Appendices

Appendix A – General notes and standards sheets

GENERAL NOTES

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The report contains the results of a geotechnical investigation or study conducted for a specific purpose and client. The results may not be used or relied on by other parties, or used for other purposes, as they may contain neither adequate nor appropriate information. In particular, the investigation does not cover contamination issues unless specifically required to do so by the client.

To the maximum extent permitted by law, all implied warranties and conditions in relation to the services provided by GHD and the report are excluded unless they are expressly stated to apply in the report.

TEST HOLE LOGGING

The information on the test hole logs (boreholes, test pits, exposures etc.) is based on a visual and tactile assessment, except at the discrete locations where test information is available (field and/or laboratory results). The test hole logs include both factual data and inferred information. Moreover, the location of test holes should be considered approximate, unless noted otherwise (refer report). Reference should also be made to the relevant standard sheets for the explanation of logging procedures (Soil and Rock Descriptions, Core Log Sheet Notes etc.).

GROUNDWATER

Unless otherwise indicated, the water depths presented on the test hole logs are the depths of free water or seepage in the test hole recorded at the given time of measuring. The actual groundwater depth may differ from this recorded depth depending on material permeabilities (i.e. depending on response time of the measuring instrument). Further, variations of this depth could occur with time due to such effects as seasonal, environmental and tidal fluctuations or construction activities such as a change is ground surface level. Confirmation of groundwater levels, phreatic surfaces or piezometric pressures can only be made by appropriate surveys, instrumentation techniques and monitoring programmes.

INTERPRETATION OF RESULTS

The discussion or recommendations contained within this report normally are based on a site evaluation from discrete test hole data, often with only approximate locations (e.g. GPS). Generalised, idealised or inferred subsurface conditions (including any geotechnical cross-sections) have been assumed or prepared by interpolation and/or extrapolation of these data. As such these conditions are an interpretation and must be considered as a guide only.

CHANGE IN CONDITIONS

Local variations or anomalies in ground conditions do occur in the natural environment, particularly between discrete test hole locations or available observation sites. Additionally, certain design or construction procedures may have been assumed in assessing the soil-structure interaction behaviour of the site. Furthermore, conditions may change at the site from those encountered at the time of the geotechnical investigation through construction activities and constantly changing natural processes.

Any change in design, in construction methods, or in ground conditions as noted during construction, from those assumed or reported should be referred to GHD for appropriate assessment and comment.

GEOTECHNICAL VERIFICATION

Verification of the geotechnical assumptions and/or model is an integral part of the design process - investigation, construction verification, and performance monitoring. Variability is a feature of the natural environment and, in many instances, verification of soil or rock quality, or foundation levels, is required. There may be a requirement to extend foundation depths, to modify a foundation system and/or to conduct monitoring as a result of this natural variability. Allowance for verification by appropriate geotechnical personnel must be recognised and programmed for construction.

FOUNDATIONS

Where referred to in the report, the soil or rock quality, or the recommended depth of any foundation (piles, caissons, footings etc.) is an engineering estimate. The estimate is influenced, and perhaps limited, by the fieldwork method and testing carried out in connection with the site investigation, and other pertinent information as has been made available. The material quality and/or foundation depth remains, however, an estimate and therefore liable to variation. Foundation drawings, designs and specifications should provide for variations in the final depth, depending upon the ground conditions at each point of support, and allow for geotechnical verification.

REPRODUCTION OF REPORTS

Where it is desired to reproduce the information contained in our geotechnical report, or other technical information, for the inclusion in contract documents or engineering specification of the subject development, such reproductions must include at least all of the relevant test hole and test data, together with the appropriate Standard Description sheets and remarks made in the written report of a factual or descriptive nature.

Ref: DS5.5.1 Issue 0 Date: 05/10/2018

GLOSSARY OF SYMBOLS

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This standard sheet should be read in conjunction with all test hole log sheets and any idealised geological sections prepared for the investigation report.

GENERAL

Symbol	Description	Symbol	Description
D	Disturbed Sample	R	Rising Head Permeability Test
B	Bulk Sample	F	Falling Head Permeability Test
U(50)	Undisturbed Sampled (suffixed by sample size or tube diameter in mm if applicable)	PBT	Plate Bearing Test
CS	Core Sample (suffixed by diameter in mm)		Water Inflow (make)
ES	Soil sample for environmental sampling		Water Outflow (loss)
PID	Photoionisation Detector		Temporary Water Level
SPT	Standard Penetration Test (with blows per 0.15m)		Final Water Level
N	SPT Value		Point Load Test (axial)
HB/HW	SPT Hammer Bouncing/Hammer Weight		Point Load Test (diametric)
PP/HP	Pocket/Hand Penetrometer (suffixed by value kPa)	PL	Point Load (kPa)
PK	Packer Test (kPa)	IMP	Impression Device Test
PZ	Piezometer Installation	PM	Pressuremeter Test
SV/VS	Shear Vane Test (suffixed by value in kPa)		

SOIL SYMBOLS

Main Components				Minor Components			
	SAND		FILL		sandy		vegetation, roots
	GRAVEL		SILT		gravelly		silty
	CLAY		TOPSOIL		clayey	*Note: Natural soils are generally a combination of constituents, e.g. sandy CLAY*	

ROCK SYMBOLS

Sedimentary						Igneous			
	SANDSTONE		SILTSTONE		CONGLOMERATE		GRANITIC ROCK		IGNEOUS DYKE
	CLAYSTONE		SHALE		COAL		BASALTIC ROCK		

Note: Additional rock symbols may be allocated for a particular project

NATURAL DEFECTS *(Coding)*

Defect Type		Orientation					
Jt	Joint	For vertical non-oriented core ... “Dip” angle (eg. 5°) measured relative to horizontal.					
Pt	Parting	For inclined non-oriented core ... “Angle” measured relative to core axis.					
SS	Sheared Surface	For inclined oriented core ... “Dip” angle and “Dip Direction” angle (eg. 45°/225° mag.).					
WSm	Weathered Seam	Orientation (con’t)		Roughness		Coating	
SSm	Sheared Seam	VT	Vertical	Pol	Polished	Cn	Clean
CSm	Crushed Seam	HZ or 0°	Horizontal	So	Smooth	Sn	Stained
ISm	Infilled Seam	d / °	Degrees	Rf	Rough	Ve	Veneer
SZ	Sheared Zone			VR	Very Rough	Co	Coating
VN	Vein			Slk	Slickensided		
Shape				Infilling / Common Materials			
Pln	Planar	St	Stepped	CLAY	Clay	Mi	Micaceous
Cu	Curved	Ir	Irregular	Ca	Calcite	Mn	Manganese
Un	Undulating	Dis	Discontinuous	X	Carbonaceous	Py	Pyrite
Others				Kt	Chlorite	Qz	Quartz
OP	Open	CL	Closed	Ti	Tight	Fe	Iron Oxide
						MU	Unidentified Mineral

Ref: DS6.5.3 Rev 1 Date : 25/09/2019

SOIL DESCRIPTION AND CLASSIFICATION

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Soil is described in general accordance with Australian Standard AS 1726-2017 (Geotechnical Site Investigations) in terms of visual and tactile properties, with potential refinement by laboratory testing. AS 1726 defines soil as particulate materials that occur in the ground and can be disaggregated or remoulded by hand in air or water without prior soaking. Classification of the soil is undertaken following description.

SOIL DESCRIPTION

The soil description includes a) Composition, b) Condition, c) Structure, d) Origin and e) Additional observations. 'FILL', 'TOPSOIL' or a 'MIXTURE OF SOIL AND COBBLES / BOULDERS' (with dominant fraction first) is denoted at the start of a soil description where applicable.

a) Soil Composition (soil name, colour, plasticity or particle characteristics, secondary and then minor components)

Soil Name: A soil is termed a *coarse grained soil* where the dry mass of sand and gravel particles exceeds 65% of the total. Soils with more than 35% fines (silt or clay particles) are termed *fine grained soils*. The soil name is made up of the primary soil component (in BLOCK letters), prefixed by applicable secondary component qualifiers. Minor components are applied as a qualifiers to the soil name (using the words 'with' or 'trace').

Particles are differentiated on the basis of size. 'Boulders' and 'cobbles' are outside the soil particle range, though their presence (and proportions) is noted. While individual particles may be designated as silt or clay based on grain size, fine grained soils are characterised as silt or clay based on tactile behaviour or Atterberg Limits, and not the relative composition of silt or clay sized particles.

Colour: The prominent colour is noted, followed by (spotted, mottled, streaked etc.) then secondary colours as applicable. Roughly equally proportioned colours are prefixed by (spotted, mottled, streaked etc.). Colour is described in its moist condition, though both wet and dry colours may also be provided if appropriate.

Plasticity: Fine grained soils are designated within standard ranges of plasticity based on tactile assessment or laboratory assessment of the Liquid Limit.

Particle Characteristics: The particle shape, particle distribution and particle size range within a coarse grained soil is described using standard terms. Particle composition may be described using rock or mineral names, with specific terms for carbonate soils.

Secondary and Minor Components: The primary soil is described and modified by secondary and minor components, with assessed ranges as tabulated.

Carbonate Soils: Carbonate content can be assessed by use of dilute '10%' HCl solution. Resulting clear sustained effervescence is interpreted as a *Carbonate soil* (approximately >50% carbonate), while weak or sporadic effervescence indicates *Calcareous soil* (< 50% carbonate). No effervescence is interpreted as a non-calcareous soil.

Organic and Peat Soils: Where identified, organic content is noted. *Organic soil* (2% to 25% organic matter) is usually identified by colour (usually dark grey/black) and odour (i.e. 'mouldy' or hydrogen sulphide odour). *Peat* (>25% organic matter) is identified by a spongy feel and fibrous texture. Peat soils' decomposition may be described as '*fibrous'* (little / no decomposition), '*pseudo-fibrous'* (moderate decomposition) or '*amorphous'* (full decomposition).

Fraction	Components		Particle Size (mm)
Oversize	BOULDERS		> 200
	COBBLES		63 - 200
Coarse grained soil particles	GRAVEL	Coarse	19 - 63
		Medium	6.7 -19
		Fine	2.36 - 6.7
	SAND	Coarse	0.6 - 2.36
		Medium	0.21 - 0.6
		Fine	0.075 - 0.21
Fine grained soil particles	SILT		0.002 - 0.075
	CLAY		< 0.002

Plasticity Terms (Fine Grained Soils)		Laboratory Liquid Limit Range
Silt	**Clay**	
N/A	N/A	(Non Plastic)
Low Plasticity	*Low Plasticity*	≤ 35%
	Medium Plasticity	> 35% and ≤ 50%
High Plasticity	*High Plasticity*	> 50%

Particle Distribution Terms (Coarse Grained Soils)	
Well graded	good representation of all particle sizes
Poorly graded	one or more intermediate sizes poorly represented
Gap graded	one or more intermediate sizes absent
Uniform	essentially of one size

Particle Shape Terms (Coarse Grained Soils)		
Rounded	*Sub-angular*	*Flaky or Platy*
Sub-rounded	*Angular*	*Elongated*

Secondary and Minor Components for Coarse Grained Soils			
Fines (%)	**Modifier** (as applicable)	**Accessory coarse (%)**	**Modifier** (as applicable)
≤ 5	*'trace silt / clay'*	≤ 15	*'trace sand / gravel'*
> 5, ≤ 12	*'with clay / silt'*	> 15, ≤ 30	*'with sand / gravel'*
> 12	*prefix 'silty / clayey'*	> 30	*prefix 'gravelly / sandy'*

Secondary and Minor Components for Fine Grained Soils	
% Coarse	**Modifier** (as applicable)
≤ 15	add *"trace sand / gravel"*
> 15, ≤ 30	add *"with sand / gravel"*
> 30	prefix soil *"sandy / gravelly"*

Ref: DS6.5.1.1 Rev 0 Date: 2/03/2018

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b) Soil Condition (moisture, relative density or consistency)

Moisture: Fine grained soils are described relative to plastic or liquid limits, while coarse grained soils are assessed based on appearance and feel. The observation of seepage or free water is noted on the test hole logs.

Moisture - Coarse Grained Soils		
Term		**Tactile Properties**
Dry	*('D')*	Non-cohesive, free running
Moist	*('M')*	Feels cool, darkened colour, tends to stick together
Wet	*('W')*	Feels cool, darkened colour, tends to stick together, free water forms when handling

Moisture - Fine Grained Soils		
Term		**Tactile Properties**
Moist, dry of plastic limit	*('$w < PL$')*	Hard and friable or powdery
Moist, near plastic limit	*('$w \approx PL$')*	Can be moulded
Moist, wet of plastic limit	*('$w > PL$')*	Weakened, free water forms on hands with handling
Wet, near liquid limit	*('$w \approx LL$')*	Highly weakened, tends to flow when tapped
Wet, wet of liquid limit	*('$w > LL$')*	Liquid consistency, soil flows

Relative Density (Non Cohesive Soils): The Density Index is inherently difficult to assess by visual or tactile means, and is normally assessed by penetration testing (e.g. SPT, DCP, PSP or CPT) with published correlations. Assessment may be affected by moisture and *in situ* stress conditions. Density Index assessment may be refined by combination of *in situ* density testing and laboratory reference maximum and minimum density ranges.

Consistency (Cohesive Soils): May be assessed by direct measurement (shear vane, CPT etc.), or approximate tactile correlations. Cohesive soils include fine grained soils, and coarse grained soils with sufficient fine grained components to induce cohesive behaviour. A 'design shear strength' must consider the mode of testing, the *in situ* moisture content and potential for variations of moisture which may affect the shear strength.

Relative Density (Non-Cohesive Soils)		
Term and (Symbol)		**Density Index (%)**
Very Loose	*(VL)*	≤ 15
Loose	*(L)*	> 15 and ≤ 35
Medium Dense	*(MD)*	> 35 and ≤ 65
Dense	*(D)*	> 65 and ≤ 85
Very Dense	*(VD)*	> 85

Consistency assessment can be influenced by moisture variation.

Consistency (Cohesive Soils)			
Term and (Symbol)		**Tactile Properties**	**Undrained Shear Strength**
Very Soft	*(VS)*	Extrudes between fingers when squeezed	< 12 kPa
Soft	*(S)*	Can be moulded by light finger pressure	12 - 25 kPa
Firm	*(F)*	Can be moulded by strong finger pressure	25 - 50 kPa
Stiff	*(St)*	Cannot be moulded by fingers	50 - 100 kPa
Very Stiff	*(VSt)*	Can be indented by thumb nail	100 - 200 kPa
Hard	*(H)*	Can be indented with difficulty by thumb nail	> 200 kPa
Friable	*(Fr)*	Easily crumbled or broken into small pieces by hand	-

c) Structure (zoning, defects, cementing)

Zoning: The *in situ* zoning is described using the terms below. '*Intermixed*' may be used for an irregular arrangement.

'layer' (a continuous zone across the exposed sample)

'lens' (a discontinuous layer with lenticular shape)

'pocket' (an irregular inclusion of different material).

'interbedded' or *"interlaminated"* (alternating soil types)

Defects: Described using terms below, with dimension orientation and spacing described where practical.

'parting' (an open or closed surface or crack sub parallel to layering with little / no tensile strength - open or closed)

'fissure' (as per a parting, though not parallel or sub parallel to layering – may include desiccation cracks)

'sheared seam' (zone of sub parallel near planar closely spaced intersecting smooth or slickensided fissures dividing the mass into lenticular or wedge shaped blocks)

'sheared surface' (a near planar, curved or undulating smooth, polished or slickensided surface, indicative of displacement)

'softened zone' (in clayey soils, usually adjacent to a defect with associated higher moisture content)

'tube' (tubular cavity, singly or one of a large number, often formed from root holes, animal burrows or tunnel erosion)

'tube cast' (an infilled tube – infill may vary from uncemented through to cemented or have rock properties)

'infilled seam' (sheet like soil body cutting through the soil mass, formed by infilling of open defects)

Cementation: Soils may be cemented by various substances (e.g. iron oxides and hydroxides, silica, calcium carbonate, gypsum), and the cementing agent shall be identified if practical. Cemented soils are described as:

'weakly cemented'	easily disaggregated by hand in air or water
'moderately cemented'	effort required to disaggregate the soil by hand in air or water

Materials extending beyond '*moderately cemented*' are encompassed within the rock strength range. Where consistent cementation throughout a soil mass is identified as a duricrust, it is described in accordance with duricrust rock descriptors. Where alternate descriptors of cementation development are applied for consistency with regional practices or geology, or client requirements, these are outlined separately.

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d) Origin

An interpretation is provided based on observations of landform, geology and fabric, and may further include assignment of a stratigraphic unit. The use of terms 'possibly' or 'probably' indicates a higher degree of uncertainty regarding the assessed origin or stratigraphic unit. Typical origin descriptors include:

Residual	Formed directly from in situ weathering with no visible structure or fabric of the parent soil or rock.
Extremely weathered	Formed directly from in situ weathering, with remnant and/or fabric from the parent rock.
Alluvial	Deposited by streams and rivers (may be applied more generically as transported by water).
Estuarine	Deposited in coastal estuaries, including sediments from inflowing rivers, streams, and tidal currents.
Marine	Deposited in a marine environment.
Lacustrine	Deposited in freshwater lakes.
Aeolian	Transported by wind.
Colluvial and Slopewash	Soil and rock debris transported down slopes by gravity (with or without assistance of water). Colluvium is typically applied to thicker / localised deposits, and slopewash for thinner / widespread deposits.
TOPSOIL	Surficial soil, typically with high levels of organic material. Topsoils buried by other transported soils are termed *'remnant topsoil'*. Tree roots within otherwise unaltered soil does not characterise topsoil.
FILL	Any material which has been placed by anthropogenic processes (i.e. human activity).

e) Additional Observations

Additional observations may be included to supplement the soil description. Additional observations may consist of notations relating to soil characteristics (odour, contamination, colour changes with time), inferred geology (with delineation of soil horizons or geological time scale) or notes on sampling and testing application (including the reliability, recovery, representativeness, or condition of samples or test conditions and limitations). If the material is assessed to be not representative, terms such as 'poor recovery', 'non-intact', 'recovered as' or 'probably' are applied.

SOIL CLASSIFICATION

Classification allocates the material within distinct soil groups assigned a two character Group Symbol:

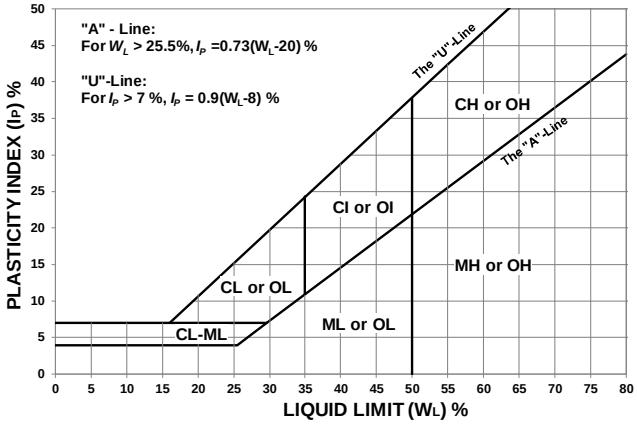
Coarse Grained Soils (sand and gravel: more than 65% of soil coarser than 0.075 mm)		
Major Division	**Group Symbol**	**Soil Group**
GRAVEL (more than half of the coarse fraction is > 2.36 mm)	GW	GRAVEL, well graded
	GP	GRAVEL, poorly graded
	GM	Silty GRAVEL
	GC	Clayey GRAVEL
SAND (more than half of the coarse fraction is < 2.36 mm)	SW	SAND, well graded
	SP	SAND, poorly graded
	SM	Silty SAND
	SC	Clayey SAND

Fine Grained Soils (silt and clay: more than 35% of soil finer than 0.075 mm)		
Major division	**Group Symbol**	**Soil Group**
SILT and CLAY (low to medium plasticity)	ML	SILT, low plasticity
	CL	CLAY, low plasticity
	CI	CLAY, medium plasticity
	OL	Organic SILT
SILT and CLAY (high plasticity)	MH	SILT, high plasticity
	CH	CLAY, high plasticity
	OH	Organic CLAY / SILT
Highly Organic	Pt	PEAT

Coarse grained soils with fines contents between 5% and 12% are provided a dual classification comprising the two group symbols separated by a dash, e.g. for a poorly graded gravel with between 5% and 12% silt fines (poorly graded 'GRAVEL with silt'), the classification is GP-GM.

For the purpose of classification, *poorly graded, uniform,* or *gap graded* soils are all designated as poorly graded. Soils that are dominated by boulders or cobbles are described separately and are not classified.

Classification is routinely undertaken based on tactile assessment with the soil description. Refinement of soil classification may be applied using laboratory assessment, including particle size distribution and Atterberg Limits. Atterberg Limits testing is applied to the sample portion finer than 0.425 mm. Fine grained soil components are assessed on the basis of regions defined within the Modified Casagrande Chart.



ROCK DESCRIPTION AND CLASSIFICATION

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Rock is described in general accordance with Australian Standard AS 1726-2017 (Geotechnical site investigations) in terms of visual and tactile properties, with potential refinement by laboratory testing. AS 1726 defines rock as any aggregate of minerals and/or organic materials that cannot be disaggregated by hand in air or water without prior soaking. The rock description and classification distinguishes between rock material, defects, structure and rock mass.

ROCK DESCRIPTION AND CLASSIFICATION

a) Description of rock material (rock name, grain size and type, colour, texture and fabric, inclusions or minor components, moisture content and durability)

Rock Name: Simple rock names are used to provide a reasonable engineering description rather than a precise geological classification. The rock name is chosen on the basis of origin, with common types summarised below. Additional, non-exhaustive, terminology is included in AS 1726. Rock names not described within AS 1726 may be adopted, with geological characteristics typically noted within accompanying text.

<table>
<tr><th rowspan="2">Grain Size (mm)</th><th colspan="4">Sedimentary</th><th colspan="2">Metamorphic</th><th colspan="3">Igneous</th></tr>
<tr><th colspan="2">Clastic or Detrital</th><th colspan="2">Carbonate</th><th rowspan="2">Pyroclastic</th><th rowspan="2">Foliated</th><th rowspan="2">Non-Foliated</th><th rowspan="2">Felsic</th><th rowspan="2">↔</th><th rowspan="2">Mafic</th></tr>
<tr><th>Low Porosity</th><th>Porous</th></tr>
<tr><td>>2.0</td><td colspan="2">CONGLOMERATE
(rounded grains in a finer matrix)

BRECCIA
(angular or irregular fragments in a finer matrix)</td><td rowspan="4">LIMESTONE
(Predominantly $CaCO_3$)

or

DOLOMITE
(Predominantly $CaMgCO_3$)</td><td>CALCIRUDITE</td><td>AGGLOMERATE
(rounded grains in a finer matrix)

VOLCANIC BRECCIA
(angular fragments in a finer matrix)</td><td>GNEISS</td><td>MARBLE
(carbonate)

QUARTZITE</td><td>GRANITE</td><td>DIORITE</td><td>GABBRO</td></tr>
<tr><td>2.0-0.06</td><td colspan="2">SANDSTONE</td><td>CALCARENITE</td><td>TUFF</td><td>SCHIST</td><td rowspan="3">SERPENTINITE

HORNFELS</td><td>MICRO-GRANITE</td><td>MICRO-DIORITE</td><td>DOLERITE</td></tr>
<tr><td>0.06-0.002</td><td rowspan="2">MUDSTONE
(silt and clay)</td><td>SILTSTONE
(mostly silt)</td><td>CALCISILTITE</td><td rowspan="2">Fine grained TUFF</td><td rowspan="2">PHYLLITE or SLATE</td><td rowspan="2">RHYOLITE</td><td rowspan="2">ANDESITE</td><td rowspan="2">BASALT</td></tr>
<tr><td><0.002</td><td>CLAYSTONE
(mostly clay)</td><td>CALCILUTITE</td></tr>
</table>

Reproduced with modification from Tables 15, 16 and 17, Clause 6.2.3.1, AS 1726-2017, Geotechnical site investigations.

Grain size: For rocks with predominantly sand sized grains the dominant or average grain size is described as follows:

Rock type	Coarse grained	Medium grained	Fine grained
Sedimentary rocks	Mainly 0.6 mm to 2 mm	Mainly 0.2 mm to 0.6 mm	Mainly 0.06 mm (just visible) to 0.2 mm
Igneous and metamorphic rocks	Mainly >2 mm	Mainly 0.06 mm to 2 mm	Mainly <0.6 mm (just visible)

Colour assists in rock identification and interpolation. Rock colour is generally described in a *"moist"* condition, using simple terms (e.g. grey, brown, etc.) and modified as necessary by *"pale"*, *"dark"*, or *"mottled"*. Borderline colours may be described as a combination of these colours (e.g. red-brown).

Texture refers to the arrangement of, or the relationship between, the component grains or crystals (e.g. porphyritic, crystalline or amorphous).

Fabric refers to visible grain arrangement along a preferential orientation or a layering. Fabric may be noted as *"indistinct"* (little effect on strength) or *"distinct"* (rock breaks more easily parallel to the fabric). Common terms include *"massive"* or *"flow banding"* (igneous), *"foliation"* or *"cleavage"* (metamorphic). Sedimentary layering is described as *"bedding"* or (where thickness < 20 mm) *"lamination"*. The typical orientation, spacing or thickness of these structural features can be described directly in millimetres and metres. Further quantification of bedding thickness applied by GHD is as follows:

Bedding Term	Thickness
Very thickly bedded	>2 m
Thickly bedded	0.6 to 2 m
Medium bedded	0.2 to 0.6 m
Thinly bedded	60 to 200 mm
Very thinly bedded	20 to 60 mm
Laminated	6 to 20 mm
Thinly laminated	<6 mm

Features, Inclusions and Minor Components are typically only described when those features could influence the engineering behaviour of the rock. Described features may include: gas bubbles in igneous rocks; veins of quartz, calcite or other minerals; pyrite crystals and nodules or bands of ironstone or carbonate; cross bedding in sandstone; clast or matrix support in conglomerates and breccia.

Moisture content may be described by the feel and appearance of the rock, as follows: *"dry"* (looks and feels dry), *"moist"* (feels cool, darkened in colour, but no water is visible on the surface), or *"wet"* (feels cool, darkened in colour, water film or droplets visible on the surface). The moisture content of rock cored with water may not represent in situ conditions.

Durability of rock samples is noted where there is an observed tendency of samples to crack, breakdown in water or otherwise deteriorate with exposure.

ROCK DESCRIPTION AND CLASSIFICATION

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b) Classification of the rock material condition (strength, weathering and/or alteration)

Estimated Strength refers to the rock material and not the rock mass. The strength is defined in terms of uniaxial compressive strength (UCS), though is typically estimated by either tactile assessment or Point Load Strength Index ($Is_{(50)}$) (measured perpendicular to planar anisotropy). A correlation between $Is_{(50)}$ and UCS is adopted for classification, though is not intended for design purposes without appropriate supporting assessment. A field guide follows:

Term and (Symbol)		UCS (MPa)	$Is_{(50)}$ (MPa)	Field Guide
Very Low	*(VL)*	0.6 – 2	0.03 - 0.1	Material crumbles under firm blows with sharp end of geological pick; can be peeled with knife; too hard to cut a triaxial sample by hand. Pieces up to 30 mm thick can be broken by finger pressure.
Low	*(L)*	2 - 6	0.1 - 0.3	Easily scored with knife; indentations 1 to 3 mm show in the specimen with firm blows of a geological pick point; has dull sound under hammer. A piece of core 150 mm long by 50 mm diameter may be broken by hand. Sharp edges of core may be friable and break during handling.
Medium	*(M)*	6 - 20	0.3 - 1.0	Readily scored with a knife; a piece of core 150 mm long by 50 mm diameter can be broken by hand with difficulty.
High	*(H)*	20 - 60	1 - 3	A piece of core 150 mm long by 50 mm diameter cannot be broken by hand but can be broken by a geological pick with a single firm blow; rock rings under hammer.
Very High	*(VH)*	60 - 200	3 -10	Hand specimen breaks with geological pick after more than one blow; rock rings under hammer.
Extremely High	*(EH)*	>200	>10	Specimen requires many blows with geological pick to break through intact material; rock rings under hammer.

Based on Table 19, Clause 6.2.4.1, AS 1726-2017, Geotechnical site investigations. Refer to source document for further detail.

Material with strength less than *"very low"* is described using soil characteristics, with the presence of an original rock texture or fabric noted if relevant.

Weathering and Alteration: The process of weathering involves physical and chemical changes to the rock resulting from exposure near the earth's surface. A subjective scale for weathering is applied as follows:

Weathering Term and (Symbol)		Description
Residual Soil	*(RS)*	Material has weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are no longer visible, but the soil has not been significantly transported.
Extremely Weathered	*(XW)*	Material has weathered to such an extent that it has soil properties. Mass structure, material texture and fabric of original rock are still visible.
Highly Weathered	*(HW)*	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable. Rock strength is significantly changed by weathering. Some primary minerals have weathered to clay minerals. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores.
Moderately Weathered	*(MW)*	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable, but shows little or no change of strength from fresh rock.
Slightly Weathered	*(SW)*	Rock is partially discoloured with staining or bleaching along joints but shows little or no change of strength from fresh rock.
Fresh	*(Fr)*	Rock shows no sign of decomposition of individual minerals or colour changes.

Modified based on Table 20, Clause 6.2.4.2, AS 1726-2017, Geotechnical site investigations. Refer to source document for further detail.

Where physical and chemical changes to the rock are caused by hot gases or liquids at depth, the process is called alteration. Unlike weathering, the distribution of altered material may occur at any depth and show no relationship to topography. Where alteration minerals are identified the terms *"extremely altered" (XA)*, *"highly altered" (HA)*, *"moderately altered" (MA)* and *"slightly altered" (SA)* can be used to describe the physical and chemical changes described above.

ROCK DESCRIPTION AND CLASSIFICATION

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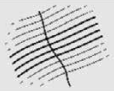
c) Description of defects (defect type, orientation, roughness and shape, coatings and composition of seams, spacing, length, openness and thickness, block shape)

Defects often control the overall engineering behaviour of a rock mass. AS 1726 defines a defect as “a discontinuity, fracture, break or void in the material or materials across which there is little or no tensile strength”. Describing the type, character and distribution of natural defects is an essential part of the description of many rock masses.

Commonly described characteristics of defects within a rock mass include type, orientation, roughness and shape, coatings and composition of seams, aperture, persistence, spacing and block shape.

The degree of detail required for defect descriptions depends on project requirements. All defects judged of engineering significance for the site and project are described individually. Where appropriate, generalised descriptions for less significant, or multiple similar, defects can be provided for delineated parts of rock core or exposures. A general description of delineated defect sets is provided when sufficient orientation data is available.

Defect Type is described using the terms summarised below. On core logs, only natural defects across which the core is discontinuous are described (i.e. inferred artificial fractures such as drill breaks are excluded). Incipient defects are described using the relevant texture or fabric terms. Healed defects (those that have been re-cemented by minerals such as chlorite or calcite) are described using the prefix “healed” (e.g. healed joint).

Type and (Symbol)		Description	Diagram
Parting	(Pt)	A surface or crack across which the rock has little or no tensile strength. Parallel or sub-parallel to layering (e.g. bedding) or a planar anisotropy in the rock material (e.g. cleavage). May be open or closed.	
Joint	(Jt)	A surface or crack with no apparent shear displacement and across which the rock has little or no tensile strength, but which is not parallel or subparallel to layering or to planar anisotropy in the rock material. May be open or closed.	
Sheared Surface	(SS)	A near planar, curved or undulating surface which is usually smooth, polished or slickensided and which shows evidence of shear displacement.	
Sheared Zone	(SZ)	Zone of rock material with roughly parallel near planar, curved or undulating boundaries cut by closely spaced joints, sheared surfaces or other defects. Some of the defects are usually curved and intersect to divide the mass into lenticular or wedge-shaped blocks.	
Sheared Seam	(SSm)	Seam of soil material with roughly parallel almost planar boundaries, composed of soil materials with roughly parallel near planar, curved or undulating boundaries cut by closely spaced joints, sheared surfaces or other defects. Some of the defects are usually curved and intersect to divide the mass into lenticular or wedge-shaped blocks.	
Crushed Seam	(CSm)	Seam of soil material with roughly parallel almost planar boundaries, composed of disoriented, usually angular fragments of the host rock material which may be more weathered than the host rock. The seam has soil properties.	
Infilled Seam	(ISm)	Seam of soil material usually with distinct roughly parallel boundaries formed by the migration of soil into an open cavity or joint, infilled seams less than 1 mm thick may be described as a veneer or coating on a joint surface.	
Extremely Weathered Seam	(WSm)	Seam of soil material, often with gradational boundaries. Formed by weathering of the rock material in place.	

Modified based on Table 22, Clause 6.2.5.2, AS 1726-2017, Geotechnical site investigations. Refer to source document for further detail.

Defect Orientation is recorded as the “dip” (maximum angle of the mean plane, measured from horizontal) and the “dip direction” (azimuth of the dip, measured clockwise from true north). Dip and dip direction is expressed in degrees, with two-digit and three-digit numbers respectively, separated by a slash (e.g. 45/090). For vertical boreholes, the defect dip is measured as the acute angle from horizontal. Rock core extracted from vertical boreholes is generally not oriented, so the dip direction cannot be directly measured. For non-oriented inclined boreholes, a defect “alpha” (α) angle is measured as the acute angle from the core axis. For vertical and non-oriented inclined boreholes, the dip direction can sometimes be estimated from the relationship of the defect to a well-defined site structure such as fabric. For oriented inclined boreholes, the measurement of the defect orientation is carried out and recorded in a form suited to the particular device being used and later processed to report true dip and dip direction.

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Roughness and Shape of the defect surface combine to have significant influence on shear strength. Standard descriptions and abbreviations include:

Roughness and (Symbol)		Description
Very Rough	(VR)	Many large surface irregularities (amplitude generally more than 1 mm). Feels like, or coarser than very coarse sand paper.
Rough	(Rf)	Many small surface irregularities (amplitude generally less than 1 mm). Feels like fine to coarse sand paper.
Smooth	(So)	Smooth to touch. Few or no surface irregularities.
Polished	(Pol)	Shiny smooth surface.
Slickensided	(Slk)	Grooved or striated surface, usually polished.

Shape and (Symbol)		Description
Planar	(Pln	The defect does not vary in orientation.
Curved	(Cu)	The defect has a gradual change in orientation.
Undulating	(Un)	The defect has a wavy surface.
Stepped	(St)	The defect has one or more well defined steps.
Irregular	(Ir)	The defect has many sharp changes of orientation.

Although the surface roughness of defects can be described at small (10-100 mm) scales of observation, the overall shape of the defect surface can usually be observed only at medium (0.1-1 m) and large (>1 m) scale.

Where it is necessary to assess the shear strength of a defect, observations are generally made at multiple scales. Surface roughness may also be characterised by using the joint roughness coefficient (JRC) profiles established by Barton and Choubey (1977). Where large-scale observations are possible, further measurement of defect "waviness" (angle of the asperities relative to the overall dip angle of the plane) is made.

Coatings and Composition of Seams: Many defects have surface coatings, which can affect their shear strength. Standard descriptions include:

Coating and (Symbol)		Description
Clean	(Cn)	No visible coating.
Stained	(Sn)	No visible coating but surfaces are discoloured.
Veneer	(Ve)	A visible coating of soil or mineral substance, but too thin to be measured may be patchy.
Coating	(Co)	A visible coating up to 1 mm thick. Soil material greater than 1 mm thick is described using defect terms (e.g. infilled seam). Rock material greater than 1 mm thick is described as a vein (Vn).

Common Minerals and (Symbol)	
Clay	(CLAY)
Calcite	(Ca)
Carbonaceous	(X)
Chlorite	(Kt)
Iron Oxide	(Fe)
Micaceous	(Mi)
Manganese	(Mn)
Pyrite	(Py)
Quartz	(Qz)

The composition of seams are described using soil description terms as given on the SOIL DESCRIPTION AND CLASSIFICATION Standard Sheet. Where possible the mineralogy of coatings is identified. Common mineral coatings include:

Aperture: Defects across which there is little or no tensile strength can be either *"open"* (*Op*) or *"closed"* (*Cl*). For rock core, the width of the "open" defect is measured whilst still in the core barrel splits. The descriptor *"tight"* (*Ti*) can only apply to healed or incipient defects (i.e. veins, foliation, etc.).

Persistence and Spacing of defects is described directly in millimetres and metres. If the measurement of defect persistence is limited by the extent of the exposure, the end conditions are noted (i.e. 0, 1 or 2 defect ends observed). The spacing between defects of similar orientation (i.e. within a specific defect set) is recorded when possible.

The frequency of defects within rock core can be measured as either: the spacing between successive defects; or the "Fracture Index", which is the number of defects per metre of core.

Spacing Term	Thickness
Very wide	>2 m
Wide	0.6 to 2 m
Medium	0.2 to 0.6 m
Closely	60 to 200 mm
Very closely	20 to 60 mm
Extremely closely	6 to 20 mm

Block Shape: Where it is considered significant, block shape can be described using the subjective terms as follows:

Block Shape	Description
Polyhedral	Irregular discontinuities without arrangement into distinct sets, and of small persistence.
Tabular	One dominant set of parallel discontinuities, for example bedding planes, with other non-continuous joints; thickness of blocks much less than length or width.
Prismatic	Two dominant sets of discontinuities, approximately orthogonal and parallel, with a third irregular set; thickness of blocks much less than length or width.
Equidimensional	Three dominant sets of discontinuities, approximately orthogonal, with occasional irregular joints, giving equidimensional blocks.
Rhomboidal	Three (or more) dominant, mutually oblique, sets of joints giving oblique-shaped, equidimensional blocks.
Columnar	Several, usually more than three sets of continuous, parallel joints usually crossed by irregular joints; lengths much greater than other dimensions.

Modified based on Table 23, Clause 6.2.5.7, AS 1726-2017, Geotechnical site investigations. Refer to source document for further detail.

Ref: DS6.5.2.1 Issue 2.0 Date: 01/08/2019

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d) Interpreted stratigraphic unit

Stratigraphic units may be interpreted and reported, in accordance with The Australian Stratigraphic Units Database (ASUD). The terms *"possibly"* or *"probably"* indicate increased uncertainty in this interpretation.

e) Geological structure

After describing the rock material and defects, an interpretation of the nature and configuration of rock mass defects may be presented in logs, charts, 2D sections and 3D models (e.g. dipping strata, folds, unconformities, weathering profiles, defect sets, geological faults, etc.).

PARAMETERS RELATED TO CORE DRILLING

Drill Depth and Core Loss: Drilling intervals are shown on GHD Core Log Sheets by depth increments and horizontal marker lines.

"Core loss", or its inverse "total core recovery" (TCR), is measured as a percentage of the core run. If the location of the core loss is known, or strongly suspected, it is shown in a region of the column bounded by dashed horizontal lines. If unknown, core loss is assigned to the bottom of a core run.

Rock Quality Designation (RQD), described by Deere et al. (1989), may be recorded on GHD Core Log Sheets.

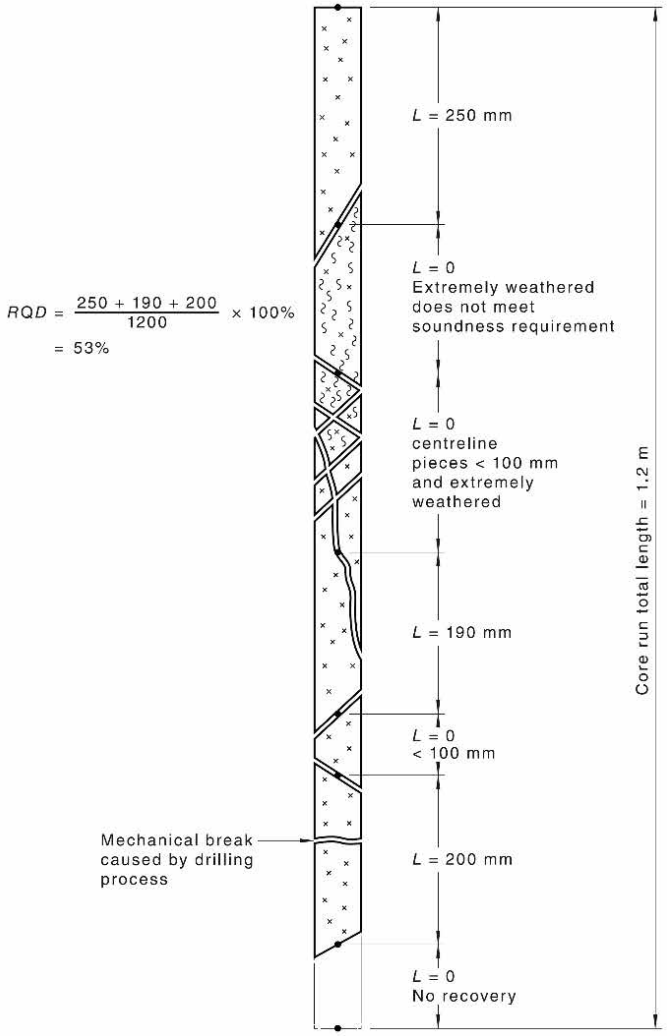
For certain projects, such as tunnelling or underground mining investigations, rock mass ratings or classifications can be required as part of the design process. The RQD forms a component of these rock mass ratings and provides a quantitative estimate of rock mass quality from rock core logs.

The rock core must be "N" sized (nominally 50 mm) or greater for derivation of RQD. The RQD is expressed as a percentage of intact rock core (excluding residual soil and extremely weathered rock) greater than 100 mm in length over the total selected core length.

Deere et al. (1989) recommends measuring lengths of core along the centreline, as shown right.

RQD is expressed as:

$$RQD = \frac{\sum Length\ of\ sound\ core\ pieces > 100\ mm\ in\ length}{Length\ of\ core\ run}\ x\ 100\%$$



RQD measurement procedure
(reproduced from Figure 13, Clause 6.2.9.4, AS 1726-2017, Geotechnical site investigations)

ROCK MASS CLASSIFICATION

Rock mass classification schemes may be used to represent the engineering characteristics of a rock mass. A large variety of classification schemes have been developed by various authors, ranging from simple to complex. All of the schemes are limited in their application and many rock mass classification systems assume that the rock mass is isotropic, which is rarely the case.

References

STANDARDS AUSTRALIA (2017). AS 1726-2017. GEOTECHNICAL SITE INVESTIGATIONS.
BARTON, N. AND CHOUBEY, V. (1977). THE SHEAR STRENGTH OF ROCK JOINTS IN THEORY AND PRACTICE. ROCK MECHANICS 10, 1-54. SPRINGER.
DEERE, D.U. AND DEERE, D.W. (1989). ROCK QUALITY DESIGNATION (RQD) AFTER TWENTY YEARS. CONTRACT REPORT GL-89-1. ARMY CORPS OF ENGINEERS. WASHINGTON DC, 1989.

DYNAMIC CONE PENETROMETER (DCP) TESTING

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SCOPE

The Dynamic Cone Penetrometer (DCP) test comprises the measurement of the soil resistance to a steel rod driven into the ground by a dropped weight.

The DCP test is a simple manual test used in both sandy and clayey soils. The test is a measure of the shear strength of the soil at relatively shallow depth.

EQUIPMENT AND METHOD

A general description of the dynamic penetrometer apparatus used by our firm is presented in Australian Standard AS 1289.6.3.2. The equipment utilises a 9 kg sliding weight with a drop height of 510 mm. It is fitted with a conical tip. The equipment can be adjusted for a fall of 600 mm and use of a blunt tip in accordance with AS 1289.6.3.3.

The test data are generally recorded as the number of blows (n) per 50 mm of penetration. For specific applications (such as pavement investigations), the data may be collected in the reverse form, i.e. as mm per blow. The results are presented either in tabular or graphic form for reporting purposes.

INTERPRETATION

The interpretation of the DCP results is generally based on the assumption that the measured resistance is a function of soil strength. A profile of soil strength (cohesive soils) or density index (cohesionless soils) can thus be established. The test often can be used to qualitatively indicate the presence of soft or loose zones within a soil profile.

The energy of the system per unit area is similar to that of the larger Standard Penetration Test (SPT). Thus, the common relationships of SPT and other parameters can be used as a means of estimating soil properties, after appropriate site specific consideration. The interpretations from the test are approximate only, and this is particularly pertinent to sand profiles where the magnitude of confinement stress is important in the assessment of the results.

Interpretation of the DCP penetration rate at depth must be conducted with due regard to rod friction effects. In particular, care must be exercised with soft clay profiles where rod resistance may have an unconservative impact on the results. Care must also be exercised with soil profiles containing larger particles such as gravels and cobbles where penetration rate can be affected if the DCP tip strikes or glances off such particles.

In-situ California Bearing Ratio (CBR) values of clay soil subgrades are sometimes interpreted directly from DCP test results for use in road pavement design. In this case, the correlation between DCP and CBR based on that published in AUSTROADS Pavement Structural Design guide (AGPT02-17 Part 2) may be applied. This correlation should be verified by site specific laboratory testing, where appropriate. In addition, the effects of moisture content variations (in-situ versus design conditions) must be considered, as the DCP test only reflects the shear strength of the soil at the time of testing. Further information can be found in AUSTROADS Geotechnical Investigation and Design guide (AGRD07-08 Part 7).

Ref: DS5.4.3 Rev 0 Date: 05/10/2018

LABORATORY TESTING

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GENERAL

Samples extracted during the fieldwork stage of a site investigation may be “disturbed” or “undisturbed” (as generally indicated on the test hole logs) depending upon the nature and purpose of the sample as well as the method of extraction, transportation, extrusion and testing. This aspect should be taken into account when assessing test results, which must of necessity, reflect the effects of such disturbance.

All soil properties (as measured by laboratory testing) exhibit inherent variability and thus a certain statistical number of tests is required in order to predict an average property with any degree of confidence. The site variability of soil strata, future changes in moisture and other conditions and the discrete sampling positions must also be considered when assessing the representative nature of the laboratory programme.

Certain laboratory test results provide interpreted soil properties as derived by conventional mathematical procedures. The applicability of such properties to engineering design must be assessed with due regard to the site, sample condition, procedure and project in hand.

TESTING

Laboratory testing is normally carried out in accordance with Australian Standard AS 1289 as amended, or in NSW, Roads and Maritime Services (RMS) standards when specified. The routine Australian Standard tests are as follows:

Moisture Content	AS1289 2.1.1	
Liquid Limit	AS1289 3.1.1	collectively known as Atterberg Limits
Plastic Limit	AS1289 3.2.1	
Plasticity Index	AS1289 3.3.1	
Linear Shrinkage	AS1289 3.4.1	
Particle Density	AS1289 3.5.1	
Particle Size Distribution	AS1289 3.6.1, 3.6.2 and 3.6.3	
Emerson Class Number	AS1289 3.8.1	collectively, Dispersive Classification
Percent Dispersion	AS1289 3.8.2	
Pinhole Dispersion Classification	AS1289 3.8.3	
Hole Erosion (HE)	GHD Method	
No Erosion Filter (NEF)	GHD Method	
Organic Matter	AS1289 4.1.1	
Sulphate Content	AS1289 4.2.1	
pH Value	AS1289 4.3.1	
Resistivity	AS1289 4.4.1	
Standard Compaction	AS1289 5.1.1	
Modified Compaction	AS1289 5.2.1	
Dry Density Ratio	AS1289 5.4.1	
Minimum Density	AS1289 5.5.1	
Density Index	AS1289 5.6.1	
California Bearing Ratio	AS1289 6.1.1 and 6.1.2	
Shear Box	AS1289 6.2.2	
Undrained Triaxial Shear	AS1289 6.4.1 and 6.4.2	
One Dimensional Consolidation	AS1289 6.6.1	
Permeability Testing	AS1289 6.7.1, 6.7.2 and 6.7.3	

Where tests are used which are not covered by appropriate standard procedures, details are given in the report.

LABORATORIES

Our Australian laboratories are NATA accredited to AS ISO / IEC17025 for the listed tests.

The oedometer, triaxial and shear box equipment are fully automated for continuous operation using computer controlled data acquisition, processing and plotting systems.

Ref: DS5.5.2 Issue 0 Date: 05/10/2018

Appendix B – Engineering logs

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : UTS Haberfield Club Carpark, Haberfield, NSW

HOLE No. A1-BH01

SHEET 1 OF 1

Position : 328719.58 E 6250682.54 N MGA94/ 56	**Surface RL:** 1.93m AHD	**Angle from Horiz. :** 90°	**Processed :** MAG
Rig Type : XP60 **Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 10/10/2019	**Date Completed :** 10/10/2019	**Logged by :** LM	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
0	TC-bit auger	Nil	▽ 10/10/19	ES	0.06		-	ASPHALT CARPARK PAVEMENT	-	-	
				ES			-	[FILL] Silty Sandy GRAVEL: fine to coarse, angular, dark grey, fine to coarse grained sand.	M	-	0.2m, PID=5.3ppm
					0.40		-	[FILL] Gravelly SAND: fine to medium grained, pale brown, fine, angular gravel, with silt.	M	-	0.5m, PID=7.9ppm
				D							
1				ES				1.0m, orange, trace clay.			1.0m, PID=4.7ppm
				D							
					1.40		-	[FILL] Gravelly CLAY: high plasticity, brown, medium to coarse, angular gravel.	M	-	
					1.60		-	[FILL] Silty Gravelly SAND: medium to coarse grained, brown, fine to medium, angular gravel, trace clay.	W	-	
				D							
2				ES	2.00		SC	Clayey SAND: fine to coarse grained, brown, low plasticity clay, with fine to coarse, sub-rounded gravel (alluvium).	W	L	2.0m, PID=5.7ppm
				D	2.50			End of borehole at 2.50 metres. Refusal on bedrock			
3											
4											
5											

Note: * indicates signatures on original issue of log or last revision of log

See standard sheets for details of abbreviations & basis of descriptions

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Job No.
21-12515105

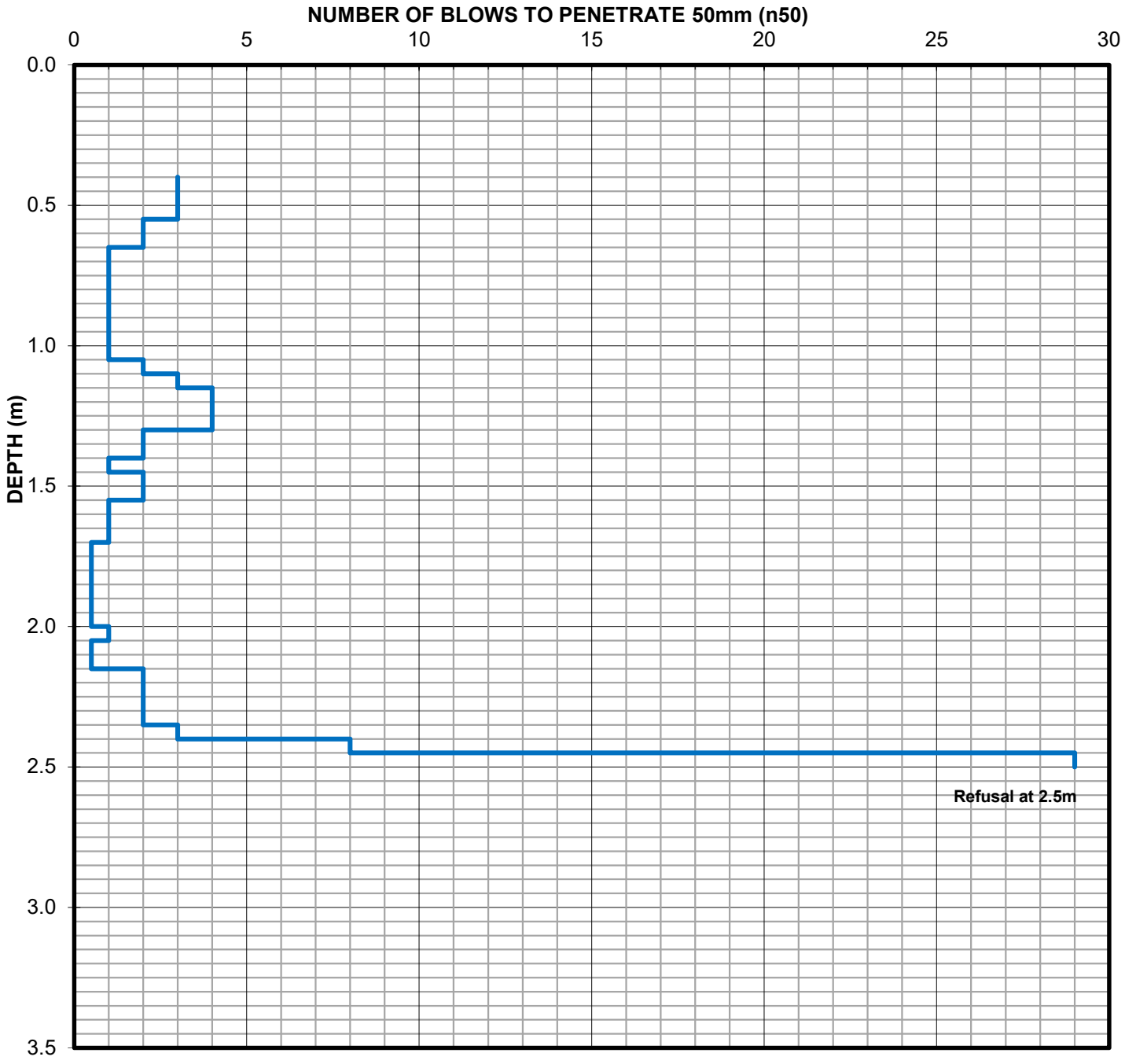
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: UTS Haberfield Club Carpark, Haberfield, NSW

PROBE: A1-BH01

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	10/10/2019
Adjacent Test Hole / Pit: A1-BH01		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:
Bitumen cored. Roadbase augered prior to DCP test due to very hard material- Test commenced at 0.4m

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Job No. **12515105**

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 211251515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : UTS Haberfield Club Carpark, Haberfield, NSW

HOLE No. A1-BH02

SHEET 1 OF 1

Position : 328762.99 E 6250647.90 N MGA94/ 56	**Surface RL:** 2.29m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : XP60	**Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 10/10/2019	**Date Completed :** 10/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.06		-	ASPHALT CARPARK PAVEMENT	-	-	
				ES			-	[FILL] Silty Sandy GRAVEL: fine to coarse, angular, grey, fine to coarse grained sand.	M	-	0.2m, PID=6.7ppm
				D							
				ES							0.5m, PID=7.0ppm
					0.60		-	[FILL] Sandy GRAVEL: fine, angular, brown, fine to coarse grained sand, with silt, trace brick and mortar.	M	-	
				D							
1				ES							1.0m, PID=7.0ppm
					1.15		-	[FILL] Sandy Clayey GRAVEL: fine to medium, angular, brown/grey, fine to coarse grained sand, trace brick.	M	-	
					1.50		-	[FILL] Silty SAND: fine to coarse grained, pale grey mottled yellow, with fine to medium, angular gravel.	M	-	
				D							
				ES							2.0m, PID=10.0ppm
2	TC-bit auger	Nil	▽ 10/10/19		2.10		SC	Clayey SAND: fine to coarse grained, brown, low plasticity clay, with fine to coarse, sub-rounded gravel (alluvium).	W	L-MD	2.1m, marine odour
				D							
				ES	3.00						3.0m, PID=5.5ppm
3								End of borehole at 3.00 metres. Target Depth			
4											
5											

Note: * indicates signatures on original issue of log or last revision of log

See standard sheets for details of abbreviations & basis of descriptions

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Job No.
21-12515105

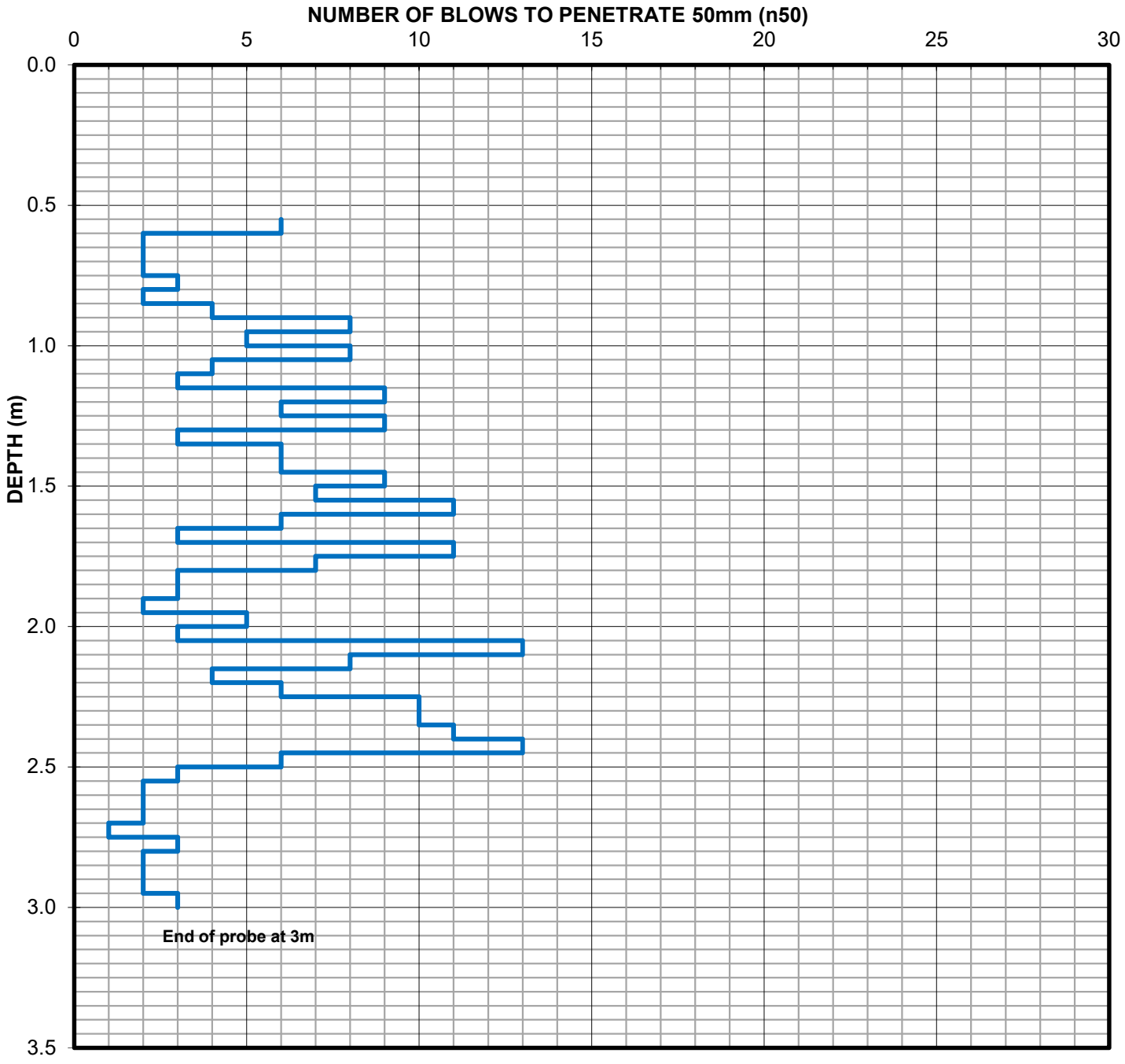
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: UTS Haberfield Club Carpark, Haberfield, NSW

PROBE: A1-BH02

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	10/10/2019
Adjacent Test Hole / Pit: A1-BH02		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:
Bitument cored , Roadbase augered due to very hard material. DCP test commenced from 0.55m

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : The Bay Run, Haberfield, NSW

HOLE No. A1-BH03

SHEET 1 OF 1

Position : 328835.36 E 6250540.90 N MGA94/ 56	**Surface RL:** 1.38m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 14/10/2019	**Date Completed :** 14/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
	Diatube	Nil			0.05		-	ASPHALT FOOTPATH.	-	-	
							-	REINFORCED CONCRETE.	-	-	0.1m, damage to diatube due to steel reinforcement
					0.25			End of borehole at 0.25 metres. Hole abandoned at 250mm due to diatube refusal. Very hard concrete with 16mm steel reo-bar			
1											
2											
3											
4											
5											

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-12515105

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : The Bay Run, Haberfield, NSW

HOLE No. A1-BH04

SHEET 1 OF 1

Position : 328840.73 E 6250534.16 N MGA94/ 56	**Surface RL:** 1.40m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 11/10/2019	**Date Completed :** 11/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
	Diatube	Nil			0.05		-	ASPHALT FOOTPATH.	-	-	
							-	REINFORCED CONCRETE.	-	-	
					0.45			End of borehole at 0.45 metres. Hole abandoned at 450mm due to diatube refusal. Very hard concrete with 12mm vertical and 16mm steel reo-bar			
1											
2											
3											
4											
5											

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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : The Bay Run, Haberfield, NSW

HOLE No. A1-BH05

SHEET 1 OF 1

Position : 328847.11 E 6250523.04 N MGA94/ 56	**Surface RL:** 3.09m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 14/10/2019	**Date Completed :** 14/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.10		-	ASPHALT FOOTPATH	-	-	
				ES			-	[FILL] Gravelly SAND: fine to coarse grained, grey/brown, fine to coarse, angular gravel, with silt.	M	-	0.2m, PID=2.7ppm
				ES	0.50		-	[FILL] Silty SAND: fine to coarse grained, grey/brown, with fine to medium gravel.	-	-	0.5m, PID=3.6ppm
				SPT 4/4/5 N=9							
1				ES							
				D	1.10		-	[FILL] SAND: fine to medium grained, brown, trace silt, trace fine to medium, angular gravel, trace concrete rubble.	M	-	1.0m, PID=3.7ppm 1.1 - 1.7m, high drilling resistance, possible stabilised layer.
					1.70		-	[FILL] Silty SAND: fine to medium grained, brown.	M	-	
				SPT 5/2/6 N=8							
2				D							
				ES							2.0m, PID=3.1ppm
	TC-bit auger				2.20		SC	Sandy CLAY: low plasticity, dark grey, fine to medium grained sand, dark grey, with fine to medium, sub-angular gravel, trace rootlets and wood fibres (alluvium).	w = PL	S-F	
				D							
		Nil		SPT 2/1/3 N=4	2.80		SC	Clayey SAND: fine to coarse grained, pale grey, low plasticity clay, with fine to coarse, sub-rounded to subangular gravel (alluvium).	M	L	
3				ES							3.0m, PID=5.1ppm 3.0m, hydrocarbon odour
				D					W		
				SPT 2/2/3 N=5							
			▽ 14/10/19	D	4.00		SC	Clayey SAND: fine to medium grained, dark grey, trace coarse, sub-rounded gravel (residual).	w < LL	MD	4.0m, PID=3.0ppm 4.0m, marine odour
4				D							
				SPT 4/4/11 N=15							
5					5.00			End of borehole at 5.00 metres.			

