plastic Tub 500g
1751909	AA198276		BH11		A	Amber Glass 250ml
1751909	AA198276		BH11		A	Plastic Tub 500g
1751910	AA189257		BH12		A	Amber Glass 250ml
1751910	AA189257		BH12		A	Plastic Tub 500g
1751911	AA189258		BH12		A	Amber Glass 250ml
1751911	AA189258		BH12		A	Plastic Tub 500g

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1751912	AA198263		BH13		A	Amber Glass 250ml
1751912	AA198263		BH13		A	Plastic Tub 500g
1751913	AA198265		BH13		A	Amber Glass 250ml
1751913	AA198265		BH13		A	Plastic Tub 500g
1751914	AA198270		BH14		A	Amber Glass 250ml
1751914	AA198270		BH14		A	Plastic Tub 500g
1751915	AA198271		BH14		A	Amber Glass 250ml
1751915	AA198271		BH14		A	Plastic Tub 500g
1751916	AA209906		TP01		A	Amber Glass 250ml
1751916	AA209906		TP01		A	Plastic Tub 500g
1751917	AA209907		TP01		A	Amber Glass 250ml
1751917	AA209907		TP01		A	Plastic Tub 500g
1751918	AA209908		TP01		A	Amber Glass 250ml
1751918	AA209908		TP01		A	Plastic Tub 500g
1751919	AA204950		TP02		A	Amber Glass 250ml
1751919	AA204950		TP02		A	Plastic Tub 500g
1751920	AA204947		TP03		A	Amber Glass 250ml
1751920	AA204947		TP03		A	Plastic Tub 500g
1751921	AA204948		TP03		A	Amber Glass 250ml
1751921	AA204948		TP03		A	Plastic Tub 500g
1751922	AA204944		TP04		A	Amber Glass 250ml
1751922	AA204944		TP04		A	Plastic Tub 500g

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1751923	AA204946		TP04		A	Amber Glass 250ml
1751923	AA204946		TP04		A	Plastic Tub 500g
1751924	AA209902		TP05		A	Amber Glass 250ml
1751924	AA209902		TP05		A	Plastic Tub 500g
1751925	AA209904		TP05		A	Amber Glass 250ml
1751925	AA209904		TP05		A	Plastic Tub 500g
1751926	AA209913		TP06		A	Amber Glass 250ml
1751926	AA209913		TP06		A	Plastic Tub 500g
1751927	AA209909		TP07		A	Amber Glass 250ml
1751927	AA209909		TP07		A	Plastic Tub 500g
1751928	AA209911		TP07		A	Amber Glass 250ml
1751928	AA209911		TP07		A	Plastic Tub 500g
1751929	AA209921		TP08		A	Amber Glass 250ml
1751929	AA209921		TP08		A	Plastic Tub 500g
1751930	AA209915		TP10		A	Amber Glass 250ml
1751930	AA209915		TP10		A	Plastic Tub 500g
1751931	AA209918		TP11		A	Amber Glass 250ml
1751931	AA209918		TP11		A	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH at 20°C	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity at 25°C and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH at 20°C	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measuremernt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID

Test Methods

SOP	Title	Parameters included	Method summary
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8-C10 Aromatics: >C5–C7,>C7-C8,>C8–C10	Water extraction / Headspace GCxGC FID detection
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Appendix 8

Exploratory Hole Location Plan

25000-1 NDFA Social Housing Bundles 4/5 - Lot 1 - Stanley Street

Exploratory Hole Location Plan