coffey environments

Engineering Log - Borehole

Borehole No.	**CBH10**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AD**
Date started:	**26.7.2012**
Date completed:	**26.7.2012**
Logged by:	**JG**
Checked by:	**ML**

Client: **INSW**

Principal:

Project: **SICEEP, Darling Harbour, Sydney NSW**

Borehole Location: **SICEEP Darling Harbour, Sydney NSW**

drill model and mounting: B80 MOBILE DRILL TRACK Easting: slope: -90° R.L. Surface:

hole diameter: 120 mm Northing bearing: datum:

drilling information							material substance						
method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
									BRICK:	M			Brick pavement.
						0.5			**GRAVELLY SAND:** Medium to coarse grained, brown pale grey, fine to medium grained gravel (cemented material).				
				E+2.4 ppm					**GRAVELLY SANDY CLAY:** Low plasticity, dark grey / dark brow, with orange brown mottling, trace of cobbles.				
						1.0							
				E+2.3 ppm					**CLAYEY SAND:** Medium to coarse grained, grey pale grey with orange brown mottling, trace of fine to coarse gravel.				
						1.5							
				E+7.4 ppm					**SANDY CLAY:** Low plasticity, dark grey, medium grained sand, trace of fine to medium grained gravel.				
						2.0							
				E+7.3 ppm					**CLAY:**Low plasticity, motted grey pale, orange brown, dark grey, trace of fine grained sand.				Dup 5, Dup 5A
						2.5							
				E+4.8 ppm					**SANDY CLAY:** Fine to medium grained, pale yellow / pale brow.				
						3.0							
				E+6.3 ppm					**CLAY:** High plasticity, mottled grey / pale grey, orange brown, trace of fine gravels.				
				E+ 6.1 ppm		3.5		CH	**CLAY:**High plasticity, dark grey.	Wp			ASS1
				E+ 5.3 ppm		4.0			**SANDY CLAY:** Fine to medium grained, dark grey, trace of shell fragments.				ASS2
									Borehole CBH10 terminated at 4m				
						4.5							
						5.0							

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown
water inflow
water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

BOREHOLE GEOTLCOV24303AD.GPJ COFFEY.GDT 15.8.12

Form GEO 5.3 Issue 3 Rev.2

coffey environments

Engineering Log - Borehole

Borehole No.	**CBH11**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AD**
Date started:	**25.7.2012**
Date completed:	**25.7.2012**
Logged by:	**PD**
Checked by:	**ML**

Client: **INSW**

Principal:

Project: **SICEEP, Darling Harbour, Sydney NSW**

Borehole Location: **SICEEP Darling Harbour, Sydney NSW**

drill model and mounting: B80 MOBILE DRILL TRACK Easting: slope: -90° R.L. Surface:

hole diameter: 120 mm Northing bearing: datum:

drilling information							material substance						
method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
ADV									**BRICK:**				
									SAND: medium grained, yellow brown.				
									ROADBASE: **FILL:** Gravelly sandy clay, low plasticity, dark grey, gravel, some orange clay brick fragments.	D	F		FILL. No odour or staining.
ADT				E+-4.2ppm					**CONCRETE:**				
						1			**FILL:** Gravelly sand, fine grained, dark grey gravel with grey rock pieces.				
				E+7.1ppm					**GRAVELLY SAND:** Medium grained, yellow-brown gravel, some red-brown fragments.		S		
				E+-9.2ppm					**GRAVELLY CLAY**: Low plasticity gravel, some grey-brown rock pieces.		F		
				E+-10.9ppm		2			Increasing clay content, medium plasticity, gravel with some stone pieces, yellow-brown.				
				E+11.7ppm									
				E+11.8ppm		3			**CLAY:** Medium high plasticity, dark grey with organic sediment.	M			
				E+12.1ppm									ASS1
				E+11.4ppm		4			Increase sand content, white shell fragments.	W			Dup6, Ass2
									Borehole CBH11 terminated at 4m				
						5							
						6							

BOREHOLE GEOTLCOV24303AD.GPJ COFFEY.GDT 15.8.12

Form GEO 5.3 Issue 3 Rev.2

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 no resistance ranging to refusal

water

10/1/98 water level on date shown
water inflow
water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey environments

Environmental Log - Borehole

Borehole No.	**BH118**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Date started:	**12.12.2012**
Date completed:	**12.12.2012**
Logged by:	**PD**
Checked by:	**ML**

Client: ***Infrastructure NSW***

Principal:

Project: ***SICEEP***

Borehole Location: ***Darling Harbour, NSW***

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
SS				E+2.0ppm					**ASPHALT**				
				E, A+1.5ppm					**FILL:** Gravelly SAND: Fine grained, dark grey brown. Gravel is fine crushed concrete and orange brick fragments	D	F		No odour or staining
				E, QC21, QC21A+1.6ppm		1			Some crushed concrete and metal pieces				
SPT				E+1.6ppm					**FILL:** Clayey SAND: Fine grained, brown	D	F		No odour or staining
				E, A+1.8ppm		2							
				E+2.0ppm									
			▼	E+1.5ppm		3			**ALLUVIUM:** SAND: Fine to medium grained, dark grey, organic	M	F		Organic matter odour, no staining
				E+1.6ppm						W			
				E+1.8ppm		4			Large white shell pieces				
				E+5.7ppm					Minor white shell fragments and sandstone pieces				
						5			Borehole BH118 terminated at 4.5m				
						6							

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

Form GEO 5.3 Issue 3 Rev.2

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 — no resistance ranging to refusal

water

▼ 10/1/98 water level on date shown

► water inflow

◄ water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey environments

Environmental Log - Borehole

Borehole No.	**BH119**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Client:	***Infrastructure NSW***
Date started:	**12.12.2012**
Principal:	
Date completed:	**12.12.2012**
Project:	***SICEEP***
Logged by:	**PD**
Borehole Location:	***Darling Harbour, NSW***
Checked by:	**ML**

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
HA									**CONCRETE**				
				E, A+1.1ppm					**SAND:** Medium grained, yellow to brown.	D	S		No odour or staining.
									FILL: Gravelly Clayey SAND: Fine grained, dark grey. Gravel fine to meidum, grey rock pieces.	D	F		No odour or staining.
				E					Asbestos fibrous sheet (approx 6mm)				
				E, QC20+1.3ppm		0.5			**FILL:** Gravelly CLAY: Low plasticity, orange to grey. Gravel fine, orange ironstone fragments.	D	F		No odour or staining.
									Gravelly Sandy CLAY: Low plasticity, dark grey. Gravel fine to medium, dark grey rock pieces.	D	H		No odour or staining.
				E+1.1ppm					**Clayey SAND:** Highly weathered sandstone, fine grained, orange to brown.	D	H		No odour or staining.
SPT						1.0							
				E, A+1.1ppm		1.5			**Sandy CLAY:** Low plasticity, yellow to brown.	D	H		No odour or staining.
				E+1.2ppm		2.0							
				E+1.3ppm					**Silty CLAY:** Organic, medium to high plasticity, dark grey. 1mm darker grey seams of potentiently organic matter.	D	H		No odour or staining.
						2.5							
				E+1.4ppm		3.0							
									Borehole BH119 terminated at 3m				
						3.5							
						4.0							

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

Form GEO 5.3 Issue 3 Rev.2

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown
water inflow
water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey environments

Environmental Log - Piezometer

Borehole No. **BH120/MW120**

Sheet 1 of 1

Office Job No.: **GEOTLCOV24303AF**

Client: ***Infrastructure NSW***

Date started: ***18.12.2012***

Principal:

Date completed: ***18.12.2012***

Project: ***SICEEP***

Logged by: ***PD***

Borehole Location: ***Darling Harbour, NSW***

Checked by: ***ML***

drill model & mounting: Komatsu 05 Track | Easting: 333679.383 | slope: -90° | R.L. Surface: 2.710

hole diameter: 115 | Northing: 6249893.26 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
SS				E, A+2.3ppm						**ASPHALT**			
										FILL: Silty GRAVEL: Fine to medium grained, grey	D	F	No odour or staining
				E+0.9ppm		2				**FILL:** Gravelly SAND: Fine to medium grained, cream, crushed sandstone	D	F	No odour or staining
				E+5.6ppm			1			Sandstone becoming more brown in colour, orange brick fragments		H	
				E, A+10ppm		1				Material turns grey and becomes slightly clayey			
				E+6.6ppm			2						
			▼	E+7.3ppm		0				**ALLUVIUM:** Clayey SAND: Fine grained, yellow brown	W	F	No odour or staining
				E, QC34+6.8ppm			3			**Clayey SAND:** Alluvial, fine grained, dark grey	W	F	No odour or staining
				E+5.5ppm		-1							organic matter odour, no staining
				E+5.9ppm			4			Abundant white shells			
										Borehole terminated at 4m			
						-2	5						
						-3	6						