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Job No. 21-12515105

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : The Bay Run, Haberfield, NSW

HOLE No. A1-BH06

SHEET 1 OF 4

Position : 328855.30 E 6250530.33 N MGA94/ 56	**Surface RL:** 1.57m AHD	**Angle from Horiz. :** 90°	**Processed :** MAG
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 16/10/2019	**Date Completed :** 16/10/2019	**Logged by :** LM	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.05		-	ASPHALT FOOTPATH.	-	-	
				ES	0.10		-	[FILL] Sandy GRAVEL: fine to coarse, angular, grey, fine to coarse grained sand, with silt.	M	-	
							-	[FILL] Silty SAND: fine to coarse grained, pale brown, with fine to coarse, sub-angular gravel.	M	-	0.2m, PID=4.4ppm
				D ES/QA5	0.50		-	[FILL] Clayey SAND: fine to coarse grained, brown mottled orange, medium plasticity clay, with fine to coarse, angular gravel.	w > PL	-	0.5m, PID=11.8ppm
				SPT 11/9/5 N=14							
1			▽ 16/10/19	ES					W		1.0m, PID=6.9ppm 1.0m, water level measured during high tide
					1.30		-	[FILL] Sandy GRAVEL: fine to coarse, angular, brown, fine to coarse grained sand, with silt.	M	-	
				SPT 9/3/3 N=6							
2					2.00		SP	SAND: fine to coarse grained, dark grey/black, with silt, with fine to coarse, sub-angular gravel, trace shells (alluvium).	W	VL	
	TC-bit auger	Nil		ES							2.5m, PID=7.4ppm
					2.60		CI	CLAY: medium plasticity, black, with fine to medium grained sand (alluvium).	w > LL	S	2.6m, marine odour
				SPT 0/1/1 N=2							
3				U50							
				SPT 0/1/1 N=2							
4				U50							
				ES	4.50		SC	Sandy CLAY: low plasticity, grey/brown, fine to medium grained sand (alluvium).	w > LL	S	4.4m, PID=1.5ppm
				SPT 0/1/1 N=2							
5					5.00						

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Job No. 21-12515105

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : The Bay Run, Haberfield, NSW

HOLE No. A1-BH06

SHEET 2 OF 4

Position : 328855.30 E 6250530.33 N MGA94/ 56	**Surface RL:** 1.57m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 16/10/2019	**Date Completed :** 16/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
6	Washbore	HQ casing					SC	Sandy CLAY: as previous. 5.6m, trace shell fragments.	w > LL	S	5.0m, casing advanced due to hole collapsing.
					5.80		SC	Clayey SAND: fine to coarse grained, brown (inferred residual)	(w > PL)	(St)	5.8m, material and origin inferred from drilling fluid and resistance.
7					7.97						
8								Start of coring at 7.97 metres. For cored interval, see Core Log Sheet.			
9											
10											

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Job No.
21-12515105

CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : The Bay Run, Haberfield, NSW

HOLE No. A1-BH06

SHEET 3 OF 4

Position : 328855.30 E 6250530.33 N MGA94/ 56	**Surface RL:** 1.57m AHD	**Angle from Horiz. :** 90°	**Processed :** MAG
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Fair	**Date:** 16/01/2020
Date Started : 16/10/2019	**Date Completed :** 16/10/2019	**Logged by :** LM	**Date Logged :** 16/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL				NATURAL FRACTURES		
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6												
7								Start of coring at 7.97 metres. For Non Cored interval, see Borehole Log Sheet.				
8	NMLC coring		9.00	(74)		7.97		CORE LOSS 530mm				
						8.50		SAND: fine to coarse grained, pale grey (residual).	RS			
						8.77		CORE LOSS 230mm.				
9						9.12						
						9.22		SAND: fine to coarse grained, pale grey (residual).	RS			
								SANDSTONE: fine to coarse grained, pale grey, indistinctly bedded at 0-5°. 9.5m, pale brown.	SW			9.23m, Pt, 0°, Rf, Pln, Cn 9.28m, Pt, 0°, Rf, Pln, Cn 9.34m, Pt, 0°, Rf, Pln, Cn 9.41m, Pt, 0°, Rf, Pln, Cn
10				(8)								

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Job No. 21-12515105

CORE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : The Bay Run, Haberfield, NSW

HOLE No. A1-BH06

SHEET 4 OF 4

Position : 328855.30 E 6250530.33 N MGA94/ 56	**Surface RL:** 1.57m AHD	**Angle from Horiz. :** 90°	**Processed :** MAG
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Fair	**Date:** 16/01/2020
Date Started : 16/10/2019	**Date Completed :** 16/10/2019	**Logged by :** LM	**Date Logged :** 16/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress										Estimated Strength $Is_{(50)}$ MPa (●- Axial, ○- Diametral)	Spacing (mm)	Additional Data
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	20 40 100 300 1000	(joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
11	NMLC coring		10.50					SANDSTONE: as previous.	SW			10.50m, Pt, 0°, Rf, Pln, Cn 10.54m, Pt, 0°, Rf, Pln, Cn 10.66m, Pt, 0°, Rf, Pln, Cn
								10.7m, orange red, iron staining.				
								11.0m, orange red, iron oxide bands.				
				(3)		11.20 11.25		CORE LOSS 50mm				11.16m, Jt, 5°, Rf, Un, Cn 11.29m, WSm, 40mm
								SANDSTONE: fine to coarse grained, pale grey and pale brown, indistinctly bedded at 0-5°.	SW			11.52m, WSm, 20mm
12			12.00			12.00		End of Borehole at 12.00 metres. Target Depth				
13												
14												
15												

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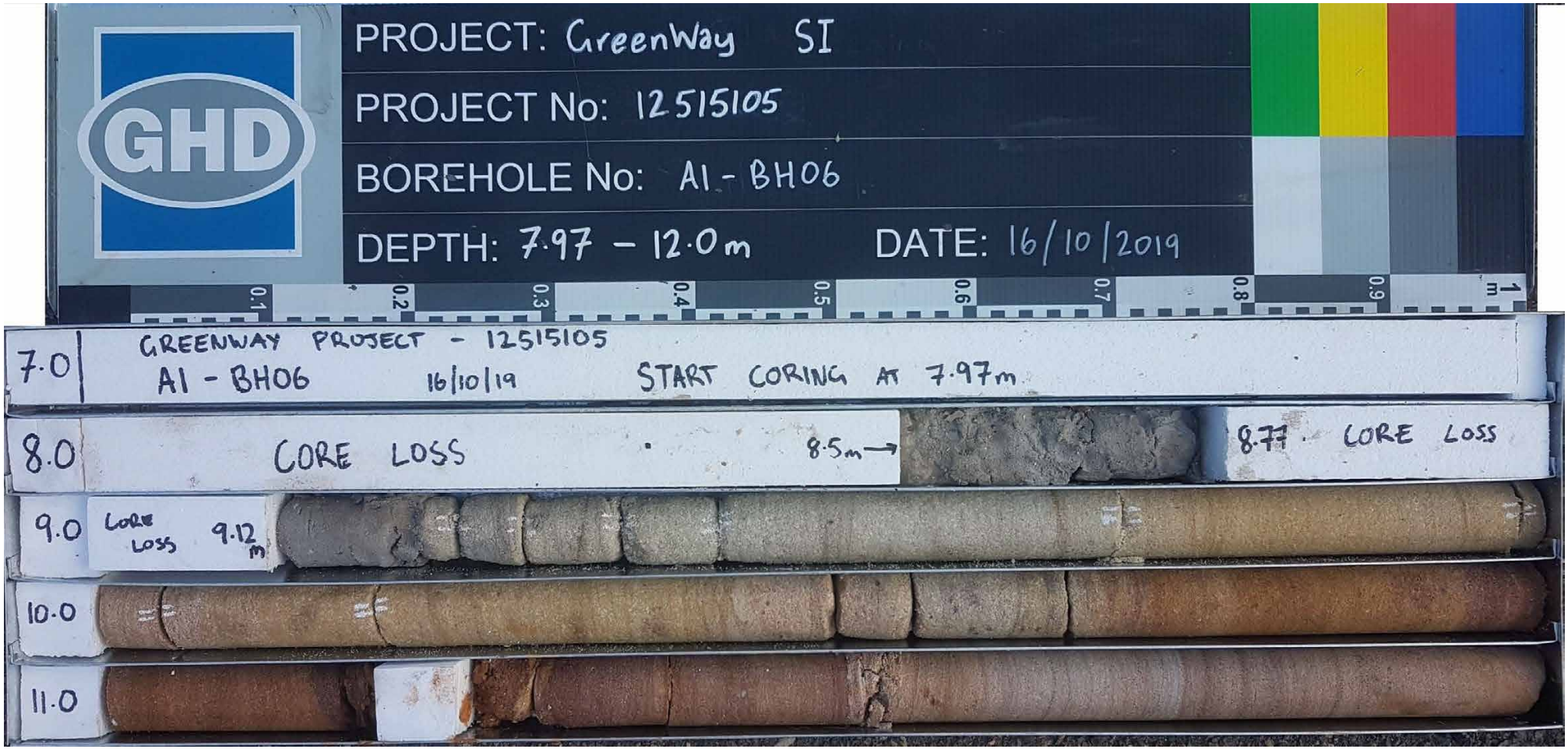
Job No. 21-12515105



PointID : A1-BH06 Depth Range: 7.97 - 12.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services The Bay Run, Haberfield NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A1-BH06 1/1

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : The Bay Run, Haberfield, NSW

HOLE No. A1-BH07

SHEET 1 OF 4

Position : 328866.95 E 6250528.51 N MGA94/ 56 **Surface RL:** 1.44m AHD **Angle from Horiz. :** 90° **Processed :** MAG

Rig Type : XC Rig **Mounting:** Track **Contractor :** Terratest **Driller :** FF **Checked :** MG

Date Started : 23/10/2019 **Date Completed :** 23/10/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.05		-	ASPHALT FOOTPATH.	-	-	
				ES	0.20		-	[FILL] Silty Sandy GRAVEL: fine to coarse, sub-angular, grey-brown, fine to coarse grained sand.	M	-	
							-	[FILL] Clayey SAND: fine to coarse grained, brown, with fine to coarse, angular gravel, trace sandstone boulders.	M	-	0.2m, PID=0.8ppm
				ES							
				SPT 4 for 150mm HB N=ref							0.5m, PID=0.7ppm 0.65m, SPT refusal on boulder
1				ES							1.0m, PID=0.8ppm
								1.1m, sandstone boulder			1.1m, hard drilling resistance.
			▽ 23/10/19								1.5m, hard drilling resistance.
2											
	TC-bit auger	Nil		ES	2.50		CH	CLAY: high plasticity, dark grey-black, with fine to medium, angular gravel (alluvium).	w >> LL	VS	2.5m, PID=0.9ppm marine odour
				D							
3											
				SPT 0/0/0 (HWT) N=0				3.3m, trace fine to medium, angular gravel.			
4					4.50		SC	Sandy CLAY: low plasticity, grey/brown, fine to medium grained sand, trace shell fragments (alluvium).	w > LL	VS	
				SPT 0/0/0 (HWT) N=0							
5					5.00						

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See standard sheets for details of abbreviations & basis of descriptions

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Job No. 21-12515105

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : The Bay Run, Haberfield, NSW

HOLE No. A1-BH07

SHEET 2 OF 4

Position : 328866.95 E 6250528.51 N MGA94/ 56	**Surface RL:** 1.44m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** FF	**Checked :** MG
Date Started : 23/10/2019	**Date Completed :** 23/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
							SC	Sandy CLAY: as previous. 5.0m, shell fragments observed.	w > LL	VS	
6	TC-bit auger	Nil		U50	6.50		SC	Sandy CLAY: medium plasticity, grey, fine to coarse grained sand (residual).	w < PL	St	6.5m, consistency inferred from drilling resistance and tactile assessment.
7				D	7.30		SC	Clayey SAND: fine to coarse grained, pale grey mottled pale brown, low plasticity clay (residual).	M	St	
				D							
8				SPT 1/4/4 N=8	8.00			Start of coring at 8 metres. For cored interval, see Core Log Sheet.			
9											
10											

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CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : The Bay Run, Haberfield, NSW

HOLE No. A1-BH07

SHEET 3 OF 4

Position : 328866.95 E 6250528.51 N MGA94/ 56	**Surface RL:** 1.44m AHD	**Angle from Horiz. :** 90°	**Processed :** MAG
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** FF	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 23/10/2019	**Date Completed :** 23/10/2019	**Logged by :** LM	**Date Logged :** 27/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL				NATURAL FRACTURES	
Progress											
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6											
7											
8						8.00		Start of coring at 8 metres. For Non Cored interval, see Borehole Log Sheet.			
						8.20		CORE LOSS 200mm.			
				(36)				Clayey SAND: fine to coarse grained, pale brown (residual).	RS		
			8.56			8.56		CORE LOSS 690mm.			
9	NMLC			(100)							
			9.25			9.25		Clayey SAND: fine to coarse grained, pale blue-grey (residual).	RS		
				(0)							
10											

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Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council			**HOLE No. A1-BH07**
Project : The GreenWay Geotechnical and Contamination Services			**SHEET 4 OF 4**
Location : The Bay Run, Haberfield, NSW			
Position : 328866.95 E 6250528.51 N MGA94/ 56	**Surface RL:** 1.44m AHD	**Angle from Horiz. :** 90°	**Processed :** MAG
Rig Type : XC Rig	**Mounting:** Track **Contractor :** Terratest	**Driller :** FF	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m **Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 23/10/2019	**Date Completed :** 23/10/2019 **Logged by :** LM	**Date Logged :** 27/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL				NATURAL FRACTURES		
Progress											
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa (●- Axial, ○- Diametral) Soil, 0.03, VL, 0.1, L, 0.3, M, 1, H, 3, VH, 10, EH	Spacing (mm) 20, 40, 100, 300, 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
			10.06			10.06		Clayey SAND: as previous. CORE LOSS 690mm.				
				(46)		10.75		Clayey SAND: fine to coarse grained, pale blue-grey (residual).	RS			
11						11.23		SANDSTONE: medium to coarse grained, orange borwn mottled blue-grey, indistinctly bedded.	EW			
			11.56									
12	NMLC			(0)		12.00		SANDSTONE: fine to coarse grained, dark red-brown and purple with orange-brown mottling, indistinctly bedded.	HW			12.22m, WSm, 40mm.
			12.50					12.50-13.00m, with fine gravel sized voids				12.46m, WSm, 70mm. 12.60m, Pt, 10°, Pln, Rf, Fe. 12.63m, Pt, 10°, Pln, Rf, Fe.
				(0)					MW			12.85m, Jt, 75-80°, Un, Rf, Fe.
13			13.30			13.35		SANDSTONE: fine to medium grained, pale grey, pale red and pale orange-brown, indistinctly bedded at 10-20°.				13.31m, Pt, 10°, Pln, Rf, Fe. 13.36m, Pt, 10°, Pln, Rf, Fe.
				(0)					SW			
14			14.00					14m, pale grey, trace carbonaceous laminations.				13.98m, ISm, X, 10mm.
				(0)					Fr			14.13m, WSm, 15mm.
			14.64			14.64		End of Borehole at 14.64 metres. Target Depth				
15												

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

See standard sheets for details of abbreviations & basis of descriptions

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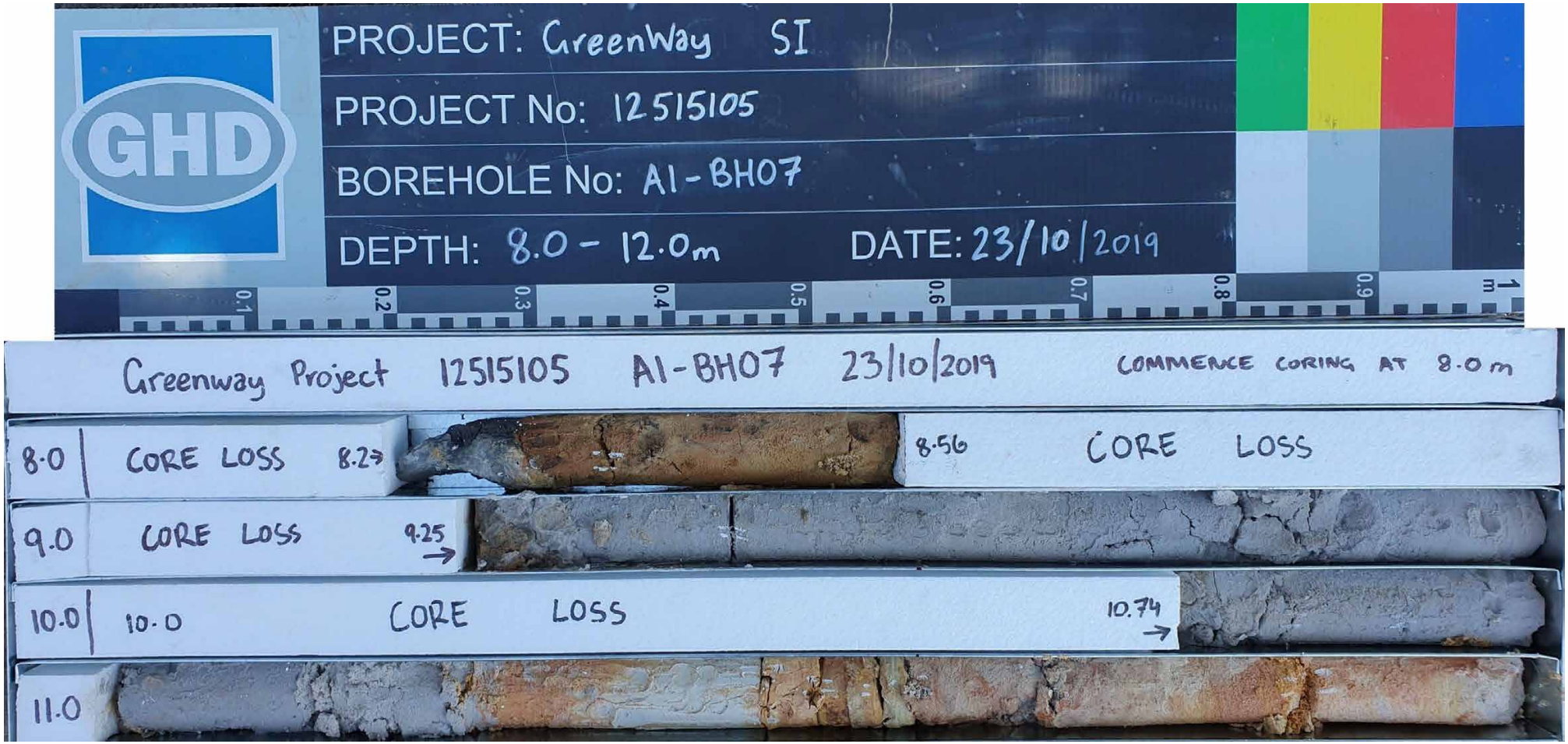
Job No.
21-12515105



PointID : A1-BH07 Depth Range: 8.00 - 12.00 m

	Inner West Council The GreenWay Geotechnical and Contamination Services The Bay Run, Haberfield NSW Core Photographs	DRAWN HW / DATE 2/12/2019 CHECKED JS / DATE 2/12/2019 SCALE Not To Scale / A4 PROJECT No 21-12515105 / FIGURE No A1-BH07 1/2	

PointID : A1-BH07 Depth Range: 12.00 - 14.64 m

	Inner West Council The GreenWay Geotechnical and Contamination Services The Bay Run, Haberfield NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A1-BH07 2/2

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : The Bay Run, Haberfield, NSW

HOLE No. A1-HA01

SHEET 1 OF 1

Position : 328782.42 E 6250614.56 N MGA94/ 56	**Surface RL:** 1.99m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 11/10/2019	**Date Completed :** 11/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	Hand Auger	Nil	Groundwater Not Encountered	ES			-	[TOPSOIL] Silty SAND: fine to medium grained, light brown, trace sub-angular gravel, trace rootlets.	M	-	
				ES	0.25		-	[FILL] Silty SAND: fine to medium grained, brown, with fine to coarse, sub-angular gravel.	M	-	
				D	0.80		-	[FILL] CLAY: medium to high plasticity, pale brown, with fine grained sand.	M	-	
					0.90			End of borehole at 0.90 metres. Refusal			
1											
2											
3											

Note: * indicates signatures on original issue of log or last revision of log

See standard sheets for details of abbreviations & basis of descriptions

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Job No.
21-12515105

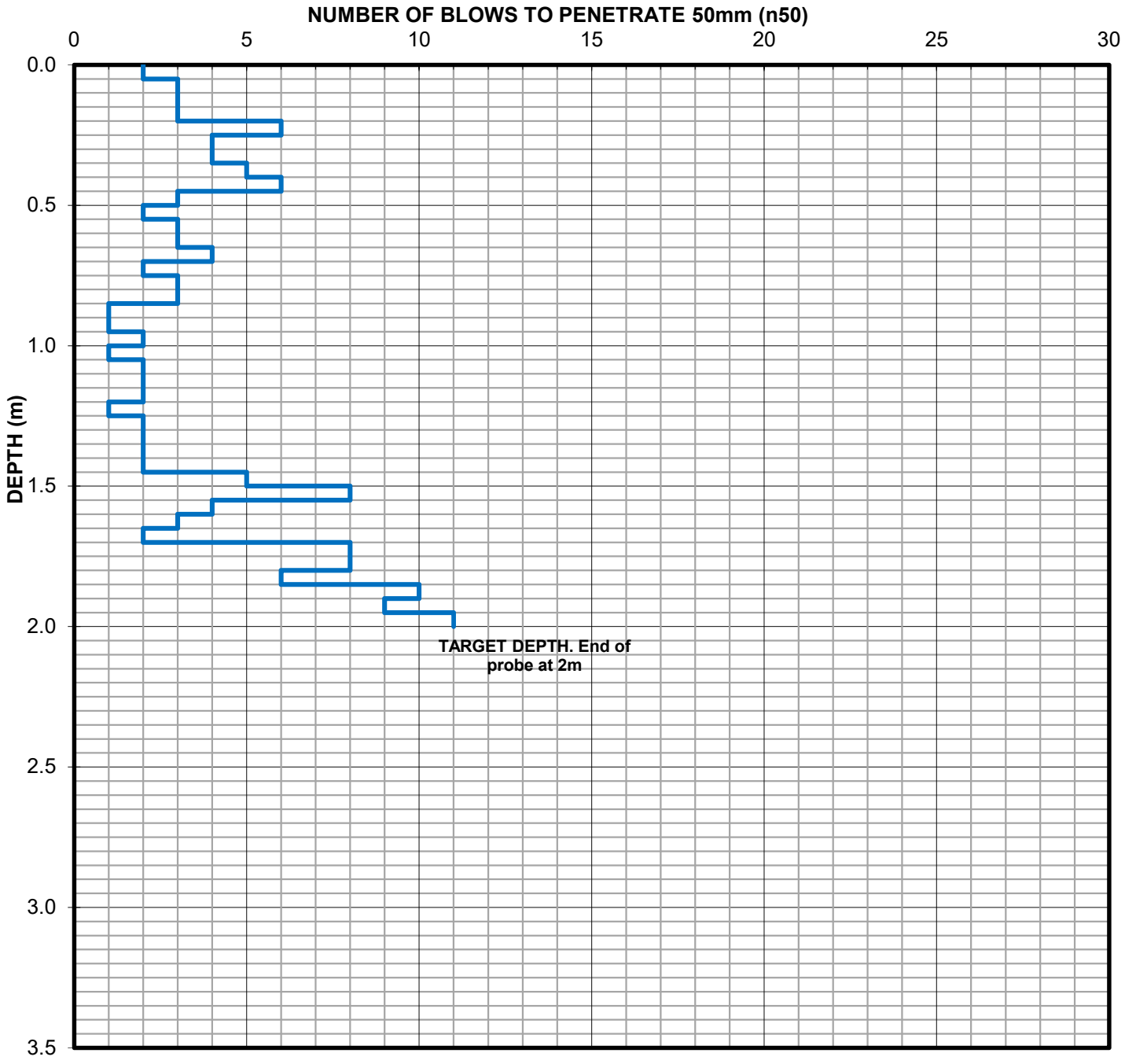
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: The Bay Run, Haberfield, NSW

PROBE: A1-HA01

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	11/10/2019
Adjacent Test Hole / Pit: A1-HA01		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Richard Murden Reserve, Haberfield, NSW

HOLE No. A1-LD01

SHEET 1 OF 1

Position : 328833.04 E 6250325.29 N MGA94/ 56	**Surface RL:** 1.48m AHD	**Angle from Horiz. :** 90°	**Processed :** MAG
Rig Type : XP60 **Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 8/10/2019	**Date Completed :** 8/10/2019	**Logged by :** LM	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
								[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects			Note: * indicates signatures on original issue of log or last revision of log
	TC-bit auger	Nil	▽ 8/10/2019	ES B ES	0.10		-	[TOPSOIL] SAND: medium grained, light brown, trace gravel, with rootlets.	M	-	
							-	[FILL] SAND: medium grained, light brown, with angular gravel.	M	-	0.2m, PID=3.8ppm
											0.5m, PID=4.1ppm
					0.80		-	[FILL] Silty SAND: fine to coarse grained, brown, dark brown, trace fine to medium, sub-angular to angular gravel.	M	-	
1				ES							1.0m, PID=5.2ppm
					1.10		-	[FILL] Sandy CLAY: low plasticity, dark grey and dark brown, fine to coarse grained sand, trace fine to medium, sub-angular gravel.	M	-	
				B							
					1.50		SC	Sandy CLAY: low plasticity, dark grey, fine to coarse grained sand, trace shells (alluvium).	w > PL	F	
				D ES	2.00						2.0m, PID=4.1ppm
2								End of borehole at 2.00 metres. Target Depth			
3											

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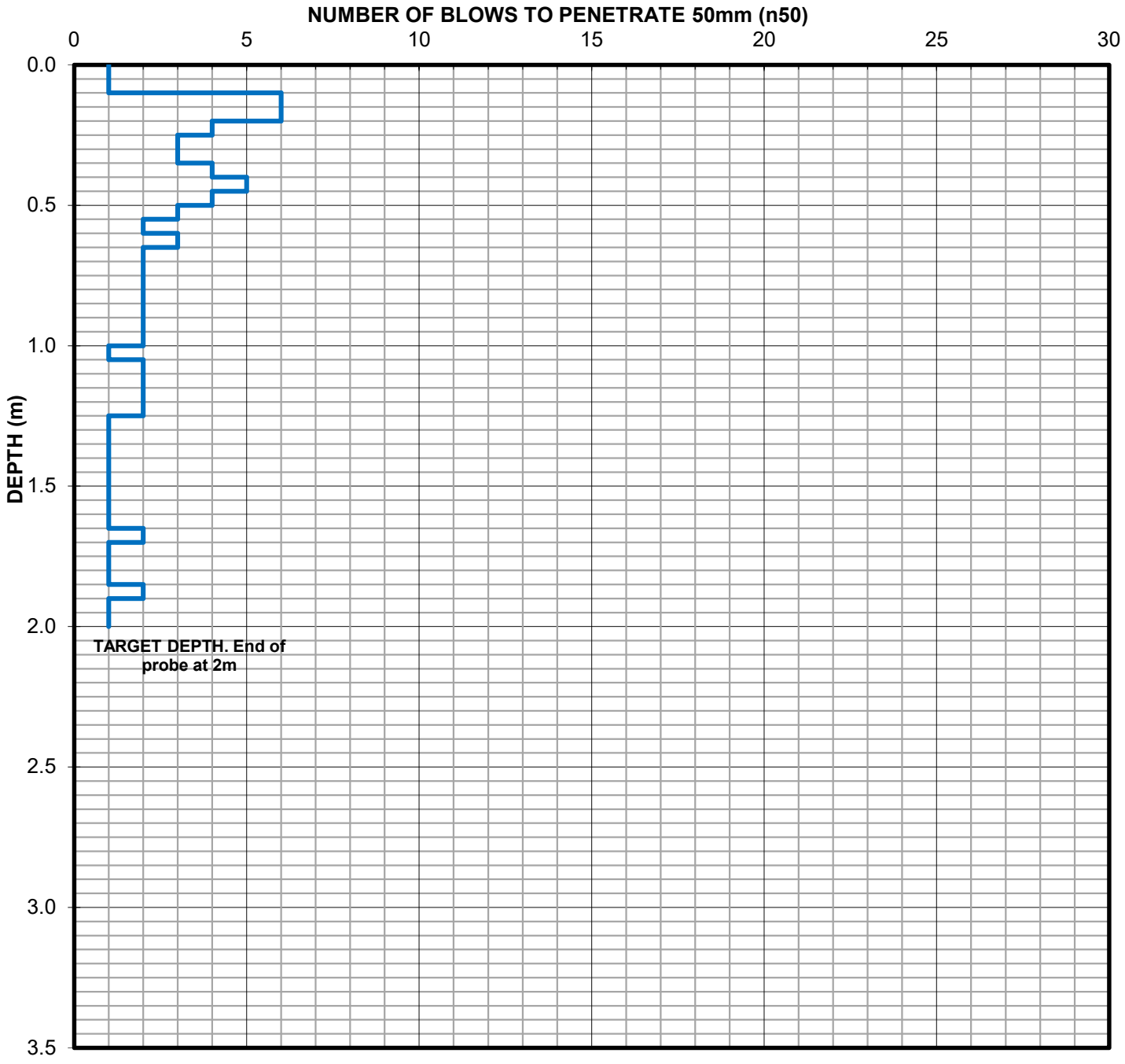
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Richard Murden Reserve, Haberfield, NSW

PROBE: A1-LD01

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	8/10/2019
Adjacent Test Hole / Pit: A1-LD01		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 211251515-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Richard Murden Reserve, Haberfield, NSW

HOLE No. A1-LD02

SHEET 1 OF 1

Position : 328829.30 E 6250260.83 N MGA94/ 56	**Surface RL:** 1.40m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : XP60 **Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD		**Checked :** MG
Date Started : 8/10/2019	**Date Completed :** 8/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log Comments/ Observations
1	TC-bit auger	Nil	▽ 8/10/19	ES	0.20		-	[TOPSOIL] Silty SAND: fine to coarse grained, dark brown, low plasticity silt, with/ trace fine to medium, sub-angular gravel, rootlets present.	M	-	
					0.30		-	[FILL] Clayey SAND: fine to coarse grained, dark grey, medium plasticity clay, with medium sub-angular gravel.	M	-	0.2m, PID=3.3ppm
				ES/QA1/QA2 B			-	[FILL] Sandy CLAY: medium plasticity, dark grey, fine to medium grained sand, with coarse, sub-angular gravel, trace brick.	M	-	0.5m, PID=6.0ppm
				ES				0.9m, trace organics.	W		1.0m, PID=6.2ppm
					1.10		CI	CLAY: medium plasticity, black with grey lenses, trace fine grained sand, trace shells (alluvium)	w > PL	F	1.1m, possible reworked alluvium
2				D							
				ES	2.00						2.0m, PID=2.7ppm
								End of borehole at 2.00 metres. Target Depth			
3											

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Job No.
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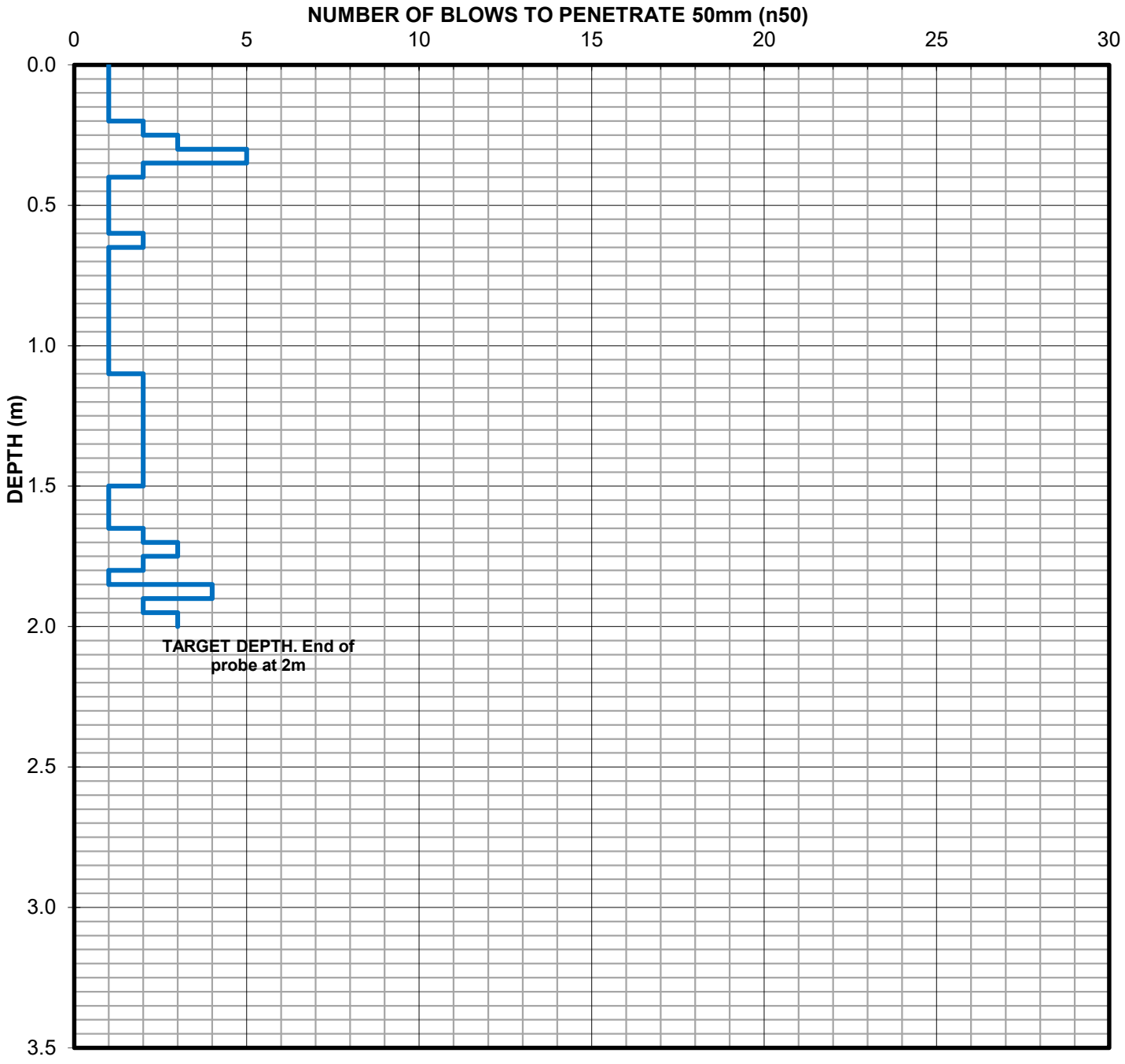
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Richard Murden Reserve, Haberfield, NSW

PROBE: A1-LD02

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	8/10/2019
Adjacent Test Hole / Pit: A1-LD02		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Richard Murden Reserve, Haberfield, NSW

HOLE No. A1-LD03

SHEET 1 OF 1

Position : 328757.75 E 6250089.97 N MGA94/ 56 **Surface RL:** 1.30m AHD **Angle from Horiz. :** 90° **Processed :** MAG
Rig Type : XP60 **Mounting:** Ute **Contractor :** Terratest **Driller :** CD **Checked :** MG
Date Started : 8/10/2019 **Date Completed :** 8/10/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	TC-bit auger	Nil	Groundwater Not Encountered	ES	0.20		-	[TOPSOIL] Silty SAND: medium grained, brown, trace rootlets.	M	-	
							-	[FILL] Silty SAND: medium grained, brown, with medium to coarse, angular gravel.	M	-	0.2m, PID=2.2ppm
				ES	0.40		-	[FILL] Silty SAND: medium grained, black, with clay, trace medium to coarse, angular gravel.	M	-	0.5m, PID=3.3ppm
				B							
				ES							1.0m, PID=2.2ppm
					1.10		-	[FILL] Clayey SAND: medium to coarse grained, dark grey, with sub-angular, medium to coarse sandstone gravel.	M	-	
				D				1.8m, pale grey.			
2				ES	2.00			End of borehole at 2.00 metres. Target Depth			2.0m, PID=3.0ppm
3											

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Job No. 21-12515105

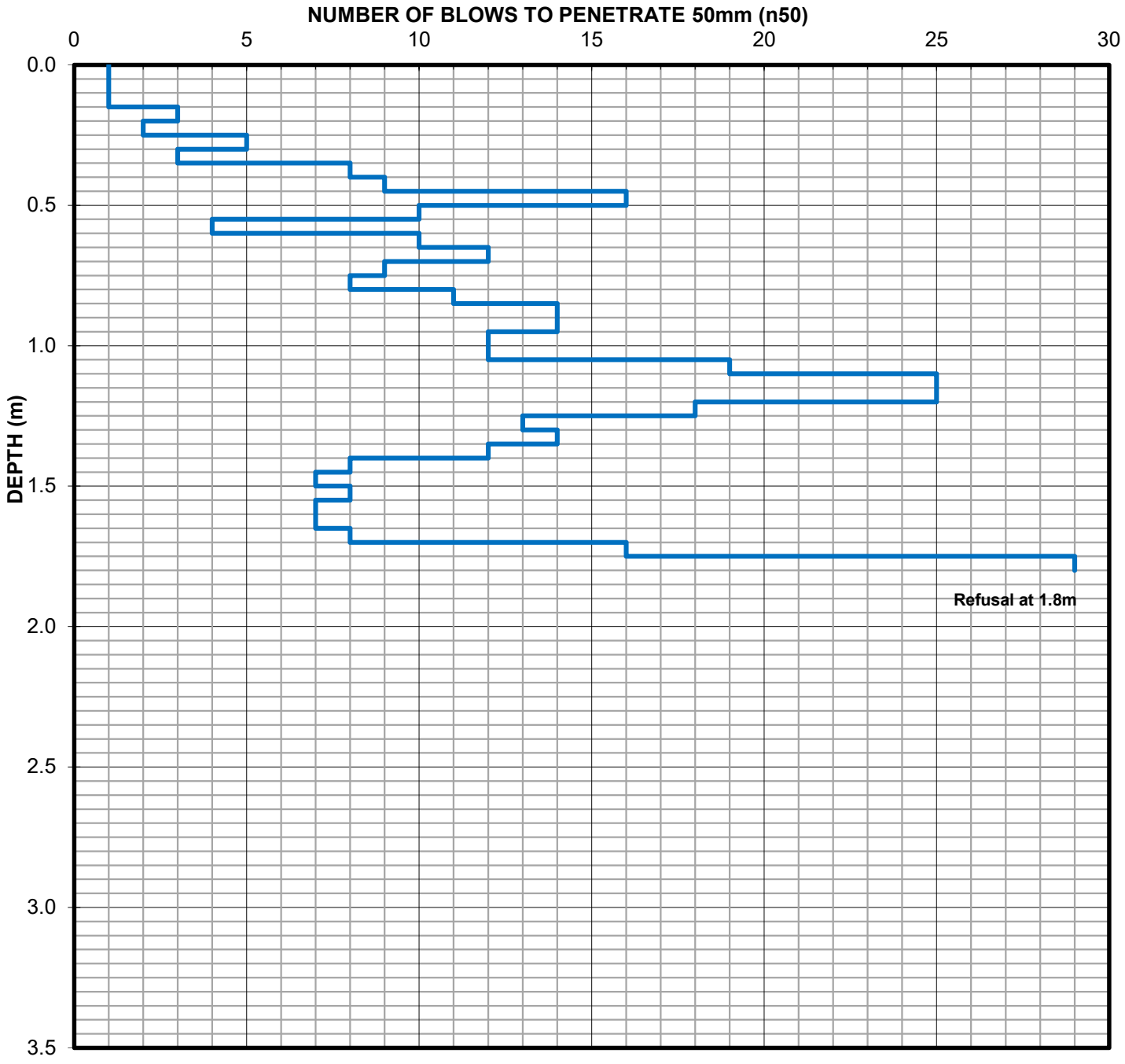
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Richard Murden Reserve, Haberfield, NSW

PROBE: A1-LD03

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	8/10/2019
Adjacent Test Hole / Pit: A1-LD03		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Richard Murden Reserve, Haberfield, NSW

HOLE No. A1-LD04

SHEET 1 OF 1

Position : 328697.96 E 6249983.50 N MGA94/ 56	**Surface RL:** 1.43m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : XP60	**Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 8/10/2019	**Date Completed :** 8/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log Comments/ Observations
				ES			-	[TOPSOIL] Silty SAND: fine to medium grained, brown, trace rounded gravel, trace rootlets.	M	-	
					0.30						0.2m, PID=1.8ppm
				ES			-	[FILL] Clayey SAND: fine to medium grained, brown with orange-red mottles, medium plasticity clay, with fine to coarse, sub-angular gravel.	M	-	
											0.5m, PID=2.2ppm
				B							
				ES							
1	TC-bit auger	Nil									1.0m, PID=2.5ppm
					1.30						
							-	[FILL] Sandy Gravelly CLAY: medium to high plasticity, fine to medium grained sand, sub-rounded gravel, trace shells.	w = PL	-	
					1.50						
			▽ 8/10/19	D			CI	CLAY: medium plasticity, black with grey lenses, trace fine grained sand, trace shells (alluvium)	w > PL	F	1.5m, possible reworked alluvium
				ES	2.00						2.0m, PID=1.8ppm
2								End of borehole at 2.00 metres. Target Depth			
3											

See standard sheets for details of abbreviations & basis of descriptions

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Job No.
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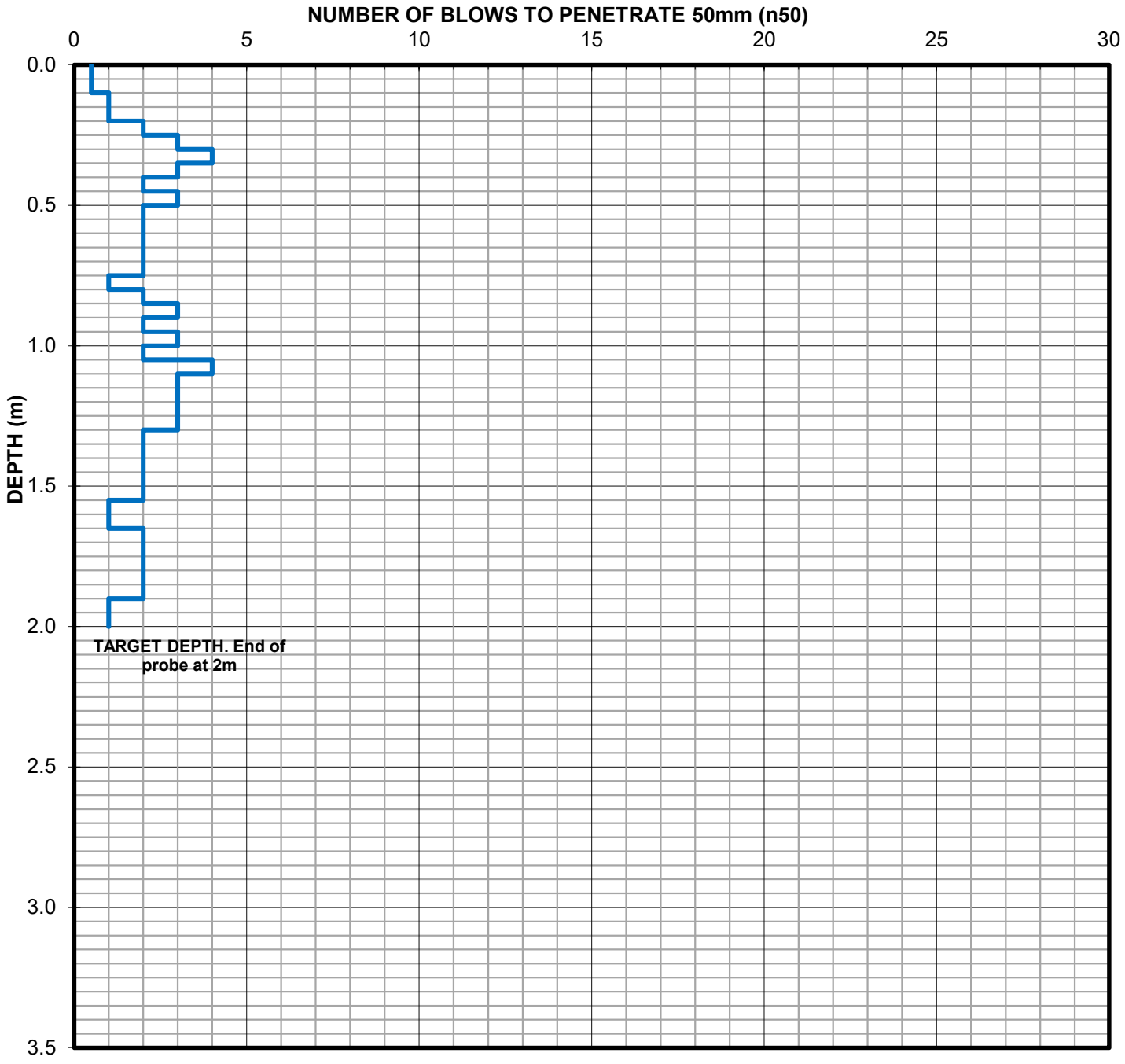
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Richard Murden Reserve, Haberfield, NSW

PROBE: A1-LD04

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	8/10/2019
Adjacent Test Hole / Pit: A1-LD04		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Richard Murden Reserve, Haberfield, NSW

HOLE No. A1-LD05

SHEET 1 OF 1

Position : 328632.51 E 6249919.40 N MGA94/ 56	**Surface RL:** 1.55m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : XP60	**Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 8/10/2019	**Date Completed :** 8/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log Comments/ Observations
				ES	0.20		-	[TOPSOIL] Silty SAND: fine to medium grained, brown, trace rootlets.	M	-	
				ES			-	[FILL] Clayey SAND: fine to medium grained, brown, medium plasticity clay, with fine gravel, trace shells.	M	-	0.2m, PID=1.5ppm 0.5m, PID=1.6ppm
				B ES	0.70		-	[FILL] Silty CLAY: medium plasticity, dark grey, with fine to medium grained sand, trace fine gravel.	w = PL	-	
1	TC-bit auger	Nil	▽ 8/10/19		1.10		-	[FILL] Silty SAND: fine to coarse grained, grey, trace fine to medium, angular gravel, trace shells.	M	-	1.0m, PID=1.8ppm
				B	1.50		CI	CLAY: medium plasticity, black with grey lenses, with fine grained sand, trace shells (alluvium)	w > PL	St	
2				ES	2.00						2.0m, PID=0.8ppm
								End of borehole at 2.00 metres. Target Depth			
3											

See standard sheets for details of abbreviations & basis of descriptions

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DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council

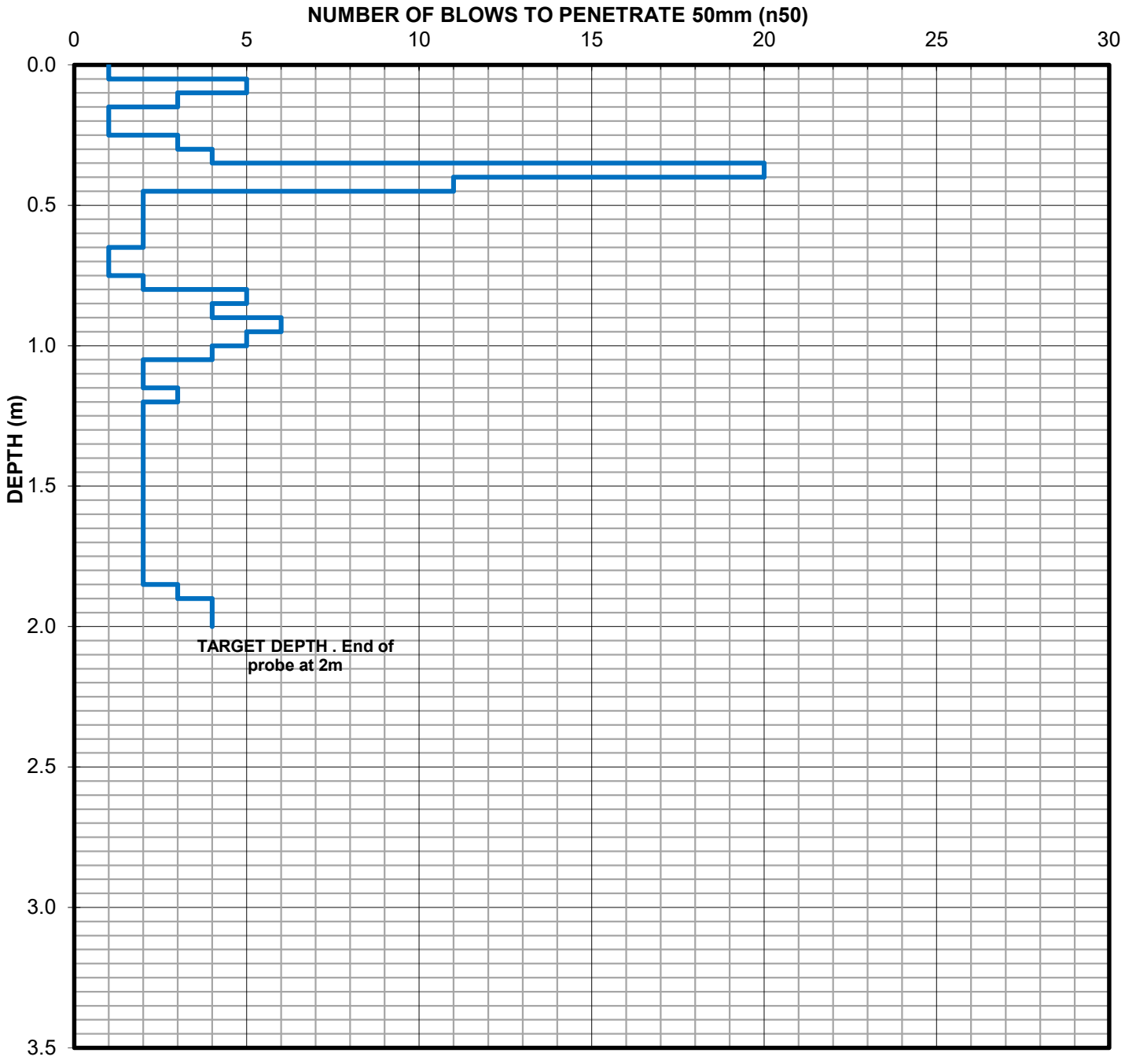
Project: The GreenWay Geotechnical and Contamination Services

Location: Richard Murden Reserve, Haberfield, NSW

PROBE: A1-LD05

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	8/10/2019
Adjacent Test Hole / Pit: A1-LD05		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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GHD

Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Richard Murden Reserve, Haberfield, NSW

HOLE No. A1-LD06

SHEET 1 OF 1

Position : 328613.72 E 6249806.37 N MGA94/ 56	**Surface RL:** 1.73m AHD	**Angle from Horiz. :** 90°	**Processed :** MAG
Rig Type : XP60	**Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 8/10/2019	**Date Completed :** 8/10/2019	**Logged by :** LM	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log Comments/ Observations
1	TC-bit auger	Nil	▽ 8/10/2019	ES	0.20		-	[TOPSOIL] Silty SAND: fine to medium grained, brown, with rootlets.	M	-	
				ES			-	[FILL] Silty Gravelly SAND: fine to medium grained, brown, angular, fine to coarse gravel with clay.	M	-	0.2m, PID=2.0ppm 0.2m, possible ACM.
				ES	0.60		-	[FILL] Sandy CLAY: medium plasticity, black, fine to coarse grained sand, with fine to coarse gravel.	w = PL	-	0.5m, PID=2.2ppm
				B							
				ES	1.10		CI	CLAY: medium plasticity, black with grey lenses, trace fine grained sand, trace shells (alluvium)	w > PL	F	1.0m, PID=2.5ppm 1.1m, possible reworked alluvium
				B						St	
2				ES	2.00						2.0m, PID=1.7ppm
								End of borehole at 2.00 metres. Target Depth			
3											

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-12515105

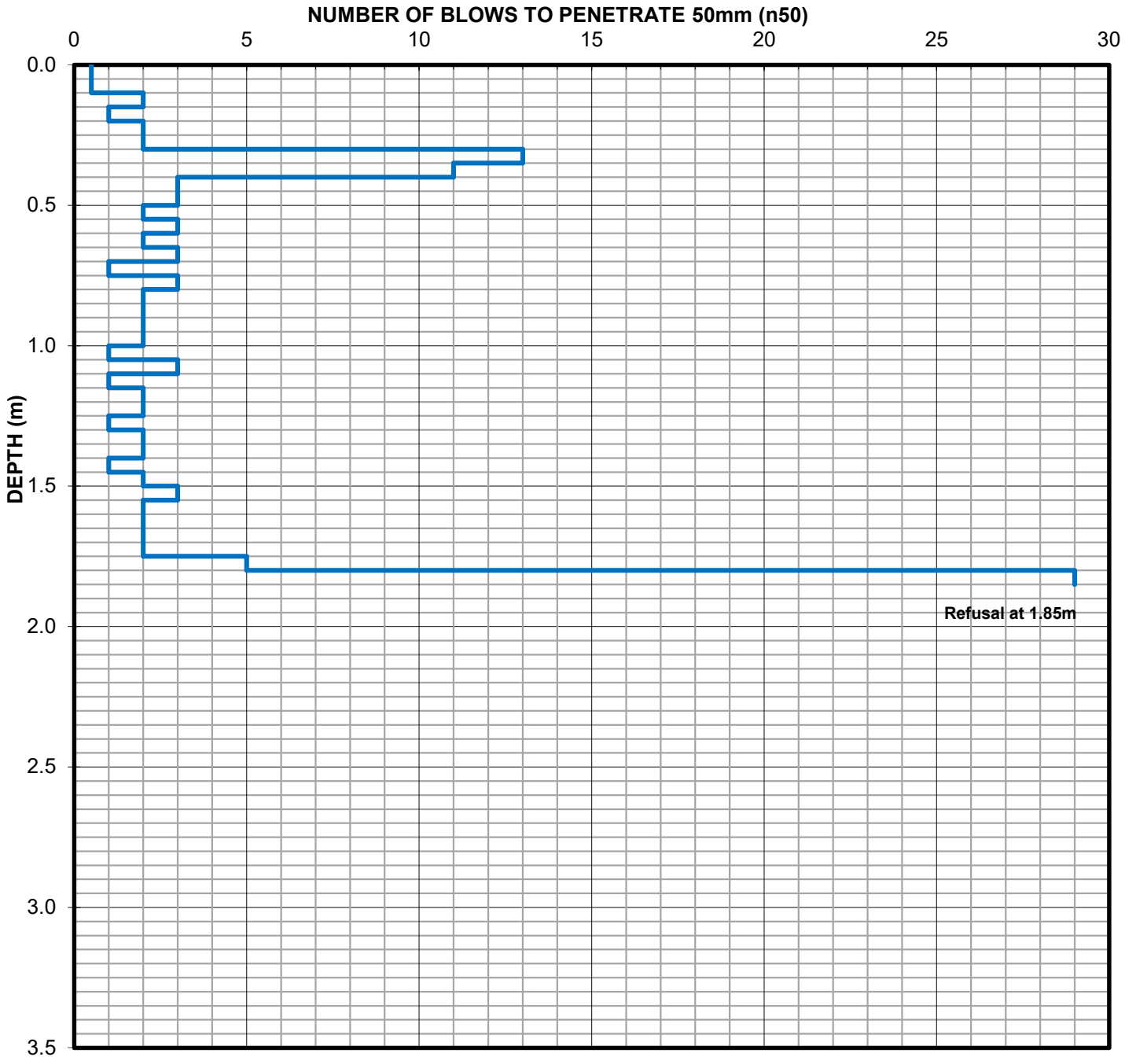
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Richard Murden Reserve, Haberfield, NSW

PROBE: A1-LD06

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	8/10/2019
Adjacent Test Hole / Pit: A1-LD06		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Richard Murden Reserve, Haberfield, NSW

HOLE No. A1-LD07

SHEET 1 OF 1

Position : 328582.19 E 6249715.10 N MGA94/ 56	**Surface RL:** 1.75m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : XP60	**Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 9/10/2019	**Date Completed :** 9/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
							-	[TOPSOIL] Silty SAND: fine to medium grained, brown, trace rootlets.	M	-	
				ES	0.20		-	[FILL] Silty SAND: fine to coarse grained, light brown yellow, with fine to medium, angular gravel.	M	-	0.2m, PID=1.5ppm
				ES							0.5m, PID=1.3ppm
				B							
				ES	1.00		-	[FILL] CLAY: medium plasticity, black, with fine to medium grained sand, trace fine to coarse, angular gravel, trace cobbles.	w = PL	-	1.0m, PID=2.1ppm
1	TC-bit auger	Nil	Groundwater Not Encountered	B							
					1.80		-	[FILL] Silty Gravelly SAND: fine to coarse grained, black, fine to coarse, angular gravel.	M	-	
				ES	2.00						2.0m, PID=5.6ppm
2								End of borehole at 2.00 metres. Target Depth			
3											

Note: * indicates signatures on original issue of log or last revision of log

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DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council

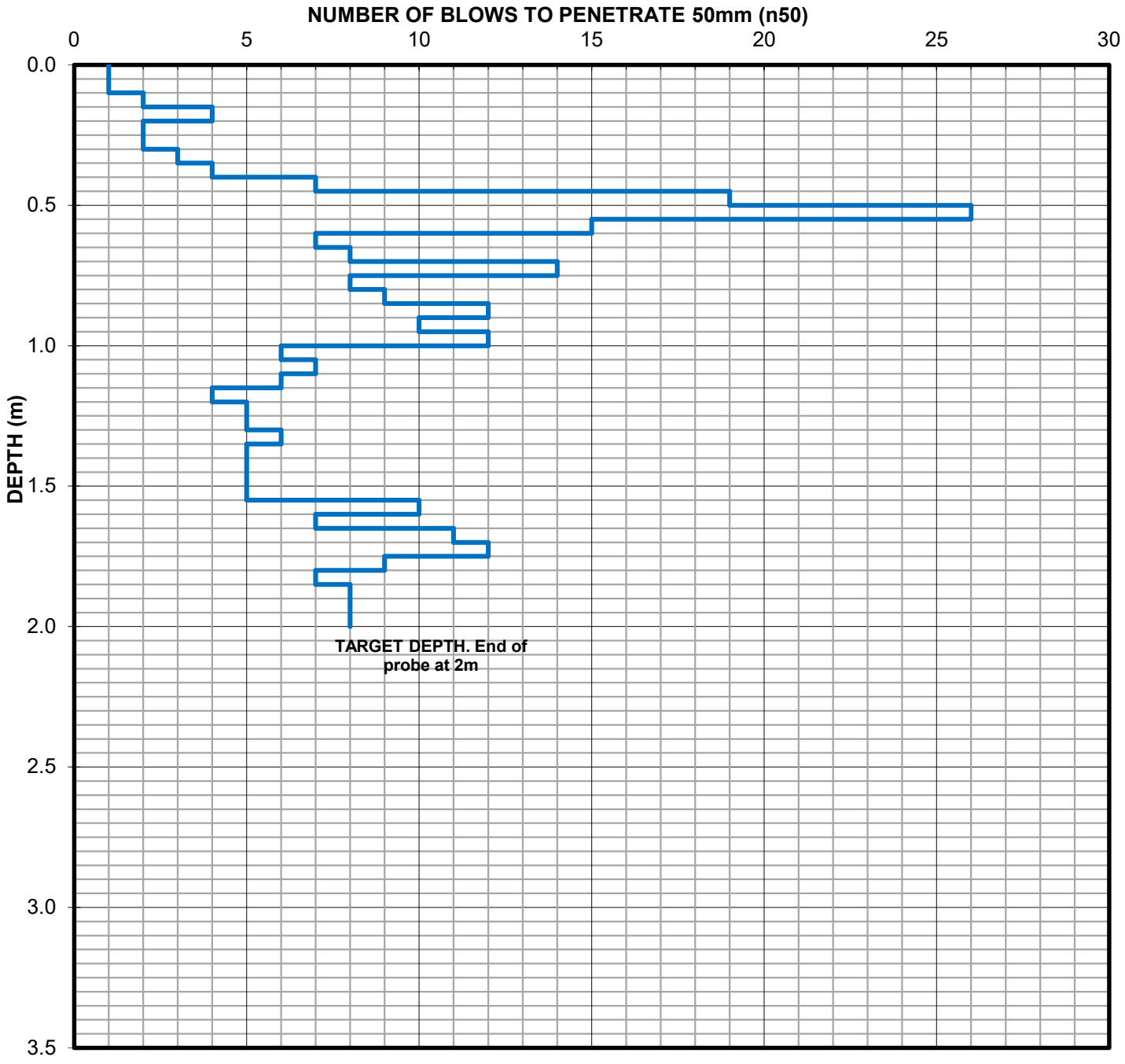
Project: The GreenWay Geotechnical and Contamination Services

Location: Richard Murden Reserve, Haberfield, NSW

PROBE: A1-LD07

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	9/10/2019
Adjacent Test Hole / Pit: A1-LD07		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Richard Murden Reserve, Haberfield, NSW

HOLE No. A1-LD08

SHEET 1 OF 1

Position : 328549.70 E 6249650.72 N MGA94/ 56	**Surface RL:** 1.66m AHD	**Angle from Horiz. :** 90°		**Processed :** MAG
Rig Type : XP60	**Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 9/10/2019	**Date Completed :** 9/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
							-	[TOPSOIL] Silty SAND: fine to medium grained, dark brown, trace rootlets.	M	-	
				ES	0.20		-	[FILL] Silty Gravelly SAND: fine to coarse grained, dark brown, angular, fine to coarse gravel, trace glass fragments.	M	-	0.2m, PID=3.4ppm
				ES	0.50		-	[FILL] Clayey Gravelly SAND: fine to coarse grained, dark brown, medium plasticity clay, angular, fine to coarse gravel, with cobbles, trace glass fragments.	M	-	0.5m, PID=1.0ppm
				B							
				ES							1.0m, PID=3.4ppm
1	TC-bit auger	Nil	Groundwater Not Encountered		1.20		-	[FILL] Sandy CLAY: medium plasticity, black, fine to coarse grained sand, with fine to medium, angular gravel.	w = PL	-	
				D							1.5m, organic odour
				ES/QA3							2.0m, PID=1.4ppm
2					2.00			End of borehole at 2.00 metres. Target Depth			
3											

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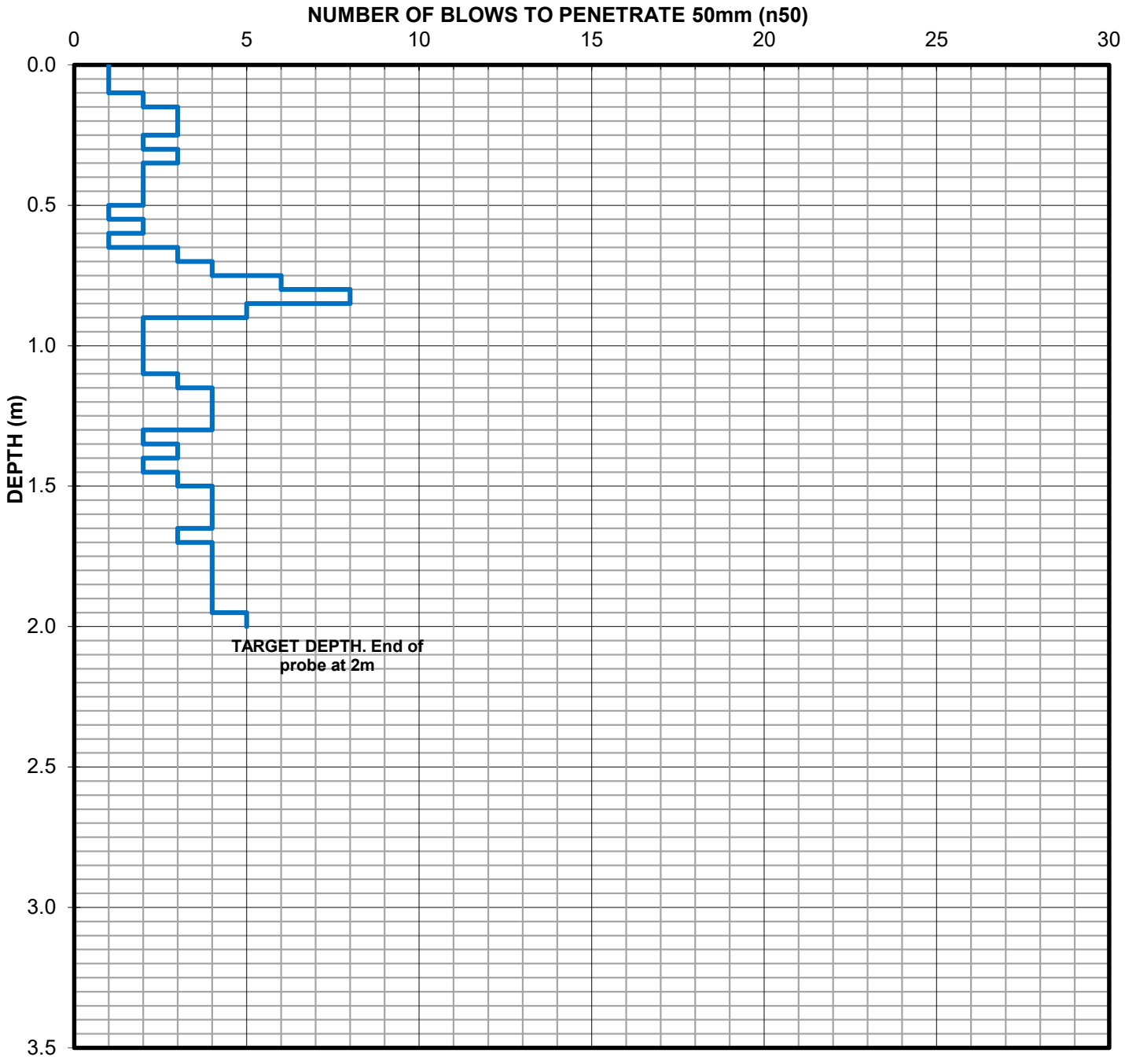
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Richard Murden Reserve, Haberfield, NSW

PROBE: A1-LD08

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	9/10/2019
Adjacent Test Hole / Pit: A1-LD08		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Richard Murden Reserve, Haberfield, NSW

HOLE No. A1-LD09

SHEET 1 OF 1

Position : 328498.31 E 6249539.31 N MGA94/ 56	**Surface RL:** 1.83m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : XP60 **Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 9/10/2019	**Date Completed :** 9/10/2019	**Logged by :** LM	**Date:** 16/01/2020

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
1	TC-bit auger	Nil	Groundwater Not Encountered	ES D ES B ES	0.10		-	[TOPSOIL] Silty SAND: fine to medium grained, brown, trace rootlets.	M	-	
							-	[FILL] Sandy CLAY: brown, medium plasticity, fine to coarse grained, with fine to coarse, angular gravel, with brick, tile and glass.	M	-	0.2m, PID=1.7ppm
					0.50		-	[FILL] Silty Sandy GRAVEL: fine to coarse, angular, grey, fine to coarse grained sand.	M	-	0.5m, PID=2.3ppm
											1.0m, PID=2.1ppm
					1.40		-	[FILL] Silty SAND: fine to coarse grained, black, with angular gravel, trace metal fragments.	M	-	
					1.70		-	[FILL] Silty Gravelly SAND: fine to coarse grained, black, fine to medium, angular gravel, with clay.	M	-	
2				ES	2.00			End of borehole at 2.00 metres. Target Depth			2.0m, PID=3.5ppm
3											

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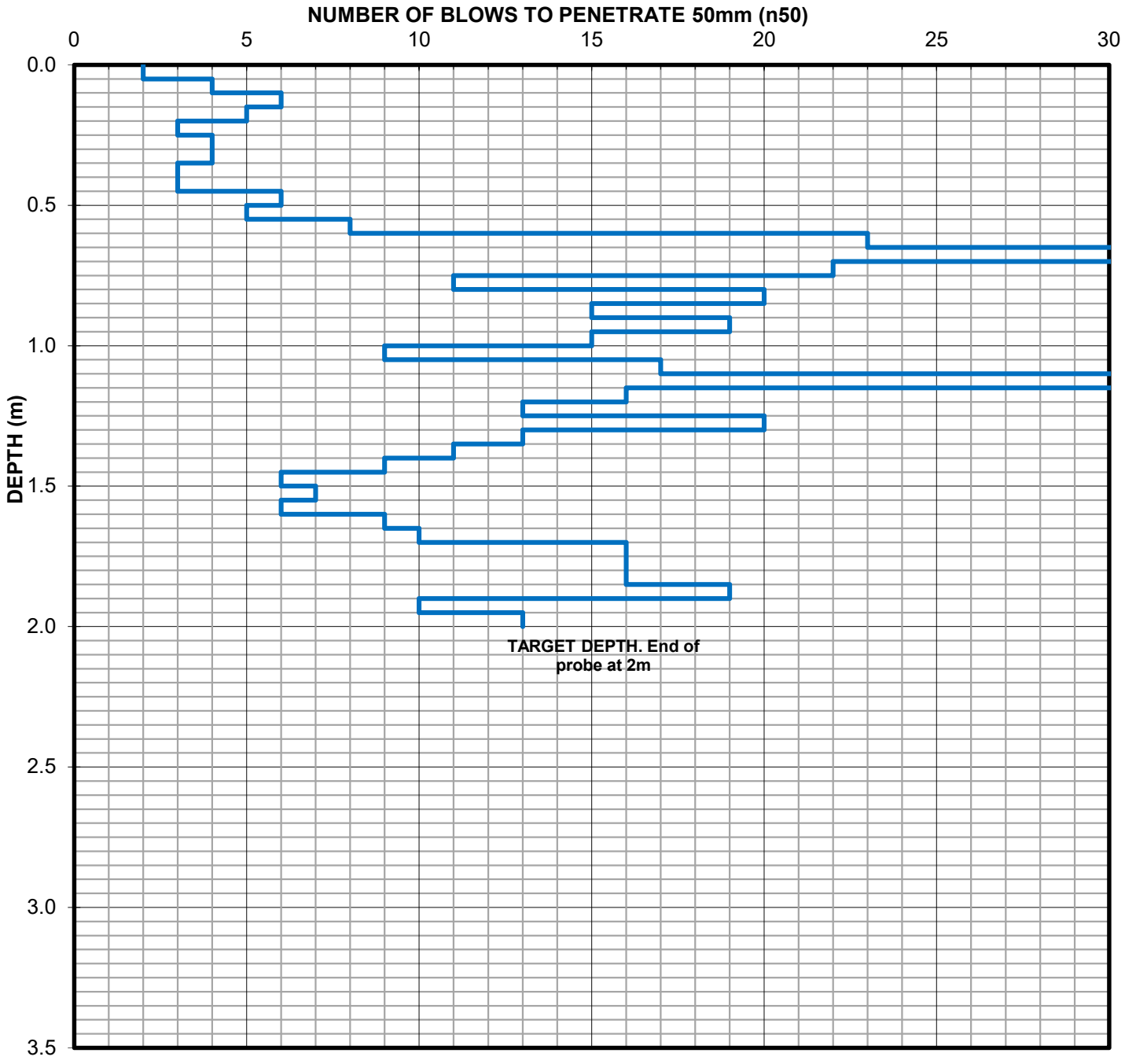
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Richard Murden Reserve, Haberfield, NSW

PROBE: A1-LD09

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	9/10/2019
Adjacent Test Hole / Pit: A1-LD09		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Richard Murden Reserve, Haberfield, NSW

HOLE No. A1-LD10

SHEET 1 OF 1

Position : 328404.64 E 6249367.76 N MGA94/ 56	**Surface RL:** 1.82m AHD	**Angle from Horiz. :** 90°		**Processed :** AJET
Rig Type : XP60 **Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD		**Checked :** MG
Date Started : 9/10/2019	**Date Completed :** 9/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
0	TC-bit auger	Nil	Groundwater Not Encountered	ES	0.20		-	[TOPSOIL] Silty SAND: fine to medium grained, brown, with rootlets.	M	-	
				ES	0.50		-	[FILL] Silty SAND: fine to coarse grained, brown/yellow, with fine to coarse, angular gravel.	M	-	0.2m, PID=2.4ppm
				D			-	[FILL] Silty Gravelly SAND: fine to coarse grained, light brown, fine to coarse, angular gravel.	M	-	0.5m, PID=4.3ppm
1				ES	1.10		-	[FILL] Clayey SAND: fine grained, with fine, angular gravel.	M	-	1.0m, PID=2.8ppm
				B	1.50		Cl	CLAY: medium plasticity, brown with grey lenses, with fine to medium grained sand (alluvium)	w = PL	St	
				D							
				ES	2.00						2.0m, PID=2.3ppm
2								End of borehole at 2.00 metres. Target Depth			
3											
4											
5											

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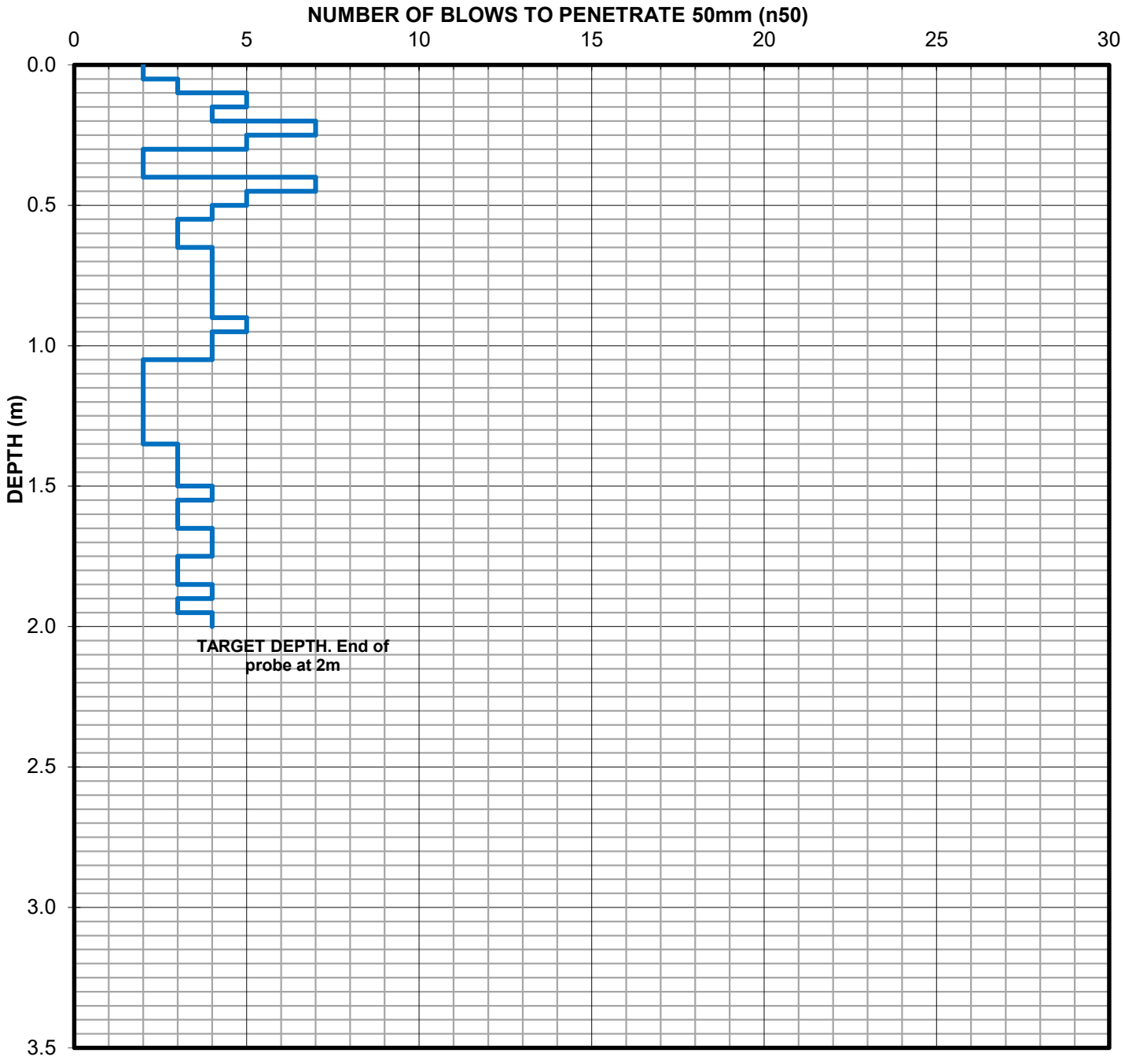
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Richard Murden Reserve, Haberfield, NSW

PROBE: A1-LD10

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	9/10/2019
Adjacent Test Hole / Pit: A1-LD10		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 211251515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Richard Murden Reserve, Haberfield, NSW

HOLE No. A1-LD11

SHEET 1 OF 1

Position : 328400.15 E 6249225.91 N MGA94/ 56 **Surface RL:** 2.20m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : XP60 **Mounting:** Ute **Contractor :** Terratest **Driller :** CD **Checked :** MG
Date Started : 9/10/2019 **Date Completed :** 9/10/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						Note: * indicates signatures on original issue of log or last revision of log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
1	TC-bit auger	Nil	▽ 9/10/19	ES ES D ES B D ES	0.30 0.50 1.00 1.70 2.00		- - - - SC	[TOPSOIL] Silty SAND: fine grained, brown, with rootlets. [FILL] Silty SAND: fine to coarse grqained with fine to coarse, angular gravel, with sandstone cobbles. [FILL] Silty Gravelly SAND: fine to coarse grained, brown, fine to coarse, angular gravel. [FILL] Silty Clayey SAND: fine grained, brown, medium plasticity clay, trace fine, angular gravel. Clayey SAND: medium to coarse grained, black, medium plasticity clay (alluvium).	M M M M W	- - - - MD	0.2m, PID=1.3ppm 0.5m, PID=2.5ppm 1.0m, PID=1.7ppm 2.0m, PID=2.0ppm
2								End of borehole at 2.00 metres. Target Depth			
3											
4											
5											

See standard sheets for details of abbreviations & basis of descriptions

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21-12515105

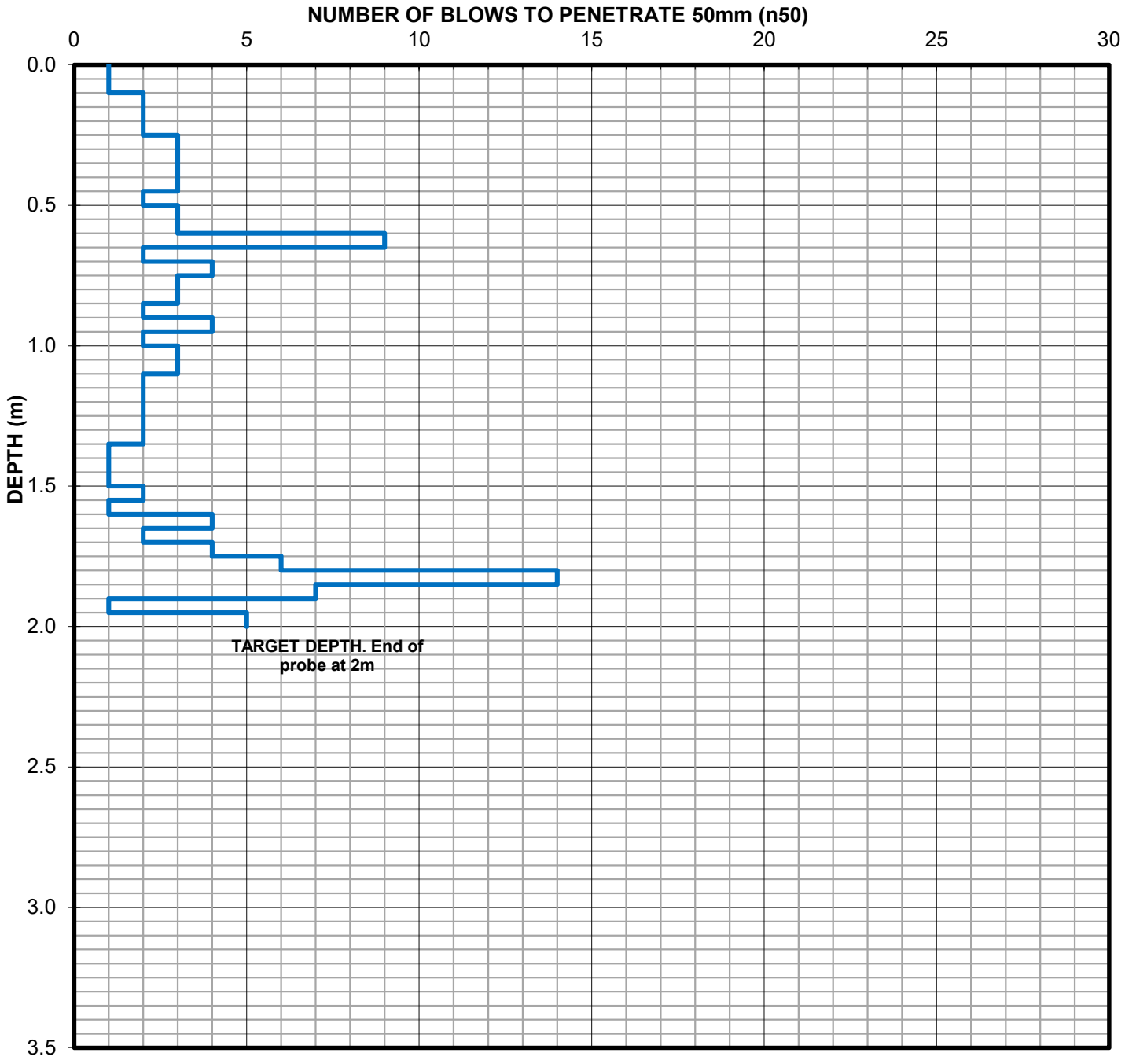
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Richard Murden Reserve, Haberfield, NSW

PROBE: A1-LD11

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	9/10/2019
Adjacent Test Hole / Pit: A1-LD11		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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BOREHOLE LOG SHEET

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Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Lewisham, NSW

HOLE No. A2-BH02

SHEET 1 OF 3

Position : 328380.23 E 6248168.58 N MGA94/ 56 **Surface RL:** 9.24m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : XC Rig **Mounting:** Track **Contractor :** Terratest **Driller :** CD **Checked :** MG
Date Started : 18/10/2019 **Date Completed :** 18/10/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
							-	[TOPSOIL] Sandy GRAVEL: fine to coarse, angular, brown, fine to medium grained sand, with silt.	M	-	
				ES	0.20		-	[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, angular gravel.	M	-	0.2m, PID=4.8ppm
				ES							0.5m, PID=5.6ppm
				SPT 3/2/3 N=5	0.80		-	[FILL] Sandy CLAY: medium plasticity, brown, fine to coarse grained sand, with fine to medium, angular gravel.	w < PL	-	
1				ES	1.10		SC	Clayey SAND: medium to coarse grained, orange brown, medium plasticity clay (residual).	w < PL	L	1.0m, PID=5.2ppm
				SPT 3/4/5 N=9	1.90		CH	CLAY: high plasticity, pale red, trace fine to coarse grained sand, trace fine to medium, rounded ironstone gravel (residual).	w = PL	St	
2	TC-bit auger	Nil	Groundwater Not Encountered	ES							2.0m, PID=5.9ppm
				SPT 3/4/5 N=9	2.50		SC	Sandy CLAY: medium plasticity, red mottled pale grey and pale brown, trace fine, sub-rounded ironstone gravel (residual).	w = PL	St	
3											
				SPT 2/5/8 N=13							
4				ES	4.50		-	SANDSTONE: fine grained, red-brown, highly weathered (bedrock)	-	-	4.5m, PID=12.3ppm
				SPT 12 for 150mm HB N=ref	4.70			Start of coring at 4.7 metres. For cored interval, see Core Log Sheet.			
5											

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Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council			**HOLE No. A2-BH02**
Project : The GreenWay Geotechnical and Contamination Services			**SHEET 2 OF 3**
Location : IWLR Corridor, Lewisham, NSW			
Position : 328380.23 E 6248168.58 N MGA94/ 56	**Surface RL:** 9.24m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : XC Rig	**Mounting:** Track **Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m **Bit :** Diamond (stepfaced)	**Bit Condition :** Fair	**Date:** 16/01/2020
Date Started : 18/10/2019	**Date Completed :** 18/10/2019 **Logged by :** LM	**Date Logged :** 18/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress								Description		Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral	Spacing (mm)	Additional Data
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	20 40 100 300 1000	(joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1												
2												
3												
4												
								Start of coring at 4.7 metres. For Non Cored interval, see Borehole Log Sheet.				
						4.70						
								CORE LOSS 300mm.	-			
5						5.00						

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-12515105

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Lewisham, NSW

HOLE No. A2-BH02

Position : 328380.23 E 6248168.58 N MGA94/ 56	**Surface RL:** 9.24m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Fair	**Date:** 16/01/2020
Date Started : 18/10/2019	**Date Completed :** 18/10/2019	**Logged by :** LM	**Date Logged :** 18/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
						5.45		SANDSTONE: fine grained, red-yellow, indistinctly bedded at 0-10°.				5.05m, WSm, CLAY, 40mm
6	NMLC coring							SANDSTONE: fine grained, red-brown, bleached pale grey at defects, indistinctly bedded at 10-15°, trace carbonaceous laminations.	HW			5.53m, WSm, CLAY and rock fragments, 50mm 5.97m, WSm, CLAY and rock fragments, 50mm
						7.03						6.64m, WSm, CLAY, 50mm
7						7.07		CORE LOSS 40mm.				
								SANDSTONE: fine to medium grained, pale grey, indistinctly bedded at 0-15°, trace fine grained and carbonaceous laminations.	HW			7.19m, WSm, CLAY, 10mm
									SW			7.79m, WSm, CLAY, 15mm
8						8.10						
						8.13		CORE LOSS 30mm.				
								SANDSTONE: fine to medium grained, pale grey, indistinctly bedded at 0-10°.	SW			
						8.60		End of Borehole at 8.60 metres. Target Depth				
9												
10												

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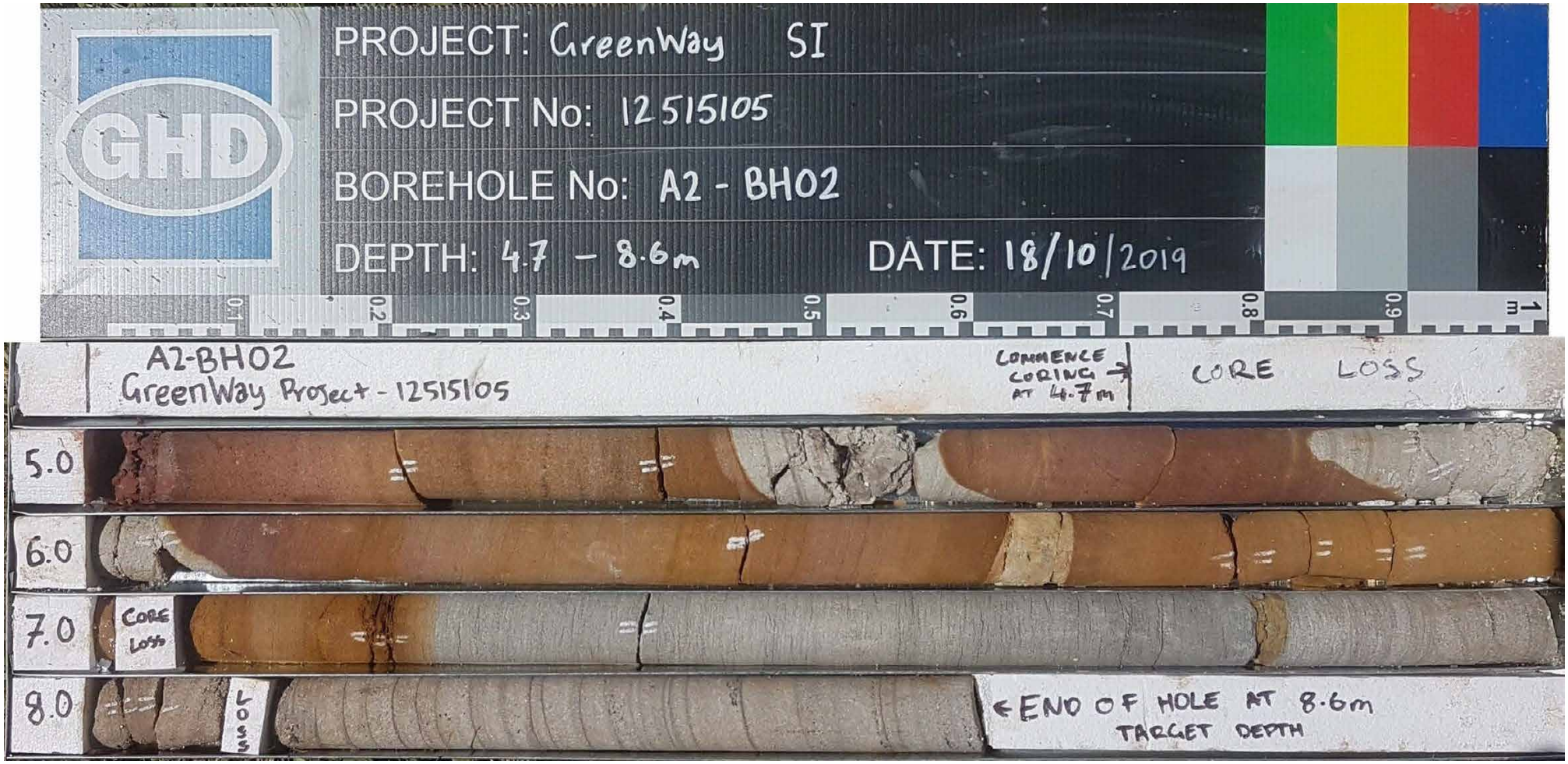
Job No.
21-12515105



PointID : A2-BH02 Depth Range: 4.70 - 8.60 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services IWLR Corridor, Lewisham NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A2-BH02 1/1

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Weston Street, Dulwich Hill, NSW

HOLE No. A2-BH03

SHEET 1 OF 1

Position : 328173.66 E 6247796.87 N MGA94/ 56	**Surface RL:** 17.28m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 16/10/2019	**Date Completed :** 16/10/2019	**Logged by :** JS	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
0	TC-bit auger	Nil	Groundwater Not Encountered	ES	0.10		-	ASPHALT PAVEMENT.	-	-	
							-	[FILL] Gravelly SAND: fine to coarse grained, fine to coarse, sub-angular to angular gravel.	D	-	
				ES							0.5m, PID=3.7ppm
				D	0.70		Cl	CLAY: medium plasticity, orange-brown, with fine to coarse grained sand (residual).	w < PL	VSt	
1				ES						H	1.0m, PID=3.8ppm
					1.20		-	SANDSTONE: brown and orange brown, inferred medium strength, moderately to highly weathered (bedrock).	-	-	
					1.50			End of borehole at 1.50 metres. Refusal			
2											
3											
4											
5											

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See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-12515105

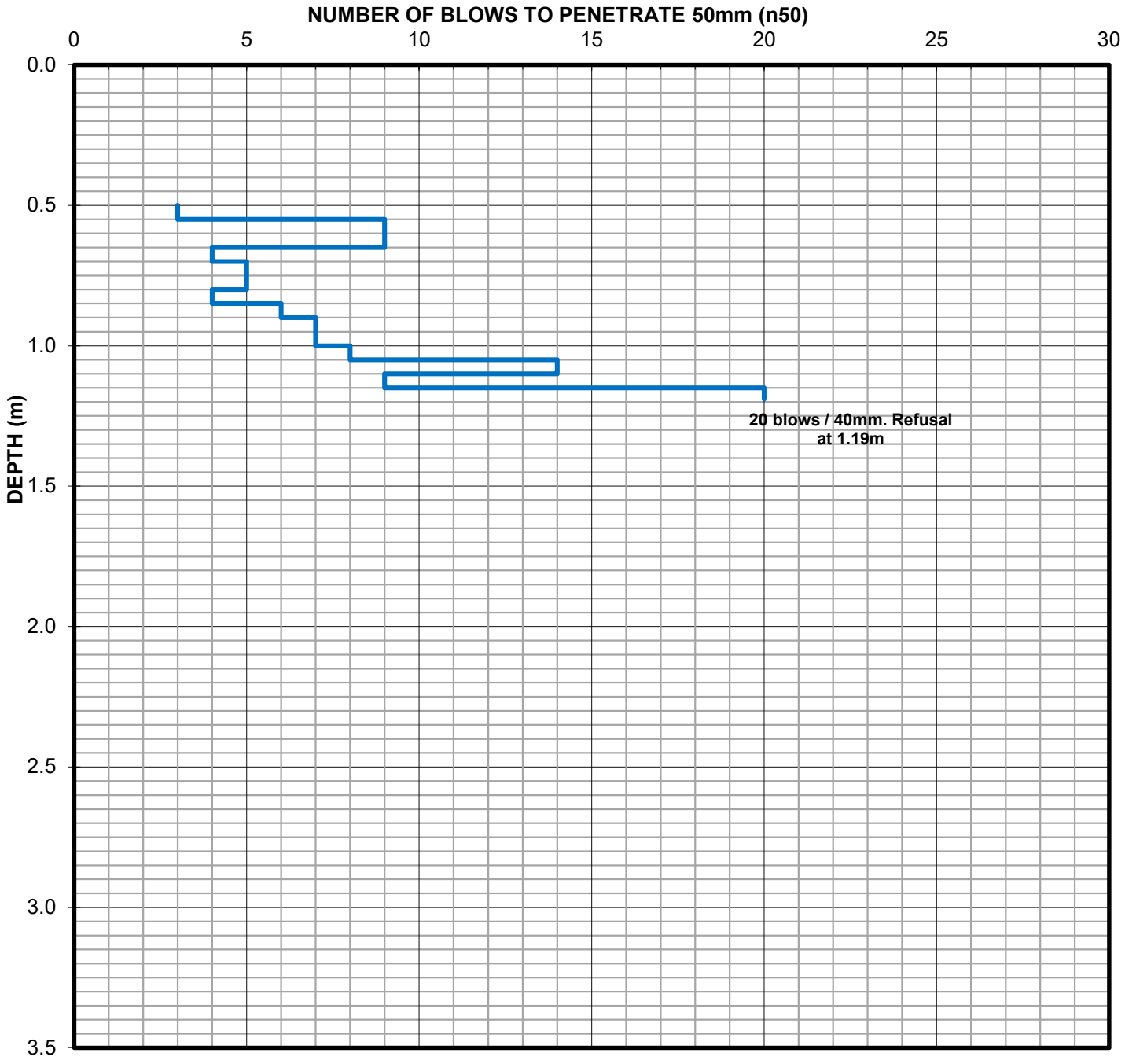
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Weston Street, Dulwich Hill, NSW

PROBE: A2-BH03

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	JS
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	16/10/2018
Adjacent Test Hole / Pit: A2-BH03		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Weston Street, Dulwich Hill, NSW

HOLE No. A2-BH04

SHEET 1 OF 1

Position : 328174.74 E 6247742.24 N MGA94/ 56	**Surface RL:** 15.82m AHD	**Angle from Horiz. :** 90°		**Processed :** AJET
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM		**Checked :** MG
Date Started : 16/10/2019	**Date Completed :** 16/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.08		-	ASPHALT PAVEMENT.	-	-	
	TC-bit auger	Nil	Groundwater Not Encountered	ES			-	[FILL] Gravelly SAND: fine to coarse grained, dark grey, brown, pale brown, fine to coarse, sub-angular to angular gravel, trace clay.	M	-	0.2m, PID=4.6ppm
					0.30		-	[FILL] Clayey SAND: fine to coarse grained, dark grey, low plasticity clay.	M	-	
				D ES							0.5m, PID=9.1ppm 0.5m, Hydrocarbon odour
					0.80		-	SANDSTONE: pale grey and pale brown, inferred medium strength, highly to moderately weathered (bedrock).	-	-	
1				ES	1.05			End of borehole at 1.05 metres. Refusal			1.0m, PID=11.5ppm
2											
3											
4											
5											

Note: * indicates signatures on original issue of log or last revision of log

[COBBLES/BOULDERS/FILL/TOPSOIL] then
SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and
ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects

See standard sheets for details of abbreviations & basis of descriptions

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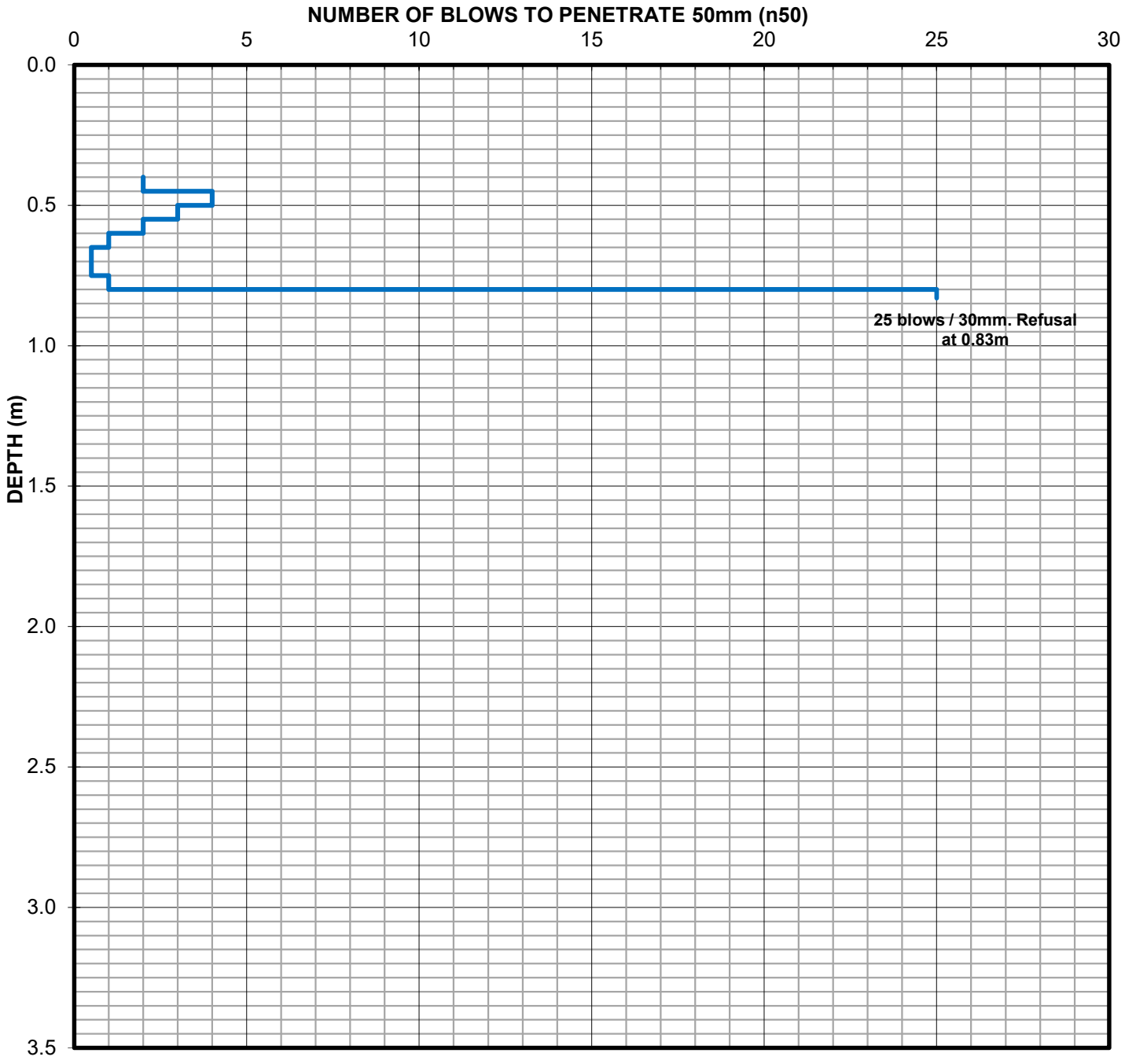
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Weston Street, Dulwich Hill, NSW

PROBE: A2-BH04

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	JS
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	16/10/2018
Adjacent Test Hole / Pit: A2-BH04		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : The GreenWay Footpath, Summer Hill, NSW

HOLE No. A2D-BH04

SHEET 1 OF 3

Position : 328450.98 E 6248456.48 N MGA94/ 56 **Surface RL:** 3.57m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** DM **Checked :** MG
Date Started : 15/10/2019 **Date Completed :** 15/10/2019 **Logged by :** JS **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.07		-	ASPHALT FOOTPATH.	-	-	
				ES			-	[FILL] Clayey SAND: fine to coarse grained, dark brown, trace fine to coarse, sub-angular to angular gravel.	M	-	0.2m, PID=3.6ppm
				ES	0.50		-	[FILL] Gravelly Sandy CLAY: low plasticity, brown and dark brown, medium to coarse grained sand, fine to coarse, sub-angular sandstone gravel.	w = PL	-	0.5m, PID=2.6ppm
1				SPT 5/8/5 N=13							
				ES/QA1							1.0m, PID=3.9ppm
					1.50		CH	CLAY: high plasticity, pale grey mottled pale brown, brown and red brown, with fine to coarse grained sand (residual).	w > PL	F	1.5m, PP=100-150kPa
2	TC-bit auger	Nil	Groundwater Not Encountered	SPT 3/3/5 N=8							2.0m, PID=5.4ppm
					2.50		SC	Sandy CLAY: medium plasticity, pale grey mottled pale brown and red brown, fine to coarse grained sand, trace fine to medium, sub-rounded ironstone gravel (residual).	w = PL	St	2.5m, PP=150-200kPa
3				SPT 6/9/6 N=15							
					3.30		-	SANDSTONE: medium to coarse grained, pale grey and brown, highly weathered, very low strength (bedrock).	-	-	
					3.88						
4								Start of coring at 3.88 metres. For cored interval, see Core Log Sheet.			
5											

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See standard sheets for details of abbreviations & basis of descriptions

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Job No.
21-12515105

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : The GreenWay Footpath, Summer Hill, NSW

HOLE No. A2D-BH04

SHEET 2 OF 3

Position : 328450.98 E 6248456.48 N MGA94/ 56	**Surface RL:** 3.57m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 15/10/2019	**Date Completed :** 15/10/2019	**Logged by :** JS	**Date Logged :** 15/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress										Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral	Spacing (mm)	
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1												
2												
3												
						3.88		Start of coring at 3.88 metres. For Non Cored interval, see Borehole Log Sheet.				
4	NMLC coring			(0)				SANDSTONE: medium to coarse grained, brown to pale brown, indistinctly bedded at 0-5°.	HW			3.95m, WSm, 20mm 4.04m, Pt, 0°, Rf, Pln, Cn 4.12m, Pt, 5°, Rf, Pln, Cn 4.20m, WSm, 10mm 4.34m, WSm, 70mm 4.50m, Pt, 0°, RF, Pln, rock fragments
								4.61m, fine to coarse grained.	SW			4.61m, Pt, 0°, RF, Pln, rock fragments
5								4.95m, pale grey, distinct fine grained laminations at 20°.				

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Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : The GreenWay Footpath, Summer Hill, NSW

HOLE No. A2D-BH04

SHEET 3 OF 3

Position : 328450.98 E 6248456.48 N MGA94/ 56	**Surface RL:** 3.57m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 15/10/2019	**Date Completed :** 15/10/2019	**Logged by :** JS	**Date Logged :** 15/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL				NATURAL FRACTURES	
Progress										
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6	NMLC coring		5.46	(0)		7.09		SANDSTONE: as previous.	Fr	●		5.08m, Pt, 5°, Rf, Pln, Cn
7			7.09					End of Borehole at 7.09 metres. Target Depth				6.83m, Pt, 0°, Rf, Pln, Cn
8												
9												
10												

See standard sheets for details of abbreviations & basis of descriptions

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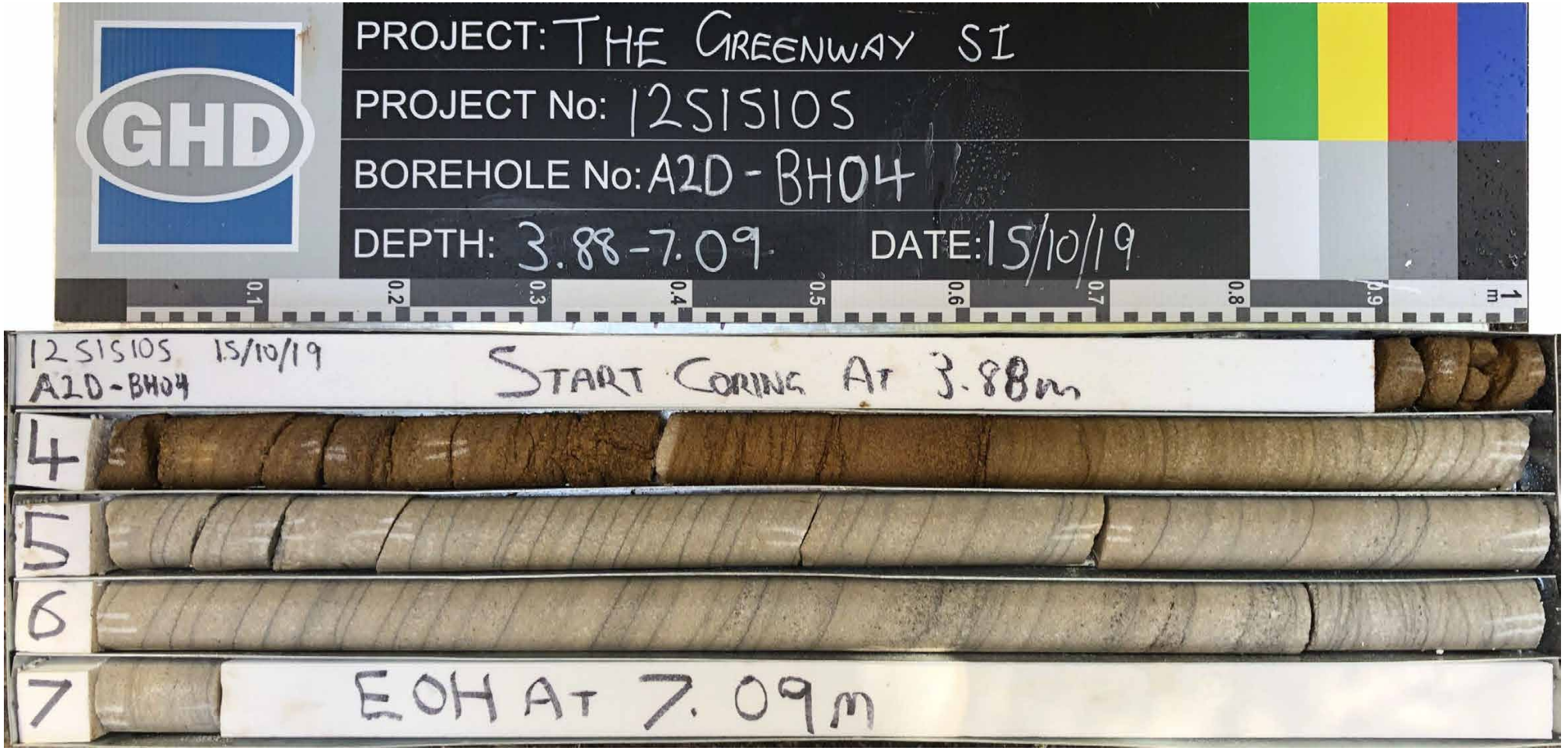

PointID : A2D-BH04 Depth Range: 3.88 - 7.09 m

	Inner West Council The GreenWay Geotechnical and Contamination Services The GreenWay Footpath, Summer Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A2D-BH04 1/1

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : The GreenWay Footpath, Summer Hill, NSW

HOLE No. A2D-BH05

SHEET 1 OF 3

Position : 328443.59 E 6248434.57 N MGA94/ 56 **Surface RL:** 3.69m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** DM **Checked :** MG
Date Started : 15/10/2019 **Date Completed :** 15/10/2019 **Logged by :** JS **Date:** 16/01/2020

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
0	TC-bit auger	Nil	Groundwater Not Encountered		0.07		-	ASPHALT FOOTPATH.	-	-	
				ES			-	[FILL] Gravelly SAND: fine to coarse grained, dark grey, fine to medium, sub-angular gravel.	M	-	0.2m, PID=2.9ppm
				ES							0.5m, PID=3.6ppm
1				SPT 6/14/22 N=36				0.8m, sandstone boulder.			
				ES							1.0m, PID=2.9ppm
					1.30		CH	CLAY: high plasticity, pale brown mottled brown, pale grey and red brown, with fine to coarse grained sand (residual).	w > PL	F	
				SPT 2/3/5 N=8							1.5m, PP=100kPa
2				ES							
					2.10		GC	Gravelly CLAY: low to medium plasticity, red-brown, fine to coarse, sub-rounded ironstone gravel (residual).	w = PL	St	2.0m, PID=5.5ppm
				SPT 6/ 2 for 140mm HB N=ref	2.70		-	SANDSTONE: fine to coarse grained, pale grey and brown, highly weathered, very low strength (bedrock).	-	-	
					2.93			Start of coring at 2.93 metres. For cored interval, see Core Log Sheet.			
3											
4											
5											

See standard sheets for details of abbreviations & basis of descriptions

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Job No.
21-12515105

CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : The GreenWay Footpath, Summer Hill, NSW

HOLE No. A2D-BH05

SHEET 2 OF 3

Position : 328443.59 E 6248434.57 N MGA94/ 56	**Surface RL:** 3.69m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 15/10/2019	**Date Completed :** 15/10/2019	**Logged by :** JS	**Date Logged :** 15/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES		
Progress													
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1													
2													
						2.93		Start of coring at 2.93 metres. For Non Cored interval, see Borehole Log Sheet.					
3	NMLC coring							CORE LOSS 650mm.					
				(50)		3.58		SANDSTONE: fine to coarse grained, pale grey stained orange-brown, indistinctly bedded at 0-5°.	MW				4.03m, Pt, 5°, Rf, Pln, Cn 4.08m, Pt, 0°, Rf, Pln, Cn
4			4.23					4.1m, trace carbonaceous laminations.					4.29m, Pt, 0°, Rf, Pln, X 4.30m, Pt, 0°, Rf, Pln, Sn 4.48m, Pt, 0°, Rf, Pln, Sn
									SW				
				(0)									4.86m, Pt, 5°, Rf, Pln, Cn
5													

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-12515105

CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : The GreenWay Footpath, Summer Hill, NSW

HOLE No. A2D-BH05

SHEET 3 OF 3

Position : 328443.59 E 6248434.57 N MGA94/ 56	**Surface RL:** 3.69m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 15/10/2019	**Date Completed :** 15/10/2019	**Logged by :** JS	**Date Logged :** 15/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6	NMLC coring		5.62	(0)				SANDSTONE: as previous. 5.8m, trace carbonaceous flecks	SW			5.40m, Pt, 5°, Rf, Pln, Cn 5.55m, Pt, 5°, Rf, Pln, Cn 5.71m, Pt, 2°, Rf, Pln, X 6.00m, Pt, 0°, Rf, Pln, X 6.70m, Pt, 5°, Rf, Pln, Cn
			6.97			6.97		End of Borehole at 6.97 metres. Target Depth				
7												
8												
9												
10												

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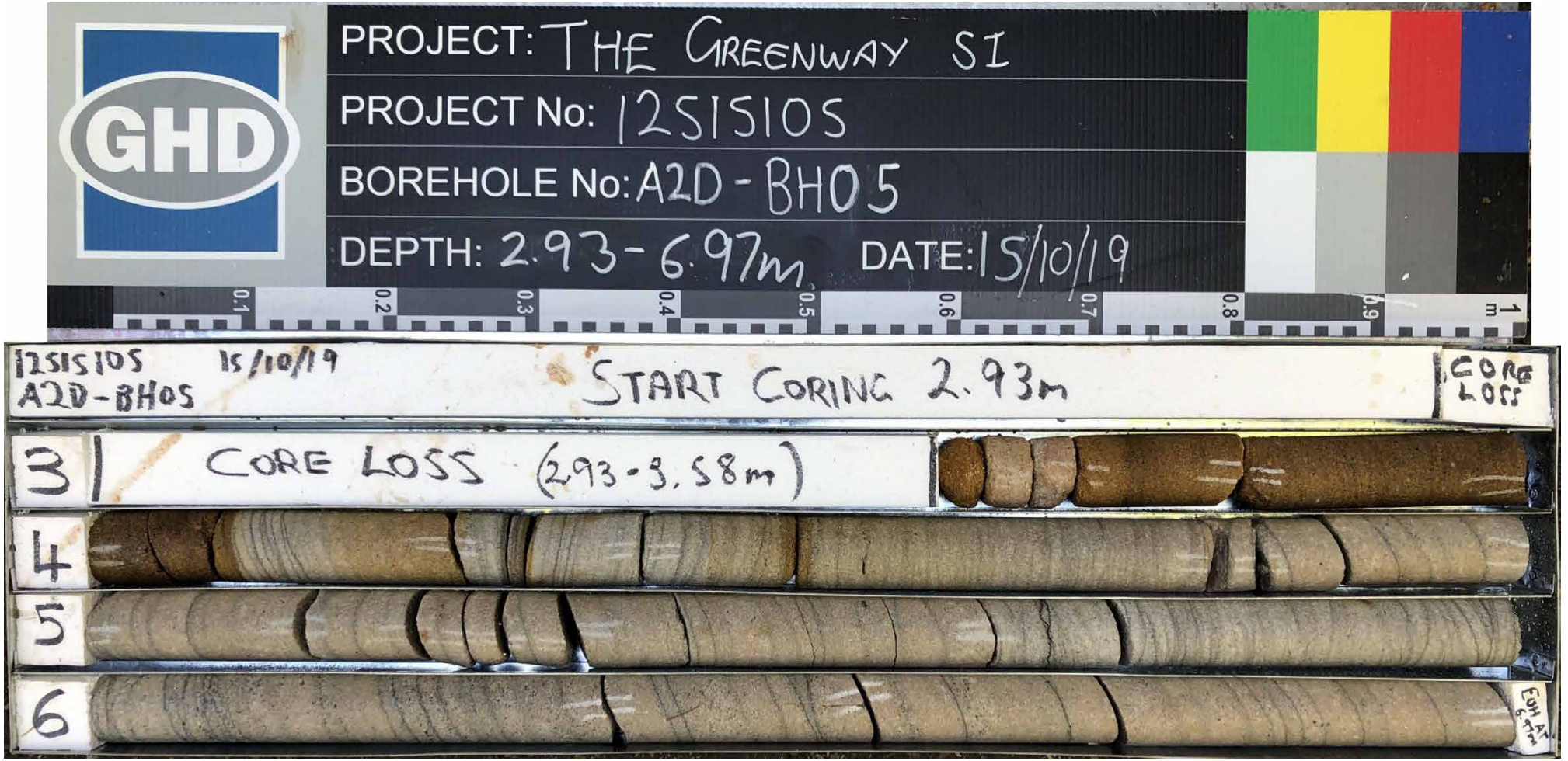

PointID : A2D-BH05 Depth Range: 2.93 - 6.97 m

	Inner West Council The GreenWay Geotechnical and Contamination Services The GreenWay Footpath, Summer Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A2D-BH05 1/1

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Gadigal Reserve, Summer Hill, NSW

HOLE No. A2D-BH06

SHEET 1 OF 3

Position : 328426.96 E 6248282.39 N MGA94/ 56 **Surface RL:** 3.91m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** DM **Checked :** MG
Date Started : 14/10/2019 **Date Completed :** 14/10/2019 **Logged by :** VW **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	TC-bit auger	Nil	Groundwater Not Encountered	ES	0.30		-	[FILL] SAND: fine to medium grained, dark grey and grey, with medium, sub-angular to sub-rounded gravel.	M	-	0.2m, PID=3.1ppm
				ES			-	[FILL] Sandy CLAY/ Clayey SAND: fine to medium grained, brown and red, grey, low to medium plasticity clay, with fine, angular to subangular gravel, trace rootlets.	M w > PL	-	0.5m, PID=4.5ppm
				SPT 5/4/5 N=9	0.70		-	[FILL] Sandy CLAY: medium plasticity, dark grey and brown, fine to medium grained sand.	w > PL	-	
				ES							1.0m, PID=4.0ppm
2				SPT 6/3/2 N=5							
				ES							2.0m, PID=6.0ppm
				SPT 15 for 140mm HB N=ref	2.50 2.65		-	SANDSTONE: medium to coarse grained, pale grey, highly weathered, low strength (bedrock).	-	-	
3								Start of coring at 2.65 metres. For cored interval, see Core Log Sheet.			
4											
5											

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Job No. 21-12515105

CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Gadigal Reserve, Summer Hill, NSW

HOLE No. A2D-BH06

SHEET 2 OF 3

Position : 328426.96 E 6248282.39 N MGA94/ 56	**Surface RL:** 3.91m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Fair	**Date:** 16/01/2020
Date Started : 14/10/2019	**Date Completed :** 14/10/2019	**Logged by :** VW	**Date Logged :** 14/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress										Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral	Spacing (mm)	Additional Data
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	20 40 100 300 1000	(joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1								Start of coring at 2.65 metres. For Non Cored interval, see Borehole Log Sheet.				
						2.65		CORE LOSS 300mm.				
2						2.95		SANDSTONE: fine grained, pale orange-brown, massive.				2.98m, Pt, 0-5°, Rf, Un, Sand 3.02m, FZ, 0-5°, Rf, Pln, Gravel 3.05m, Pt, 5°, Rf, Pln, Fe 3.20m, Pt, 5°, Rf, Pln, Cn 3.25m, Jt, 25°, Rf, Pln, Cn
3	NMLC coring			(18)					MW			3.46m, Pt, 5°, So, Pln, Fe
4			4.26			4.07		3.90m, indistinctly thinly bedded. SANDSTONE: fine to medium grained, pale grey, distincutly bedded at 0-15°, with fine grained and carbonaceous laminations.	SW Fr			4.66m, Pt, 0°, Rf, Pln, Cn 4.67m, Pt, 0°, Rf, Pln, Cn
5												

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Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Gadigal Reserve, Summer Hill, NSW

HOLE No. A2D-BH06

SHEET 3 OF 3

Position : 328426.96 E 6248282.39 N MGA94/ 56	**Surface RL:** 3.91m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Fair	**Date:** 16/01/2020
Date Started : 14/10/2019	**Date Completed :** 14/10/2019	**Logged by :** VW	**Date Logged :** 14/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL				NATURAL FRACTURES		
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6	NMLC coring		5.83	(0)				SANDSTONE: as previous.	Fr			5.08m, Pt, 5°, So, Pln, Cn 5.17m, Pt, 5°, So, Pln, Cn
				(0)								6.49m, Pt, 0°, So, Pln, CLAY Ve 6.61m, Pt, 5°, Rf, Pln, CLAY Ve 6.64m, WSm, 20mm
7			7.24			7.24		End of Borehole at 7.24 metres. Target Depth				7.12m, Pt, 0°, RF, Pln, CLAY
8												
9												
10												

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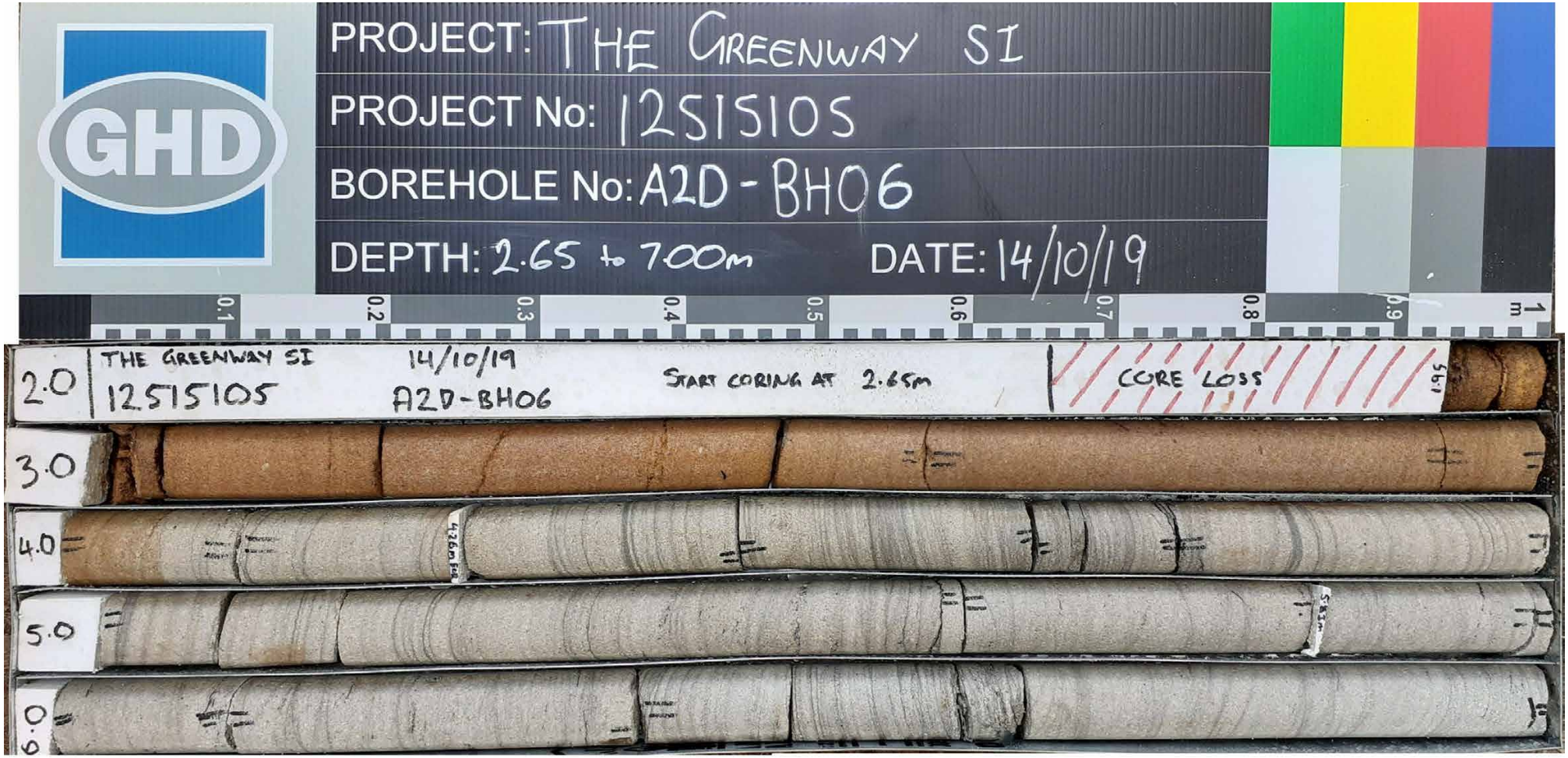
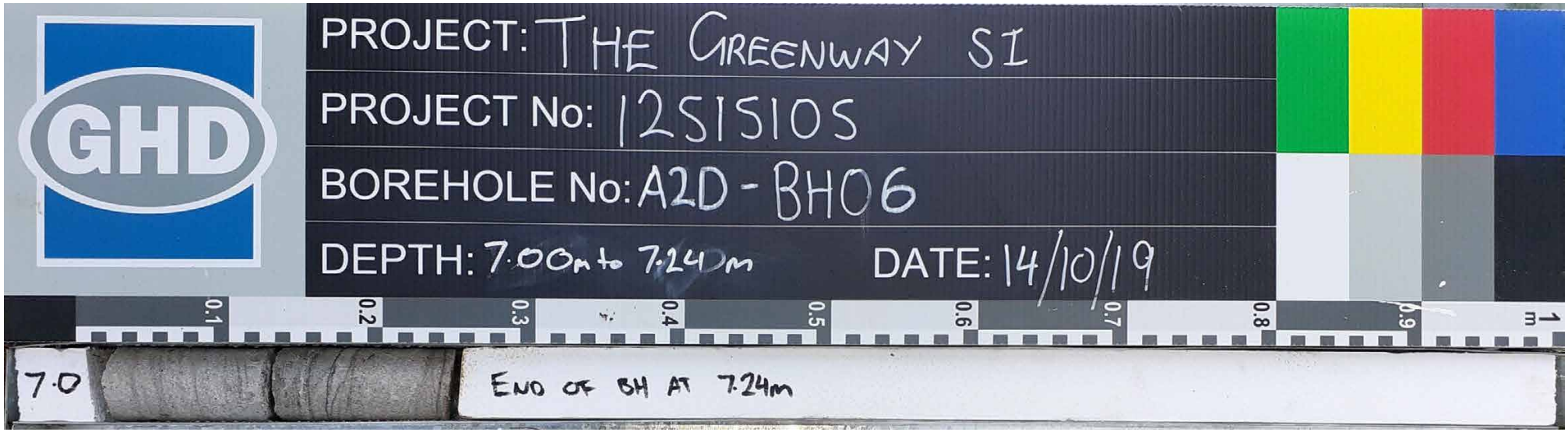


PointID : A2D-BH06 Depth Range: 2.65 - 7.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services Gadigal Reserve, Summer Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A2D-BH06 1/2



PointID : A2D-BH06 Depth Range: 7.00 - 7.24 m

Inner West Council
The GreenWay Geotechnical and Contamination Services
Gadigal Reserve, Summer Hill NSW
Core Photographs

DRAWN	HW	DATE	2/12/2019
CHECKED	JS	DATE	2/12/2019
SCALE	Not To Scale		A4
PROJECT No	21-12515105	FIGURE No	A2D-BH06 2/2

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 29/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : The GreenWay Footpath, Summer Hill, NSW

HOLE No. A2D-BH07

SHEET 1 OF 3

Position : 328415.14 E 6248285.31 N MGA94/ 56 **Surface RL:** 4.57m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** DM **Checked :** MG
Date Started : 14/10/2019 **Date Completed :** 14/10/2019 **Logged by :** VW **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
							-	ASPHALT FOOTPATH	-	-	
					0.40						
				ES			-	[FILL] Sandy CLAY: low plasticity, dark brown, fine to medium grained sand, with fine to medium, sub-angular to angular gravel.	SM	F	0.5m, PID=3.4ppm
				SPT 3/4/3 N=7							
				ES							1.0m, PID=3.7ppm
1											
	TC-bit auger	Nil		SPT 4/ 6 for 80mm HB N=ref							
				ES/DUP1							2.0m, PID=3.5ppm
2											2.1m, PID=5.8ppm
			Groundwater Not Encountered		2.50		-	Sandy CLAY: low plasticity, pale brown mottled orange, fine grained sand (residual).	w > PL	F	
				SPT 3/3/3 N=6							
				ES	3.00		CI	CLAY: medium plasticity, red (residual).	w > PL	F	3.0m, PID=3.2ppm
3					3.10		-	SANDSTONE: medium to coarse grained, pale brown, highly weathered, low strength (bedrock).	-	-	
				SPT 5 for 100mm HB N=ref	3.20			Start of coring at 3.2 metres. For cored interval, see Core Log Sheet.			
4											
5											

Note: * indicates signatures on original issue of log or last revision of log

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Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council			**HOLE No. A2D-BH07**
Project : The GreenWay Geotechnical and Contamination Services			**SHEET 2 OF 3**
Location : The GreenWay Footpath, Summer Hill, NSW			
Position : 328415.14 E 6248285.31 N MGA94/ 56	**Surface RL:** 4.57m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ **Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Fair	**Date:** 16/01/2020
Date Started : 14/10/2019 **Date Completed :** 14/10/2019	**Logged by :** VW	**Date Logged :** 14/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress										Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral	Spacing (mm)	Additional Data
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	20 40 100 300 1000	(joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1												
2												
3								Start of coring at 3.2 metres. For Non Cored interval, see Borehole Log Sheet.				
						3.20		CORE LOSS 500mm.				
	NMLC coring					3.70		SANDSTONE: medium grained, orange-brown, indistinctly bedded at 0-20°.	MW			3.79m, Pt, 5°, Rf, Pln, Cn 3.82m, Pt, 5°, Rf, Pln, Cn
4				(18)		4.71		SANDSTONE: medium grained, pale grey, indistinctly thinly bedded at 0-10°, with fine grained and carbonaceous laminations.	SW			4.47m, Jt, 20°, Rf, Pln, Cn 4.62m, Pt, 5°, Rf, Pln, Cn 4.75m, Pt, 0°, So, Pln, Cn
5												

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CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : The GreenWay Footpath, Summer Hill, NSW

HOLE No. A2D-BH07

SHEET 3 OF 3

Position : 328415.14 E 6248285.31 N MGA94/ 56	**Surface RL:** 4.57m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Fair	**Date:** 16/01/2020
Date Started : 14/10/2019	**Date Completed :** 14/10/2019	**Logged by :** VW	**Date Logged :** 14/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES		
Progress													
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6	NMLC coring		6.00			6.00		SANDSTONE: as previous.	SW Fr	●		-5.34m, Pt, 3°, So, Pln, Fe Ve
								End of Borehole at 6.00 metres. Target Depth				
7												
8												
9												
10												

See standard sheets for details of abbreviations & basis of descriptions

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Job No.
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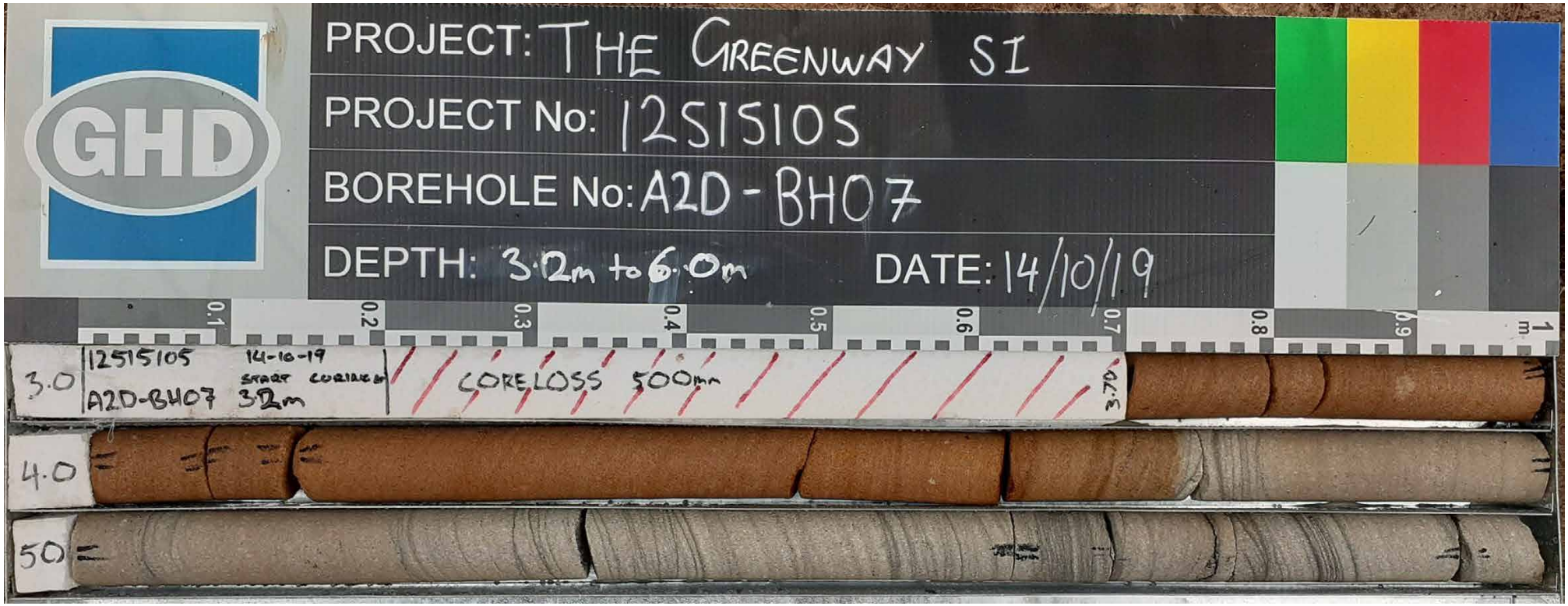

PointID : A2D-BH07 Depth Range: 3.20 - 6.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services The GreenWay Footpath, Summer Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A2D-BH07 1/1

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Gadigal Reserve, Summer Hill, NSW

HOLE No. A2D-BH08

SHEET 1 OF 3

Position : 328425.91 E 6248261.63 N MGA94/ 56 **Surface RL:** 4.78m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : Hand Carry Rig **Mounting:** NA **Contractor :** Stratacore **Driller :** CW **Checked :** MG
Date Started : 28/10/2019 **Date Completed :** 28/10/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
0	Hand Auger	Nil	Groundwater Not Encountered	ES	0.20		-	[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, subangular ballast gravel.	M	-	
				ES D			-	[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, sub-angular gravel.	M	-	0.2m, PID=2.3ppm 0.5m, PID=2.0ppm
					0.70		-	[FILL] Sandy CLAY: low plasticity, brown with yellow mottles, fine to coarse grained sand, trace fine to medium, sub-angular gravel, trace brick and glass.	w = PL	-	
1				ES D				1.0m, grey mottled red			1.0m, PID=1.7ppm
	Washbore				2.20						
2					2.33			CLAY: red, with medium to coarse, sub-rounded ironstone gravel (residual).			2.2m, material descrption inferred from drilling fluid.
								Start of coring at 2.33 metres. For cored interval, see Core Log Sheet.			
3											
4											
5											

Note: * indicates signatures on original issue of log or last revision of log

[COBBLES/BOULDERS/FILL/TOPSOIL] then
SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and
ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects

See standard sheets for details of abbreviations & basis of descriptions

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Job No. 21-12515105

CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Gadigal Reserve, Summer Hill, NSW

HOLE No. A2D-BH08

SHEET 2 OF 3

Position : 328425.91 E 6248261.63 N MGA94/ 56	**Surface RL:** 4.78m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : Hand Carry Rig	**Mounting:** NA	**Contractor :** Stratacore	**Driller :** CW	**Checked :** MG
Casing Dia. : 90mm	**Barrel (m) :** 1.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 28/10/2019	**Date Completed :** 28/10/2019	**Logged by :** LM	**Date Logged :** 28/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●-Axial ○-Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1												
2						2.33		Start of coring at 2.33 metres. For Non Cored interval, see Borehole Log Sheet.				
3	NMLC coring		2.50	(0)				SANDSTONE: medium to coarse grained, pale brown, indistinctly bedded at 0-10°.	MW			
				(15)								3.04m, Pt, 15°, Rf, Un, Fe 3.09m, WSm, 10mm
						3.30			EW			
						3.45		CORE LOSS 150mm.				
			3.50			3.52		SANDSTONE: as above.	EW			
								CORE LOSS 270mm.				
4				(27)		3.79		SANDSTONE: fine to medium grained, pale grey stained orange, indistinctly thinly bedded to bedded at 0-15°, with fine grained and carbonaceous laminations.	SW			3.84m, Pt, 10°, Rf, Un, CLAY 4.25m, Pt, 0°, RF, Pln, CLAY
			4.50					4.5m, pale grey.	SW-Fr			
5												

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-12515105

CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Gadigal Reserve, Summer Hill, NSW

HOLE No. A2D-BH08

SHEET 3 OF 3

Position : 328425.91 E 6248261.63 N MGA94/ 56	**Surface RL:** 4.78m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : Hand Carry Rig	**Mounting:** NA	**Contractor :** Stratacore	**Driller :** CW	**Checked :** MG
Casing Dia. : 90mm	**Barrel (m) :** 1.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 28/10/2019	**Date Completed :** 28/10/2019	**Logged by :** LM	**Date Logged :** 28/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL				NATURAL FRACTURES	
Progress											
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6	NMLC coring		5.50	(0)				SANDSTONE: as previous.	SW-Fr			6.00m, WSm, 40mm
			6.50	(0)								
			7.00	(0)		7.00		End of Borehole at 7.00 metres. Target Depth				
7												
8												
9												
10												

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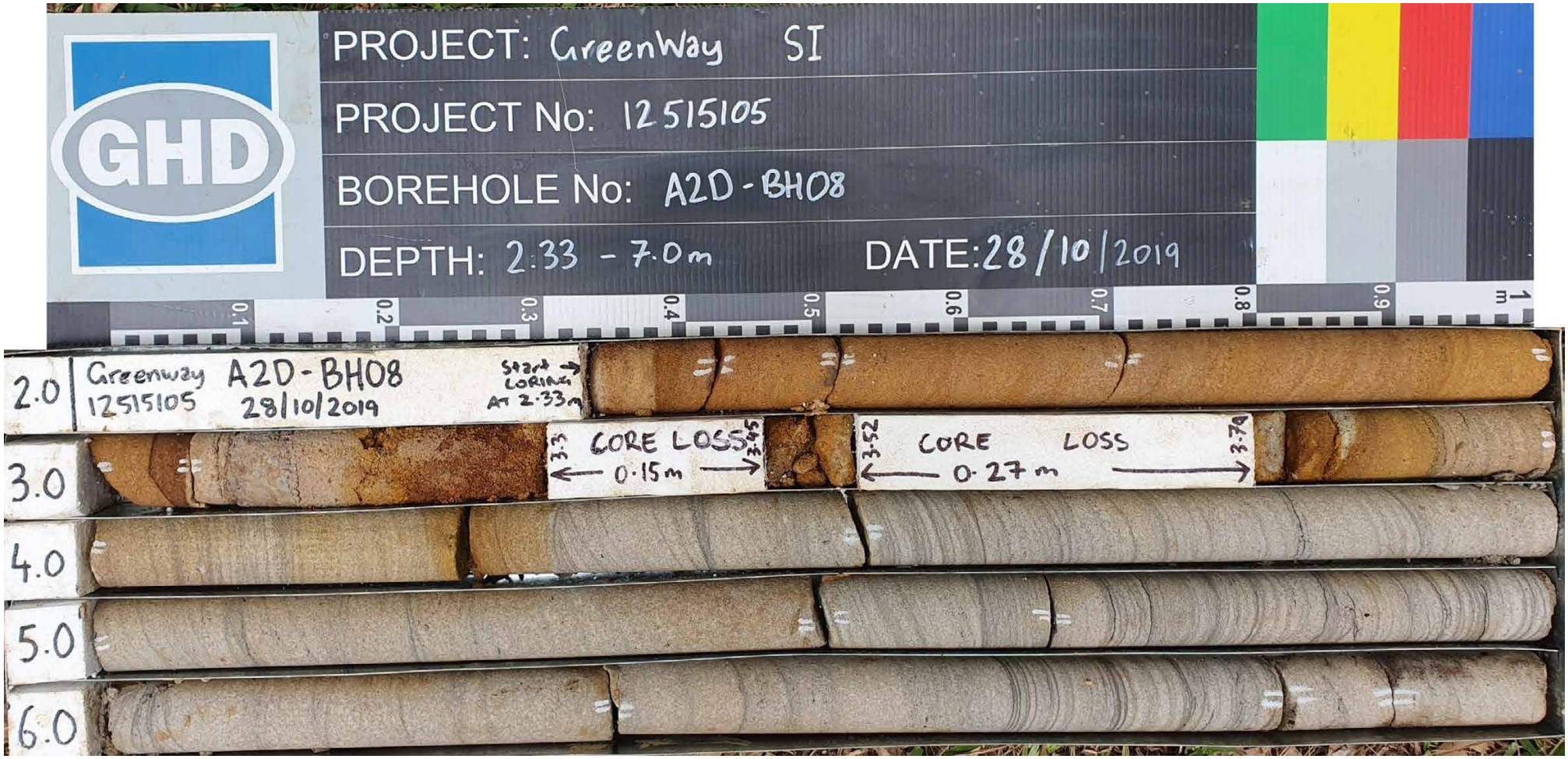


PointID : A2D-BH08 Depth Range: 2.33 - 7.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services Gadigal Reserve, Summer Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A2D-BH08 1/1

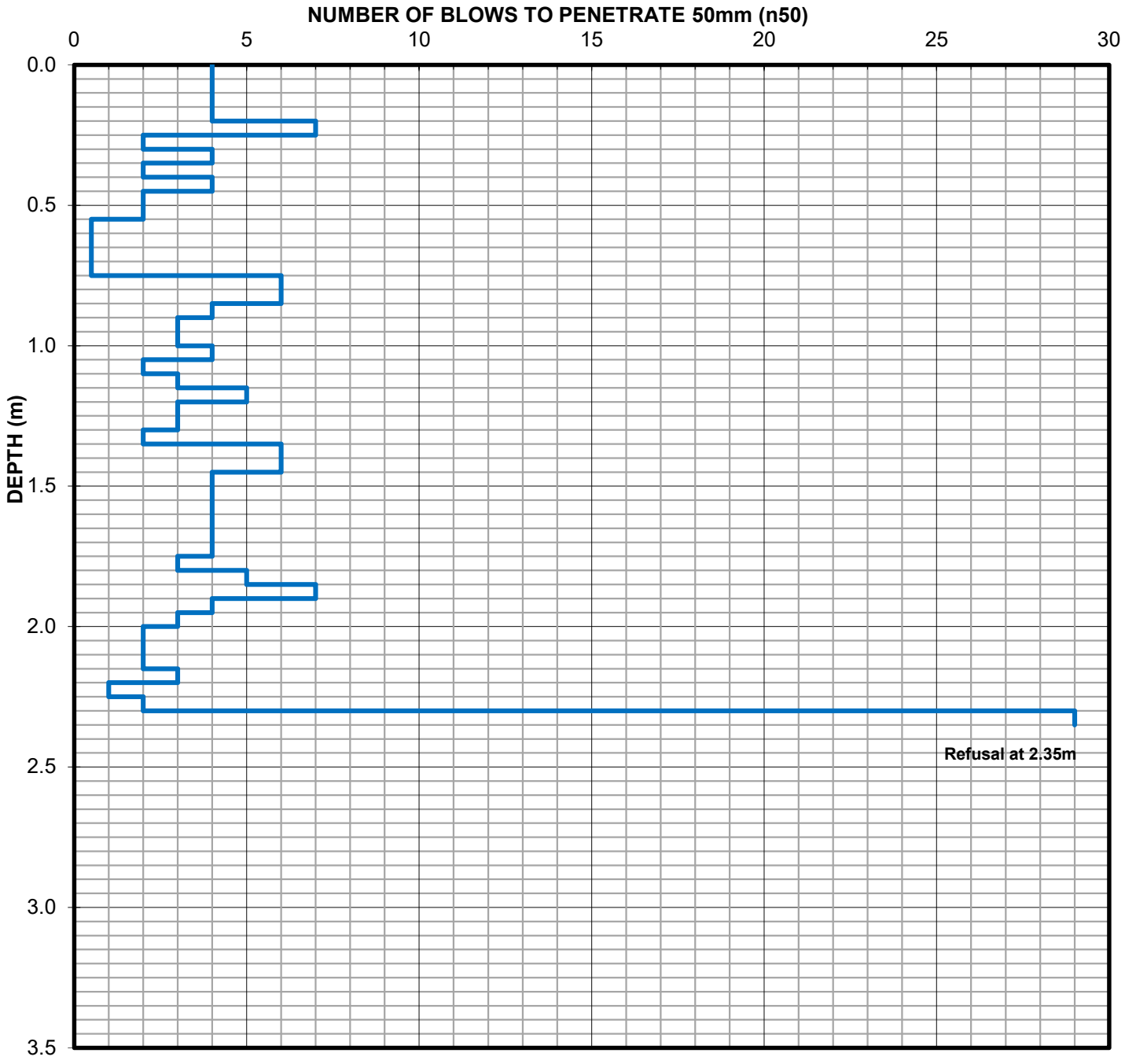
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Gadigal Reserve, Summer Hill, NSW

PROBE: A2D-BH08

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	28/10/2019
Adjacent Test Hole / Pit: A2D-BH08		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Summer Hill, NSW

HOLE No. A2D-BH09

SHEET 1 OF 3

Position : 328412.37 E 6248228.80 N MGA94/ 56 **Surface RL:** 4.89m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : Hand Carry Rig **Mounting:** NA **Contractor :** Stratacore **Driller :** CW **Checked :** MG
Date Started : 29/10/2019 **Date Completed :** 29/10/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	Hand Auger	Nil	▽ 29/10/19	ES	0.25		-	[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, subangular ballast gravel.	M	-	
				ES/QA29			-	[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, angular gravel, trace brick.	M	-	0.2m, PID=1.6ppm 0.2m, Possible ACM 0.5m, PID=2.7ppm
				ES	0.65		-	[FILL] Gravelly Silty SAND: fine to coarse grained, brown, medium to coarse, angular gravel.	M	-	
				D	1.10		-	[FILL] Clayey Sandy GRAVEL: fine to coarse, sub-angular, brown, fine to coarse grained sand, trace tile fragments.	M	-	1.0m, PID=1.6ppm
2				ES	1.60		SC	Sandy CLAY: medium plasticity, grey, fine to coarse grained sand, with fine to medium, sub-rounded, ironstone gravel (residual).	w = PL	F-St	2.0m, PID=0.9ppm
				D	2.60		GC	Gravelly CLAY: medium plasticity, grey mottled red, fine to medium, sub-rounded, ironstone gravel, trace fine to coarse grained sand.	w < PL	St	
3					3.00			Start of coring at 3 metres. For cored interval, see Core Log Sheet.			
4											
5											

See standard sheets for details of abbreviations & basis of descriptions

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Job No. 21-12515105

CORE LOG SHEET

Client : Inner West Council				**HOLE No. A2D-BH09**	
Project : The GreenWay Geotechnical and Contamination Services				**SHEET 2 OF 3**	
Location : IWLR Corridor, Summer Hill, NSW					
Position : 328412.37 E 6248228.80 N MGA94/ 56	**Surface RL:** 4.89m AHD		**Angle from Horiz. :** 90°		**Processed :** AJET
Rig Type : Hand Carry Rig	**Mounting:** NA	**Contractor :** Stratacore	**Driller :** CW		**Checked :** MG
Casing Dia. : 90mm	**Barrel (m) :** 1.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good		**Date:** 16/01/2020
Date Started : 29/10/2019	**Date Completed :** 29/10/2019	**Logged by :** LM	**Date Logged :** 29/10/2019		Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL				NATURAL FRACTURES		
Progress											
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1											
2											
3						3.00		Start of coring at 3 metres. For Non Cored interval, see Borehole Log Sheet.			
	NMLC coring		3.50	(0)		3.14		CONGLOMERATE: fine to coarse, red clasts, grey mottled orange matrix, sub-rounded gravel.	HW		3.03m, Pt, 0°, VR, Un, CLAY 3.06m, Pt, 0°, VR, Un, CLAY 3.10m, Pt, 0°, VR, Un, CLAY 3.14m, WSm, 20mm
								SANDSTONE: fine to coarse grained, pale brown, indistinctly thinly bedded at 0-15°.	EW		3.27m, WSm, 50mm
4			4.46	(0)		4.08		SANDSTONE: fine to medium grained, pale grey, indistinctly bedded at 0-15°, with fine grained and carbonaceous laminations.	SW		3.35m, Pt, 0°, Rf, Pn, Fe 3.97m, Pt, 0°, Rf, Pn, Fe
			4.96	(0)					Fr		
5											

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Summer Hill, NSW

HOLE No. A2D-BH09

SHEET 3 OF 3

Position : 328412.37 E 6248228.80 N MGA94/ 56	**Surface RL:** 4.89m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : Hand Carry Rig	**Mounting:** NA	**Contractor :** Stratacore	**Driller :** CW	**Checked :** MG
Casing Dia. : 90mm	**Barrel (m) :** 1.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 29/10/2019	**Date Completed :** 29/10/2019	**Logged by :** LM	**Date Logged :** 29/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL				NATURAL FRACTURES		
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6	NMLC coring		5.97	(0)				SANDSTONE: as previous.	Fr			5.23m, Pt, 5°, Rf, Pn, X 5.24m, Pt, 5°, Rf, Pn, X 5.39m, WSm, 5°, X, 35mm
				(0)								
			6.88			6.88						6.85m, WSm, 30mm
7								End of Borehole at 6.88 metres. Target Depth				
8												
9												
10												

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Job No.
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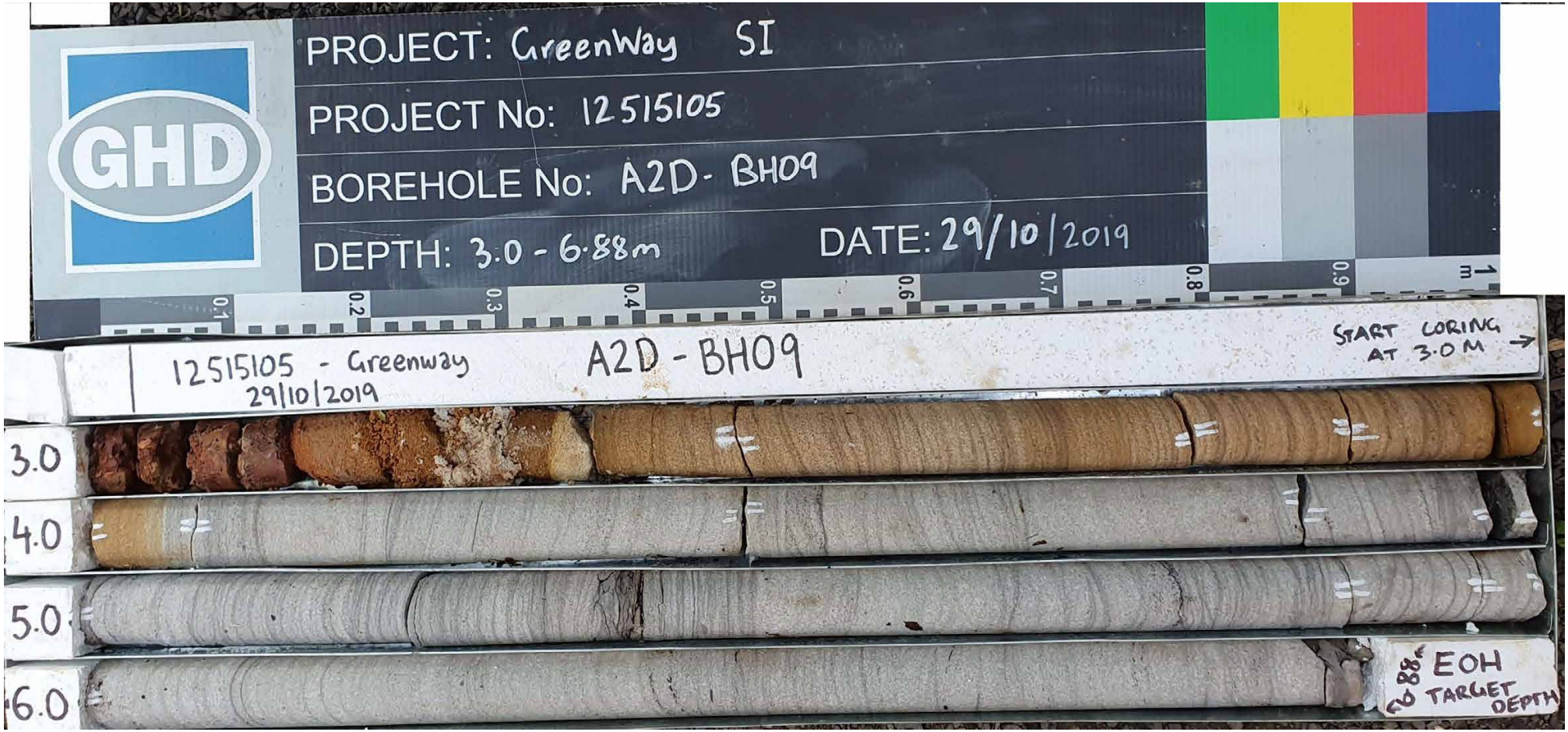


PointID : A2D-BH09 Depth Range: 3.00 - 6.88 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services IWLR Corridor, Summer Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A2D-BH09 1/1

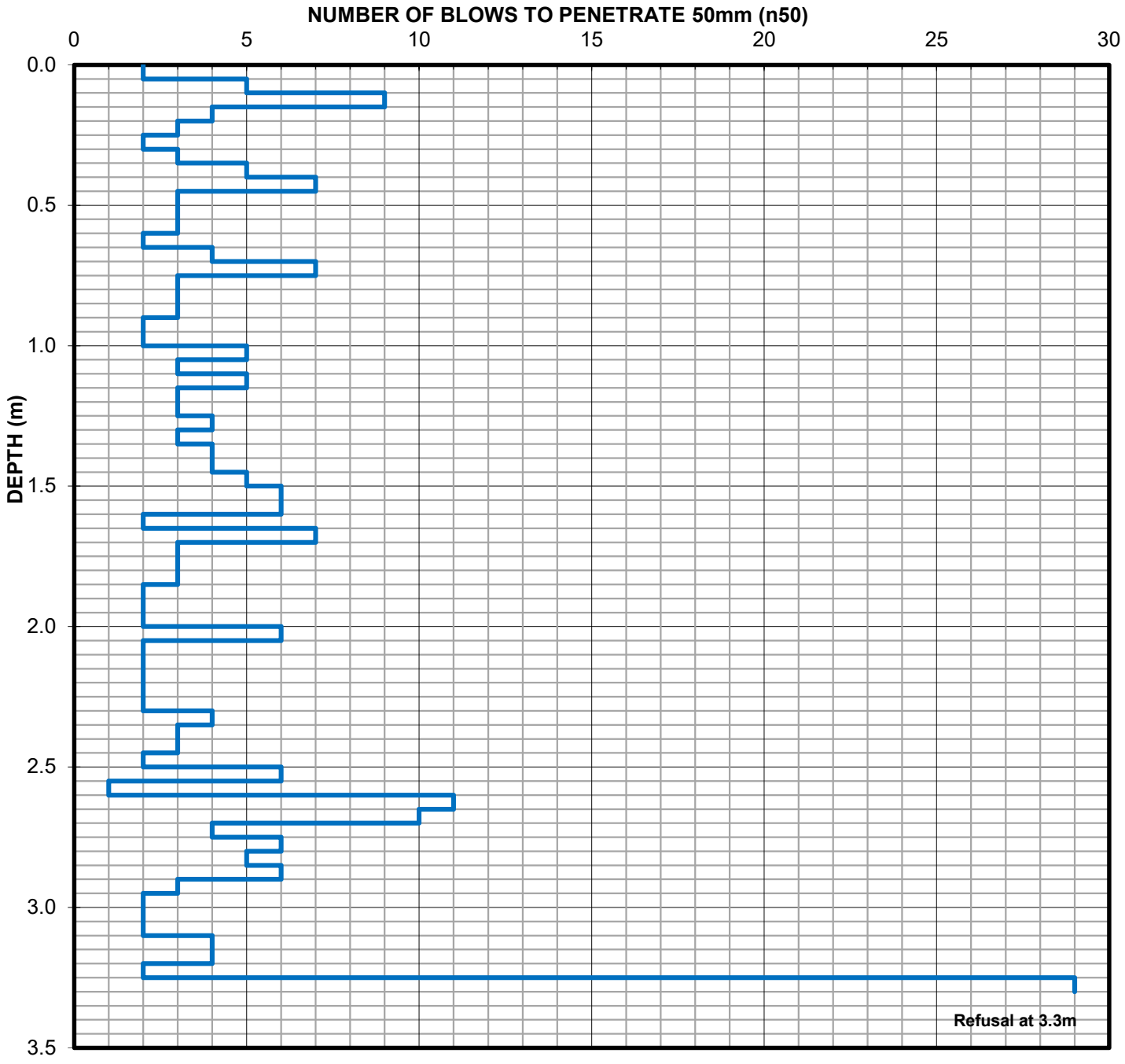
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: IWLR Corridor, Summer Hill, NSW

PROBE: A2D-BH09

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	29/10/2019
Adjacent Test Hole / Pit: A2D-BH09		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Gadigal Reserve, Summer Hill, NSW

HOLE No. A2D-LD01

SHEET 1 OF 3

Position : 328454.12 E 6248404.93 N MGA94/ 56	**Surface RL:** 4.69m AHD	**Angle from Horiz. :** 90°		**Processed :** AJET
Rig Type : Geo 205	**Mounting:** Track	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 25/10/2019	**Date Completed :** 25/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
0	TC-bit auger	Nil	Groundwater Not Encountered	ES			-	[FILL] Gravelly Sandy SILT: dark grey and dark brown, fine to medium grained sand, fine to coarse, sub-angular to angular gravel.	D	-	0.2m, PID=3.6ppm
				ES							0.5m, PID=4.4ppm
				B							SPT refusal on ballast/gravel.
1				ES							1.0m, PID=4.6ppm
				SPT 3/4/6 N=10							
				B							
2				ES	2.00		-	[FILL] Gravelly SAND: fine to coarse grained, pale brown, brown, yellow brown, fine to coarse, sub-angular to angular gravel, occasional sandstone cobbles, trace glass, plastic, concrete, brick.	D	-	2.0m, PID=5.7ppm
				SPT 10/17/11 N=28							
3				ES							3.0m, PID=2.6ppm
				SPT 4/8/8 N=16					M		3.1m, water added to borehole due to cave-in of cuttings.
					3.90		GC	Gravelly CLAY: medium plasticity, red brown mottled pale brown; red, fine to medium, sub-rounded to rounded ironstone gravel (residual).	w < PL	VSt	
4				ES							4.0m, PID=6.4ppm
				SPT 8/ 3 for	4.15		-	SANDSTONE: pale grey and pale brown, inferred low strength, moderately weathered, low strength (bedrock).	-	-	
				90mm HB N=ref	4.30			Start of coring at 4.3 metres. For cored interval, see Core Log Sheet.			
5											

Note: * indicates signatures on original issue of log or last revision of log

See standard sheets for details of abbreviations & basis of descriptions

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Job No. 21-12515105

CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Gadigal Reserve, Summer Hill, NSW

HOLE No. A2D-LD01

SHEET 2 OF 3

Position : 328454.12 E 6248404.93 N MGA94/ 56	**Surface RL:** 4.69m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : Geo 205	**Mounting:** Track	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 25/10/2019	**Date Completed :** 25/10/2019	**Logged by :** JS	**Date Logged :** 25/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress								Description		Estimated Strength $Is_{(50)}$ MPa	Spacing (mm)	Additional Data
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	20 40 100 300 1000	(joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1												
2												
3												
4								Start of coring at 4.3 metres. For Non Cored interval, see Borehole Log Sheet.				
						4.30		CORE LOSS 170mm.				
	NMLC coring					4.47		SANDSTONE: fine to coarse grained, pale grey and pale brown, indistinctly bedded at 0-5°, iron staining.	HW			4.49m, Pt, 2°, Rf, Pln, Fe
5												

See standard sheets for details of abbreviations & basis of descriptions

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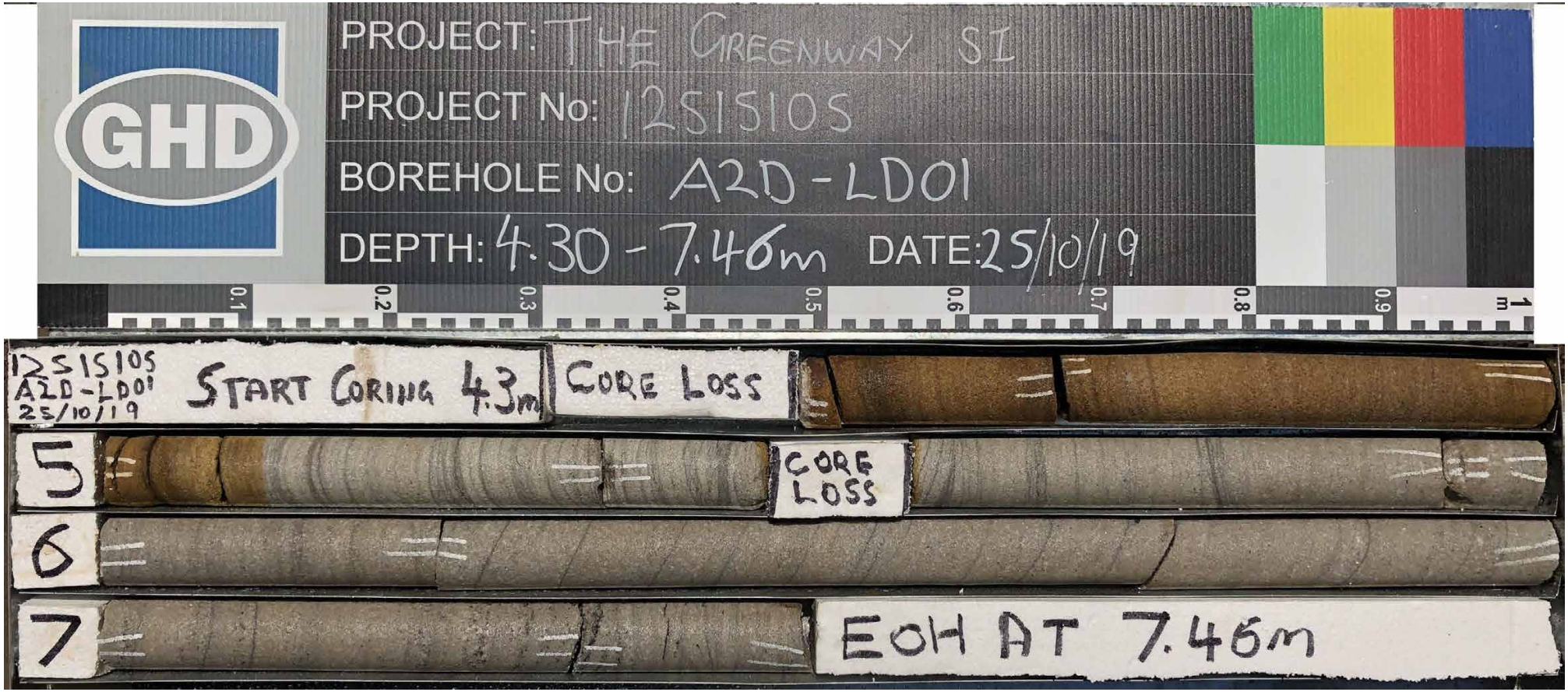
Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council			**HOLE No. A2D-LD01**
Project : The GreenWay Geotechnical and Contamination Services			**SHEET 3 OF 3**
Location : Gadigal Reserve, Summer Hill, NSW			
Position : 328454.12 E 6248404.93 N MGA94/ 56	**Surface RL:** 4.69m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : Geo 205 **Mounting:** Track	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ **Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 25/10/2019 **Date Completed :** 25/10/2019	**Logged by :** JS	**Date Logged :** 25/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6	NMLC coring		5.92	(17)		5.11		SANDSTONE: as previous.	HW			5.04m, Pt, 0°, Rf, Pln, Fe 5.08m, Pt, 0°, Rf, Pln, Fe
						5.45		SANDSTONE: fine to medium grained, pale grey, indistinctly bedded at 0-10°, with fine grained and carbonaceous laminations.	SW			
						5.55		CORE LOSS 100mm.				
								SANDSTONE: fine to medium grained, pale grey and pale brown, indistinctly bedded at 0-5°, iron staining.				
								6.27m, lamination at 25°.	SW			
7				(0)				7.0m, trace carbonaceous flecks and laminations.				6.72m, Pt, 5°, Rf, Pln, X
			7.46			7.46		End of Borehole at 7.46 metres. Target Depth				
8												
9												
10												



PointID : A2D-LD01 Depth Range: 4.30 - 7.46 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services Gadigal Reserve, Summer Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A2D-LD01 1/1

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Gadigal Reserve, Summer Hill, NSW

HOLE No. A2D-LD02

SHEET 1 OF 1

Position : 328446.99 E 6248370.57 N MGA94/ 56 **Surface RL:** 4.90m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : Geo 205 **Mounting:** Track **Contractor :** Stratacore **Driller :** DM **Checked :** MG
Date Started : 25/10/2019 **Date Completed :** 25/10/2019 **Logged by :** JS **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	TC-bit auger	Nil	Groundwater Not Encountered	ES/DUP1_25/10/19			-	[FILL] Gravelly Sandy SILT: dark grey and dark brown, fine to coarse grained sand, fine to coarse, sub-angular to angular gravel, with cobbles of ballast.	D-M	-	0.2m, PID=4.7ppm
				ES							0.5m, PID=3.4ppm
				SPT 6/6/6 N=12							
				ES				1.0m, without cobbles of ballast.			1.0m, PID=5.0ppm
				B							
					1.50		-	[FILL] Gravelly SAND: fine to coarse grained, brown and dark brown, fine to coarse, sub-angular to angular gravel, with silt.	M	-	
2				SPT 4/4/5 N=9	2.00						2.0m, PID=4.2ppm
								End of borehole at 2.00 metres. Target Depth			
3											
4											
5											

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-12515105

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Gadigal Reserve, Summer Hill, NSW

HOLE No. A2D-LD03

SHEET 1 OF 1

Position : 328433.12 E 6248307.75 N MGA94/ 56 **Surface RL:** 5.08m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** DM **Checked :** MG
Date Started : 14/10/2019 **Date Completed :** 14/10/2019 **Logged by :** VW **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	TC-bit auger	Nil	Groundwater Not Encountered	ES ES B SPT 9/11/12 N=23 ES	0.10		-	[TOPSOIL] Sandy SILT: brown, fine to coarse grained sand, trace rootlets.	D	-	
							CI	CLAY: medium plasticity, grey and yellowish brown, with fine to medium grained sand (residual).	w > PL	VSt	0.2m, PID=2.1ppm 0.5m, PID=1.8ppm
					0.95		CH	CLAY: high plasticity, red mottled orange and grey (residual).	w > PL	VSt	1.0m, PID=2.5ppm
2				B SPT 8/12/17 N=29 ES	2.00			End of borehole at 2.00 metres. Target Depth			2.0m, PID=2.0ppm
3											
4											
5											

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BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Longport Street, Summer Hill, NSW

HOLE No. A2D-LD04

SHEET 1 OF 3

Position : 328389.07 E 6248199.24 N MGA94/ 56	**Surface RL:** 14.81m AHD	**Angle from Horiz. :** 90°	**Processed :** AJET
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 16/10/2019	**Date Completed :** 16/10/2019	**Logged by :** JS	**Date:** 16/01/2020

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.10		-	ASPHALT PAVEMENT.	-	-	
					0.15		-	[FILL] Sandy GRAVEL: fine to coarse, sub-angular to angular, dark grey, fine to coarse grained sand.	D	-	
							-	CONCRETE.	-	-	
					0.45						
				ES/QA1/QA2			-	[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, sub-angular shale gravel.	D	-	0.5m, PID=3.2ppm
				SPT 5/10/8 N=18 ES							1.0m, PID=5.6ppm
					1.50						
							-	[FILL] Sandy CLAY: low plasticity, brown, grey, red-brown mixed, fine to coarse grained sand, trace fine to coarse, sub-angular gravel.	w < PL	-	1.5m, possible ripped shale fill material
				SPT 4/5/7 N=12 ES							2.0m, PID=4.3ppm
				SPT 4/6/10 N=16 ES				3.0m, trace of building refuse (5%) of brick, metal, concrete, tile.			3.0m, PID=4.2ppm
								3.5m, dark grey to black.			
				SPT 4/10/12 N=22 ES							4.0m, PID=4.8ppm
				B							
				SPT 8/10/13 N=23							
	TC-bit auger	Nil	Groundwater Not Encountered								

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Longport Street, Summer Hill, NSW

HOLE No. A2D-LD04

SHEET 2 OF 3

Position : 328389.07 E 6248199.24 N MGA94/ 56 **Surface RL:** 14.81m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** DM **Checked :** MG
Date Started : 16/10/2019 **Date Completed :** 16/10/2019 **Logged by :** JS **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
6	TC-bit auger	Nil	Groundwater Not Encountered	ES SPT 6/18/19 N=27 ES			-	[FILL] Sandy CLAY: as previous. 5.5m, trace fine to coarse, sub-rounded basalt gravel.	w < PL w = PL	-	5.0m, PID=5.5ppm 6.0m, PID=6.8ppm
7				SPT 5/6/8 N=14	7.00		-	[FILL] CLAY: medium plasticity, dark grey and grey mottled, with fine to coarse grained sand, trace fine, sub-angular gravel.	w = PL	-	
8				ES SPT 1/2/2 N=4							7.5m, PID=3.0ppm
9				ES SPT 2/3/7 N=10	9.00		CI	CLAY: medium plasticity, brown mottled dark brown, trace fine to coarse grained sand, trace fine to medium, sub-rounded, ironstone gravel, trace rootlets (alluvium).	w > PL	F	9.0m, PID=3.7ppm 9.2m, organic odour
10											

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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 211251515-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Longport Street, Summer Hill, NSW

HOLE No. A2D-LD04

SHEET 3 OF 3

Position : 328389.07 E 6248199.24 N MGA94/ 56 **Surface RL:** 14.81m AHD **Angle from Horiz. :** 90° **Processed :** AJET
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** DM **Checked :** MG
Date Started : 16/10/2019 **Date Completed :** 16/10/2019 **Logged by :** JS **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
							CI	CLAY: as previous.	w > PL	F	
11	TC-bit auger	Nil	Groundwater Not Encountered	SPT 6/4/4 N=8	11.00		SC	Sandy CLAY: medium plasticity, pale grey, red brown and pale brown mottled, medium to coarse grained sand, trace lenses of fine to coarse, sub-rounded to rounded, ironstone gravel (residual).	w > PL	F	
12					12.90						
13					13.00		-	SANDSTONE: pale grey and pale brown, moderately to highly weathered (bedrock). End of borehole at 13.00 metres. Target Depth	-	-	
14											
15											

Note: * indicates signatures on original issue of log or last revision of log

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BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Lewisham, NSW

HOLE No. A2-HA01

SHEET 1 OF 1

Position : 328400.97 E 6248153.46 N MGA94/ 56	**Surface RL:** 9.18m AHD	**Angle from Horiz. :** 90°		**Processed :** RCO
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 18/10/2019	**Date Completed :** 18/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log Comments/ Observations
	Hand Auger Bit tube	Nil	Groundwater Not Encountered		0.10		-	CONCRETE.	-	-	
				ES			-	[FILL] Sandy GRAVEL: fine to coarse, angular, fine to medium grained sand.	-	-	0.2m, PID=5.5ppm
					0.30		-	[FILL] Silty SAND: fine to coarse grained, yellow, with fine to coarse, sub-angular gravel, trace brick fragments.	-	-	
				ES	0.50			End of borehole at 0.50 metres. Auger refusal			0.4m, PID=8.9ppm
1											
2											
3											

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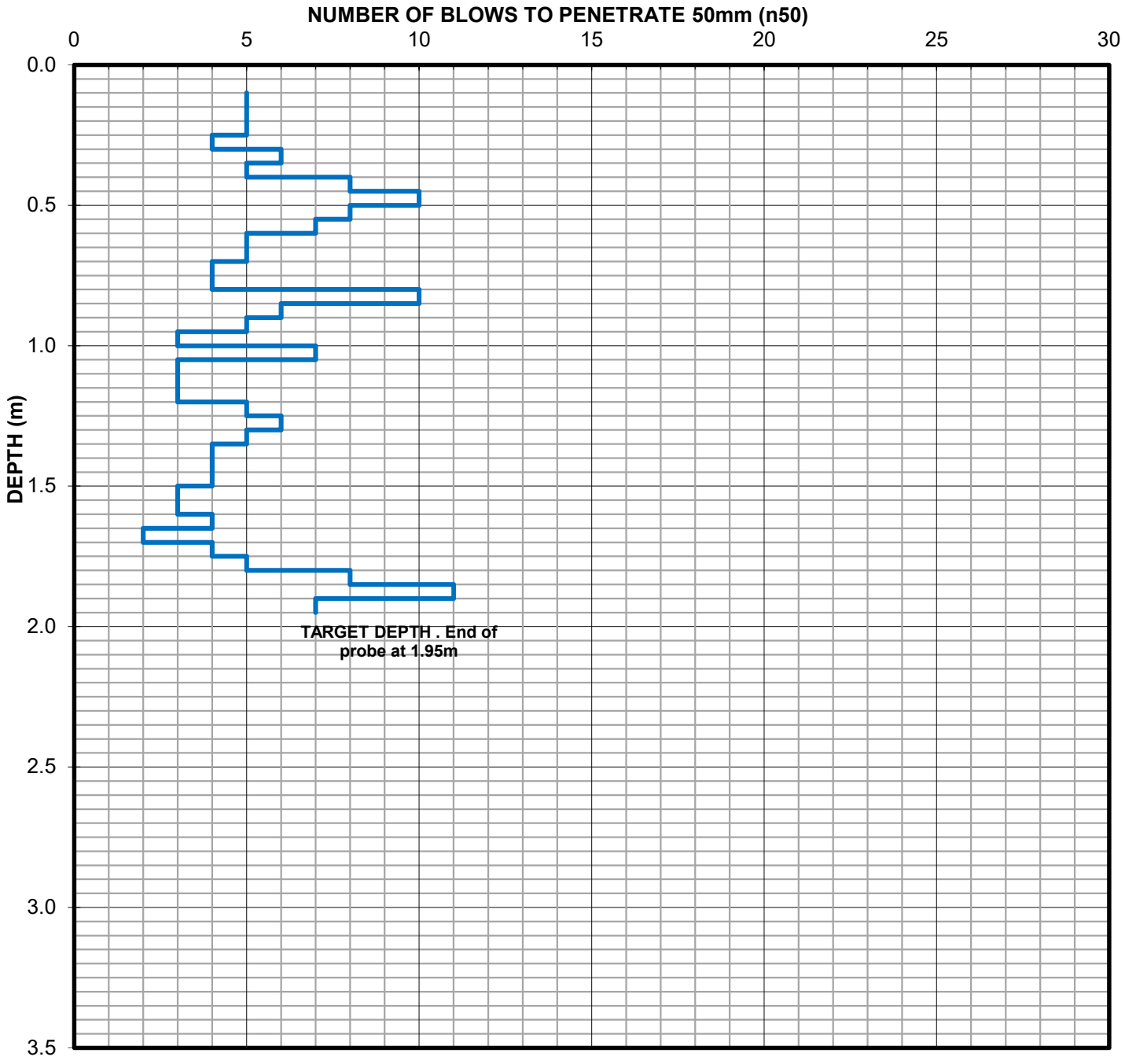
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: IWLR Corridor,Lewisham, NSW

PROBE: A2-HA01

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	18/10/2019
Adjacent Test Hole / Pit: A2-HA01		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:
Test commencing 0.1m due to concrete coring

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Job No. **12515105**

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Lewisham, NSW

HOLE No. A2-HA02

SHEET 1 OF 1

Position : 328383.43 E 6248128.85 N MGA94/ 56	**Surface RL:** 10.18m AHD	**Angle from Horiz. :** 90°		**Processed :** RCO
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 18/10/2019	**Date Completed :** 18/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
	Hand Auger	Nil	Groundwater Not Encountered	ES	0.05		-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, with fine to coarse, angular gravel, trace rootlets.	-	-	
				ES			-	[FILL] Sandy GRAVEL: fine to coarse, fine to coarse grained sand.	D M		0.2m, PID=1.5ppm 0.5m, PID=2.5ppm
				ES	0.80			0.75m, with sandstone cobbles.			
								End of borehole at 0.80 metres. Refusal			0.8m, PID=1.9ppm
1											
2											
3											

See standard sheets for details of abbreviations & basis of descriptions

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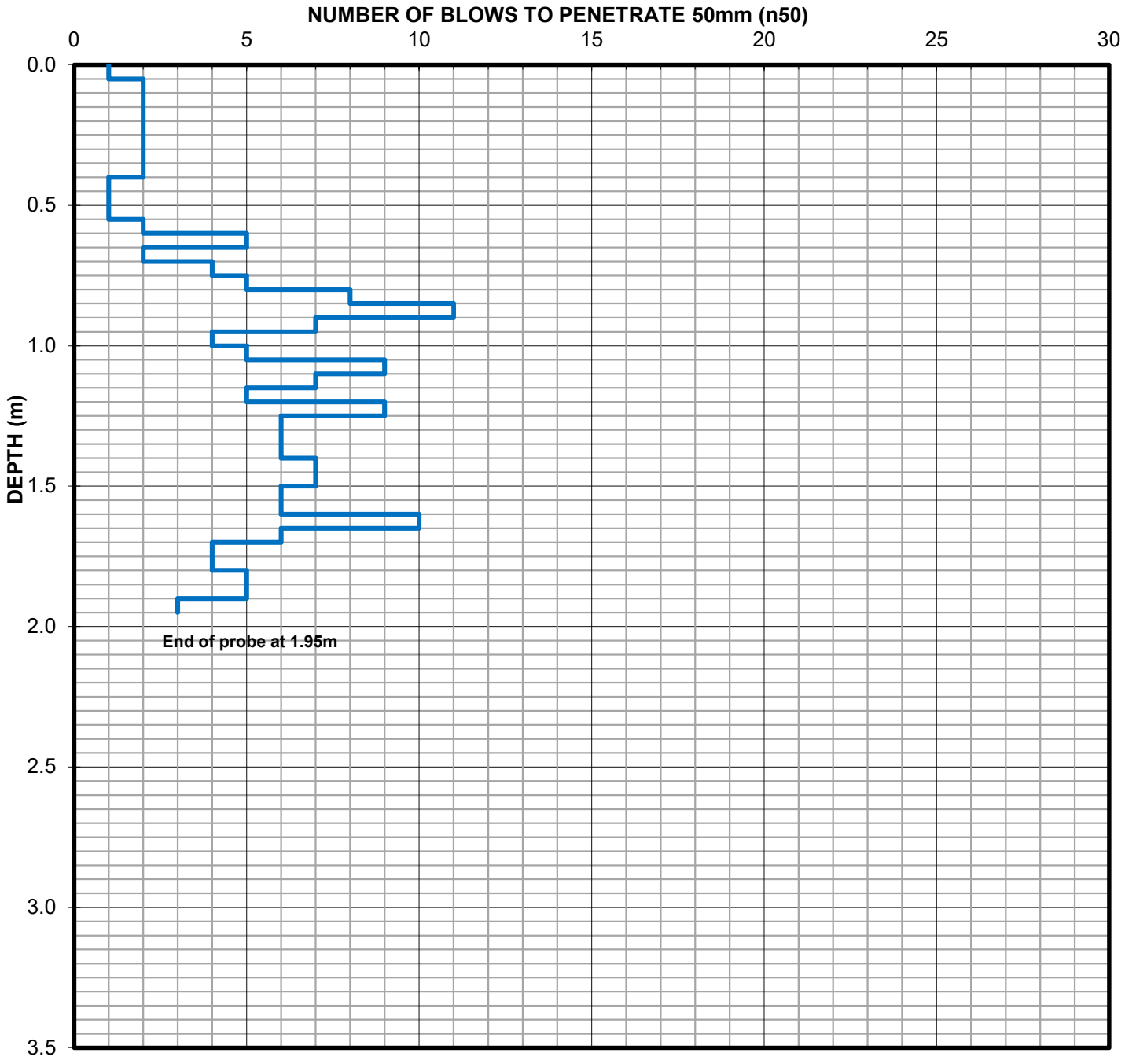
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: IWLR Corridor,Lewisham, NSW

PROBE: A2-HA02

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	18/10/2019
Adjacent Test Hole / Pit: A2-HA02		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Lewisham, NSW

HOLE No. A2-HA03

SHEET 1 OF 1

Position : 328360.23 E 6248095.32 N MGA94/ 56 **Surface RL:** 10.99m AHD **Angle from Horiz. :** 90° **Processed :** RCO
Rig Type : Hand auger **Mounting:** NA **Contractor :** NA **Driller :** NA **Checked :** MG
Date Started : 18/10/2019 **Date Completed :** 18/10/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						Note: * indicates signatures on original issue of log or last revision of log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	Hand Auger	Nil	Groundwater Not Encountered	ES	0.15		-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, with fine to coarse, angular gravel. End of borehole at 0.15 metres. Auger refusal	M	-	0.15m, PID=2.6ppm 0.15m, stabilised or heavily compacted sand/gravel.
1											
2											
3											

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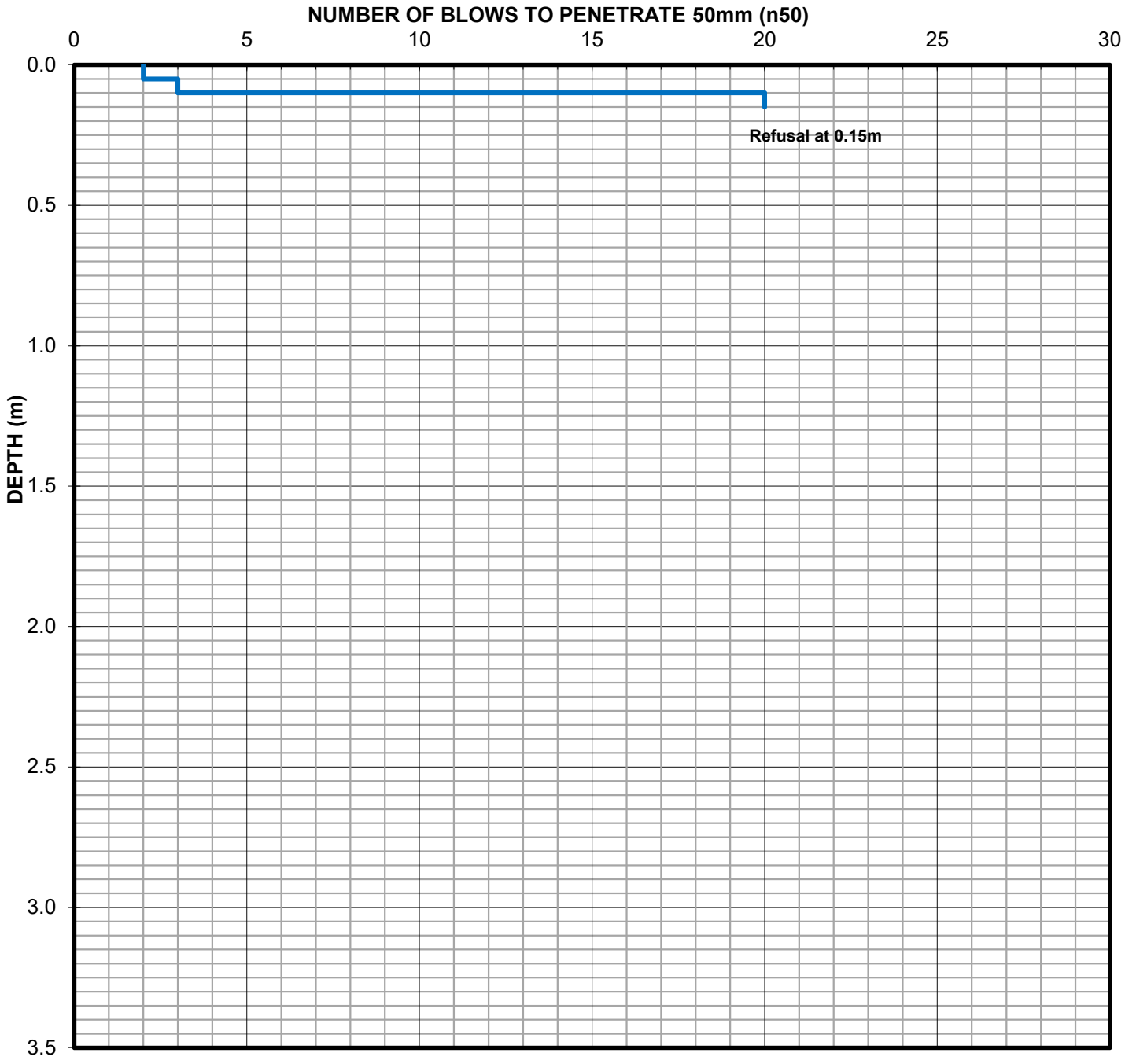
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: IWLR Corridor,Lewisham, NSW

PROBE: A2-HA03

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	18/10/2019
Adjacent Test Hole / Pit: A2-HA03		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:
DCP attempted at 5 locations withing the surveyed area. Possible concrete slab

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Lewisham, NSW

HOLE No. A2-HAC01

SHEET 1 OF 1

Position : 328358.07 E 6248141.73 N MGA94/ 56 **Surface RL:** 9.25m AHD **Angle from Horiz. :** 90° **Processed :** RCO
Rig Type : Hand auger **Mounting:** NA **Contractor :** NA **Driller :** NA **Checked :** MG
Date Started : 18/10/2019 **Date Completed :** 18/10/2019 **Logged by :** JW **Date:** 16/01/2020

DRILLING					MATERIAL						Note: * indicates signatures on original issue of log or last revision of log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	Hand Auger	Nil	Groundwater Not Encountered	ES			-	[FILL] Sandy CLAY: grey, fine to coarse grained sand, trace ballast gravel, trace ash.	D	-	No odour, no staining. Possible clinkers (fill material), ash/coal present 0.2m, PID=1.0ppm
				ES/QA8/QA9	0.60				M		0.5m, PID=1.6ppm
								End of borehole at 0.60 metres. Auger refusal on ballast			
1											
2											
3											

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BOREHOLE LOG SHEET

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Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Lewisham, NSW

HOLE No. A2-HAC02

SHEET 1 OF 1

Position : 328339.10 E 6248114.36 N MGA94/ 56	**Surface RL:** 9.74m AHD	**Angle from Horiz. :** 90°	**Processed :** RCO
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 18/10/2019	**Date Completed :** 18/10/2019	**Logged by :** JW	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	Hand Auger	Nil	Groundwater Not Encountered	ES			-	[FILL] Gravelly SAND: fine to medium grained, dark brown, fine to coarse gravel, trace rootlets.	M	-	No staining, no odour, ash (gravel)
				ES							0.2m, PID=0.9ppm
											0.5m, PID=1.6ppm
					0.85						
				ES			Cl	CLAY: high plasticity, reddish brown, trace sand (residual).	M	-	No staining, no odour
											1.0m, PID=2.8ppm
					1.20						
							Cl	CLAY: medium plasticity, reddish grey (residual).	M	-	No staining, no odour
					1.50						
				ES			Cl	Sandy CLAY: medium plasticity, yellow-reddish grey, fine to coarse grained sand, trace rock fragments [40mm] (residual).	M	-	No staining, no odour
2					2.00			End of borehole at 2.00 metres. Target Depth			2.0m, PID=0.9ppm
3											

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Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Lewisham, NSW

HOLE No. A2-HAC03

SHEET 1 OF 1

Position : 328317.82 E 6248033.28 N MGA94/ 56	**Surface RL:** 10.21m AHD	**Angle from Horiz. :** 90°		**Processed :** RCO
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JW		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log Comments/ Observations
1	Hand Auger	Nil	Groundwater Not Encountered	ES	0.05		-	[TOPSOIL] Silty SAND: dark brown, trace rootlets, trace cobbles.	M	-	No odour, no staining
							CI	CLAY: medium plasticity, yellow with red mottles, trace fine to medium, sub-rounded, ironstone gravel (residual).	w < PL	-	
				ES							0.2m, PID=2.9ppm
				ES							0.5m, PID=2.5ppm
					0.90						
				ES	1.00		SC	Clayey SAND: fine to coarse grained, pale brown, medium plasticity clay, trace fine to medium, sub-rounded, ironstone gravel (residual).	M	-	No odour, no staining
								End of borehole at 1.00 metres. Refusal on bedrock			1.0m, PID=3.8ppm
2											
3											

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-12515105

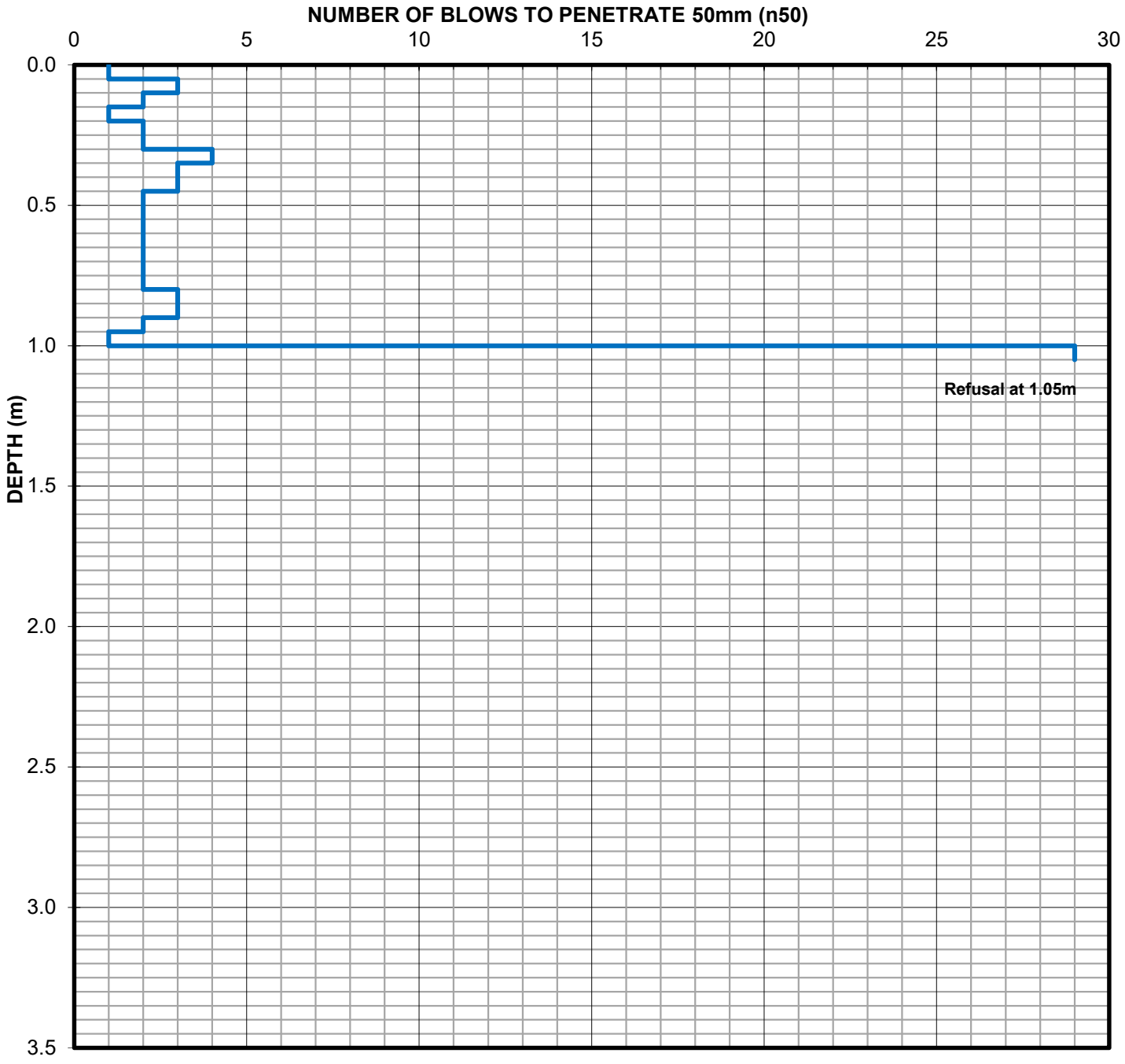
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: IWLR Corridor,Lewisham, NSW

PROBE: A2-HAC03

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	22/10/2019
Adjacent Test Hole / Pit: A2-HAC03		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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Job No. **12515105**

TEST PIT LOG SHEET

Client: Inner West Council

Project: The GreenWay Geotechnical and Contamination Services

Location: IWLR Corridor, Lewisham, NSW

HOLE No. A2-TP01

SHEET 1 **OF** 1

Position: 328385.00 E 6248182.90 N MGA94/ 56	**Surface RL:** 12.25m AHD	**Processed:** RCO
Method of Exploration: Hand dug	**Hole Size:** 0.5m x 0.3m	**Checked:** MG
Date: 18/10/19	**Logged by:** LM	**Date:** 16/01/2020

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description	Moisture Condition	Consistency / Density Index	Comments Observations
	Groundwater Not Encountered	B	0.20		-	[TOPSOIL] Silty SAND: fine to medium grained, brown, with rootlets.	M	-	
			0.40		-	[FILL] Gravelly SAND: fine to medium grained, brown, medium to coarse, sub-angular, shale gravel, trace glass fragments.	M	-	
			0.70		-	[FILL] Silty Gravelly SAND: fine to medium grained, brown, with shale cobbles, trace rootlets, trace glass and plastic fragments.	M	-	
1						End of test pit at 0.7 metres. Target Depth.			
2									
3									

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Job No. 21-12515105

A2-TP01 - 1 Depth Range: 0.00 m

A2-TP01 - 2 Depth Range: 0.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services IWLR Corridor, Lewisham NSW Test pit Photographs	DRAWN: H. Warr	DATE: 31/01/2020
		CHECKED: J. Scognamiglio	DATE: 31/01/2020
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A2-TP01 1/1

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 211251515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Johnson Park, Dulwich Hill, NSW

HOLE No. A3-BH01

SHEET 1 OF 1

Position : 327838.29 E 6247276.84 N MGA94/ 56 **Surface RL:** 22.67m AHD **Angle from Horiz. :** 90° **Processed :** RCO

Rig Type : XP60 **Mounting:** Ute **Contractor :** Terratest **Driller :** CD **Checked :** MG

Date Started : 10/10/2019 **Date Completed :** 10/10/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						Note: * indicates signatures on original issue of log or last revision of log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
0	TC-bit auger	Nil	Groundwater Not Encountered	ES/QA4			-	[TOPSOIL] Silty SAND: fine to medium grained, dark brown, with rootlets.	M	-	
					0.30						0.2m, PID=19.9ppm
				ES			-	[FILL] Silty SAND: fine to medium grained, dark brown, trace fine to medium, angular gravel.	M	-	
				D							0.5m, PID=4.8ppm
					0.70		CH	CLAY: high plasticity, pale brown, trace fine to medium, sub-rounded, ironstone gravel (residual).	w = PL	VSt	
1				ES	1.00		CH	CLAY: high plasticity, red with grey mottles, trace fine to coarse grained sand and fine to medium, sub-rounded, ironstone gravel (residual).	w = PL	VSt	1.0m, PID=5.5ppm
				D							
				D						H	
				ES	2.00						
2								End of borehole at 2.00 metres. Target Depth			2.0m, PID=4.5ppm
3											
4											
5											

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Job No.
21-12515105

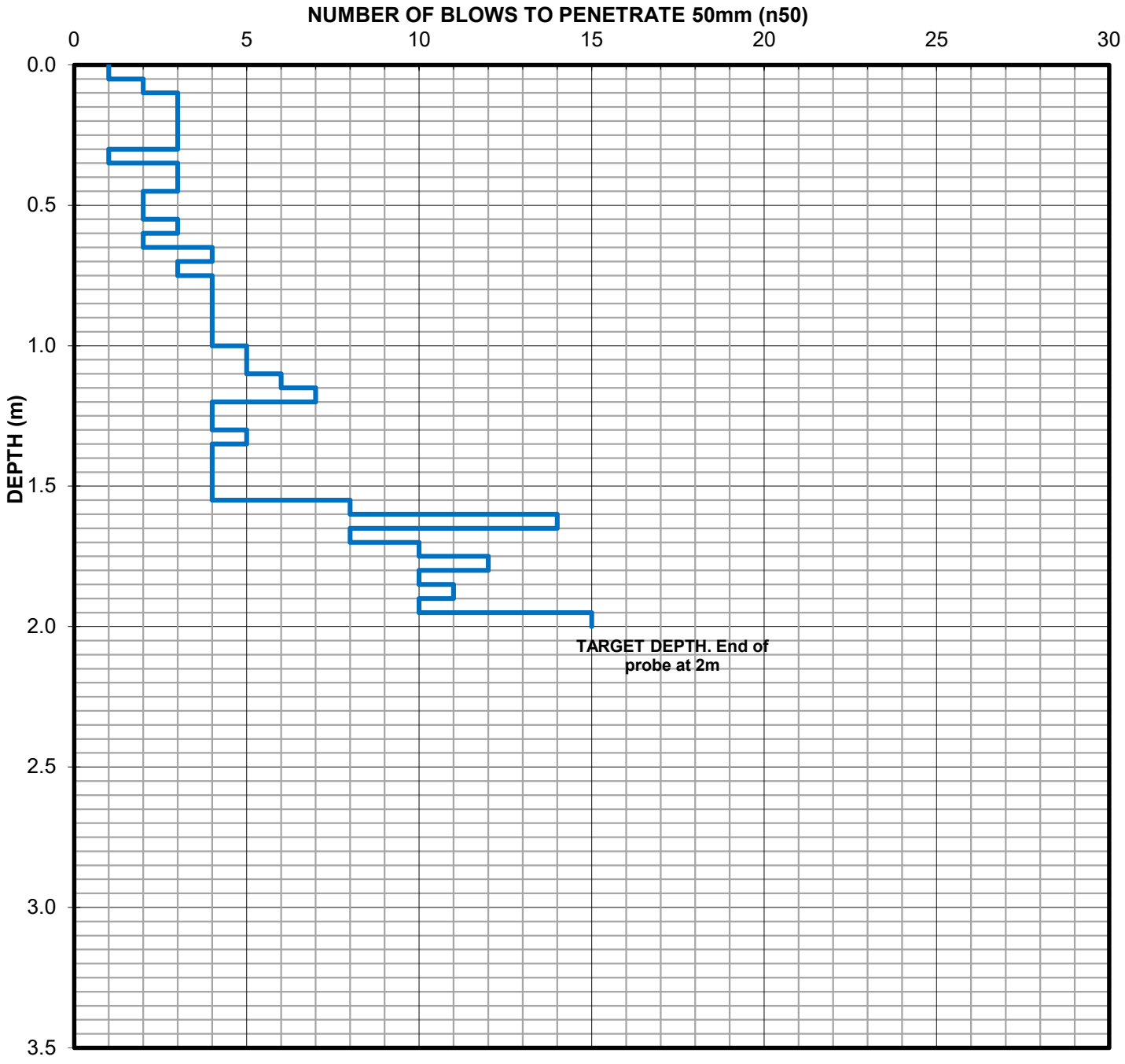
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Johnson Park, Dulwich Hill, NSW

PROBE: A3-BH01

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	10/10/19
Adjacent Test Hole / Pit: A3-BH01		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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Job No. **12515105**

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 21125105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Johnson Park, Dulwich Hill, NSW

HOLE No. A3-BH02

SHEET 1 OF 1

Position : 327833.55 E 6247234.34 N MGA94/ 56 **Surface RL:** 22.86m AHD **Angle from Horiz. :** 90° **Processed :** RCO
Rig Type : XP60 **Mounting:** Ute **Contractor :** Terratest **Driller :** CD **Checked :** MG
Date Started : 10/10/2019 **Date Completed :** 10/10/2019 **Logged by :** LM **Date:** 16/01/2020

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
1	TC-bit auger	Nil	Groundwater Not Encountered	ES			-	[TOPSOIL] Silty SAND: fine to medium grained, brown, trace fine to medium, angular gravel.	M	-	
					0.30						0.2m, PID=8.1ppm
				ES D			-	[FILL] CLAY: high plasticity, pale brown, trace fine to coarse grained sand, fine to medium, angular gravel.	M	-	0.5m, PID=11.3ppm
								0.8m, pale brown mottled orange.			
				ES	1.00						
				D			CH	CLAY, high plasticity, grey with red lenses, trace medium to coarse grained sand, trace, fine, sub-rounded, ironstone gravel (residual).	w > PL	St	1.0m, PID=16.5ppm
					1.40						
2				D			SC	Sandy CLAY: grey mottled red and orange, trace medium to coarse, sub-rounded, ironstone gravel (residual).	w = PL	VSt	
				ES	2.00						
								End of borehole at 2.00 metres. Target Depth			2.0m, PID=6.3ppm
3											
4											
5											

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Job No.
21-12515105

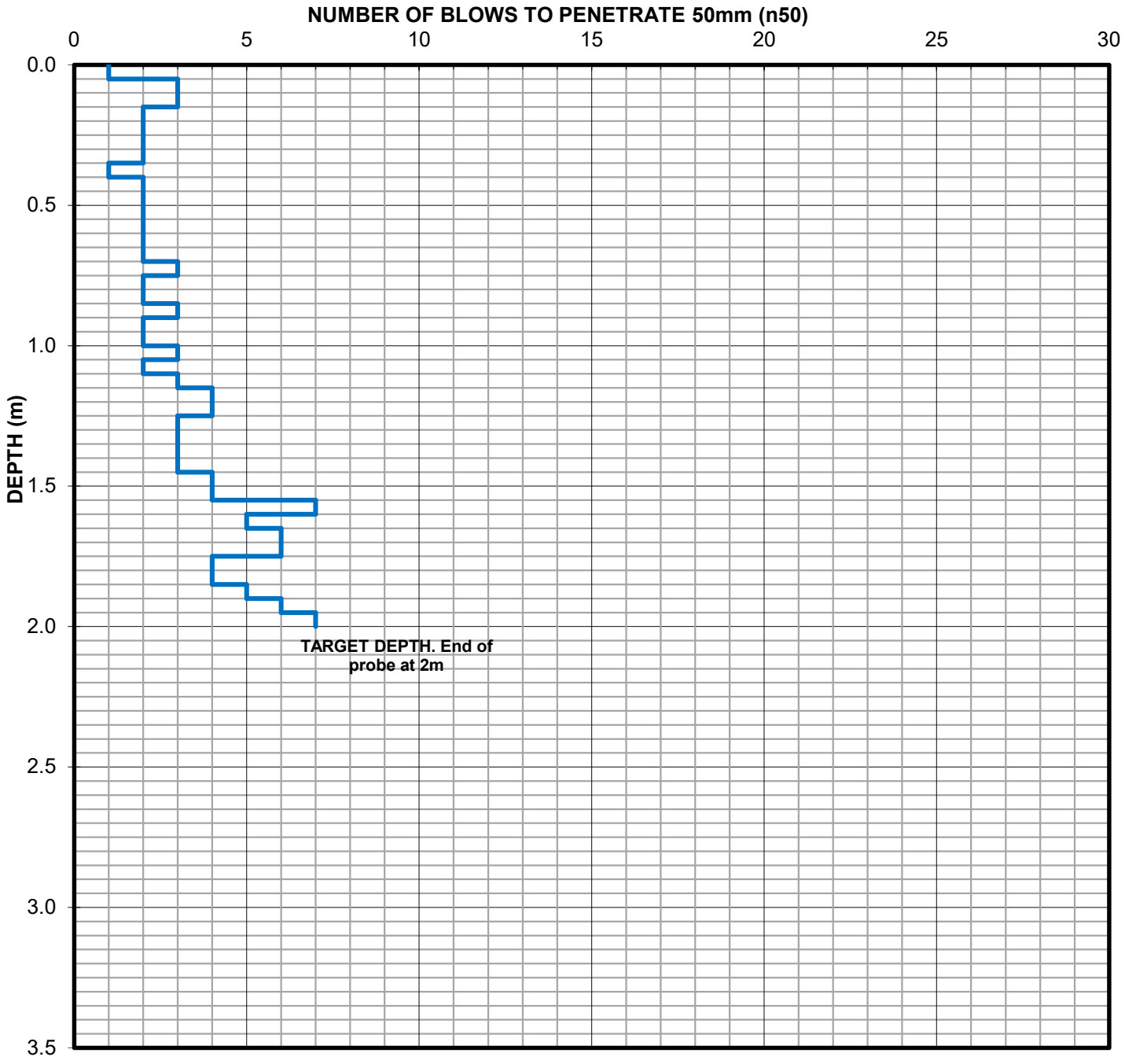
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Johnson Park, Dulwich Hill, NSW

PROBE: A3-BH02

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	10/10/19
Adjacent Test Hole / Pit: A3-BH02		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Johnson Park, Dulwich Hill, NSW

HOLE No. A3-BH03

SHEET 1 OF 1

Position : 327830.22 E 6247201.66 N MGA94/ 56 **Surface RL:** 23.12m AHD **Angle from Horiz. :** 90° **Processed :** RCO
Rig Type : XP60 **Mounting:** Ute **Contractor :** Terratest **Driller :** CD **Checked :** MG
Date Started : 10/10/2019 **Date Completed :** 10/10/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
1	TC-bit auger	Nil	Groundwater Not Encountered	ES			-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, trace fine to medium, angular gravel.	M	-	0.2m, PID=4.4ppm
					0.30		-	[FILL] CLAY: high plasticity, brown mottled red, trace fine to medium grained sand.	w = PL	-	
				ES D							0.5m, PID=9.2ppm
				ES	1.00		CH	CLAY: high plasticity, red mottled grey, trace fine to medium grained sand, trace fine to medium, sub-rounded, ironstone gravel (residual).	w > PL	St	
				D							
				D						VSt	
2				ES	2.00			End of borehole at 2.00 metres. Target Depth			2.0m, PID=7.5ppm
3											
4											
5											

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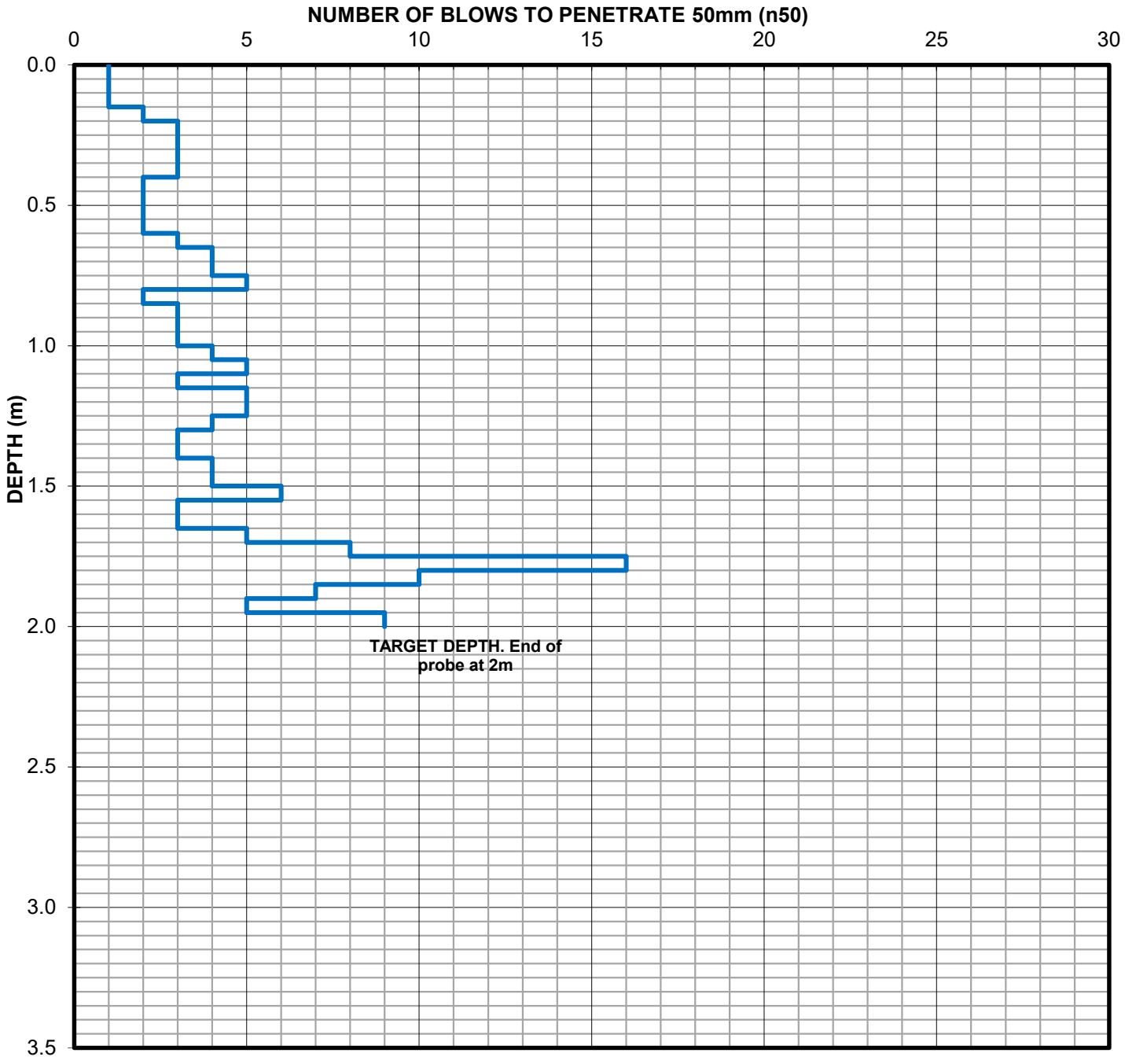
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Johnson Park, Dulwich Hill, NSW

PROBE: A3-BH03

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	10/10/19
Adjacent Test Hole / Pit: A3-BH03		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Johnson Park, Dulwich Hill, NSW

HOLE No. A3-BH04

SHEET 1 OF 3

Position : 327820.64 E 6247149.62 N MGA94/ 56	**Surface RL:** 23.91m AHD	**Angle from Horiz. :** 90°		**Processed :** RCO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** TR	**Checked :** MG
Date Started : 11/10/2019	**Date Completed :** 11/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
				ES			-	[TOPSOIL] Silty SAND: fine to coarse grained, dark brown and brown, trace rootlets.	M	-	
					0.30						0.2m, PID=1.6ppm
				ES			-	[FILL] SAND: fine to coarse grained, dark grey and dark brown, 5% building rubble consisting; tile, brick, concrete fragments.	M	-	
					0.50		-	[FILL] Sandy CLAY: low plasticity, dark grey and dark brown, fine to medium grained sand, trace fine to medium, sub-angular gravel.	w < PL	-	0.5m, PID=2.0ppm
				SPT 3/6/7 N=13							
				ES							1.0m, PID=1.7ppm
1											
											1.5m, PP test failed due to low moisture content.
					1.70						
				SPT 6/9/9 N=18			GC	Gravelly CLAY: low plasticity, pale brown mottled yellow-brown, fine to medium, sub-rounded gravel, with fine to coarse grained sand (residual)	w < PL	VSt	
				ES							2.0m, PID=3.8ppm
2								2.1m, becoming red-brown.			
	TC-bit auger	Nil	Groundwater Not Encountered					2.5m, mottled pale grey, pale brown and red brown.			
				SPT 5/9/8 N=17							
					3.00						
3							CH	CLAY: high plasticity, pale grey mottled pale brown (residual).	w < PL	VSt	3.0m, PP test failed due to low moisture content.
				SPT 4/6/10 N=16							
4											
				SPT 3/9/15 N=24							
5											

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Job No. 21-12515105

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Johnson Park, Dulwich Hill, NSW

HOLE No. A3-BH04

SHEET 2 OF 3

Position : 327820.64 E 6247149.62 N MGA94/ 56 **Surface RL:** 23.91m AHD **Angle from Horiz. :** 90° **Processed :** RCO
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** TR **Checked :** MG
Date Started : 11/10/2019 **Date Completed :** 11/10/2019 **Logged by :** JS **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	TC-bit auger	Nil		SPT 10 for 50mm HB N=ref	5.10		CH	CLAY: as previous	w < PL	VSt	
					5.90		-	SANDSTONE: fine grained, brown, inferred low strength, extremely to highly weathered (bedrock).	-	-	
6								Start of coring at 5.9 metres. For cored interval, see Core Log Sheet.			
7											
8											
9											
10											

Note: * indicates signatures on original issue of log or last revision of log

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CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council		**HOLE No. A3-BH04**	
Project : The GreenWay Geotechnical and Contamination Services			**SHEET 3 OF 3**
Location : Johnson Park, Dulwich Hill, NSW			
Position : 327820.64 E 6247149.62 N MGA94/ 56	**Surface RL:** 23.91m AHD	**Angle from Horiz. :** 90°	**Processed :** RCO
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** TR	**Checked :** MG
Casing Dia. : HQ **Barrel (m) :** 3.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 11/10/2019 **Date Completed :** 11/10/2019	**Logged by :** JS	**Date Logged :** 11/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING | **MATERIAL** | **NATURAL FRACTURES**

Progress: SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description: ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa (●- Axial, ○- Diametral) Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
								Start of coring at 5.9 metres. For Non Cored interval, see Borehole Log Sheet.				
6	NMLC coring			(0)		5.90		SANDSTONE: fine to coarse grained, pale grey, with bands of yellow-brown, trace iron stained beds, indistinctly laminated at 0-5°, trace carbonaceous laminations.	SW			5.97m, Pt, 0°, Rf, Pln, Cn 6.11m, Pt, 0°, Rf, Pln, Fe 6.20m, Jt, Rf, St, Fe 6.46m, Pt, 0°, Rf, Pln, Fe
7			7.30									6.93m, Pt, 0°, Rf, Pln, Cn 7.08m, Pt, 0°, Rf, Pln, Fe
8				(0)					Fr			
9												9.75m, Pt, 2°, Rf, Pln, X
10			10.00			10.00		End of Borehole at 10.00 metres. Target Depth				

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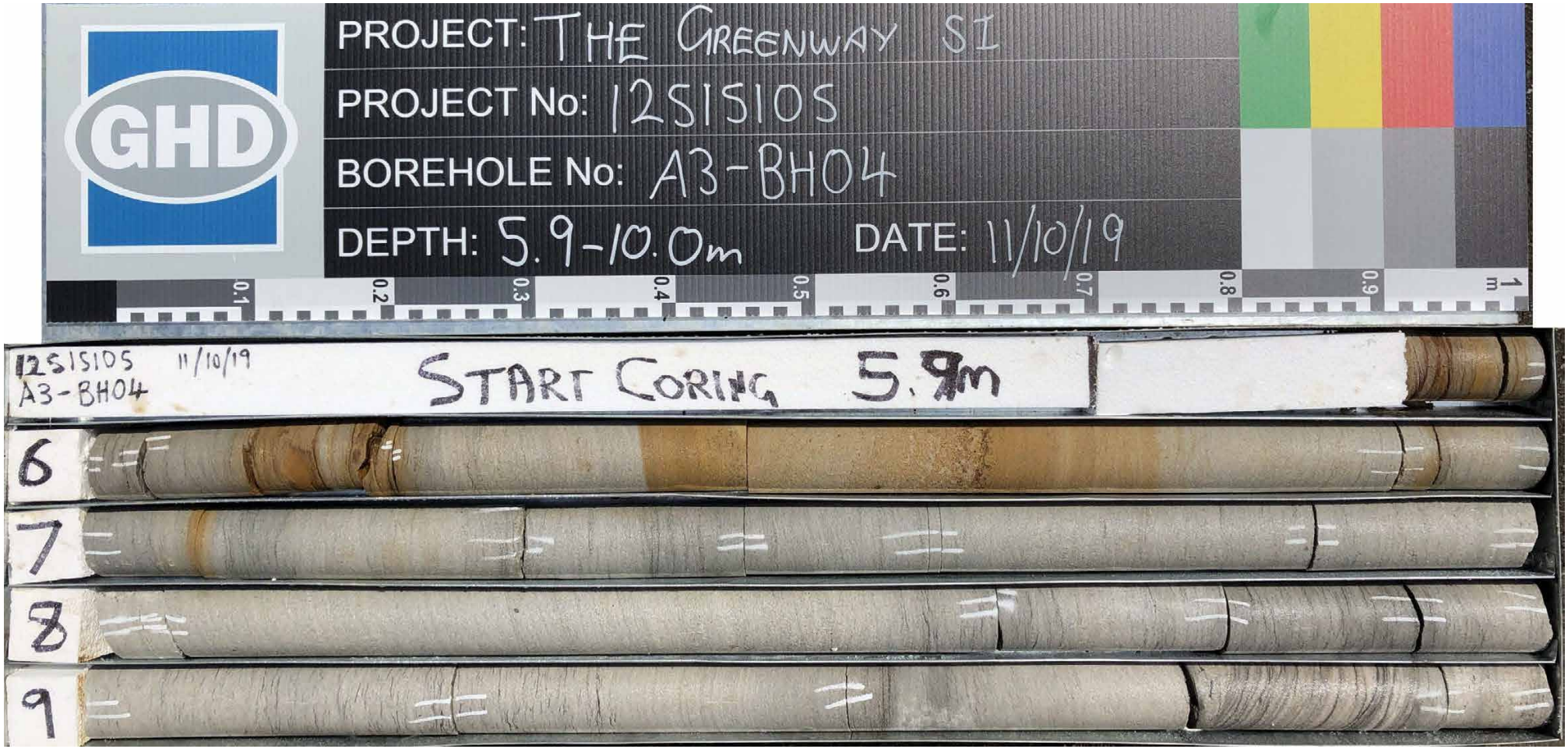

PointID : A3-BH04 Depth Range: 5.90 - 10.00 m

	Inner West Council The GreenWay Geotechnical and Contamination Services Johnson Park, Dulwich Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A3-BH04 1/1

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Johnson Park, Dulwich Hill, NSW

HOLE No. A3-BH05

SHEET 1 OF 3

Position : 327831.66 E 6247124.07 N MGA94/ 56 **Surface RL:** 23.87m AHD **Angle from Horiz. :** 90° **Processed :** RCO
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** TR **Checked :** MG
Date Started : 11/10/2019 **Date Completed :** 11/10/2019 **Logged by :** JS **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
							-	[TOPSOIL] Silty SAND: fine to medium grained, dark brown, trace rootlets.	M	-	
				ES	0.20		-	[FILL] Silty Clayey SAND: fine to coarse grained, dark brown, low plasticity clay, with fine to coarse, sub-angular gravel.	M	-	0.2m, PID=2.7ppm
				ES							0.5m, PID=4.4ppm
				SPT 2/4/5 N=9							
1				ES							1.0m, PID=5.1ppm
								1.5m, orange-brown, pale brown, brown, dark brown, trace ash.			
				SPT 3/3/3 N=6							
2				ES							2.0m, PID=4.1ppm
					2.10		CH	CLAY: high plasticity, orange brown mottled pale grey and brown, occasional bands of fine to medium, red ironstone gravel (residual).	w < PL	VSt	
											2.5m, PP=400kPa
				SPT 4/6/9 N=15							
3				ES							3.0m, PID=4.4ppm
								3.7m, pale grey mottled pale brown, without ironstone gravel.			
				SPT 9/6/8 N=14							
4											
					4.60		-	SANDSTONE: fine to coarse grained, pale grey, inferred low strength, highly weathered (bedrock).	-	-	
				SPT 4/ 10 for 50mm	4.83						
	TC-bit auger	Nil	Groundwater Not Encountered	HB N=ref				Start of coring at 4.83 metres. For cored interval, see Core Log Sheet.			
5											

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See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No. 21-12515105

CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Johnson Park, Dulwich Hill, NSW

HOLE No. A3-BH05

SHEET 2 OF 3

Position : 327831.66 E 6247124.07 N MGA94/ 56	**Surface RL:** 23.87m AHD	**Angle from Horiz. :** 90°	**Processed :** RCO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** TR	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 3.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 11/10/2019	**Date Completed :** 11/10/2019	**Logged by :** JS	**Date Logged :** 11/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL				NATURAL FRACTURES		
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1												
2												
3												
4								Start of coring at 4.83 metres. For Non Cored interval, see Borehole Log Sheet.				
						4.83		SANDSTONE: fine to medium grained, dark orange-brown with pale grey bleaching at	MW	●		4.97m, Pt, 0°, Rf, Pln, Cn
5												

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Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council			**HOLE No. A3-BH05**
Project : The GreenWay Geotechnical and Contamination Services			
Location : Johnson Park, Dulwich Hill, NSW			**SHEET 3 OF 3**
Position : 327831.66 E 6247124.07 N MGA94/ 56	**Surface RL:** 23.87m AHD	**Angle from Horiz. :** 90°	**Processed :** RCO
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** TR	**Checked :** MG
Casing Dia. : HQ **Barrel (m) :** 3.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 11/10/2019 **Date Completed :** 11/10/2019	**Logged by :** JS	**Date Logged :** 11/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING — Progress: SCALE (m); Drilling & Casing; Water; Drill Depth (m); (Core Loss / Run %); SAMPLES & TESTS

MATERIAL — Depth / (RL) metres; Graphic Log; Description (ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)); Weathering; Estimated Strength $Is_{(50)}$ MPa (● - Axial, O - Diametral; Soil, VL 0.03, L 0.1, M 0.3, H 1, VH 3, EH 10)

NATURAL FRACTURES — Spacing (mm) (20, 40, 100, 300, 1000); Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.

Drilling & Casing	Drill Depth (m)	Core Loss / Run %	Depth (m)	Description	Weathering	Additional Data
NMLC coring		(0)		defects, indistinctly bedded at 0-5°. SANDSTONE: as previous.	MW / SW	5.08m, Pt, 0°, Rf, Pln, Fe 5.18m, Pt, 0°, Rf, Pln, Cn 5.36m, Pt, 0°, Rf, Pln, Fe 5.39m, Pt, 0°, Rf, Pln, Fe 5.43m, Pt, 0°, Rf, Pln, Cn 5.89m, Pt, 0°, Rf, Pln, Cn 5.97m, Pt, 0°, Rf, Pln, Cn 6.00-6.10m, Pt, 0°, Rf, Pln, Cn
	6.40		6.20			
		(0)		SANDSTONE: fine to medium grained, pale grey, indistinctly bedded at 0-10°, trace carbonaceous laminations.	Fr	6.72m, Pt, 0°, Rf, Pln, Cn 7.03m, Pt, 0°, Rf, Pln, Cn 7.46m, Pt, 0°, Rf, Pln, Fe 7.84-7.86m, Pt, 2°, Rf, Pln, X
	8.65		8.65	End of Borehole at 8.65 metres. Target Depth		

Scale: 6, 7, 8, 9, 10

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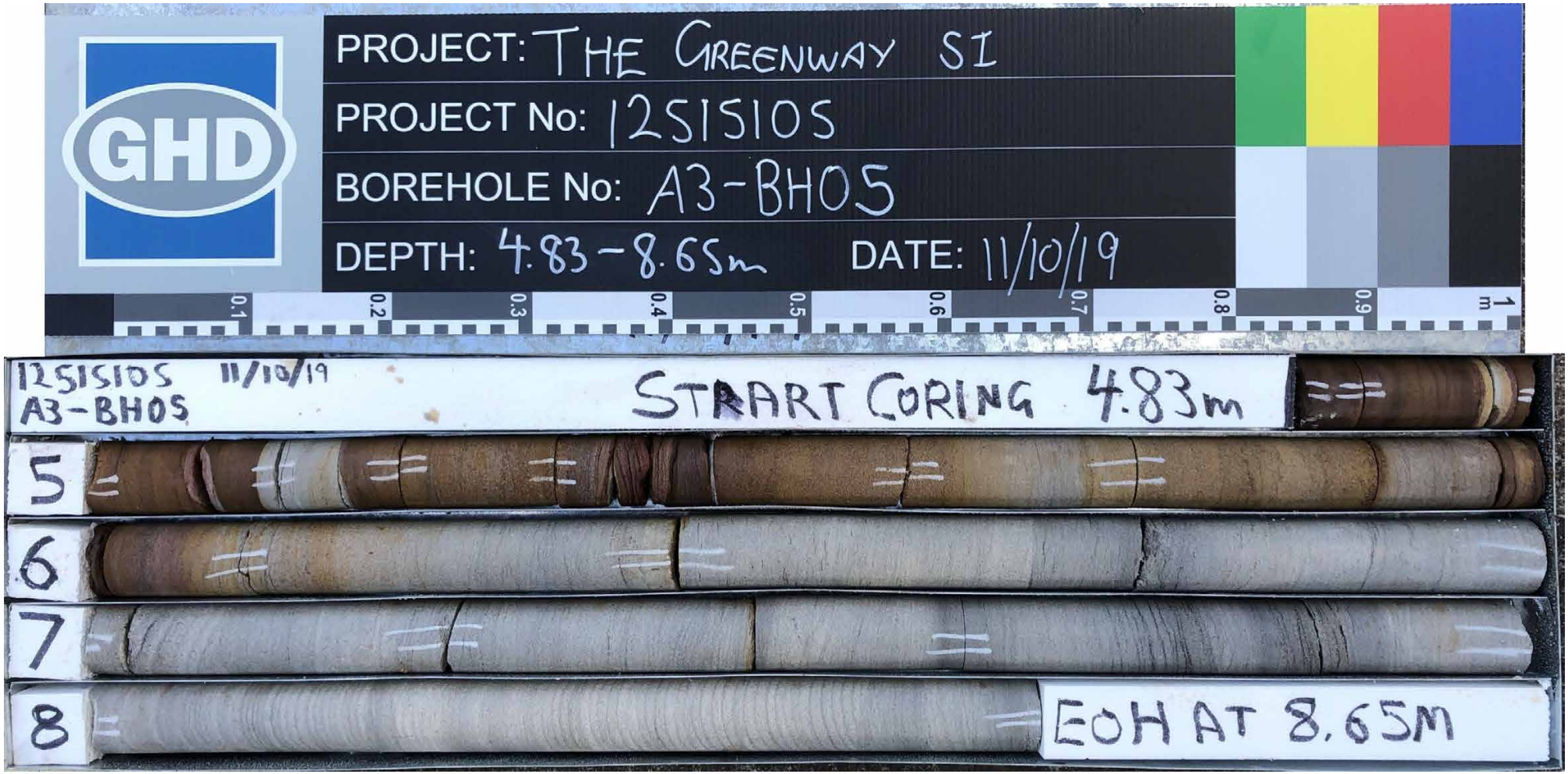
Job No. **21-12515105**



PointID : A3-BH05 Depth Range: 4.83 - 8.65 m

Inner West Council
The GreenWay Geotechnical and Contamination Services
Johnson Park, Dulwich Hill NSW
Core Photographs

DRAWN	HW	DATE	2/12/2019
CHECKED	JS	DATE	2/12/2019
SCALE	Not To Scale		A4
PROJECT No	21-12515105	FIGURE No	A3-BH05 1/1

BOREHOLE LOG SHEET

Client :	Inner West Council	**HOLE No. A3-BH06**	
Project :	The GreenWay Geotechnical and Contamination Services		
Location :	Constitution Road, Dulwich Hill, NSW	**SHEET 1 OF 4**	
Position :	327842.71 E 6247095.59 N MGA94/ 56	**Surface RL:** 26.16m AHD	**Angle from Horiz. :** 90°
Rig Type :	SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM
Date Started :	17/10/2019	**Date Completed :** 17/10/2019	**Logged by :** JS

Processed : RCO | **Checked :** MG | **Date:** 16/01/2020

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.10		-	ASPHALT PAVEMENT.	-	-	
				ES			-	[FILL] Gravelly SAND: fine to coarse grained, dark grey, fine to coarse, sub-angular gravel.	M	-	0.2m, PID=2.0ppm
				ES	0.50		-	[FILL] Gravelly Sandy CLAY: dark brown and dark grey, fine to coarse grained sand, fine to coarse, sub-angular to angular, sandstone gravel, trace sandstone cobbles.	w < PL	-	0.5m, PID=2.6ppm
				SPT 7/4/4 N=8							
				ES							1.0m, PID=2.3ppm
1											1.1-1.3m, encountered concrete obstruction.
					1.50		-	[FILL] Clayey SAND: fine to coarse grained, pale grey, red-brown, brown and dark brown, low plasticity clay, trace fine to coarse gravel of ironstone, sandstone and shale.	M	-	
				SPT 4/6/6 N=12							
2											2.0m, reworked ripped shale material.
	TC-bit auger			ES							2.4m, PID=4.2ppm
		Nil		SPT 3/6/3 N=9							
3											
				ES							3.5m, PID=3.4ppm
					3.65		-	[FILL] CLAY: low plasticity, brown, pale brown, pale grey, dark brown mottled, with fine to medium, sub-angular to angular gravel, trace fine to coarse grained sand, trace ash.	w = PL	-	
				SPT 3/6/4 N=10							
4			▽ 17/10/19								4.1-5.0m, perched water table.
				ES							4.5m, PID=3.4ppm
				SPT 5/3/3 N=6							
5					5.00						

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Job No. 21-12515105

GEO_BOREHOLE_AS1726 2017 21125105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 21125105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Constitution Road, Dulwich Hill, NSW

HOLE No. A3-BH06

SHEET 2 OF 4

Position : 327842.71 E 6247095.59 N MGA94/ 56	**Surface RL:** 26.16m AHD	**Angle from Horiz. :** 90°		**Processed :** RCO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 17/10/2019	**Date Completed :** 17/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
6	TC-bit auger	Nil		ES SPT 3/5/6 N=11			CI	CLAY: medium plasticity, pale grey mottled pale brown, trace red-brown, fine to coarse, sub-rounded ironstone gravel (residual).	w = PL	St	5.1m, PID=5.3ppm 5.5m, PP=300kPa
7				SPT 7/5/9 N=14	7.10		-	6.5m, trace fine to coarse grained sand. SANDSTONE: red-brown, inferred low strength, highly weathered (bedrock).	-	-	6.5m, PP=300kPa
					7.41			Start of coring at 7.41 metres. For cored interval, see Core Log Sheet.			
8											
9											
10											

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CORE LOG SHEET

Client :	Inner West Council	**HOLE No. A3-BH06**	
Project :	The GreenWay Geotechnical and Contamination Services		
Location :	Constitution Road, Dulwich Hill, NSW	**SHEET 3 OF 4**	
Position :	327842.71 E 6247095.59 N MGA94/ 56	**Surface RL:** 26.16m AHD	**Angle from Horiz. :** 90°
Rig Type :	SD05	**Mounting:** Ute	**Contractor :** Stratacore
Casing Dia. :	HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)
Date Started :	17/10/2019	**Date Completed :** 17/10/2019	**Logged by :** JS

Processed : RCO
Checked : MG
Date: 16/01/2020
Note: * indicates signatures on original issue of log or last revision of log

DRILLING | **MATERIAL** | **NATURAL FRACTURES**

Progress

SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description	Weathering	Estimated Strength $Is_{(50)}$ MPa (● Axial ○ Diametral)	Spacing (mm)	Additional Data
								ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)		Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	20 40 100 300 1000	(joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6												
7								Start of coring at 7.41 metres. For Non Cored interval, see Borehole Log Sheet.				
						7.41		CORE LOSS 370mm.	-			
8	NMLC coring		8.88	(25)		7.78		SANDSTONE: fine to medium grained, organge-brown, brown, red-brown, pale brown and pale grey, indistinctly bedded to bedded at 0-5°, with bleaching at defects.	MW			7.95m, Pt, 0°, Rf, Un, Fe 8.05m, WSm, 20mm 8.71m, WSm, 40mm 8.82m, Pt, 0°, Rf, Un, Fe 8.90m, WSm, 20mm
9				(0)		9.39m, occasional carbonaceous laminations.						9.35m, Pt, 5°, Rf, Pln, Cn 9.53m, WSm, 10mm
						9.60		SANDSTONE: medium grained, pale grey stained organge and organge-brown, indistinctly bedded at 0-20°, trace fine grained and carbonaceous laminations.	SW			9.71m, Pt, 0°, Rf, Pln, Fe
10												

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Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Constitution Road, Dulwich Hill, NSW

HOLE No. A3-BH06

SHEET 4 OF 4

Position : 327842.71 E 6247095.59 N MGA94/ 56	**Surface RL:** 26.16m AHD	**Angle from Horiz. :** 90°	**Processed :** RCO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 17/10/2019	**Date Completed :** 17/10/2019	**Logged by :** JS	**Date Logged :** 17/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING

Progress

SCALE (m) | Drilling & Casing | Water | Drill Depth (m) | (Core Loss / Run %) | SAMPLES & TESTS

MATERIAL

Depth / (RL) metres | Graphic Log

Description
ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)

Weathering | **Estimated Strength $Is_{(50)}$ MPa** (●- Axial, ○- Diametral) | Soil | 0.03 | VL | 0.1 | L | 0.3 | M | 1 | H | 3 | VH | 10 | EH

NATURAL FRACTURES

Spacing (mm) | 20 | 40 | 100 | 300 | 1000

Additional Data
(joints, partings, seams, zones and veins)
Fracture type, orientation, infilling or coating, shape, roughness, other.

SCALE (m)	Drilling & Casing	Drill Depth (m)	(Core Loss / Run %)	Depth / (RL) metres	Description	Weathering	Additional Data
11	NMLC coring	10.39	(0)		SANDSTONE: as previous.	SW	10.13m, Pt, 0°, Rf, Pln, Fe
							10.66m, ISm, 70mm, CLAY
							10.91m, Pt, 2°, Rf, Pln, Fe
						Fr	11.04m, Pt, 2°, Rf, Cn, X
		11.79		11.79	End of Borehole at 11.79 metres. Target Depth		
12							
13							
14							
15							

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Job No.
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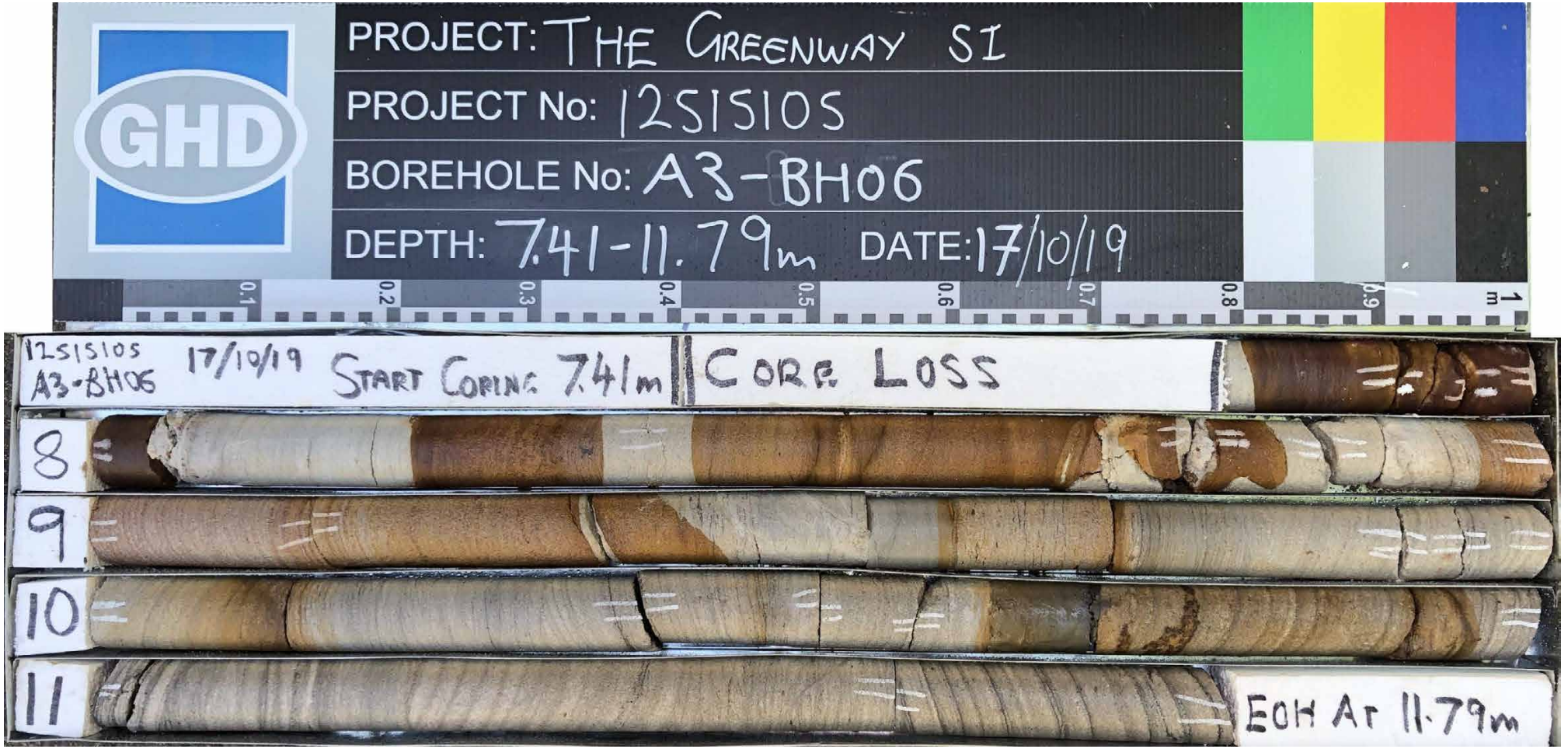

PointID : A3-BH06 Depth Range: 7.41 - 11.79 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services Constitution Road, Dulwich Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A3-BH06 1/1

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-BH07

SHEET 1 OF 3

Position : 327848.90 E 6247079.98 N MGA94/ 56 **Surface RL:** 23.63m AHD **Angle from Horiz. :** 90° **Processed :** RCO
Rig Type : Hand Carry Rig **Mounting:** NA **Contractor :** Stratacore **Driller :** CW **Checked :** MG
Date Started : 30/10/2019 **Date Completed :** 30/10/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
				ES	0.20		-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, with sub-angular gravel.	D	-	
				ES			-	[FILL] Gravelly SAND: fine to coarse grained, brown, fine to coarse, sub-angular gravel, trace brick and mortar fragments.	D	-	0.2m, PID=0.9ppm 0.2m, Possible ACM 0.5m, PID=0.7ppm
				D							
1	Hand Auger			ES	1.00		-	[FILL] CLAY: low plasticity, brown, with fine to coarse grained sand.	M	-	1.0m, PID=0.7ppm
		Nil		D							
				ES D	1.85		SC	Sandy CLAY: medium plasticity, pale brown mottled red, fine to coarse grained sand (residual).	w < PL	VSt	2.0m, PID=0.6ppm
2								2.2m, red.			
					2.40			CLAY: red, with fine to medium, sub-rounded ironstone gravel (residual).			2.4m, material description and origin inferred from drilling fluid.
	Washbore		Groundwater Not Encountered								
3					3.22			Start of coring at 3.22 metres. For cored interval, see Core Log Sheet.			
4											
5											

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Job No. 21-12515105

CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-BH07

SHEET 2 OF 3

Position : 327848.90 E 6247079.98 N MGA94/ 56	**Surface RL:** 23.63m AHD	**Angle from Horiz. :** 90°	**Processed :** RCO
Rig Type : Hand Carry Rig	**Mounting:** NA	**Contractor :** Stratacore	**Driller :** CW	**Checked :** MG
Casing Dia. : 90mm	**Barrel (m) :** 1.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 30/10/2019	**Date Completed :** 30/10/2019	**Logged by :** LM	**Date Logged :** 30/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL				NATURAL FRACTURES		
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●-Axial ○-Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1												
2												
3								Start of coring at 3.22 metres. For Non Cored interval, see Borehole Log Sheet.				
						3.22		SILTSTONE: red-brown with pale grey and yellow bands, indistinctly laminated.	EW	● ○		3.35m, Jt, 5°, VR, Un, Cn 3.40m, Jt, 0°, VR, Un, Fe 3.46m, Jt, 0°, VR, Un, CLAY 3.50m, Pt, 0°, VR, Un, CLAY 3.55-3.57m, Jt, 0-45°, Un, Fe 3.58m, Jt, 0°, Rf, Un, Fe 3.61-3.62m, Jt, 0-50°, VR, St, CLAY 3.66m, Jt, 0°, VR, Un, Fe 3.73m, ISm, 5°, VR, St, CLAY 25mm 3.80m, Jt, VR, St, Fe 3.84m, Jt, VR, St, Fe 3.85m, Jt, VR, St, Fe 3.90m, Jt, 5°, VR, St, Fe 4.17m, WSm, CLAY, 90mm
4	NMLC coring		3.88	(0)		4.09		SANDSTONE: fine to coarse grained, white with yellow and red bands, laminated at 5°.	EW	●		
			4.94	(0)		4.95						4.78m, Pt, 5°, Pln, CLAY 4.80m, Jt, 15°, Pln, Fe
5												

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Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-BH07

SHEET 3 OF 3

Position : 327848.90 E 6247079.98 N MGA94/ 56	**Surface RL:** 23.63m AHD	**Angle from Horiz. :** 90°	**Processed :** RCO
Rig Type : Hand Carry Rig	**Mounting:** NA	**Contractor :** Stratacore	**Driller :** CW	**Checked :** MG
Casing Dia. : 90mm	**Barrel (m) :** 1.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 30/10/2019	**Date Completed :** 30/10/2019	**Logged by :** LM	**Date Logged :** 30/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●-Axial ○-Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6	NMLC coring		5.88	(19)		5.13		CORE LOSS 180mm.				
						5.22		SANDSTONE: as above.	EW			
								SANDSTONE: fine to medium grained, pale brown-pale pink, laminated to thinly laminated at 10-15°.	HW			5.57m, WSm, CLAY, 30mm
			6.40	(57)		5.88		CORE LOSS 320mm.				
						6.20		SANDSTONE: fine to medium grained, pale purple with white bands, thinly laminated at 10-15°.				6.29m, Jt, 45°, Rf, Pln, Fe 6.30m, Jt, 0°, Rf, Un 6.35m, WSm, 0°, Rf, Sn Fe, CLAY 20mm
						6.45		SANDSTONE: fine to medium grained, pale grey and yellow with black laminates, thinly laminated at 5°.	HW			
			6.74	(0)		6.74		End of Borehole at 6.74 metres. Target Depth				
7												
8												
9												
10												

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

See standard sheets for details of abbreviations & basis of descriptions

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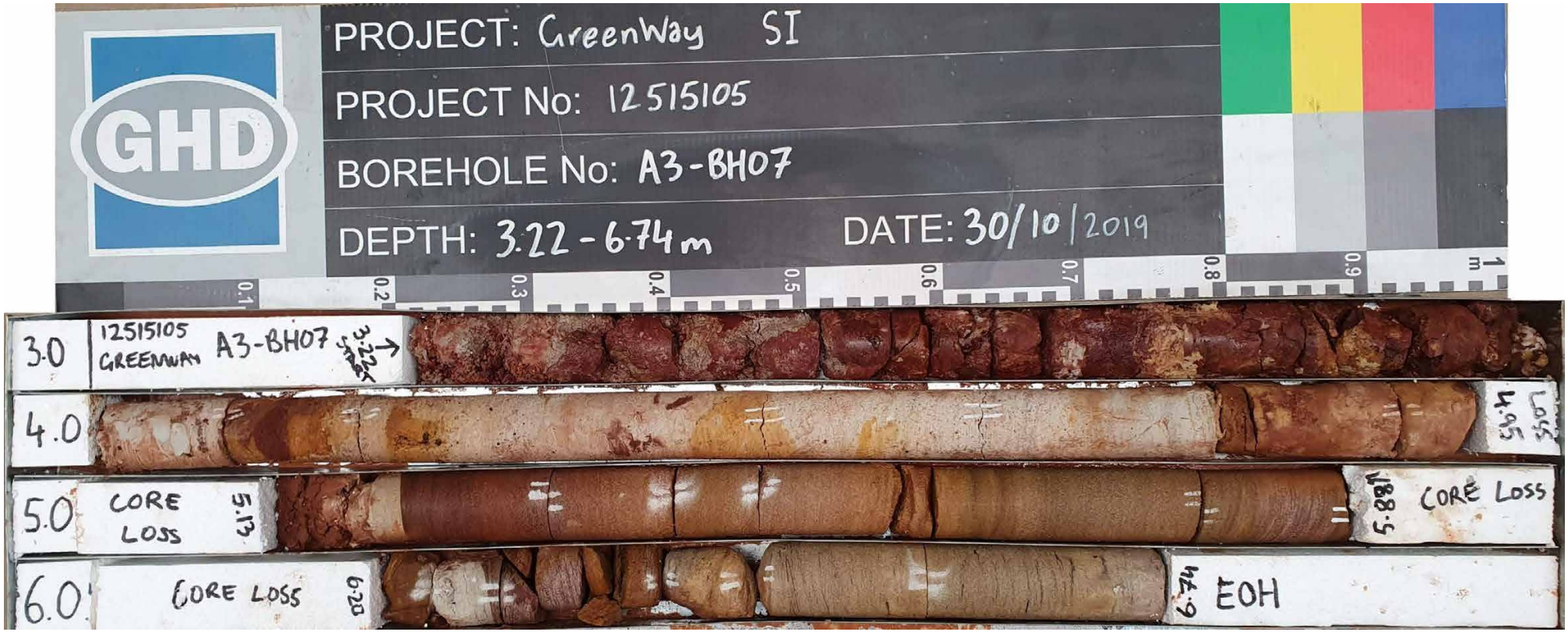
Job No.
21-12515105



PointID : A3-BH07 Depth Range: 3.22 - 6.74 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services IWLR Corridor, Dulwich Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A3-BH07 1/1

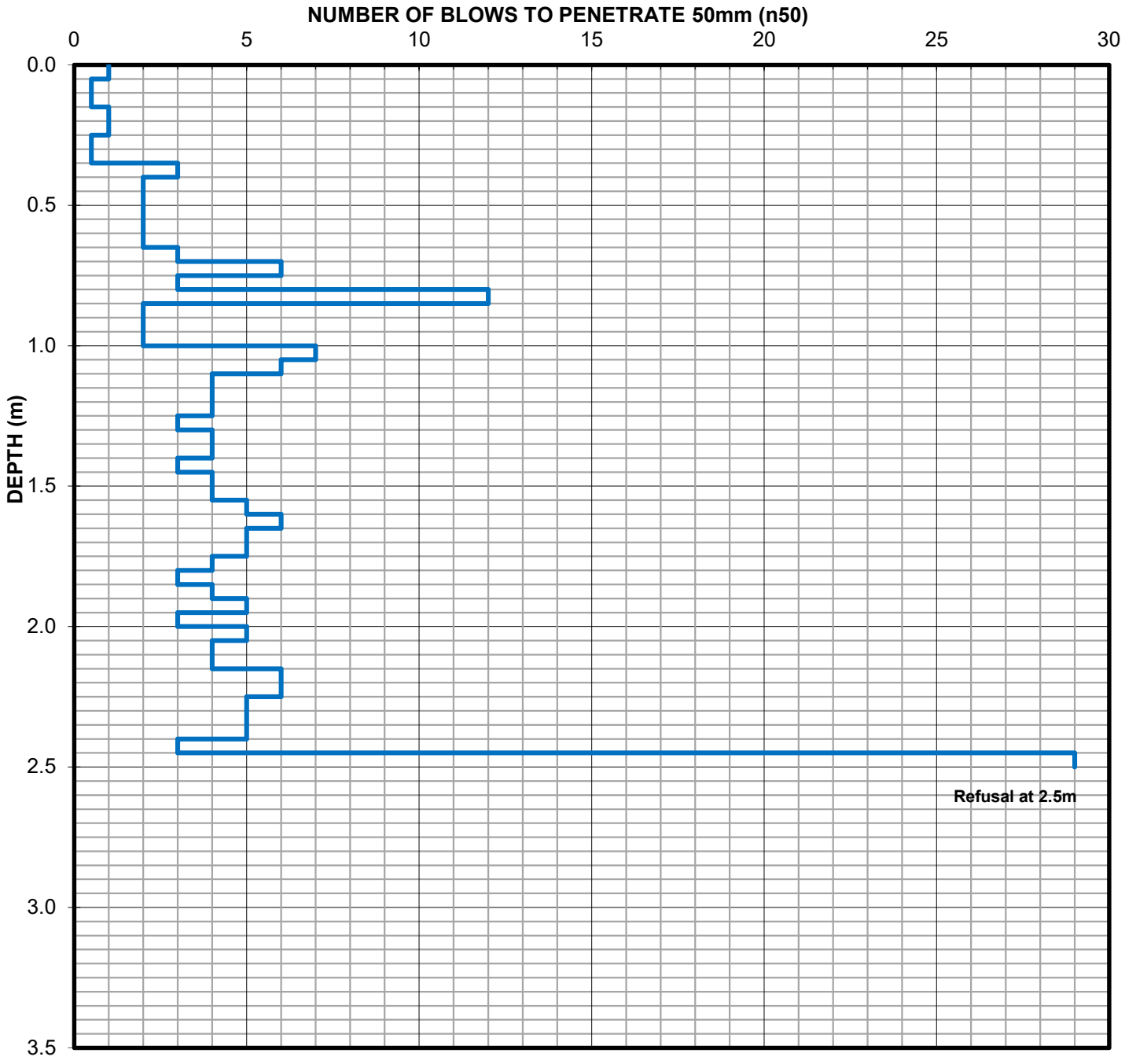
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: IWLR Corridor, Dulwich Hill, NSW

PROBE: A3-BH07

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	30/10/19
Adjacent Test Hole / Pit: A3-BH07		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 21125105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : 1-3 Williams Parade, Dulwich Hill, NSW

HOLE No. A3-BH08

SHEET 1 OF 3

Position : 327846.26 E 6247047.85 N MGA94/ 56 **Surface RL:** 21.80m AHD **Angle from Horiz. :** 90° **Processed :** RCO

Rig Type : XC Rig **Mounting:** Track **Contractor :** Terratest **Driller :** CD **Checked :** MG

Date Started : 17/10/2019 **Date Completed :** 17/10/2019 **Logged by :** JF/LM **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.12		-	CONCRETE PAVEMENT	-	-	
	Diatube			ES/QA6			-	[FILL] Gravelly SAND: fine to coarse grained, brown, fine to coarse, angular gravel, with silt, trace brick fragments.	M	-	0.2m, PID=4.7ppm
				ES							0.5m, PID=4.9ppm
					0.60		-	[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, angular gravel.	M	-	
				SPT 7/8/10 N=18							
1				ES							1.0m, PID=4.0ppm
					1.20		-	[FILL] Sandy CLAY: low plasticity, grey brown, fine to medium grained sand, trace brick and concrete	M	-	
				SPT 4/4/4 N=8							
					1.90		GC	Gravelly CLAY: high plasticity, brown mottled pale brown, fine to medium, sub-rounded gravel, with fine to coarse grained sand (residual).	w = PL	St	
2				ES							2.0m, PID=6.3ppm
				D							
	TC-bit auger	Nil	Groundwater Not Encountered		2.70		CH	CLAY: high plasticity, brown mottled pale grey, trace fine to medium, sub-rounded ironstone gravel (residual).	w < PL	VSt	
				SPT 5/8/9 N=17							
3				ES							3.0m, PID=8.6ppm
								3.5m, pale brown mottled pale grey.			
				SPT 3/6/12 N=18							
4											
				SPT 2/8/11 N=19				4.7m, trace fine grained sand.			
5											

Note: * indicates signatures on original issue of log or last revision of log

See standard sheets for details of abbreviations & basis of descriptions

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21-12515105

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : 1-3 Williams Parade, Dulwich Hill, NSW

HOLE No. A3-BH08

SHEET 2 OF 3

Position : 327846.26 E 6247047.85 N MGA94/ 56 **Surface RL:** 21.80m AHD **Angle from Horiz. :** 90° **Processed :** RCO
Rig Type : XC Rig **Mounting:** Track **Contractor :** Terratest **Driller :** CD **Checked :** MG
Date Started : 17/10/2019 **Date Completed :** 17/10/2019 **Logged by :** JF/LM **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
6	TC-bit auger	Nil	GNO	SPT 8 for 200mm HB N=ref	6.00		CH	CLAY: as previous.	w < PL w = PL	VSt	
								Start of coring at 6 metres. For cored interval, see Core Log Sheet.			
7											
8											
9											
10											

Note: * indicates signatures on original issue of log or last revision of log

GEO_BOREHOLE_AS1726 2017 211251515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

See standard sheets for details of abbreviations & basis of descriptions

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CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : 1-3 Williams Parade, Dulwich Hill, NSW

HOLE No. A3-BH08

SHEET 3 OF 3

Position : 327846.26 E 6247047.85 N MGA94/ 56	**Surface RL:** 21.80m AHD	**Angle from Horiz. :** 90°	**Processed :** RCO
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 17/10/2019	**Date Completed :** 17/10/2019	**Logged by :** JF/LM	**Date Logged :** 30/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL				NATURAL FRACTURES		
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
6						6.00		Start of coring at 6 metres. For Non Cored interval, see Borehole Log Sheet.				
7	NMLC coring		7.00	(0)				SANDSTONE: fine to medium grained, pale purple and red-yellow, indistinctly very thinly bedded at 5-10°, iron stained.	HW			6.30m, Jt, 0°, Rf, Pln, Fe Sn 6.52m, Jt (healed), Fe filled 6.59m, WSm, 10°, Rf, Pln, CLAY 60mm 6.64m, Jt (healed), 60°, Pln, Fe 6.71m, Jt (healed), 10°, Pln, Fe
8			8.50	(0)		7.70		SANDSTONE: fine to medium grained, orange-brown, brown and pale grey, indistinctly laminated to thinly laminated at 5-10°.	MW HW			7.06m, Jt, 10°, Rf, Pln, Un, Fe Sn 7.20m, Jt (healed), St, Fe Sn 7.26m, Jt, St, Fe Sn 7.30m, Jt (healed), 70°, St, Fe Sn 7.38m, Jt, 5-30°, St, Fe Sn 7.40m, Jt, 90°, Un, Co 7.48m, Jt, 0°, St, Fe Sn 7.56m, Jt, 90°, St, Fe Sn 7.66m, Pt, 5-10°, Pln, CLAY 7.95m, Pt, 5-10°, Pln, CLAY 8.37m, WSm, 0°, Rf, Pln, CLAY/Qz 30mm
9								8.5m, iron staining.	MW			8.80m, Jt, 80°, Rf, Cu, Fe 120mm 8.90m, Jt, 90°, Un, Fe 250mm 9.47m, WSm, 15°, Rf, Pln, Qz 20mm
10						10.00		End of Borehole at 10.00 metres. Target Depth				

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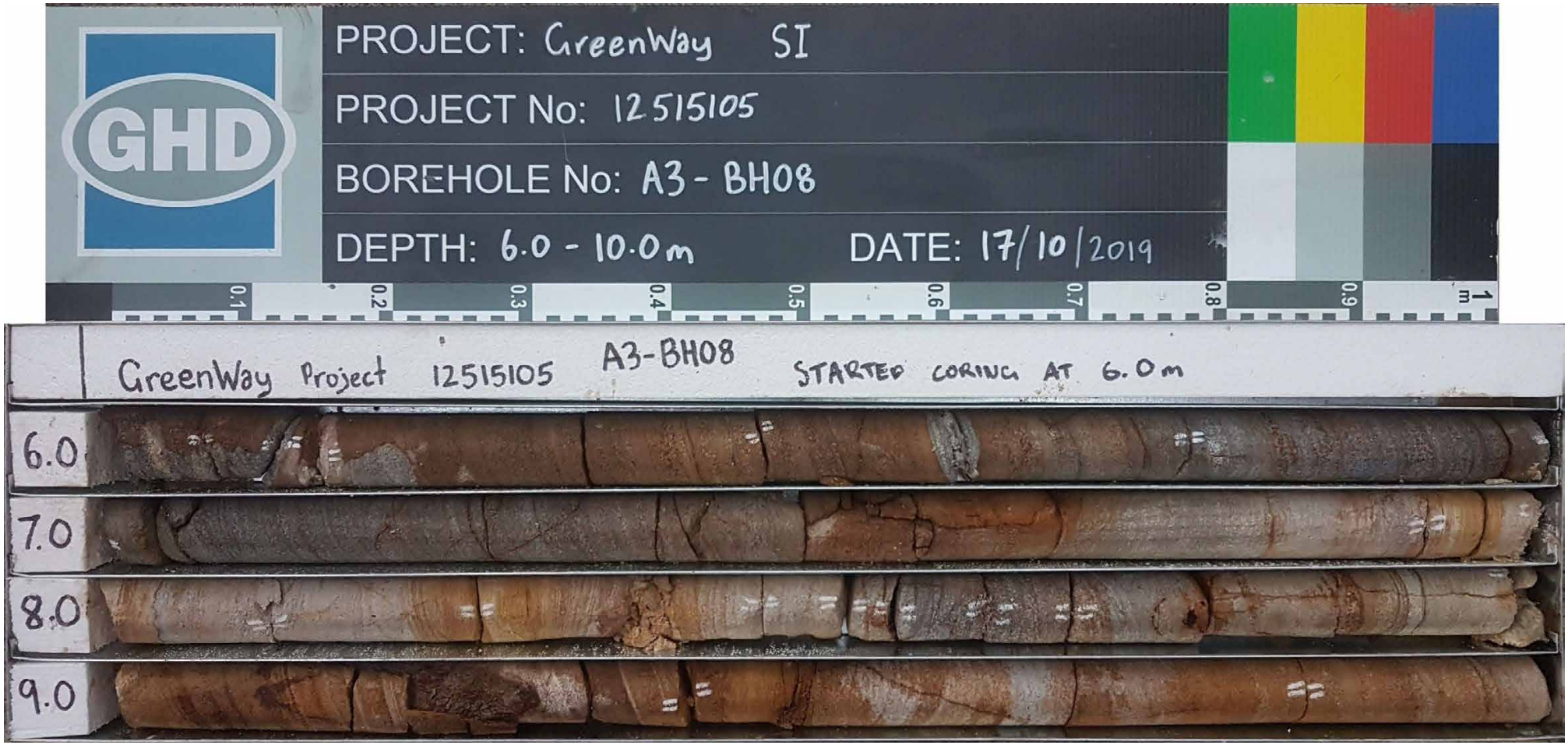

PointID : A3-BH08 Depth Range: 6.00 - 10.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services 1-3 Williams Parade, Dulwich Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A3-BH08 1/1

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-BH09

SHEET 1 OF 3

Position : 327867.74 E 6246929.15 N MGA94/ 56	**Surface RL:** 28.86m AHD	**Angle from Horiz. :** 90°	**Processed :** RCO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 23/10/2019	**Date Completed :** 23/10/2019	**Logged by :** JS	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
								[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects			Note: * indicates signatures on original issue of log or last revision of log
0	TC-bit auger	-	Groundwater Not Encountered	ES			-	[FILL] Gravelly SAND: fine to coarse grained, dark grey, fine to coarse, sub-angular to angular gravel, trace rootlets.	M	-	0.2m, PID=8.7ppm
				ES							0.5m, PID=9.6ppm
					0.60						
				SPT 3/6/9 N=15			CH	CLAY: high plasticity, pale grey mottled orange-brown, trace fine to coarse grained sand, trace rootlets (residual).	w < PL	St-VSt	0.6m, PP test failed due to low moisture content.
1				ES							1.0m, PID=14.2ppm
								1.5m, with fine to medium, sub-rounded ironstone gravel.			
				SPT 15/18/21 N=39							
					2.00						
2				SPT 17/ 30 for 130mm N=ref			GC	Gravelly CLAY: high plasticity, pale grey mottled red-brown, fine to coarse, sub-rounded ironstone gravel (residual).	w < PL	VSt	
				D							2.7m, disturbed sample collected from core.
3	NMLC coring	HQ casing									
				D							3.5m, disturbed sample collected from core.
4	Wash boring										
					4.50		-	SHALE: grey and pale brown, inferred very low strength, highly weathered (bedrock).	-	-	
				SPT 23/ 30 for 120mm HB	4.80						
5								Start of coring at 4.8 metres. For cored interval, see Core Log Sheet.			

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Job No. 21-12515105

CORE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-BH09

SHEET 2 OF 3

Position : 327867.74 E 6246929.15 N MGA94/ 56	**Surface RL:** 28.86m AHD	**Angle from Horiz. :** 90°	**Processed :** RCO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 23/10/2019	**Date Completed :** 23/10/2019	**Logged by :** JS	**Date Logged :** 23/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL				NATURAL FRACTURES	
Progress											
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	**Description** ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	**Estimated Strength $Is_{(50)}$ MPa** ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	**Spacing (mm)** 20 40 100 300 1000	**Additional Data** (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1											
2											
3											
4								Start of coring at 4.8 metres. For Non Cored interval, see Borehole Log Sheet.			
						4.80		CORE LOSS 250mm.			
5											

See standard sheets for details of abbreviations & basis of descriptions

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Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-BH09

SHEET 3 OF 3

Position : 327867.74 E 6246929.15 N MGA94/ 56	**Surface RL:** 28.86m AHD	**Angle from Horiz. :** 90°	**Processed :** RCO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 1.5m	**Bit :** Diamond (stepfaced)	**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 23/10/2019	**Date Completed :** 23/10/2019	**Logged by :** JS	**Date Logged :** 23/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING | **MATERIAL** | **NATURAL FRACTURES**

Progress: SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description	Weathering	Estimated Strength $Is_{(50)}$ MPa (●- Axial ○- Diametral)	Spacing (mm)	Additional Data
						5.05		Interlaminated SILTSTONE / SANDSTONE (70:30): siltstone is grey; sandstone is fine grained, pale grey, indistinctly laminated to thickly laminated at 0-10°, trace red-brown, iron staining on defects.	MW			5.11m, Pt, 0°, So, Pln, Cn 5.19m, Pt, 0°, So, Pln, Cn 5.40m, WSm, Sandy CLAY 100mm 5.67m, Pt, 0°, So, Pln, Cn
			5.85	(24)		5.85						
						5.91		CORE LOSS 70mm				
6	NMLC coring			(5)		6.65		Interlaminated SILTSTONE / SANDSTONE (70:30): siltstone is grey; sandstone is fine grained, pale grey, indistinctly laminated to thickly laminated at 0-10°, trace red-brown, iron staining on defects.				5.97m, WSm, 70mm 6.05m, Sm, CLAY 20mm 6.13m, Pt, 0°, So, Pln, Cn 6.35m, Sm, CLAY 5mm 6.35m, Sm, CLAY 5mm 6.43m, Pt, 0°, Rf, Pln, Fe 6.47m, Sm, CLAY 30mm 6.59m, WSm 130mm
								SANDSTONE: fine to medium grained, red-brown, orange-brown and pale grey, indistinctly thinly bedded as 0-5°.	MW			6.75m, Jt, 45°, Rf, Pln, Cn 6.89m, Jt, 50°, Rf, Pln, Cn
7			7.24									7.09m, Pt, 0°, Rf, Pln 7.13m, Pt, 0°, Rf, Pln
				(0)				7.75m, indistinctly bedded at 0-5°.	SW			
8												8.19m, Pt, 2°, Rf, Pln, Fe
			8.40			8.40		End of Borehole at 8.40 metres. Excessive water loss				
9												
10												

Estimated Strength $Is_{(50)}$ MPa: Soil, 0.03, VL, 0.1, L, 0.3, M, 1, H, 3, VH, 10, EH

Spacing (mm): 20, 40, 100, 300, 1000

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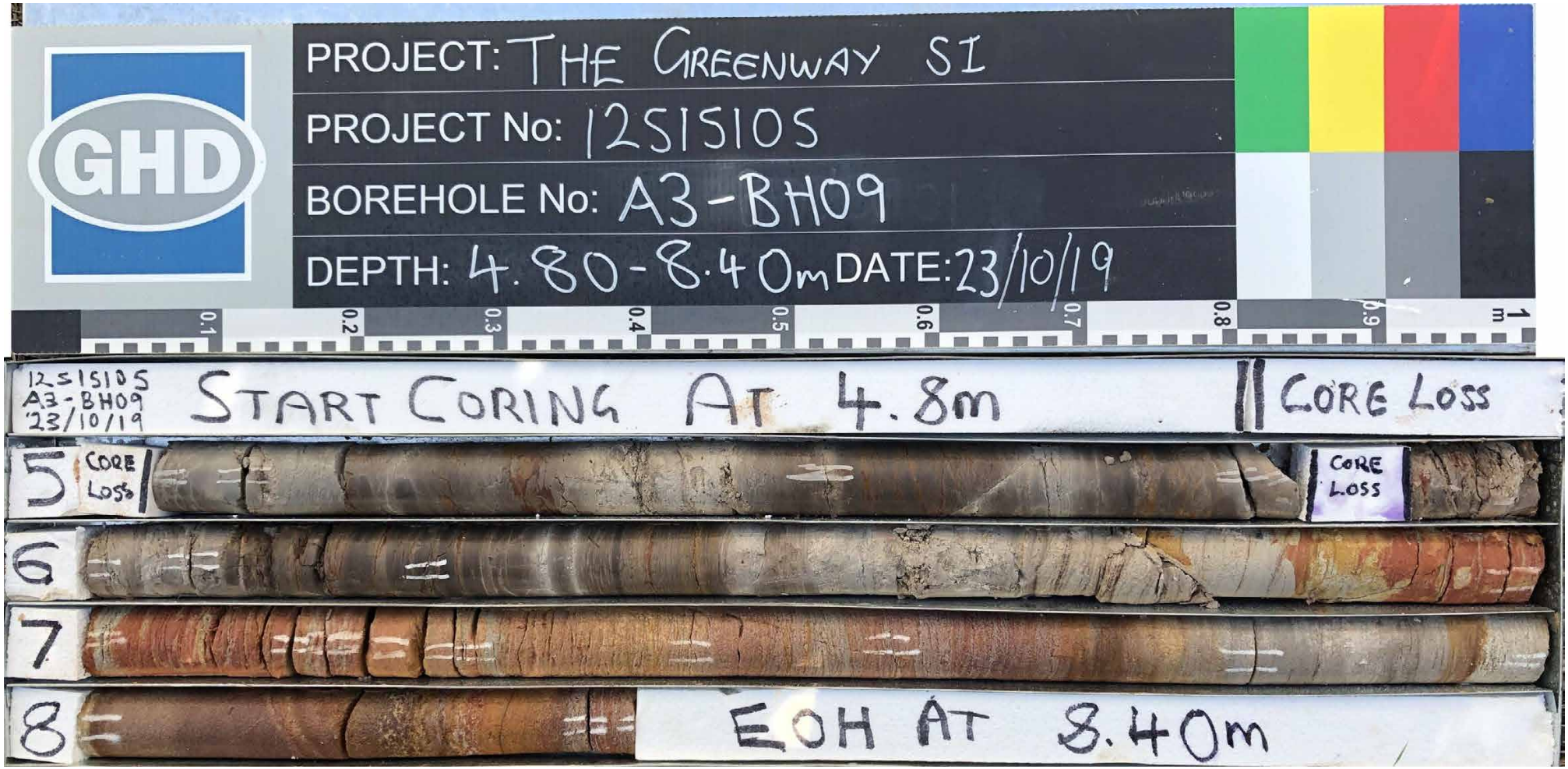

PointID : A3-BH09 Depth Range: 4.80 - 8.40 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services IWLR Corridor, Dulwich Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A3-BH09 1/1

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-BH10

SHEET 1 OF 4

Position : 327889.58 E 6246878.04 N MGA94/ 56	**Surface RL:** 29.64m AHD	**Angle from Horiz. :** 90°		**Processed :** SBO
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM		**Checked :** MG
Date Started : 24/10/2019	**Date Completed :** 24/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
								[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects			Note: * indicates signatures on original issue of log or last revision of log
0	TC-bit auger	Nil	Groundwater Not Encountered	ES			-	[FILL] Gravelly SAND: fine to coarse grained, dark brown, dark grey, fine to coarse, sub-angular to angular gravel, trace rootlets.	M	-	0.2m, PID=3.9ppm
				ES							0.5m, PID=2.9ppm
				SPT 4/6/6 N=12							
1				ES							1.0m, PID=3.3ppm
					1.30		-	[FILL] Gravelly CLAY: medium plasticity, brown, pale grey, pale brown and red-brown, sub-angular to sub-rounded, trace of carbonaceous material.	w < PL	-	1.3m, reworked residual
				SPT 4/6/7 N=13							
2				D							
				ES							2.5m, PID=4.1ppm
				SPT 5/10/8 N=18							
3											
				ES							3.5m, PID=8.0ppm
				SPT 3/2/4 N=6	3.90		CI	CLAY: medium plasticity, pale grey mottled red brown, fine to medium, sub-rounded ironstone gravel (residual).	w < PL	St	
4				D							
					4.50		-	SHALE: pale grey and orange-brown, inferred extremely low strength, highly weathered (bedrock).	-	-	
				SPT 19/ 30 for 140mm HB							
5											

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-BH10

SHEET 2 OF 4

Position : 327889.58 E 6246878.04 N MGA94/ 56	**Surface RL:** 29.64m AHD	**Angle from Horiz. :** 90°		**Processed :** SBO
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM		**Checked :** MG
Date Started : 24/10/2019	**Date Completed :** 24/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
	TC-bit auger	Nil			5.64		-	SHALE: as previous.	-	-	
								Start of coring at 5.64 metres. For cored interval, see Core Log Sheet.			

Note: * indicates signatures on original issue of log or last revision of log

6
7
8
9
10

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-BH10

Position : 327889.58 E 6246878.04 N MGA94/ 56	**Surface RL:** 29.64m AHD	**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 3.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 24/10/2019	**Date Completed :** 24/10/2019	**Logged by :** JS	**Date Logged :** 24/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING | **MATERIAL** | **NATURAL FRACTURES**

Progress: SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description	Weathering	Estimated Strength $Is_{(50)}$ MPa (● Axial ○ Diametral)	Spacing (mm)	Additional Data
						5.64		Start of coring at 5.64 metres. For Non Cored interval, see Borehole Log Sheet.				
6	NMLC coring			(0)				SANDSTONE: fine to coarse grained, pale grey, red-brown and pale brown, indistinctly bedded at 0-5°, iron staining, trace siltstone and carbonaceous laminations.	MW			5.81m, Pt, 0°, Rf, Pln, Fe 5.99m, Pt, 0°, Rf, Pln, Fe 6.42m, Pt, 0°, Rf, Pln, Fe 6.46m, Pt, 0°, Rf, Pln, Fe 6.6m, WSm, 100mm
7												
8			8.62					8.24m, bedding becomes 15° and lacks siltstone laminations.				7.59m, Pt, 0-2°, Rf, Un, Fe 8.18m, ISm, CLAY 20mm 8.45m, WSm, 40mm 8.84m, Pt, 2°, Rf, Pln, Fe
9												9.13m, Pt, 0°, Rf, Pln, Fe 9.51m, Pt, 2°, Rf, Pln, Fe
10												9.83m, Jt, 10°, Rf, Pln, Fe

Strength: Soil | 0.03 VL | 0.1 L | 0.3 M | 1 H | 3 VH | 10 EH
Spacing (mm): 20 | 40 | 100 | 300 | 1000

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No. 21-12515105

CORE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-BH10

SHEET 4 OF 4

Position : 327889.58 E 6246878.04 N MGA94/ 56	**Surface RL:** 29.64m AHD	**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 3.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 24/10/2019	**Date Completed :** 24/10/2019	**Logged by :** JS	**Date Logged :** 24/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL				NATURAL FRACTURES	
Progress											
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Spacing (mm) 20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
11	NMLC coring			(0)				SANDSTONE: as previous.				10.32m, Jt, 0°, Rf, Pln, Fe 10.44m, ISm, CLAY 20mm
			11.77						MW			11.11m, ISm, CLAY 5mm 11.32m, Pt, 0°, Rf, Pln, Fe
12				(0)								12.32m, Jt, 70°, Rf, Pln, Fe
13			13.32			13.32		End of Borehole at 13.32 metres. Target Depth				
14												
15												

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Job No.
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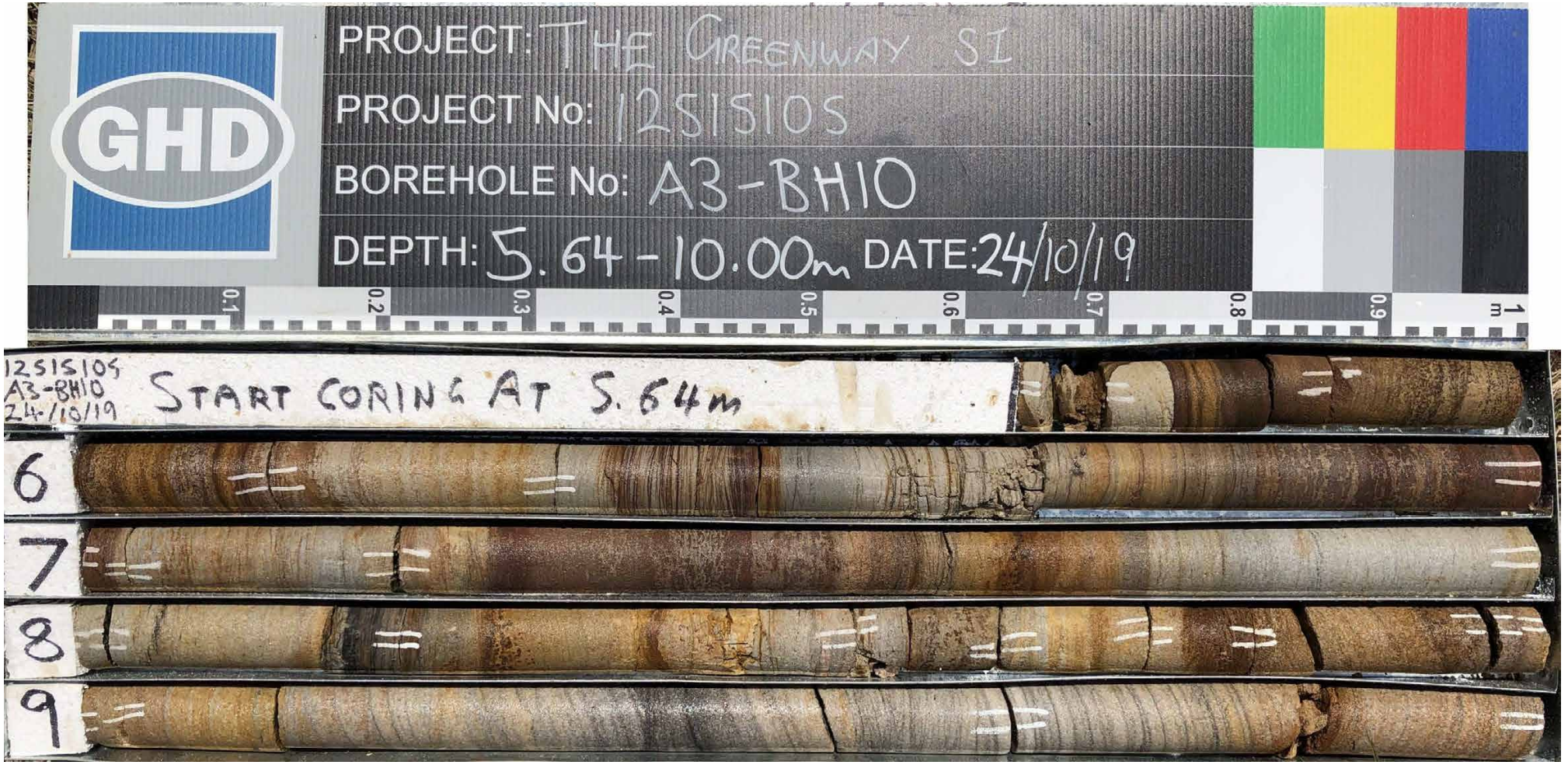

PointID : A3-BH10 Depth Range: 5.64 - 10.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services IWLR Corridor, Dulwich Hill NSW Core Photographs	DRAWN: H. Warr	DATE: 30/01/2020
		CHECKED: J. Scognamiglio	DATE: 30/01/2020
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A3-BH10 1/2

PointID : A3-BH10 Depth Range: 10.00 - 13.32 m

Inner West Council
The GreenWay Geotechnical and Contamination Services
IWLR Corridor, Dulwich Hill NSW
Core Photographs

DRAWN	H. Warr	DATE	30/01/2020
CHECKED	J. Scognamiglio	DATE	30/01/2020
SCALE	Not To Scale		A4
PROJECT No	21-12515105	FIGURE No	A3-BH10 2/2

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Dulwich Grove Footpath, Duwlich Hill, NSW

HOLE No. A3-BH11

SHEET 1 OF 4

Position : 327927.23 E 6246811.00 N MGA94/ 56	**Surface RL:** 28.30m AHD	**Angle from Horiz. :** 90°		**Processed :** SBO
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** FF	**Checked :** MG
Date Started : 24/10/2019	**Date Completed :** 24/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
0	TC-bit auger	Nil	Groundwater Not Encountered		0.08		-	CONCRETE FOOTPATH	-	-	
				ES	0.30		-	[FILL] Silty GRAVEL: fine to coarse, angular, grey, with fine to coarse grained sand.	M	-	0.2m, PID=9.5ppm
				ES			-	[FILL] Gravelly CLAY: medium plasticity, brown, fine to medium, sub-rounded gravel, with fine to coarse grained sand.	w = PL	-	0.5m, PID=5.5ppm
1				SPT 1/4/4 N=8							1.0m, PID=5.1ppm
				ES							
					1.70		CI	CLAY: medium plasticity, yellow/orange-red mottles, with fine, sub-rounded gravel, trace fine to medium grained sand (residual).	w = PL	St	
				SPT 1/4/4 N=8							
2				ES							2.0m, PID=5.7ppm
					2.15		CH	CLAY: high plasticity, red, trace fine to coarse grained sand (residual).	w < PL	VSt	
					2.55		CL-CI	Silty CLAY: low to medium plasticity, pale grey, trace fine to coarse grained sand (residual).	w < PL	VSt	
				SPT 4/11/11 N=22							
3				ES							3.0m, PID=3.7ppm 3.0-3.45m, slow augering
								3.5m, brown.			
4					4.55			Start of coring at 4.55 metres. For cored interval, see Core Log Sheet.			
5											

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Job No.
21-12515105

CORE LOG SHEET

Client : Inner West Council			**HOLE No. A3-BH11**
Project : The GreenWay Geotechnical and Contamination Services			**SHEET 2 OF 4**
Location : Dulwich Grove Footpath, Duwlich Hill, NSW			
Position : 327927.23 E 6246811.00 N MGA94/ 56	**Surface RL:** 28.30m AHD	**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : XC Rig	**Mounting:** Track **Contractor :** Terratest	**Driller :** FF	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 3.0m **Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 24/10/2019	**Date Completed :** 24/10/2019 **Logged by :** LM	**Date Logged :** 24/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress												
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	**Description** ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	**Estimated Strength $Is_{(50)}$ MPa** ●- Axial ○- Diametral Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	**Spacing (mm)** 20 40 100 300 1000	**Additional Data** (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
1												
2												
3												
4								Start of coring at 4.55 metres. For Non Cored interval, see Borehole Log Sheet.				
						4.55						
5	NMLC coring							SANDSTONE: fine to coarse grained, pale grey and pale purple, indistinctly thinly bedded at 5°.	HW	○ ●		4.98m, WSm, 20mm

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CORE LOG SHEET

GEO_COREHOLE_NO VISUAL_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Dulwich Grove Footpath, Duwlich Hill, NSW

HOLE No. A3-BH11

SHEET 3 OF 4

Position : 327927.23 E 6246811.00 N MGA94/ 56	**Surface RL:** 28.30m AHD	**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** FF	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 3.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 24/10/2019	**Date Completed :** 24/10/2019	**Logged by :** LM	**Date Logged :** 24/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING

Progress

SCALE (m) | Drilling & Casing | Water | Drill Depth (m) | (Core Loss / Run %) | SAMPLES & TESTS

MATERIAL

Depth / (RL) metres | Graphic Log

Description

ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)

Weathering | Estimated Strength $Is_{(50)}$ MPa (●- Axial, ○- Diametral) Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH

NATURAL FRACTURES

Spacing (mm) 20 40 100 300 1000

Additional Data

(joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.

Depth	Description	Weathering	Additional Data
	5.0m, pale grey, occasional carbonaceous laminations.		
	5.7-5.9m, pale brown iron staining.		5.78m, WSm, CLAY, 40mm
6.00	SANDSTONE: medium grained, pale grey trace orange-brown staining, indistinctly bedded at 5-10°, with fine grained laminations.		
			6.88m, Pt, 0°, Pln, Rf, CLAY 10mm
			6.96m, Pt, 0°, Pln, Rf, CLAY 10mm
			7.07m, Pt, 0°, Pln, Rf, CLAY 10mm
	7.5-7.6m, pale orange brown, iron stained patches.	SW	7.64m, WSm, CLAY and rock fragments, 20mm
			9.1m, Pt, 5°, Pln, Rf, CLAY
			9.3m, Pt, 5°, Pln, Rf, CLAY
			9.33m, Pt, 5°, Pln, Rf, CLAY
			9.55m, WSm, 15mm
			9.71m, Pt, 5°, Pln, Rf, CLAY
		MW	9.73m, Pt, 5°, Pln, Rf, CLAY

Drilling & Casing: NMLC coring

Drill Depth: 9.00

(Core Loss / Run %): (0) ; (0)

See standard sheets for details of abbreviations & basis of descriptions

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Job No.

21-12515105

CORE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

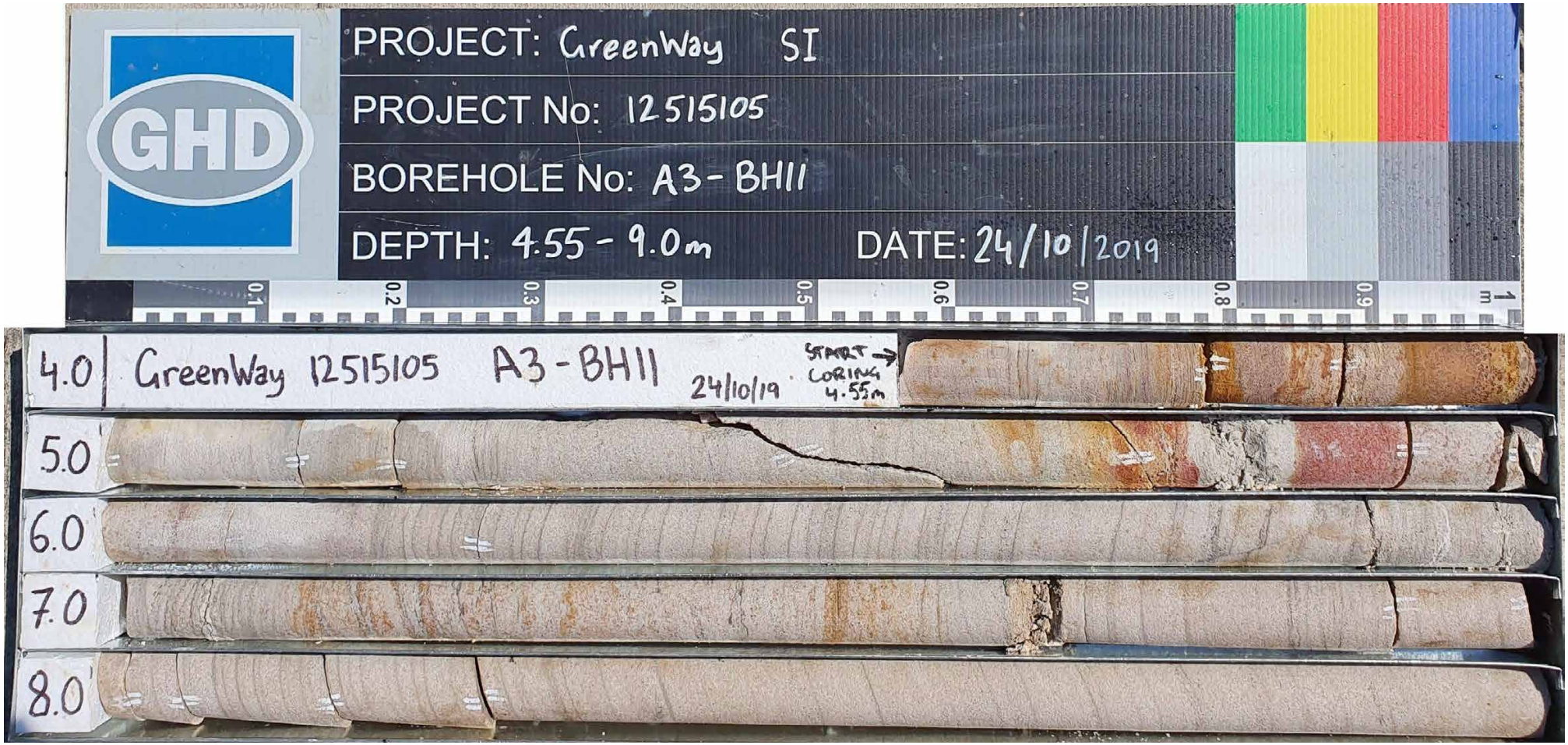
Location : Dulwich Grove Footpath, Duwlich Hill, NSW

HOLE No. A3-BH11

SHEET 4 OF 4

Position : 327927.23 E 6246811.00 N MGA94/ 56	**Surface RL:** 28.30m AHD	**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : XC Rig	**Mounting:** Track	**Contractor :** Terratest	**Driller :** FF	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 3.0m	**Bit :** Diamond (stepfaced)	**Bit Condition :** Good	**Date:** 16/01/2020
Date Started : 24/10/2019	**Date Completed :** 24/10/2019	**Logged by :** LM	**Date Logged :** 24/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress										Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral	Spacing (mm)	
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
								SANDSTONE: as previous.	MW			
			10.28			10.28						10.19m, WSm, 20mm
								End of Borehole at 10.28 metres. Target Depth				
11												
12												
13												
14												
15												



PointID : A3-BH11 Depth Range: 4.55 - 9.00 m

	Inner West Council The GreenWay Geotechnical and Contamination Services Dulwich Grove Footpath, Duwlich Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A3-BH11 1/2

PointID : A3-BH11 Depth Range: 9.00 - 10.28 m

	Inner West Council The GreenWay Geotechnical and Contamination Services Dulwich Grove Footpath, Duwlich Hill NSW Core Photographs	DRAWN: HW	DATE: 2/12/2019
		CHECKED: JS	DATE: 2/12/2019
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A3-BH11 2/2

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Bushcare Area, Dulwich Hill, NSW

HOLE No. A3-HA01

SHEET 1 OF 1

Position : 327963.90 E 6247462.09 N MGA94/ 56 **Surface RL:** 18.65m AHD **Angle from Horiz. :** 90° **Processed :** SBO
Rig Type : Hand auger **Mounting:** NA **Contractor :** NA **Driller :** NA **Checked :** MG
Date Started : 25/10/2019 **Date Completed :** 25/10/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	Hand Auger	Nil	Groundwater Not Encountered	ES ES D ES D	0.20 1.00 1.20		- - -	[TOPSOIL] Silty SAND: fine to coarse grained, brown, with fine to coarse gravel, with ballast cobbles, trace brick and concrete fragments. [FILL] Clayey Sandy GRAVEL: fine to coarse, sub-angular to angular, brown, fine to coarse grained sand, trace ballast cobbles, trace brick and concrete fragments. [FILL] Gravelly SAND: fine to coarse grained, dark grey/black, fine to coarse, angular gravel.	M M M	- - -	0.2m, PID=3.3ppm 0.5m, PID=4.7ppm 1.0m, PID=3.9ppm
2								End of borehole at 1.20 metres. Auger refusal			
3											

See standard sheets for details of abbreviations & basis of descriptions

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Job No. 21-12515105

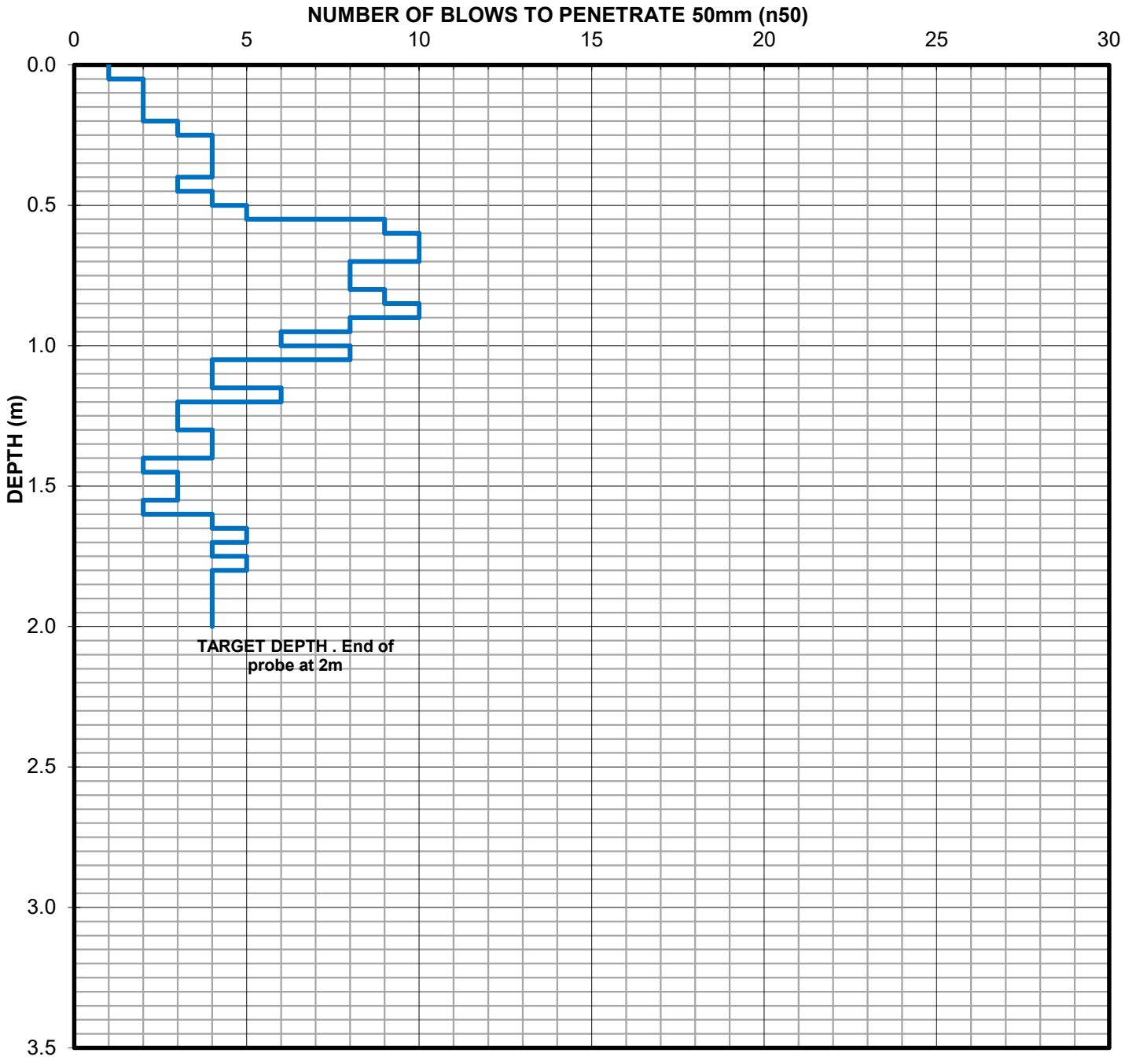
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Bushcare Area, Dulwich Hill, NSW

PROBE: A3-HA01

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	21/1019
Adjacent Test Hole / Pit: A3-HA01		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Bushcare Area, Dulwich Hill, NSW

HOLE No. A3-HA02

SHEET 1 OF 1

Position : 327940.94 E 6247442.12 N MGA94/ 56	**Surface RL:** 18.96m AHD	**Angle from Horiz. :** 90°		**Processed :** SBO
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 21/10/2019	**Date Completed :** 21/10/2019	**Logged by :** LM/JW		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.10		-	[TOPSOIL] Silty SAND: fine to medium grained, brown, trace fine to medium, angular gravel, trace rootlets.	M	-	
				ES			-	[FILL] Gravelly SAND: fine to medium grained, brown, fine to coarse, sub-rounded gravel, with brick and tile fragments.	M	-	0.2m, PID=1.8ppm
				D ES							0.5m, PID=18.ppm
					0.60		-	[FILL] Clayey Sandy GRAVEL: fine to medium, angular dark grey, fine to coarse grained sand.	M	-	
					0.80		-	[FILL] CLAY: low-medium plasticity, pale brown mottled yellow, trace fine to medium, angular gravel.	w = PL	-	
1	Hand Auger	Nil	Groundwater Not Encountered	QA11/QA12							1.0m, PID=2.3ppm
				D							
				D							
								1.8m, mottled red.			
				ES	2.00						2.0, PID=1.8ppm
2								End of borehole at 2.00 metres. Target Depth			
3											

Note: * indicates signatures on original issue of log or last revision of log

See standard sheets for details of abbreviations & basis of descriptions

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Job No.
21-12515105

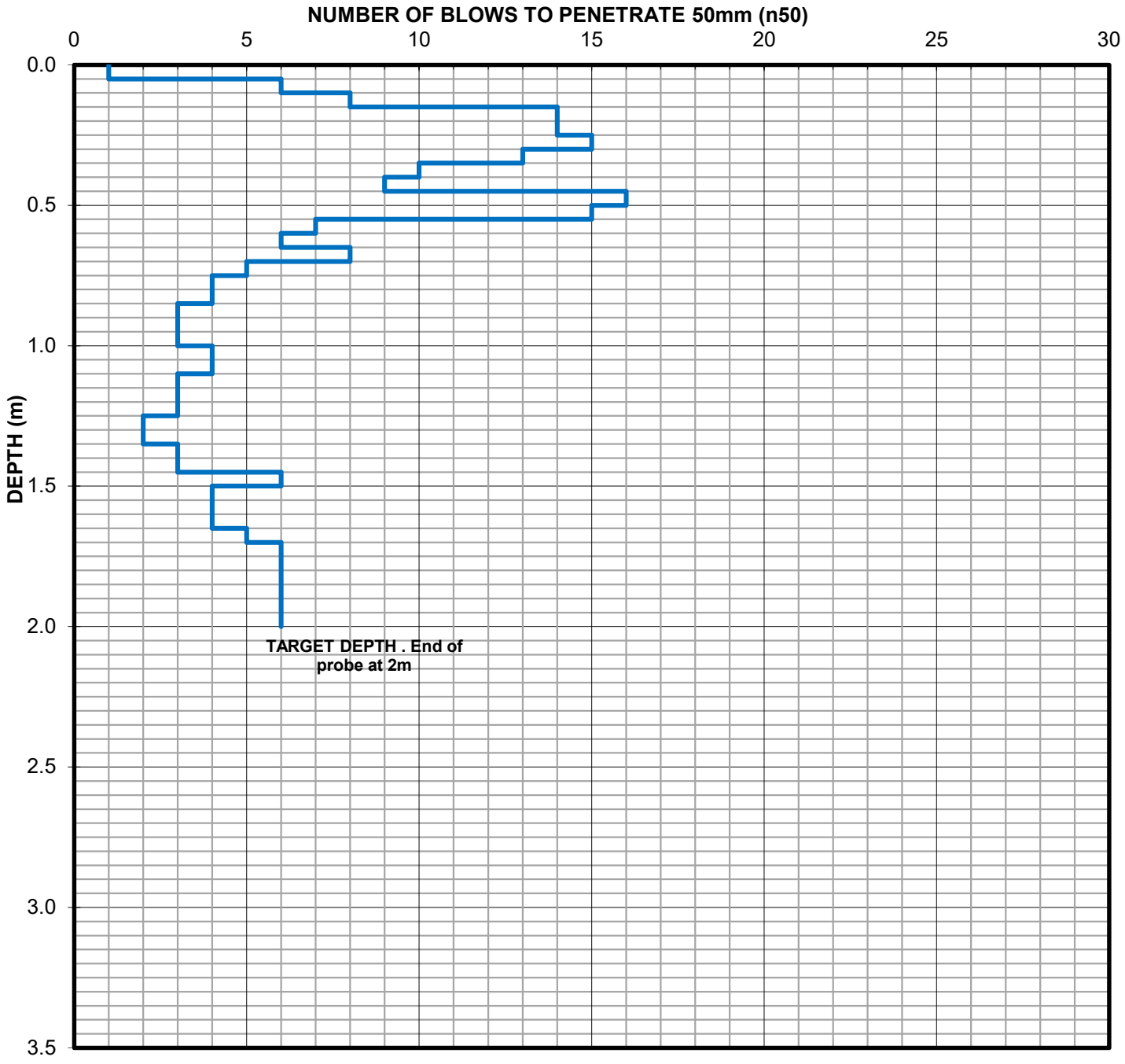
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Bushcare Area, Dulwich Hill, NSW

PROBE: A3-HA02

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	21/1019
Adjacent Test Hole / Pit: A3-HA02		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Bushcare Area, Dulwich Hill, NSW

HOLE No. A3-HA03

SHEET 1 OF 1

Position : 327919.93 E 6247418.15 N MGA94/ 56	**Surface RL:** 19.16m AHD	**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 21/10/2019	**Date Completed :** 21/10/2019	**Logged by :** LM	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	Hand Auger	Nil	Groundwater Not Encountered	ES	0.10		-	[TOPSOIL] Silty SAND: fine to medium grained, brown, trace fine, angular gravel.	M	-	
							-	[FILL] Clayey SAND: fine to medium grained, brown, with fine to coarse, sub-angular, gravel, trace brick and concrete.	M	-	0.1m, Possible ACM 0.2m, PID=4.0ppm
				ES/QA10				0.5m, with bricks.			0.5m, PID=3.4ppm
				D	0.60		-	[FILL] CLAY: medium plasticity, brown mottled red and grey, with fine to coarse grained sand, with fine to coarse, sub-angular gravel, trace cobble-sized brick fragments.	w = PL	-	
					1.00			End of borehole at 1.00 metres. Auger refusal			1.0m, PID=3.3ppm
2											
3											

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-12515105

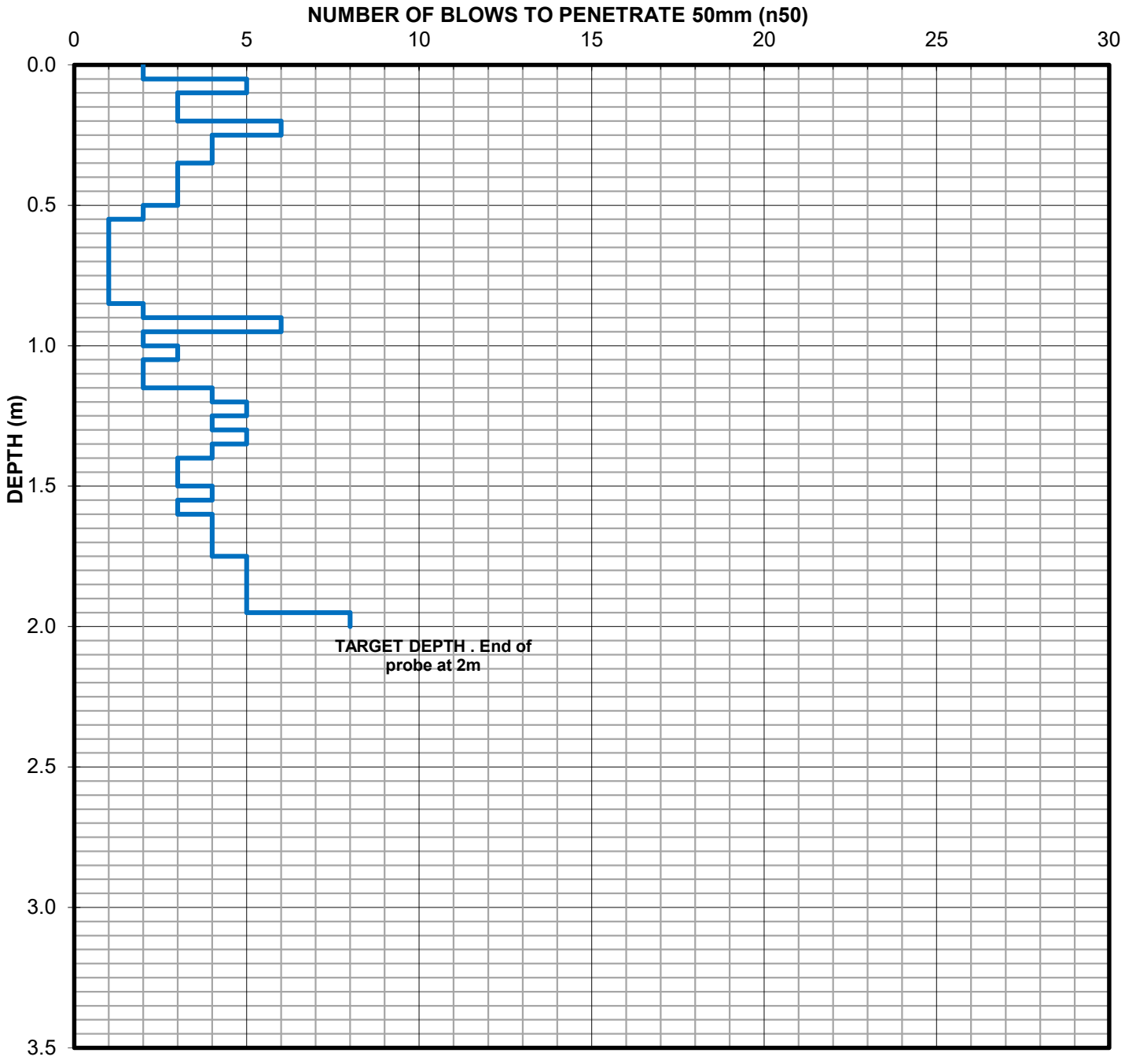
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Bushcare Area, Dulwich Hill, NSW

PROBE: A3-HA03

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	21/1019
Adjacent Test Hole / Pit: A3-HA03		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Bushcare Area, Dulwich Hill, NSW

HOLE No. A3-HA04

SHEET 1 OF 1

Position : 327898.55 E 6247386.87 N MGA94/ 56	**Surface RL:** 19.49m AHD	**Angle from Horiz. :** 90°		**Processed :** SBO
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 25/10/2019	**Date Completed :** 25/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
							-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, with ballast cobbles.	M	-	
				ES	0.20		-	CONCRETE.	-	-	0.2m, PID=6.5ppm
					0.30		-	[FILL] CLAY: medium plasticity, yellow mottled orange, with fine to coarse grained sand, with ballast cobbles.	w = PL	-	
				ES							0.5m, PID=9.8ppm hydrocarbon odour
					0.60		-	[FILL] CLAY: high plasticity, grey, trace fine to coarse grained sand.	w = PL	-	
				D							
				ES							
1	Hand Auger	Nil	Groundwater Not Encountered					1.0m, mottled yellow.	w > PL		1.0m, PID=1.9ppm
								1.3m, with red, fine to coarse grained sand.	w = PL		
				D							
					2.00			End of borehole at 2.00 metres. Target Depth			
2											
3											

See standard sheets for details of abbreviations & basis of descriptions

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Note: * indicates signatures on original issue of log or last revision of log

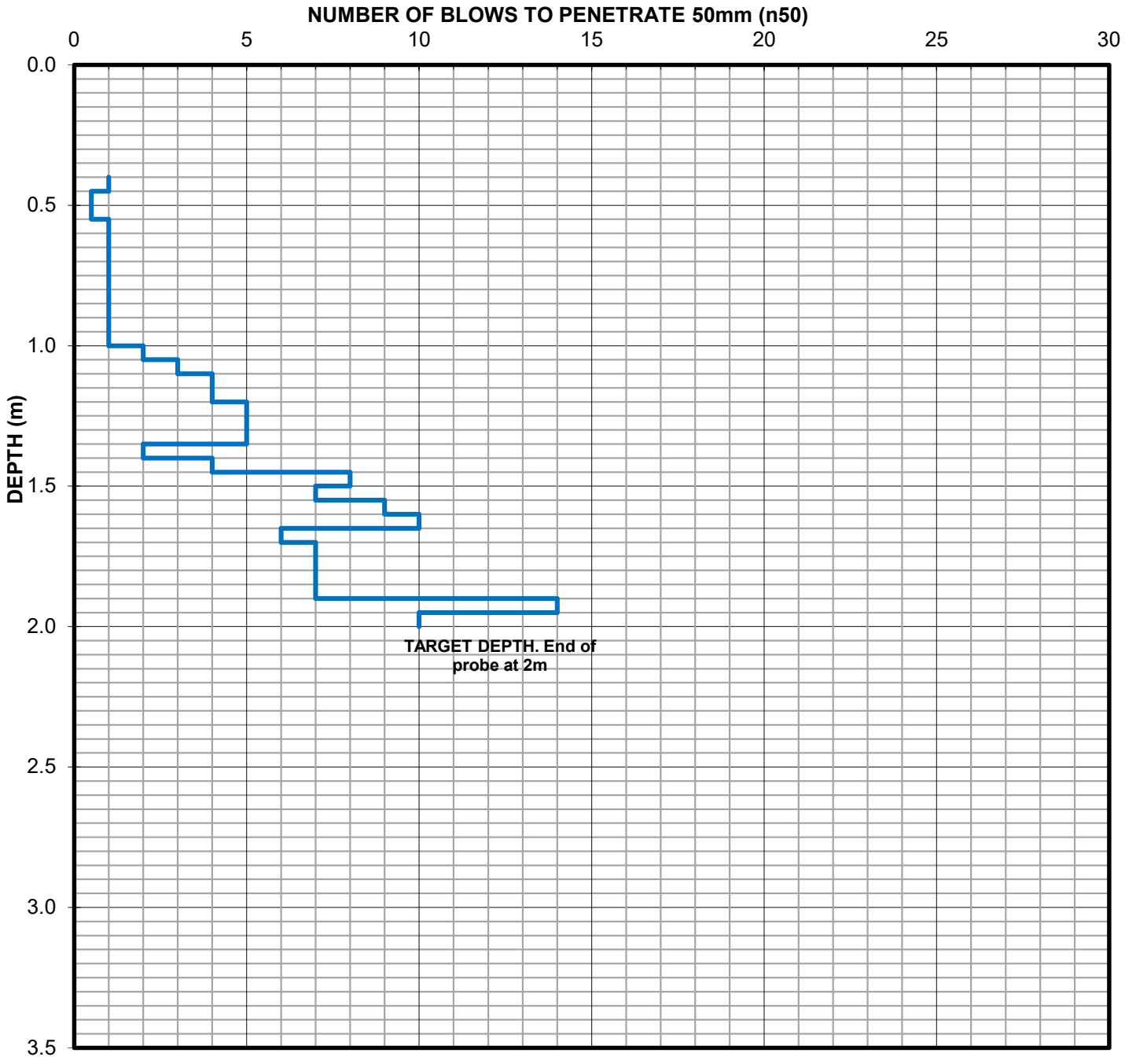
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Bushcare Area, Dulwich Hill, NSW

PROBE: A3-HA04

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	21/1019
Adjacent Test Hole / Pit: A3-HA04		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:
Test commenced at 0.4 m due to concrete and clay pipe encountered

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Bushcare Area, Dulwich Hill, NSW

HOLE No. A3-HA05

SHEET 1 OF 1

Position : 327868.61 E 6247329.85 N MGA94/ 56	**Surface RL:** 20.06m AHD	**Angle from Horiz. :** 90°		**Processed :** SBO
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 31/10/2019	**Date Completed :** 31/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log Comments/ Observations
				ES	0.20		-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, fine to medium, angular gravel, with rootlets.	D	-	
				D			-	[FILL] Clayey Sandy GRAVEL: fine to medium, angular, brown, fine to coarse grained sand.	D	-	0.2m, PID=2.4ppm
				ES							0.5m, PID=1.6ppm
					0.60		GC	Gravelly CLAY: medium plasticity, pale brown mottled pale grey, fine to coarse, rounded, ironstone gravel (residual).	w = PL	VSt	
				D							
1	Hand Auger	Nil	Groundwater Not Encountered	ES/QA30							1.0m, PID=1.6ppm
					1.10		CI	CLAY: medium plasticity, pale brown mottled pale grey, trace fine to medium , sub-rounded ironstone gravel (residual).	w = PL	VSt	
				D							1.7m, high augering resistance.
				D							
				ES							2.0m, PID=1.2ppm
2					2.00			End of borehole at 2.00 metres. Target Depth			
3											

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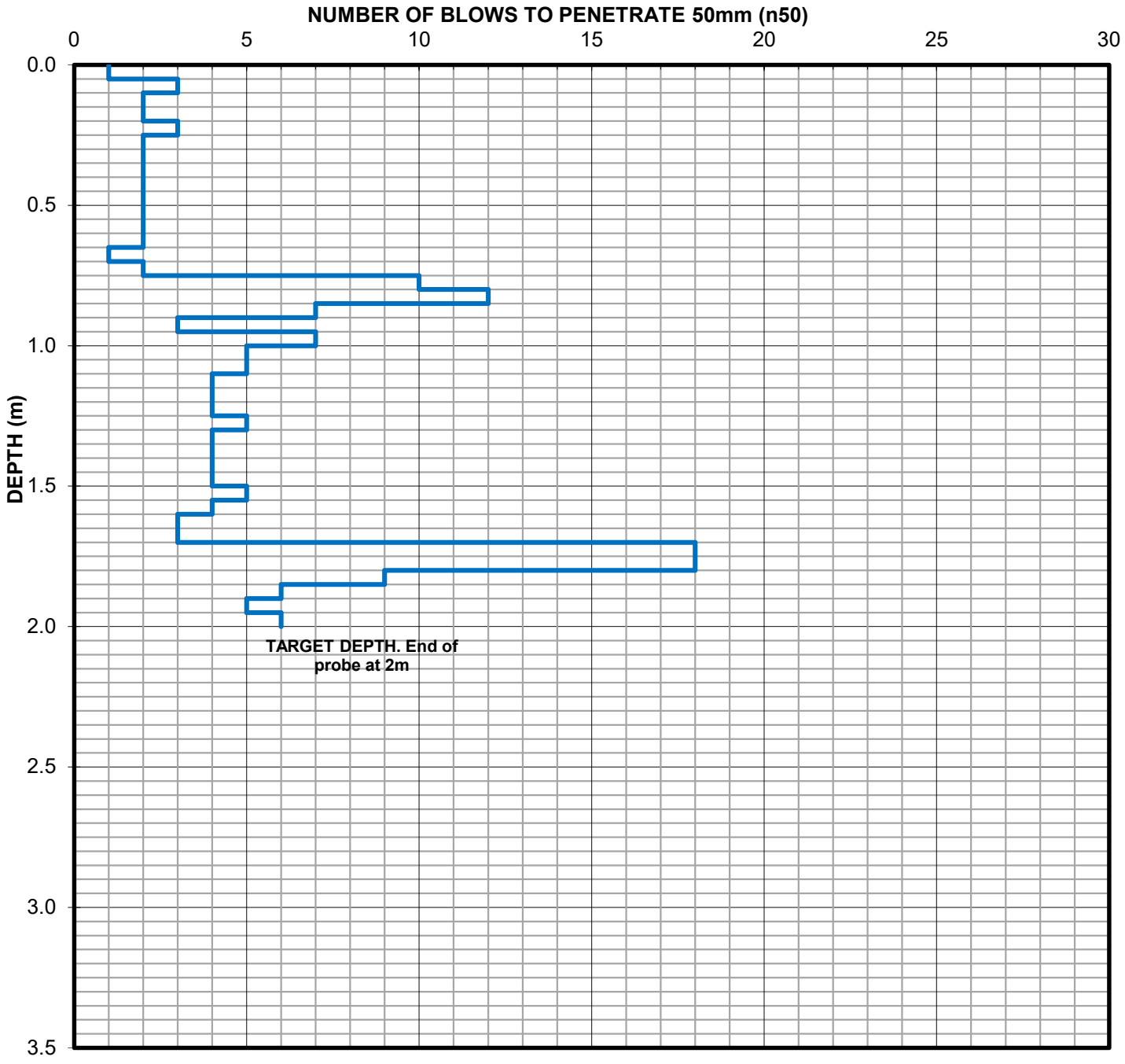
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Bushcare Area, Dulwich Hill, NSW

PROBE: A3-HA05

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	25/10/19
Adjacent Test Hole / Pit: A3-HA05		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-HA06

SHEET 1 OF 1

Position : 327857.00 E 6247021.00 N MGA94/ 56 **Surface RL:** 21.40m AHD **Angle from Horiz. :** 90° **Processed :** HAL

Rig Type : Hand auger **Mounting:** NA **Contractor :** NA **Driller :** NA **Checked :** MG

Date Started : 15/11/2019 **Date Completed :** 15/11/2019 **Logged by :** LM **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	Hand Auger	Nil	Groundwater Not Encountered	ES	0.30		-	[TOPSOIL] Silty SAND: fine to coarse grained, brown, with fine to medium, sub-rounded gravel.	D	-	0.2m, PID=1.0ppm
				D ES			-	[FILL] Silty SAND: fine to coarse grained, brown, with fine to coarse, sub-rounded gravel and angular cobbles.	D	-	0.5m, PID=1.0ppm
				D	0.60		SM	Silty SAND: fine to medium grained, grey, with fine to medium, sub-rounded gravel (residual).	D	MD	
				ES D	1.00 1.15		-	SHALE: grey, inferred low strength, highly weathered (bedrock).	-	-	1.0m, PID=1.1ppm
2								End of borehole at 1.15 metres. Refusal on Bedrock			
3											

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Job No.
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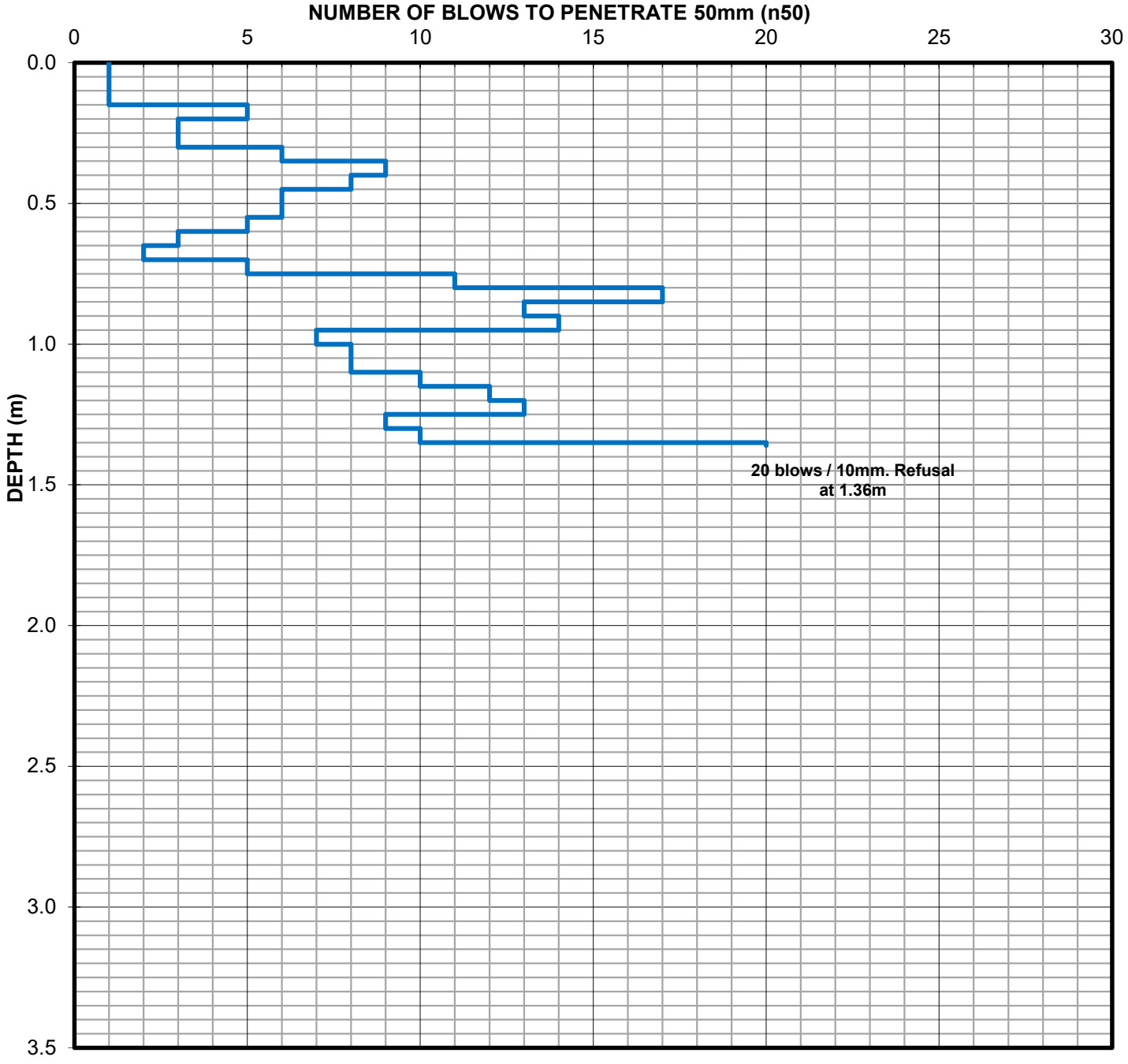
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: IWLR Corridor, Dulwich Hill, NSW

PROBE: A3-HA06

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	15/11/2019
Adjacent Test Hole / Pit: A3-HA06		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	18/11/2019



Comments:

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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 211251515-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A3-HA07

SHEET 1 OF 1

Position : 327864.10 E 6246965.50 N MGA94/ 56	**Surface RL:** 23.72m AHD	**Angle from Horiz. :** 90°	**Processed :** HAL
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 15/11/2019	**Date Completed :** 15/11/2019	**Logged by :** LM	**Date:** 16/01/2020

DRILLING					MATERIAL						Note: * indicates signatures on original issue of log or last revision of log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
1	Hand Auger	Nil	Groundwater Not Encountered	ES D ES D ES D	0.20 0.80 0.95 1.10 1.15		- - - SM -	[FILL] Sandy GRAVEL: fine to coarse, sub-angular to angular, brown and grey, fine to coarse grained sand, with ballast cobbles, trace rootlets. [FILL] Silty Sandy GRAVEL: fine to coarse, angular, brown and grey, fine to coarse grained sand, with ballast cobbles. [FILL] Cobbly Silty SAND: fine to coarse grained, brown, fine to coarse, angular cobbles, with fine to coarse, angular gravel. Silty SAND: fine to coarse grained, brown, with trace fine to medium, sub-angular gravel (residual). SHALE: grey, inferred low strength, highly weathered (bedrock). End of borehole at 1.15 metres. Refusal on Bedrock	D D D D -	- - - MD -	0.2m, PID=1.4ppm 0.5m, PID=1.9ppm 1.0m, PID=1.7ppm
2											
3											

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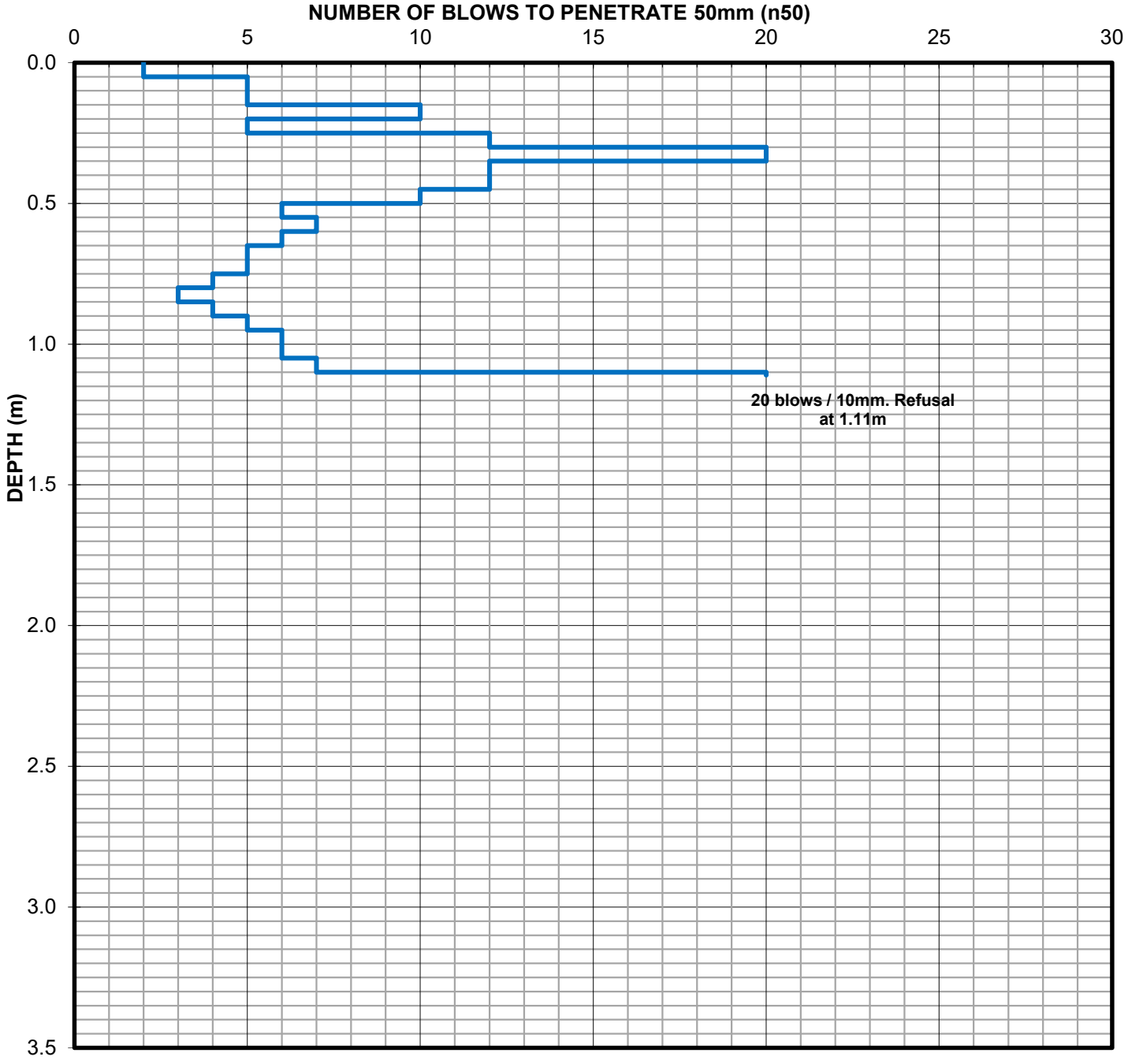
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: IWLR Corridor, Dulwich Hill, NSW

PROBE: A3-HA07

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	15/11/2019
Adjacent Test Hole / Pit: A3-HA07		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	18/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Johnson Park, Dulwich Hill, NSW

HOLE No. A3-LD01

SHEET 1 OF 1

Position : 327849.11 E 6247311.22 N MGA94/ 56	**Surface RL:** 22.41m AHD	**Angle from Horiz. :** 90°		**Processed :** SBO
Rig Type : XP60	**Mounting:** Ute	**Contractor :** Terratest	**Driller :** CD	**Checked :** MG
Date Started : 10/10/2019	**Date Completed :** 10/10/2019	**Logged by :** LM		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log Comments/ Observations
1	TC-bit auger	Nil	Groundwater Not Encountered	ES B ES D ES D	0.20 0.70 2.00		- - CH	[TOPSOIL] Silty SAND, fine grained, dark brown, with rootlets. [FILL] Silty SAND: fine to medium grained, brown, with fine, angular gravel. CLAY: high plasticity, red mottled pale grey, trace fine to coarse, sub-rounded ironstone gravel (residual).	M M w < PL	- - St VSt-H	0.2m, PID=6.0ppm 0.5m, PID=20.3ppm 1.0m, PID=8.4ppm 2.0m, PID=3.7ppm
2								End of borehole at 2.00 metres. Target Depth			
3											
4											
5											

See standard sheets for details of abbreviations & basis of descriptions

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21-12515105

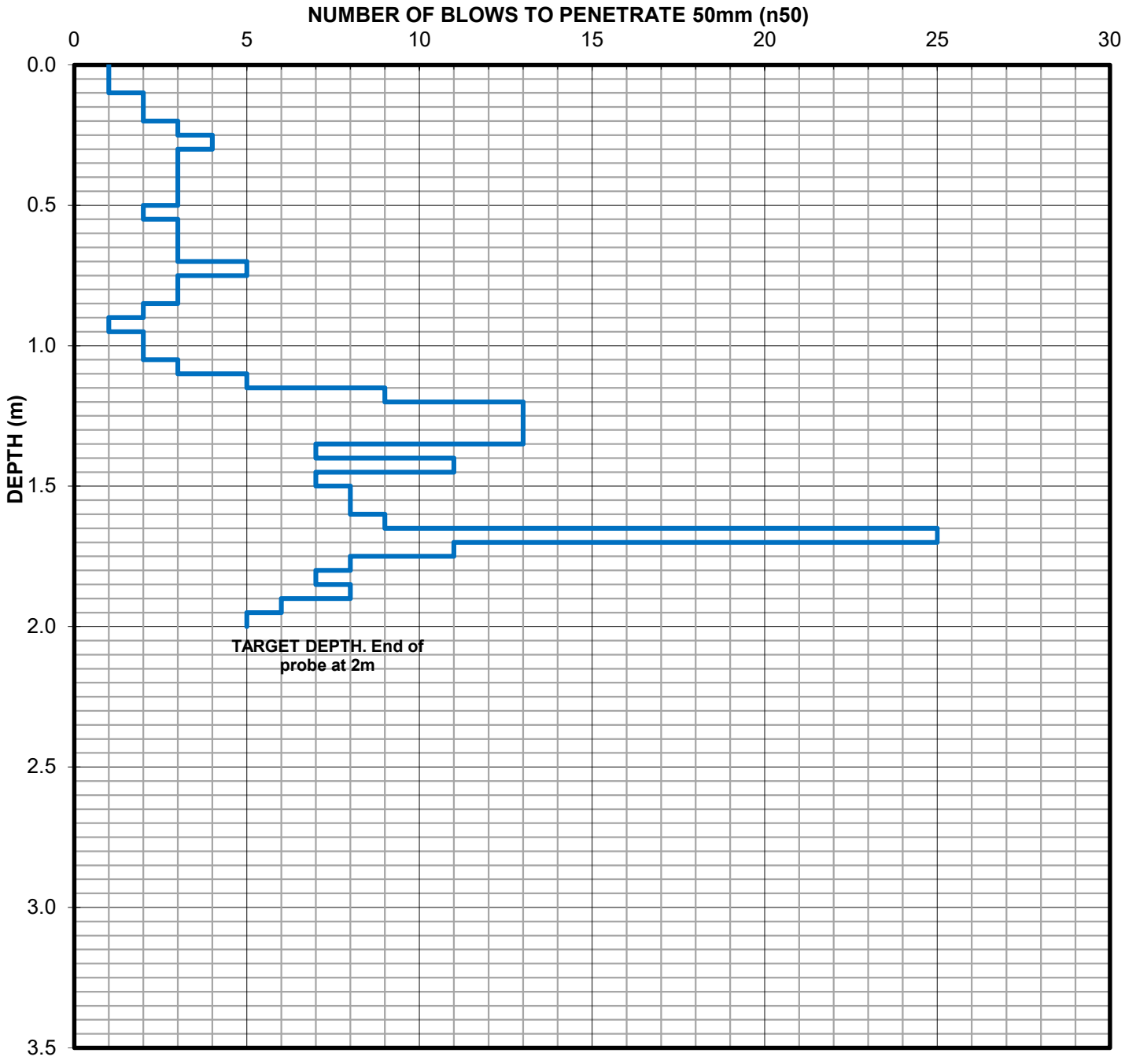
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Johnson Park, Dulwich Hill, NSW

PROBE: A3-LD01

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	9/10/19
Adjacent Test Hole / Pit: A3-LD01		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Johnson Park, Dulwich Hill, NSW

HOLE No. A3-LD02

SHEET 1 OF 2

Position : 327838.42 E 6247108.92 N MGA94/ 56	**Surface RL:** 24.05m AHD	**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 21/10/2019	**Date Completed :** 21/10/2019	**Logged by :** JS	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.10		-	CONCRETE FOOTPATH	-	-	
				ES			-	[FILL] Gravelly SAND: fine to coarse grained, dark grey and dark brown.	M	-	
					0.30		-	[FILL] Sandy CLAY: medium plasticity, dark brown, brown, pale grey, orange-brown mixed, fine to coarse grained sand, with fine to coarse, sub-angular to angular gravel.	w = PL	-	0.2m, PID=5.0ppm
				ES							0.5m, PID=8.7ppm
				SPT 3/2/2 N=4							
1				ES							1.0m, PID=7.4ppm
				SPT 4/11/6 N=17							
2				ES	2.50		CH	CLAY: high plasticity, red-brown mottled pale grey, with occasional bands of fine to coarse, sub-rounded ironstone gravel (residual).	w > PL	St	2.5m, PID=8.3ppm
	TC-bit auger	Nil	Groundwater Not Encountered	SPT 3/4/6 N=10 B							2.7m, PP=200-260kPa
3				ES				3.5m, pale grey mottled pale brown, red-brown ironstone layers.			3.5m, PID=9.8ppm
				SPT 5/6/7 N=11							3.7m, PP=160kPa
4					4.20		SC	Sandy CLAY / Clayey SAND: fine to coarse grained, pale grey mottled pale brown, medium plasticity clay, occasional red-brown, fine to medium, sub-rounded ironstone gravel (residual).	w = PL	VSt	
					4.70		-	SANDSTONE: fine to coarse grained, pale grey and pale brown, inferred low strength, highly weathered (bedrock).	-	-	
				SPT 3/10/7 N=17							
5											

Note: * indicates signatures on original issue of log or last revision of log

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Job No.
21-12515105

BOREHOLE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Johnson Park, Dulwich Hill, NSW

HOLE No. A3-LD02

SHEET 2 OF 2

Position : 327838.42 E 6247108.92 N MGA94/ 56	**Surface RL:** 24.05m AHD	**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 21/10/2019	**Date Completed :** 21/10/2019	**Logged by :** JS	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
	TC-bit auger	Nil					-	[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	-	-	
				SPT 15 for 60mm HB N=ref	5.56			End of borehole at 5.56 metres. Target Depth			

Note: * indicates signatures on original issue of log or last revision of log

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No. 21-12515105

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Davis Street, Dulwich Hill, NSW

HOLE No. A3-LDBH01

SHEET 1 OF 4

Position : 327981.39 E 6247478.61 N MGA94/ 56	**Surface RL:** 23.91m AHD	**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 18/10/2019	**Date Completed :** 18/10/2019	**Logged by :** JS	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
								[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects			Note: * indicates signatures on original issue of log or last revision of log
0	TC-bit auger	Nil	Groundwater Not Encountered	ES			-	[FILL] Silty SAND: fine to medium grained, dark brown and brown, trace fine to coarse, sub-angular gravel, trace rootlets.	M	-	0.2m, PID=2.7ppm
				ES							0.5m, PID=3.5ppm
				SPT 6/6/7 N=13							
1				ES							1.0m, PID=7.2ppm
					1.30		-	[FILL] CLAY: medium plasticity, pale grey. pale brown, red-brown mottled, trace fine to coarse grained sand, trace fine to coarse, sub-rounded to sub-angular ironstone and sandstone gravel, trace rootlets (reworked residual).	w = PL	-	1.5m, PP-100-200kPa
				SPT 2/3/5 N=8							
2				ES/DUP1				2.5m, with fine to coarse gravel sized fragments of ripped shale, remoulds to low plasticity clay.	w < PL		2.5m, PID=7.6ppm
				SPT 4/6/9 N=15							2.8m, PP test failed due to low moisture and high gravel content
3				ES							3.5m, PID=4.0ppm
				SPT 4/9/9 N=18							3.8m, PP test failed due to low moisture and high gravel content
4				B							
				ES							4.5m, PID=3.1ppm
				SPT 4/6/6 N=12							
5											

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 29/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Davis Street, Dulwich Hill, NSW

HOLE No. A3-LDBH01

SHEET 2 OF 4

Position : 327981.39 E 6247478.61 N MGA94/ 56 **Surface RL:** 23.91m AHD **Angle from Horiz. :** 90° **Processed :** SBO
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** DM **Checked :** MG
Date Started : 18/10/2019 **Date Completed :** 18/10/2019 **Logged by :** JS **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
6	TC-bit auger	Nil	Groundwater Not Encountered				-	[FILL] CLAY: as previous. 5.3-5.7m, sandstone boulder encountered.	w = PL	-	5.3m, sandstone boulder inferred as bedrock during drilling, therefore changed to NMLC coring. All water lost downhole and still in fill profile. Switched to washboring and continued SPT.
7	NMLC coring	HQ casing		D							6.7m, sampled the cored fill.
				SPT 4/6/10 N=16	7.30		CH	CLAY: high plasticity, pale grey mottled pale brown and red-brown, trace fine to coarse, sub-rounded ironstone gravel (residual).	w = PL	VSt	7.3m, PP=300kPa
8	Washboring			SPT 22/ 21 for 140mm N=ref	8.00		GC	Gravelly CLAY: high plasticity, pale grey mottled pale brown, fine to coarse, sub-rounded to rounded ironstone gravel (residual).	w = PL	VSt	8.0m, SPT refusal on ironstone gravel layers.
9				SPT 7/8/12 N=20	9.00		SC	Clayey SAND: fine to coarse grained, pale brown mottled pale grey, low plasticity clay (residual).	M	MD	
10											

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BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Davis Street, Dulwich Hill, NSW

HOLE No. A3-LDBH01

SHEET 3 OF 4

Position : 327981.39 E 6247478.61 N MGA94/ 56 **Surface RL:** 23.91m AHD **Angle from Horiz. :** 90° **Processed :** SBO
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** DM **Checked :** MG
Date Started : 18/10/2019 **Date Completed :** 18/10/2019 **Logged by :** JS **Date:** 16/01/2020

DRILLING					MATERIAL						Note: * indicates signatures on original issue of log or last revision of log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	Washboring	HQ casing					-	Clayey SAND: as previous.	M	MD	
				SPT 10/ 30 for 80mm (HB) N=ref	10.40		-	SANDSTONE: pale brown and grey, highly to moderately weathered (bedrock).	-	-	
					10.65			Start of coring at 10.65 metres. For cored interval, see Core Log Sheet.			
11											
12											
13											
14											
15											

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CORE LOG SHEET

HOLE No. A3-LDBH01

SHEET 4 OF 4

Client : Inner West Council					
Project : The GreenWay Geotechnical and Contamination Services					
Location : Davis Street, Dulwich Hill, NSW					
Position : 327981.39 E 6247478.61 N MGA94/ 56		**Surface RL:** 23.91m AHD		**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore		**Driller :** DM	**Checked :** MG
Casing Dia. : HQ	**Barrel (m) :** 3.0m	**Bit :** Diamond (stepfaced)		**Bit Condition :** New	**Date:** 16/01/2020
Date Started : 18/10/2019	**Date Completed :** 18/10/2019	**Logged by :** JS		**Date Logged :** 18/10/2019	Note: * indicates signatures on original issue of log or last revision of log

DRILLING						MATERIAL					NATURAL FRACTURES	
Progress										Estimated Strength $Is_{(50)}$ MPa ●- Axial ○- Diametral	Spacing (mm)	
SCALE (m)	Drilling & Casing	Water	Drill Depth (m)	(Core Loss / Run %)	SAMPLES & TESTS	Depth / (RL) metres	Graphic Log	Description ROCK NAME: grain size, colour, fabric and texture, inclusions or minor components, moisture, durability and [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin)	Weathering	Soil 0.03 VL 0.1 L 0.3 M 1 H 3 VH 10 EH	20 40 100 300 1000	Additional Data (joints, partings, seams, zones and veins) Fracture type, orientation, infilling or coating, shape, roughness, other.
						10.65		Start of coring at 10.65 metres. For Non Cored interval, see Borehole Log Sheet.				
	NMLC coring					10.90		CORE LOSS 250mm.				
11				(14)				SANDSTONE: fine to coarse grained, pale grey stained orange-brown on defects, indistinctly bedded at 0-5°.	SW			10.97m, Pt, 0°, Rf, Pln, Fe 11.15m, Pt, 2°, Rf, St, Fe 11.49m, Pt, 0°, Rf, Pln, Fe 11.55m, Pt, 0°, Rf, Pln, Fe 11.64m, WSm, 10mm
12			12.41			12.41		11.66m, pale grey, trace carbonaceous laminations.	Fr			12.34m, Pt, 2°, Rf, Pln, X
								End of Borehole at 12.41 metres. Target Depth				
13												
14												
15												

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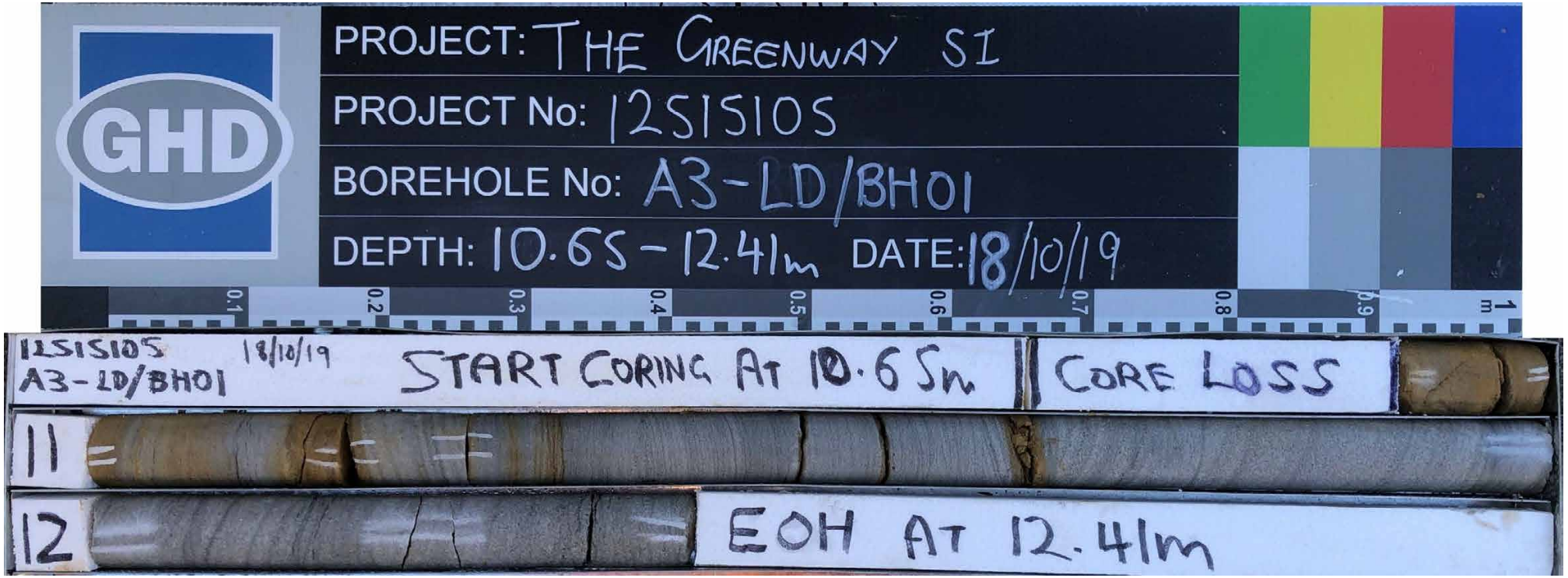

PointID : A3-LDBH01 Depth Range: 10.65 - 12.41 m

Inner West Council
The GreenWay Geotechnical and Contamination Services
Davis Street, Dulwich Hill NSW
Core Photographs

DRAWN	HW	DATE	2/12/2019
CHECKED	JS	DATE	2/12/2019
SCALE	Not To Scale		A4
PROJECT No	21-12515105	FIGURE No	A3-LDBH01 1/1

TEST PIT LOG SHEET

Client: Inner West Council

Project: The GreenWay Geotechnical and Contamination Services

Location: IWLR Corridor,Dulwich Hill, NSW

HOLE No. A3-TP01

SHEET 1 **OF** 1

Position: 328001.29 E 6247494.25 N MGA94/ 56	**Surface RL:** 18.72m AHD	**Processed:** SBO
Method of Exploration: Hand dug	**Hole Size:** 0.5m x 0.3m	**Checked:** MG
Date: 14/10/19	**Logged by:** JS	**Date:** 16/01/2020

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	**Material Description** [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log **Comments Observations**
	Groundwater Not Encountered		0.50		-	[TOPSOIL] Silty SAND: fine to coarse grained, dark brown, trace rootlets.	M	-	0.0m, Embankment densely vegetated.
1						End of test pit at 0.5 metres. Refusal due to dense vegetation.			
2									
3									

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Job No. 21-12515105

A3-TP01 - 1 Depth Range: 0.00 m

A3-TP01 - 2 Depth Range: 0.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services IWLR Corridor,Dulwich Hill NSW Test pit Photographs	DRAWN: H. Warr	DATE: 31/01/2020
		CHECKED: J. Scognamiglio	DATE: 31/01/2020
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A3-TP01 1/2

A3-TP01 - 3 Depth Range: 0.00 m

A3-TP01 - 4 Depth Range: 0.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services IWLR Corridor,Dulwich Hill NSW Test pit Photographs	DRAWN H. Warr	DATE 31/01/2020
		CHECKED J. Scognamiglio	DATE 31/01/2020
		SCALE Not To Scale	A4
		PROJECT No 21-12515105	FIGURE No A3-TP01 2/2

TEST PIT LOG SHEET

Client: Inner West Council

Project: The GreenWay Geotechnical and Contamination Services

Location: IWLR Corridor,Dulwich Hill, NSW

HOLE No. A3-TP02

SHEET 1 **OF** 1

Position: 327976.16 E 6247471.30 N MGA94/ 56	**Surface RL:** 20.16m AHD	**Processed:** SBO
Method of Exploration: Hand dug	**Hole Size:** 0.5m x 0.3m	**Checked:** MG
Date: 14/10/19	**Logged by:** JS	**Date:** 16/01/2020

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description	Moisture Condition	Consistency / Density Index	Comments Observations
	Groundwater Not Encountered	B	0.20		-	[TOPSOIL] Sandy SILT: dark brown and dark grey, fine to coarse grained sand, trace rootlets.	M	-	
			0.80		-	[FILL] Gravelly Sandy CLAY: low to medium plasticity, fine to coarse grained sand, fine to coarse, sub-angular to angular gravel, trace building refuse including brick.	w < PL	-	
1						End of test pit at 0.8 metres. Target Depth.			
2									
3									

Note: * indicates signatures on original issue of log or last revision of log

Material Description: [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects

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Job No. 21-12515105

A3-TP02 - 1 Depth Range: 0.00 m

A3-TP02 - 2 Depth Range: 0.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services IWLR Corridor,Dulwich Hill NSW Test pit Photographs	DRAWN H. Warr	DATE 31/01/2020
		CHECKED J. Scognamiglio	DATE 31/01/2020
		SCALE Not To Scale	A4
		PROJECT No 21-12515105	FIGURE No A3-TP02 1/1

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Hercules Street, Dulwich Hill, NSW

HOLE No. A4-BH01

SHEET 1 OF 1

Position : 327961.89 E 6246716.63 N MGA94/ 56	**Surface RL:** 25.00m AHD	**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 21/10/2019	**Date Completed :** 21/10/2019	**Logged by :** JS	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.05		-	CONCRETE FOOTPATH.	-	-	
				ES	0.15		-	[FILL] SAND: fine to coarse grained, pale grey and brown, with fine, sub-angular gravel.	M	-	
							-	[FILL] SAND: fine to coarse grained, dark brown, with low plasticity clay.	M	-	0.2m, PID=4.2ppm
				ES							0.5m, PID=3.7ppm
				SPT 2/2/2 N=4							
1				ES							1.0m, PID=5.1ppm
	TC-bit auger	Nil	Groundwater Not Encountered		1.30		CH	CLAY: high plasticity, pale brown and red-brown, with fine to coarse grained sand, trace layers of red, fine to medium, sub-rounded ironstone gravel (residual).	w = PL	St	
				SPT 6/6/6 N=12							
2				ES							2.2m, PID=6.0ppm
					2.30		-	SANDSTONE: pale grey and red-brown, inferred low strength, highly weathered (bedrock).	-	-	
				SPT 11/	2.73						
				30 for 80mm HB N=ref				End of borehole at 2.73 metres. Target Depth			
3											
4											
5											

Note: * indicates signatures on original issue of log or last revision of log

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BOREHOLE LOG SHEET

Client :	Inner West Council	**HOLE No. A4-BH02**	
Project :	The GreenWay Geotechnical and Contamination Services		**SHEET 1 OF 1**
Location :	Bushcare Area, Dulwich Hill, NSW		
Position :	328019.03 E 6246569.80 N MGA94/ 56	**Surface RL:** 17.91m AHD	**Angle from Horiz. :** 90°
Rig Type :	SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM
Date Started :	22/10/2019 **Date Completed :** 22/10/2019	**Logged by :** JS	

Processed : SBO | **Checked :** MG | **Date:** 16/01/2020

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.10		-	[FILL] Silty SAND: fine to coarse grained, dark brown, trace fine to coarse, sub-angular to angular gravel, trace rootlets.	M	-	
				ES			-	[FILL] Sandy CLAY: low plasticity, dark brown and dark grey, fine to coarse grained sand, trace fine to coarse, sub-angular to angular gravel.	w = PL	-	0.2m, PID=4.4ppm
				ES				0.3m, pale brown and brown.			0.5m, PID=5.2ppm
				SPT 3/2/3 N=5	0.90						
1	TC-bit auger	Nil	▽ 22/10/2019	D ES			SC	Sandy CLAY: medium plasticity, brown mottled pale brown, fine to medium grained sand (alluvium).	w = LL	S-F	0.9-1.55m, perched water table 1.0m, PID=5.6ppm
					1.55		SC	Clayey SAND: fine to coarse grained, pale grey mottled pale brown, low plasticity clay (residual).	M	MD	
				SPT 2/3/ 2 for	1.70		-	SANDSTONE: pale grey mottled pale brown, inferred low strength, moderately weathered (bedrock).	-	-	
				50mm N=ref	1.85			End of borehole at 1.85 metres. Target Depth			
2											
3											
4											
5											

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BOREHOLE LOG SHEET

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Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A4-BH03

SHEET 1 OF 1

Position : 328011.01 E 6246525.23 N MGA94/ 56	**Surface RL:** 17.57m AHD	**Angle from Horiz. :** 90°		**Processed :** SBO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log Comments/ Observations
1	TC-bit auger	Nil	▽ 22/10/19	ES ES SPT 8/4/3 N=7 ES			-	[FILL] Gravelly Silty SAND: fine to coarse grained, dark brown and dark grey, fine to coarse, sub-angular to angular gravel, with ballast cobbles.	M	-	0.2m, PID=2.8ppm 0.5m, PID=2.3ppm 1.0m, PID=1.6ppm
					1.50		-	[FILL] SAND: fine to coarse grained, dark brown and brown, trace fine to medium, sub-angular gravel.	M	-	
2				SPT 7/3/3 N=6 ES SPT 1/2/1 N=3							2.5m, PID=2.1ppm
3					3.00		SC	Sandy CLAY: medium plasticity, pale brown mottled red-brown, fine to coarse grained sand (alluvium).	w > PL	F	
				ES SPT 1/1/ 6 for 30mm (HB) N=ref	3.80		-	SANDSTONE: orange-brown, inferred low strength, highly weathered (bedrock).	-	-	3.5m, PID=2.9ppm
4					4.00			End of borehole at 4.00 metres. Target Depth			
5											

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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 211251105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A4-BH04

SHEET 1 OF 2

Position : 328020.28 E 6246484.55 N MGA94/ 56	**Surface RL:** 19.88m AHD	**Angle from Horiz. :** 90°		**Processed :** SBO
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM		**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
								[COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects			Note: * indicates signatures on original issue of log or last revision of log
0	TC-bit auger	Nil		ES			-	[FILL] Gravelly Silty SAND: fine to coarse grained, dark grey and dark brown, fine to coarse, sub-angular to angular gravel, with ballast cobbles.	M	-	
								0.3m, orange, with medium plasticity clay.			0.2m, PID=2.7ppm
				ES				0.5m, without clay.			0.5m, PID=8.3ppm
				SPT 5/10/23 N=33							
					1.00						
1							-	[FILL] Clayey GRAVEL: fine to coarse, sub-angular to angular, grey and dark grey, low plasticity clay, with fine to coarse grained sand, trace ballast cobbles.	M	-	
				ES							1.5m, PID=4.1ppm
				SPT 11/10/6 N=16							
2											
				SPT 2/18/23 N=41							
3											
				ES							3.5m, PID=4.4ppm
				SPT 3/4/5 N=9							
					4.00						
4			▽ 22/10/19				-	[FILL] Sandy CLAY: low plasticity, dark brown, brown and pale brown, fine to coarse grained sand.	w = PL	-	4.0-5.1m, perched water table
				ES							4.5m, PID=5.9ppm
				SPT 3/3/4 N=7							
					4.80		SC	Clayey SAND: fine to coarse grained, pale brown mottled pale grey, low plasticity clay (residual).	W	MD	
5											

See standard sheets for details of abbreviations & basis of descriptions

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CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
21-12515105

BOREHOLE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A4-BH04

SHEET 2 OF 2

Position : 328020.28 E 6246484.55 N MGA94/ 56	**Surface RL:** 19.88m AHD	**Angle from Horiz. :** 90°	**Processed :** SBO
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	TC-bit auger	Nil			5.10		SC	Clayey SAND: as previous.	W	MD	
					5.40		-	SANDSTONE: pale grey, low to medium strength, inferred moderately weathered (bedrock).	-	-	
								End of borehole at 5.40 metres. Target Depth			

Note: * indicates signatures on original issue of log or last revision of log

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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 211251515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A4-BH05

SHEET 1 OF 1

Position : 328006.58 E 6246455.22 N MGA94/ 56	**Surface RL:** 19.34m AHD	**Angle from Horiz. :** 90°		**Processed :** HAL
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log Comments/ Observations
0	TC-bit auger	Nil	Groundwater Not Encountered	ES			-	[FILL] Gravelly Silty SAND: fine to coarse grained, dark brown and dark grey, fine to coarse, sub-angular to angular gravel, with ballast cobbles.	M	-	
								0.3m, with medium plasticity clay, orange.			0.2m, PID=5.2ppm
				ES				0.5m, without clay.			0.5m, PID=4.7ppm
				SPT 5/23/20 N=43							
				ES	1.00						
1							-	[FILL] GRAVEL: fine to coarse, sub-angular to angular, grey and dark grey, with fine to coarse grained sand, with ballast cobbles.	D	-	1.0m, PID=3.6ppm
				SPT 23/26/22 N=48							
2											2.0-3.0m, very slow drilling progress - 30minutes to drill with TC-bit.
3					3.00			End of borehole at 3.00 metres. Refusal on highly compacted fill			
4											
5											

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BOREHOLE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A4-BH06

SHEET 1 OF 1

Position : 327984.32 E 6246424.18 N MGA94/ 56	**Surface RL:** 18.63m AHD	**Angle from Horiz. :** 90°		**Processed :** HAL
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
0	TC-bit auger	Nil	Groundwater Not Encountered	ES			-	[FILL] Gravelly Silty SAND: fine to coarse grained, dark brown and dark grey, fine to coarse, sub-angular to angular gravel, with cobble-sized ballast.	M	-	0.2m, PID=4.2ppm
				ES	0.50		-	[FILL] GRAVEL: fine to coarse, sub-angular to angular, grey and dark grey, with fine to coarse grained sand, with ballast cobbles.	D	-	0.5m, PID=3.8ppm 0.5m, SPT refusal on ballast 0.7-1.0m, very slow drilling progress - 30minutes to drill with TC-bit.
				SPT 10/ 30 for 100mm							
				HB N=ref							
1				ES	1.00			End of borehole at 1.00 metres. Refusal on highly compacted fill			
2											
3											
4											
5											

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Job No.
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BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A4-BH07

SHEET 1 OF 2

Position : 327937.64 E 6246389.22 N MGA94/ 56	**Surface RL:** 14.19m AHD	**Angle from Horiz. :** 90°		**Processed :** HAL
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM		**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description	Moisture Condition	Consistency / Density Index	Comments/ Observations
				ES			-	[FILL] Gravelly Silty SAND: fine to coarse grained, dark brown and dark grey, fine to coarse, sub-angular to angular gravel, trace rootlets.	M	-	0.2m, PID=2.9ppm
				ES							0.5m, PID=1.8ppm
				SPT 6/5/5 N=10							
1				ES	1.00		SC	Sandy CLAY: medium plasticity, pale brown mottled pale grey, fine to coarse grained sand (residual).	w > PL	St	1.0m, PID=2.8ppm
				SPT 4/6/6 N=12							1.5m, PP=300-350kPa
2	TC-bit auger	Nil	Groundwater Not Encountered								
				ES							2.5m, PID=3.6ppm
				SPT 1/6/6 N=12							
3					3.00		SC	Clayey SAND: fine to coarse grained, pale grey, low plasticity clay (residual).	M	MD	
				SPT 4/7/9 N=16							
4					4.50		SP	SAND: fine to coarse grained, pale grey, with low plasticity clay (residual).	M	MD	
				SPT 4/9/11 N=20							
5											

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BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A4-BH07

SHEET 2 OF 2

Position : 327937.64 E 6246389.22 N MGA94/ 56 **Surface RL:** 14.19m AHD **Angle from Horiz. :** 90° **Processed :** HAL
Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** DM **Checked :** MG
Date Started : 22/10/2019 **Date Completed :** 22/10/2019 **Logged by :** JS **Date:** 16/01/2020

DRILLING					MATERIAL						Note: * indicates signatures on original issue of log or last revision of log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
	TC-bit auger	Nil					SP	SAND: as previous.	M	MD	
					5.30		-	SANDSTONE: pale grey, inferred low strength, moderately to highly weathered (bedrock).	-	-	
					5.50			End of borehole at 5.50 metres. Target Depth			
6											
7											
8											
9											
10											

GEO_BOREHOLE_AS1726 2017 21125105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

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BOREHOLE LOG SHEET

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Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Ness Avenue, Dulwich Hill, NSW

HOLE No. A4-BH08

SHEET 1 OF 1

Position : 327806.10 E 6246218.85 N MGA94/ 56	**Surface RL:** 12.14m AHD	**Angle from Horiz. :** 90°		**Processed :** HAL
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
0	TC-bit auger	Nil	Groundwater Not Encountered	ES	0.01		-	ASPHALT PAVEMENT.	-	-	
							-	[FILL] Gravelly SAND: fine to coarse grained, dark grey, fine to coarse, sub-angular gravel, trace silt.	M	-	0.2m, PID=9.0ppm
				D	0.30		-	[FILL] Clayey SAND: fine to coarse grained, dark brown and pale brown, low plasticity clay, trace fine to medium,	M	-	0.3m, reworked residual.
				ES	0.45		SC	sub-angular gravel.	M	MD	0.4m, Hydrocarbon odour.
					0.60		-	Clayey SAND: fine to coarse grained, pale brown, low plasticity clay (residual).	-	-	0.5m, PID=8.2ppm
				D	0.80			SANDSTONE: pale brown and red-brown, moderately weathered (bedrock).			
								End of borehole at 0.80 metres. Refusal on bedrock			
1											
2											
3											
4											
5											

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Job No.
21-12515105

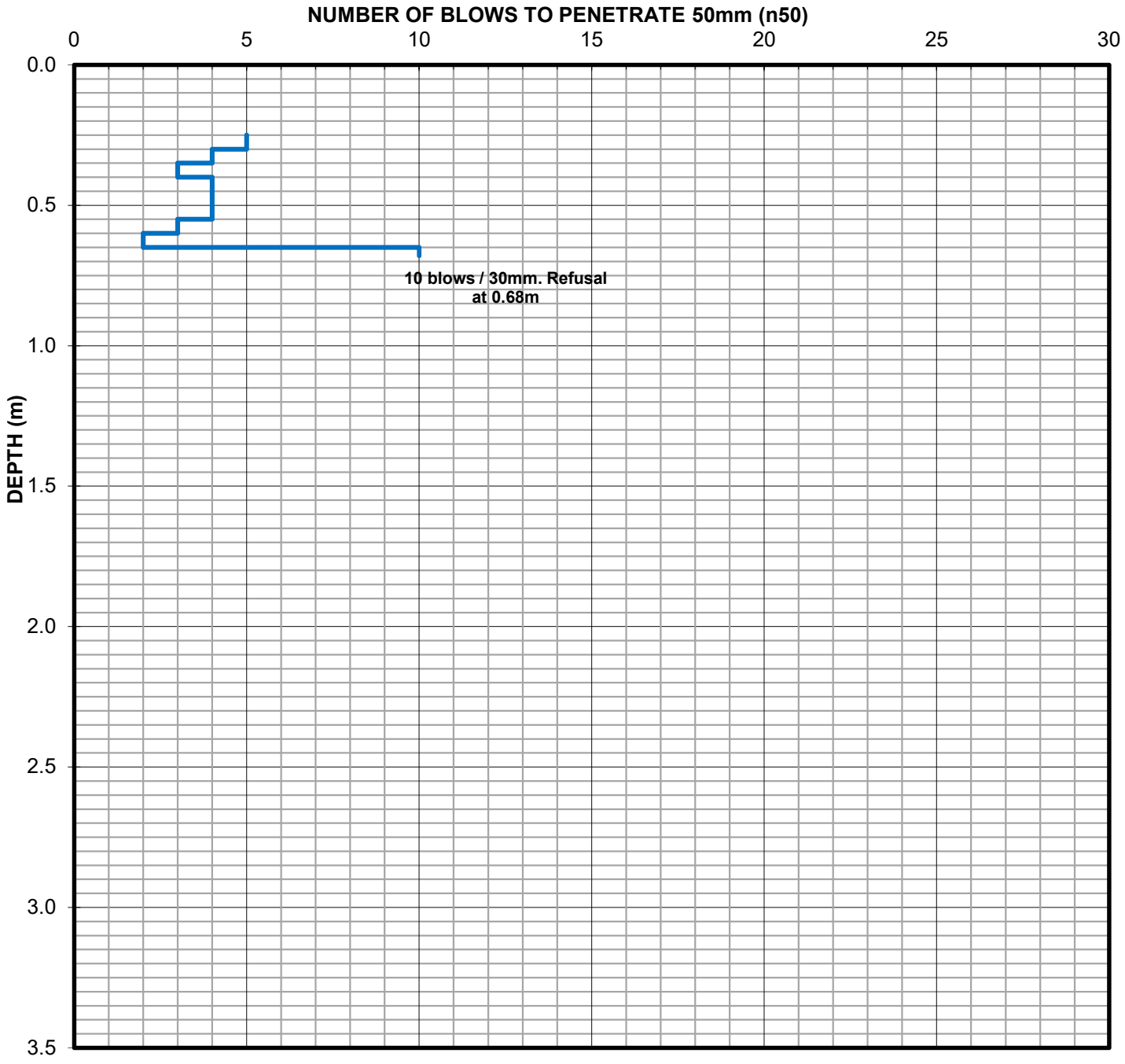
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Ness Avenue, Dulwich Hill, NSW

PROBE: A4-HAC06

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	JS
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	17/10/19
Adjacent Test Hole / Pit: A4-HAC06		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Bushcare Area, Dulwich Hill, NSW

HOLE No. A4-BH09

SHEET 1 OF 1

Position : 327984.37 E 6246710.26 N MGA94/ 56	**Surface RL:** 23.05m AHD	**Angle from Horiz. :** 90°	**Processed :** HAL
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
0	TC-bit auger	Nil	Groundwater Not Encountered	ES			-	[FILL] Gravelly SAND: fine to coarse grained, dark grey and brown, fine to coarse, sub-angular to angular gravel, trace rootlets.	M	-	0.2m, PID=1.8ppm
				ES/DUP1_22/10/19							0.5m, PID=1.4ppm
				SPT 3/3/4 N=7	0.60		SC	Sandy CLAY: medium plasticity, pale brown and orange brown, fine to coarse grained sand (residual).	w > PL	St	
1				ES				1.2m: pale grey mottled pale brown.			1.0m, PID=1.4ppm
				SPT 2/4/13 N=17	1.80		-	SANDSTONE: red-brown and pale grey, inferred low strength, highly weathered (bedrock).	-	-	1.7m, PP=360kPa
2				SPT 25 for 100mm N=ref	2.60			End of borehole at 2.60 metres. Target Depth			
3											
4											
5											

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BOREHOLE LOG SHEET

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Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Bushcare Area, Dulwich Hill, NSW

HOLE No. A4-BH10

SHEET 1 OF 1

Position : 327995.05 E 6246698.42 N MGA94/ 56	**Surface RL:** 22.86m AHD	**Angle from Horiz. :** 90°		**Processed :** HAL
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
0	TC-bit auger	Nil	▽ 22/10/19	ES			-	[FILL] Gravelly SAND: fine to coarse grained, brown and pale brown, fine to coarse, sub-angular to sub-rounded gravel, with ballast cobbles.	M	-	0.2m, PID=1.9ppm
				ES	0.50		-	[FILL] Clayey Gravelly SAND: fine to coarse grained, pale brown, fine to coarse, sub-angular gravel, low plasticity clay, trace ballast cobbles.	M	-	0.5m, PID=1.4ppm
				SPT 2/8/4 N=12							
1				ES							1.0m, PID=1.9ppm
				SPT 5/5/4 N=9					W		
2					2.10		-	SANDSTONE: fine to coarse grained, pale grey, inferred low to medium strength, moderately weathered (bedrock).	-	-	
				SPT 20 for 70mm HB N=ref	2.67			End of borehole at 2.67 metres. Target Depth			
3											
4											
5											

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Job No.
21-12515105

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 21125105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client :	Inner West Council	**HOLE No. A4-BH11**	
Project :	The GreenWay Geotechnical and Contamination Services		
Location :	Bushcare Area, Dulwich Hill, NSW	**SHEET 1 OF 1**	
Position :	328016.20 E 6246647.11 N MGA94/ 56	**Surface RL:** 20.80m AHD	**Angle from Horiz. :** 90°
Rig Type :	SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM
Date Started :	22/10/2019 **Date Completed :** 22/10/2019	**Logged by :** JS	

Processed : HAL | **Checked :** MG | **Date:** 16/01/2020

Note: * indicates signatures on original issue of log or last revision of log

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
0	TC-bit auger	Nil	Groundwater Not Encountered	ES			-	[FILL] Silty SAND: fine to coarse grained, dark brown, with fine to coarse, sub-angular to angular gravel.	M	-	0.2m, PID=2.7ppm
				ES	0.45		SC	Clayey SAND: fine to coarse grained, pale grey and pale brown, low plasticity clay (residual).	M	MD-D	0.5m, PID=2.0ppm
				SPT 4/4/ 20 for 70mm	0.90						
1				N=ref ES			-	SANDSTONE: pale grey and pale brown, inferred low strength, highly to moderately weathered (bedrock).	-	-	1.0m, PID=2.9ppm
				SPT 30 for 20mm N=ref	1.22			End of borehole at 1.22 metres. Target Depth			
2											
3											
4											
5											

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Job No. 21-12515105

BOREHOLE LOG SHEET

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Bushcare Area, Dulwich Hill, NSW

HOLE No. A4-BH12

SHEET 1 OF 1

Position : 328025.67 E 6246607.96 N MGA94/ 56	**Surface RL:** 18.98m AHD	**Angle from Horiz. :** 90°	**Processed :** HAL
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS	**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	TC-bit auger	Nil	Groundwater Not Encountered	ES ES SPT 2/2/6 N=8 ES			-	[FILL] Silty SAND: fine to coarse grained, dark brown, trace fine to coarse, sub-angular to angular gravel, trace rootlets.	M	-	0.2m, PID=3.4ppm 0.5m, PID=4.3ppm
				SPT 17 for 40mm HB N=ref	1.00 1.14		-	SANDSTONE: pale grey, inferred low to medium strength, moderately to slightly weathered (bedrock). End of borehole at 1.14 metres. Target Depth	-	-	
2											
3											
4											
5											

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Job No. 21-12515105

BOREHOLE LOG SHEET

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Bushcare Area, Dulwich Hill, NSW

HOLE No. A4-HAC01

SHEET 1 OF 1

Position : 328005.29 E 6246672.66 N MGA94/ 56	**Surface RL:** 21.68m AHD	**Angle from Horiz. :** 90°	**Processed :** HAL
Rig Type : SD05 **Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS	**Date:** 16/01/2020

DRILLING					MATERIAL						Note: * indicates signatures on original issue of log or last revision of log
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
				ES			-	[FILL] Silty SAND: fine to coarse grained, dark grey, with fine to coarse, sub-angular gravel, trace glass and brick.	M	-	
								0.2m, with ballast cobbles.			0.2m, PID=2.2ppm
				ES							0.5m, PID=2.4ppm 0.5m, SPT attempted but refused on ballast.
1				ES							1.0m, PID=2.3ppm
				SPT 3/2/7 N=9	1.35		SC	Sandy CLAY: low plasticity, pale grey mottled red-brown, fine to coarse grained sand (residual).	w > PL	St	
	TC-bit auger	Nil									
2			▽ 22/10/19	ES					W		2.0m, PID=2.6ppm
3				ES	3.00						
				SPT 30 for 30mm HB N=ref	3.10		-	SANDSTONE: pale grey and red-brown, inferred low to medium strength, moderately weathered.	-	-	3.0m, PID=2.2ppm
								End of borehole at 3.10 metres. Target Depth			

GEO_BOREHOLE_AS1726 2017 21125105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

See standard sheets for details of abbreviations & basis of descriptions

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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 21125105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : Bushcare Area, Dulwich Hill, NSW

HOLE No. A4-HAC02

SHEET 1 OF 1

Position : 328024.34 E 6246620.55 N MGA94/ 56	**Surface RL:** 19.72m AHD	**Angle from Horiz. :** 90°		**Processed :** HAL
Rig Type : SD05	**Mounting:** Ute	**Contractor :** Stratacore	**Driller :** DM	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JS		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	TC-bit auger	Nil	Groundwater Not Encountered	ES	0.30		-	[FILL] Silty SAND: fine to coarse grained, dark brown, trace fine to coarse, sub-angular to angular gravel, trace rootlets.	M	-	0.2m, PID=1.9ppm
				ES			-	[FILL] Clayey SAND: fine to coarse grained, dark brown, low plasticity, trace fine to coarse, sub-angular gravel.	M	-	0.5m, PID=2.3ppm
				SPT 2/2/2 N=4							
				ES							1.0m, PID=2.0ppm
					1.30		SC	Clayey SAND: fine to coarse grained, pale grey, low plasticity clay (residual).	M	MD	
				ES	1.50		-	SANDSTONE: pale grey and pale brown, inferred low strength, moderately weathered (bedrock).	-	-	1.5m, PID=2.4ppm
				SPT 30 for 100mm N=ref	1.60			End of borehole at 1.60 metres. Target Depth			
2											
3											

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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 211251515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A4-HAC03

SHEET 1 OF 1

Position : 328048.75 E 6246572.48 N MGA94/ 56 **Surface RL:** 21.54m AHD **Angle from Horiz. :** 90° **Processed :** HAL

Rig Type : Hand auger **Mounting:** NA **Contractor :** NA **Driller :** NA **Checked :** MG

Date Started : 22/10/2019 **Date Completed :** 22/10/2019 **Logged by :** JW **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	Hand Auger	Nil	Groundwater Not Encountered	ES	0.20		-	[FILL] GRAVEL: pale brown, with ballast cobbles, with fine to coarse grained sand.	D	-	0.0m, No odour, no staining.
				ES/QA13	0.60		-	[FILL] Gravelly SAND: medium to coarse grained, dark brown, with ballast and sandstone cobbles.	M	-	0.2m, PID=0.7ppm No odour, no staining. 0.5m, PID=1.0ppm
				ES			CH	CLAY: high plasticity, orange with brown and red mottles, trace gravel (residual).	w = PL	-	0.6m, No odour, no staining. 1.0m, PID=1.5ppm
				ES	1.50			End of borehole at 1.50 metres. Target Depth			1.5m, PID=1.7ppm
2											
3											

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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 211251515-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council
Project : The GreenWay Geotechnical and Contamination Services
Location : IWLR Corridor, Dulwich Hill, NSW

HOLE No. A4-HAC04

SHEET 1 OF 1

Position : 328046.37 E 6246546.94 N MGA94/ 56	**Surface RL:** 21.62m AHD	**Angle from Horiz. :** 90°		**Processed :** HAL
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JW		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	Hand Auger	Nil	Groundwater Not Encountered	ES	0.20		-	[FILL] Sandy GRAVEL: fine to coarse, sub-angular to angular, grey, medium to coarse grained sand, with ballast cobbles.	D	-	0.0m, No odour, no staining.
				ES	0.50		-	[FILL] GRAVEL: fine to coarse, sub-angular to angular, grey, with ballast cobbles, trace fine to coarse grained sand.	D	-	0.2m, PID=4.2ppm No odour, no staining.
				ES			CL	CLAY: low plasticity, mottled red and grey (residual).	w < PL	-	0.5m, PID=3.2ppm 0.8m, No odour, no staining. 1.0m, PID=1.8ppm
				ES	1.50			End of borehole at 1.50 metres. Target Depth			1.5m, PID=1.4ppm
2											
3											

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BOREHOLE LOG SHEET

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Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Hercules Street, Dulwich Hill, NSW

HOLE No. A4-HAC05

SHEET 1 OF 1

Position : 327911.84 E 6246375.37 N MGA94/ 56	**Surface RL:** 14.69m AHD	**Angle from Horiz. :** 90°		**Processed :** HAL
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JW		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Note: * indicates signatures on original issue of log or last revision of log Comments/ Observations
1	Hand Auger	Nil	Groundwater Not Encountered	ES ES ES	1.00		-	[FILL] SAND: fine grained, brown, with ballast cobbles, trace gravel and clay.	D	-	0.0m, No odour, no staining. 0.2m, PID=1.5ppm 0.5m, PID=1.1ppm
								End of borehole at 1.00 metres. Target Depth			1.0m, PID=1.7ppm
2											
3											

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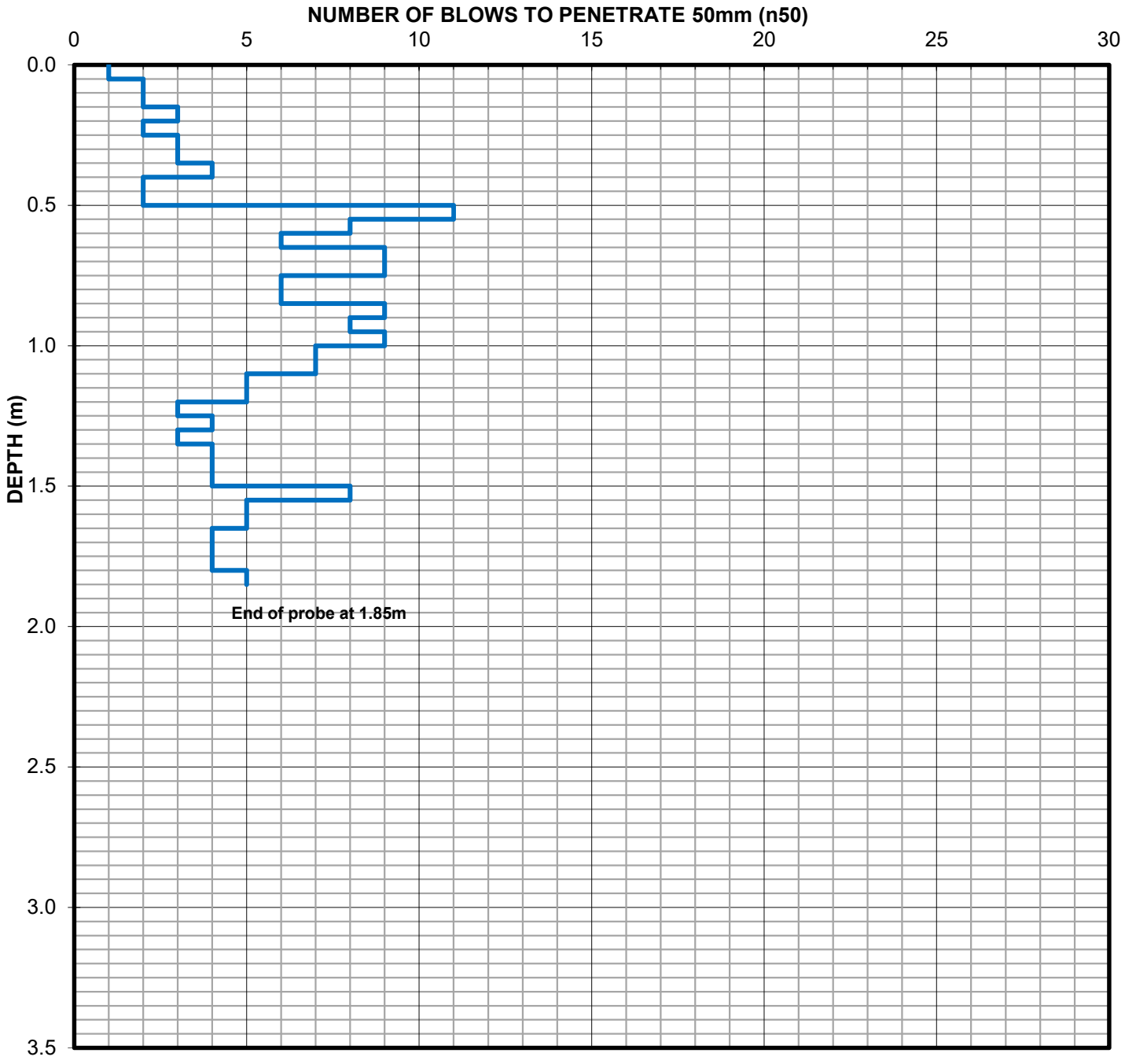
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Hercules Street, Dulwich Hill, NSW

PROBE: A4-HAC05

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	22/10/19
Adjacent Test Hole / Pit: A4-HAC05		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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Job No. **12515105**

BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 211251105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Hercules Street, Dulwich Hill, NSW

HOLE No. A4-HAC06

SHEET 1 OF 1

Position : 327878.58 E 6246363.07 N MGA94/ 56	**Surface RL:** 14.93m AHD	**Angle from Horiz. :** 90°		**Processed :** HAL
Rig Type : Hand auger	**Mounting:** NA	**Contractor :** NA	**Driller :** NA	**Checked :** MG
Date Started : 22/10/2019	**Date Completed :** 22/10/2019	**Logged by :** JW		**Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations Note: * indicates signatures on original issue of log or last revision of log
1	Hand Auger	Nil	Groundwater Not Encountered	ES ES/QA14/QA15 ES	0.60 1.00		- -	[FILL] SAND: fine grained, brown, with clay, trace gravel, trace rootlets. [FILL] Silty SAND: fine grained, brown. End of borehole at 1.00 metres. Target Depth	- -	- -	0.0m, No odour, no staining. 0.2m, PID=1.0ppm 0.5m, PID=2.2ppm 0.6m, No odour, no staining, brick fragments. 1.0m, PID=1.9ppm
2											
3											

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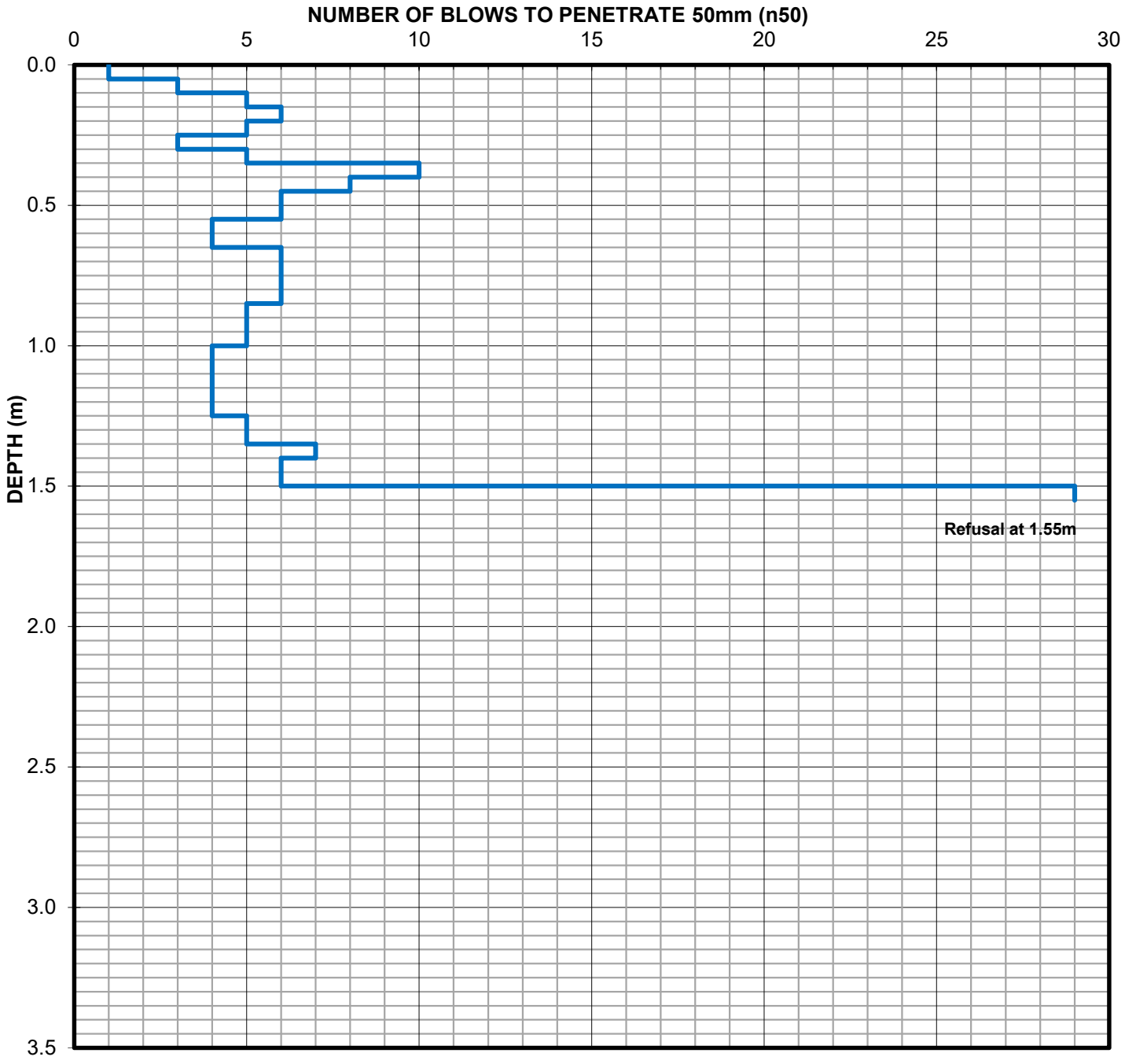
DYNAMIC CONE PENETROMETER LOG SHEET

Client: Inner West Council
Project: The GreenWay Geotechnical and Contamination Services
Location: Hercules Street, Dulwich Hill, NSW

PROBE: A4-HAC06

AS 1289.6.3.2-1997 (Cone Tip) 510 mm drop height.

Position: Refer to investigation log	**Chainage:** NA	**Operator:**	LM
Elevation: Refer to investigation log	**Offset:** N/A	**Date:**	22/10/19
Adjacent Test Hole / Pit: A4-HAC06		**Checked:**	JS
Position Relative to Test Hole / Pit: At investigation location		**Date:**	01/11/2019



Comments:

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BOREHOLE LOG SHEET

GEO_BOREHOLE_AS1726 2017 2112515105-THEGREENWAY.GPJ GHD_GEO_TEMPLATE 2.00.GDT 28/1/20

Client : Inner West Council

Project : The GreenWay Geotechnical and Contamination Services

Location : Terrace Road, Dulwich Hill, NSW

HOLE No. A4-LD01

SHEET 1 OF 1

Position : 327864.05 E 6246315.59 N MGA94/ 56 **Surface RL:** 13.75m AHD **Angle from Horiz. :** 90° **Processed :** HAL

Rig Type : SD05 **Mounting:** Ute **Contractor :** Stratacore **Driller :** DM **Checked :** MG

Date Started : 21/10/2019 **Date Completed :** 21/10/2019 **Logged by :** JS **Date:** 16/01/2020

DRILLING					MATERIAL						
SCALE (m)	Drilling Method	Hole Support \ Casing	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Description [COBBLES/BOULDERS/FILL/TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: grain size, colour, fabric / texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments/ Observations
					0.10		-	[TOPSOIL] Sandy SILT: dark grey and dark brown, fine to coarse grained sand, trace fine to medium, sub-angular gravel, trace rootlets.	M	-	
				ES/DUP1_22/10/19			-	[FILL] Silty SAND: fine to coarse grained, dark grey and dark brown, with fine to medium, sub-angular gravel, trace clay, trace glass, metal, concrete.	M	-	0.2m, PID=5.5ppm
				ES							0.5m, PID=4.9ppm
				SPT 8/6/3 N=9							
1				ES							1.0m, PID=3.1ppm
					1.50		-	[FILL] SAND: fine to coarse grained, pale brown and brown, trace silt, trace fine gravel.	M	-	
	TC-bit auger	Nil		SPT 1/1/1 N=3							
2				ES	2.00		SC	Clayey SAND: fine to coarse grained, pale brown and red-brown mottled, medium plasticity clay (residual).	M	MD	2.0m, PID=6.6ppm
			▽ 21/10/19	ES							3.0m, PID=7.0ppm
3				SPT 2/ 12 for 150mm HB N=ref	3.20		-	SANDSTONE: pale grey, moderately weathered, inferred low strength (bedrock).	-	-	
					3.30			End of borehole at 3.30 metres. Target Depth			
4											
5											

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TEST PIT LOG SHEET

Client: Inner West Council

Project: The GreenWay Geotechnical and Contamination Services

Location: Sydney Trains Corridor, Dulwich Hill, NSW

HOLE No. A4-TP01

SHEET 1 **OF** 1

Position: 327849.80 E 6246287.30 N MGA94/ 56	**Surface RL:** 13.62m AHD	**Processed:** HAL
Method of Exploration: 3t Excavator	**Hole Size:** 1.0m x 0.3m	**Checked:** MG
Date: 29/11/19	**Logged by:** LM	**Date:** 16/01/2020

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description	Moisture Condition	Consistency / Density Index	Comments Observations
						[COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: colour, plasticity / primary particle characteristics, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects			Note: * indicates signatures on original issue of log or last revision of log
		ES/QA50			-	[FILL] Silty SAND: fine to coarse grained, brown, with boulders and cobbles, trace fine to coarse, sub-angular gravel.	-	-	0.2m, PID=3.3ppm
			0.30						
		ES (ACM)			-	[FILL] Sandy GRAVEL: fine to coarse, sub-angular to sub-rounded, brown, grey and pale brown, fine to coarse grained sand, with sandstone cobbles and boulders, with clay.	-	-	0.3m, possible ACM
		ES							0.5m, PID=3.7ppm
1		ES							1.0m, PID=3.7ppm
		B							
	Groundwater Not Encountered								
			1.70						
					CI	CLAY: medium plasticity, yellow mottled orange, with fine to coarse grained sand (residual).	w > PL	(F)	1.7m, consistency inferred from tactile assessment.
2		B							2.0m, PID=4.2ppm
			2.70						
					SC	Sandy CLAY: medium plasticity, yellow mottled orange, fine to medium grained sand, trace fine to medium, rounded gravel (residual).	w > PL	(St)	
		B							
		ES	3.00						2.9m, hard digging.
3						End of test pit at 3 metres. Target Depth.			3.0m, PID=5.0ppm

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Job No. **21-12515105**

A4-TP01 - 1 Depth Range: 0.00 m

A4-TP01 - 2 Depth Range: 0.00 m

Inner West Council The GreenWay Geotechnical and Contamination Services Sydney Trains Corridor, Dulwich Hill NSW Test pit Photographs	DRAWN H. Warr	DATE 31/01/2020	
	CHECKED J. Scognamiglio	DATE 31/01/2020	
	SCALE Not To Scale		A4
	PROJECT No 21-12515105	FIGURE No A4-TP01 1/3	

A4-TP01 - 3 Depth Range: 0.00 m

A4-TP01 - 4 Depth Range: 0.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services Sydney Trains Corridor, Dulwich Hill NSW Test pit Photographs	DRAWN H. Warr	DATE 31/01/2020
		CHECKED J. Scognamiglio	DATE 31/01/2020
		SCALE Not To Scale	A4
		PROJECT No 21-12515105	FIGURE No A4-TP01 2/3

A4-TP01 - 5 Depth Range: 0.00 m

GHD	Inner West Council The GreenWay Geotechnical and Contamination Services Sydney Trains Corridor, Dulwich Hill NSW Test pit Photographs	DRAWN: H. Warr	DATE: 31/01/2020
		CHECKED: J. Scognamiglio	DATE: 31/01/2020
		SCALE: Not To Scale	A4
		PROJECT No: 21-12515105	FIGURE No: A4-TP01 3/3

TEST PIT LOG SHEET

Client: Inner West Council

Project: The GreenWay Geotechnical and Contamination Services

Location: Sydney Trains Corridor, Dulwich Hill, NSW

HOLE No. A4-TP02

SHEET 1 **OF** 1

Position: 327850.50 E 6246290.00 N MGA94/ 56	**Surface RL:** 13.99m AHD	**Processed:** HAL
Method of Exploration: 3t Excavator	**Hole Size:** 1.0m x 0.3m	**Checked:** MG
Date: 29/11/19	**Logged by:** LM	**Date:** 16/01/2020

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description	Moisture Condition	Consistency / Density Index	Comments Observations
		ES			-	[FILL] Silty SAND: fine to coarse grained, brown, with sandstone cobbles and boulders, trace fine to coarse, sub-angular gravel, trace glass and brick.	M	-	0.2m, PID=2.7ppm
		B ES							0.5m, PID=3.1ppm
	Groundwater Not Encountered		0.70		-	[FILL] Sandy GRAVEL: fine to coarse, sub-angular to sub-rounded, brown, grey and pale brown, fine to coarse grained sand, with sandstone cobbles and boulders, with clay.	-	-	0.8m, voids between boulders
1		ES							1.0m, PID=2.8ppm
		B	1.40						
						End of test pit at 1.4 metres. Target Depth.			
2									
3									

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A4-TP02 - 1 Depth Range: 0.00 m

A4-TP02 - 2 Depth Range: 0.00 m

	Inner West Council The GreenWay Geotechnical and Contamination Services Sydney Trains Corridor, Dulwich Hill NSW Test pit Photographs	DRAWN H. Warr	DATE 31/01/2020
		CHECKED J. Scognamiglio	DATE 31/01/2020
		SCALE Not To Scale	A4
		PROJECT No 21-12515105	FIGURE No A4-TP02 1/2

A4-TP02 - 3 Depth Range: 0.00 m

	Inner West Council The GreenWay Geotechnical and Contamination Services Sydney Trains Corridor, Dulwich Hill NSW Test pit Photographs	DRAWN H. Warr	DATE 31/01/2020
		CHECKED J. Scognamiglio	DATE 31/01/2020
		SCALE Not To Scale	A4
		PROJECT No 21-12515105	FIGURE No A4-TP02 2/2