PIEZOMETER GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

Form GEO 5.10 Issue 3 Rev.0

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex

*bit shown by suffix e.g. ADT

support

C casing N nil

penetration

1 2 3 4 no resistance ranging to refusal

water

▼ 10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey environments

Environmental Log - Borehole

Borehole No.	**BH121**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Client:	***Infrastructure NSW***
Date started:	***18.12.2012***
Principal:	
Date completed:	***18.12.2012***
Project:	***SICEEP***
Logged by:	***PD***
Borehole Location:	***Darling Harbour, NSW***
Checked by:	***ML***

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
SST				E+7.3ppm		0.5			**ASPHALT** **FILL:** Silty GRAVEL: Medium grained, brown. Gravel is fine to medium grey igneous rock pieces	D	F		No odour or staining
				E, A+9.3ppm					**FILL:** Gravelly Clayey SAND: Medium grained, dark grey. Gravel is fine to medium dark grey and orange brown rock fragments with some crushed orange brick fragments Concrete Slab Borehole BH121 terminated at 0.6m				
						1.0							
						1.5							
						2.0							

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

Form GEO 5.3 Issue 3 Rev.2

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown
water inflow
water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey environments

Environmental Log - Borehole

Borehole No.	**BH121A**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Date started:	**18.12.2012**
Date completed:	**18.12.2012**
Logged by:	**PD**
Checked by:	**ML**

Client: ***Infrastructure NSW***

Principal:

Project: ***SICEEP***

Borehole Location: ***Darling Harbour, NSW***

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
SST				E+3.1ppm					**ASPHALT**				
									FILL: Gravelly Clayey SAND: Fine to medium grained, dark grey. Gravel is fine to medium grained, Dark grey rock pieces	D	F		No odour or staining
				E+9.0ppm		0.5			**FILL:** Gravelly SAND: Fine grained, brown. Gravel is fine to medium grey brown rock pieces with some crushed red brick fragments	D	F		No odour or staining
				E, A+12ppm		1.0			**FILL:** Gravelly Sandy CLAY: Low plasticity, dark grey. Gravel is fine grey rock pieces and crushed concrete and orange brick fragments with some rusted metal pieces	D	F		No odour or staining
				E, QC35, QC35A+11.3ppm		1.5			White ceramic piece and more metal pieces and red/orange brick pieces				
				E+8.0ppm		2.0			More white ceramic/porcelain pieces				
			▼	E, A+8.0ppm		2.5			**ALLUVIUM:** Clayey SAND: Fine grained, yellow brown	M	F		No odour or staining
				E+4.6ppm		3.0			**Sandy CLAY:** Medium plasticity, dark grey	M	F		No odour or staining
				E+5.2ppm		3.5			Some white shells	W			
									Borehole BH121A terminated at 3.5m				
						4.0							

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

Form GEO 5.3 Issue 3 Rev.2

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 — no resistance ranging to refusal

water

▼ 10/1/98 water level on date shown

► water inflow

◄ water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey environments

Environmental Log - Borehole

Borehole No.	**BH122**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Client:	***Infrastructure NSW***
Date started:	***13.12.2012***
Principal:	
Date completed:	***13.12.2012***
Project:	***SICEEP***
Logged by:	***PD***
Borehole Location:	***Darling Harbour, NSW***
Checked by:	***ML***

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information							material substance						
method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetro-meter kPa 100 200 300 400	structure and additional observations
HA				E, EC22+12.9ppm		0.0			**MULCH, SAWDUST AND TOPSOIL**	D	L		No odour or staining
									FILL: Gravelly SAND: Fine grained, brown. Gravel is very fine brown and dark grey rock pieces	D	S		No odour or staining
SS				E, A+19.9ppm		0.5			Crushed grey sandstone noted		H		
				E+19.8ppm		1.0			Ssandstone and dark grey igneous rocks and concrete noted				
SPT						1.5							
SS				E+19.9ppm					Occassional orange crushed brick fragments				
									Borehole BH122 terminated at 1.7m				
						2.0							
						2.5							
						3.0							
						3.5							
						4.0							

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown
water inflow
water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description
based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

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coffey environments

Environmental Log - Borehole

Borehole No.	**BH122A**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Date started:	**13.12.2012**
Date completed:	**13.12.2012**
Logged by:	**PD**
Checked by:	**ML**

Client: ***Infrastructure NSW***

Principal:

Project: ***SICEEP***

Borehole Location: ***Darling Harbour, NSW***

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information							material substance						
method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
HA				E, A+2.3ppm					**MULCH, SAWDUST AND TOPSOIL**	D	L		No odour or staining
SS/T									**FILL:** Gravelly SAND: Fine grained, grey brown. Gravel is very fine brown and dark grey rock fragments	D	H		No odour or staining
				E+1.5ppm					Sandstone and ballast and orange brick pieces and fragments				
				E+1.6ppm		1							
				E, A+1.6ppm									
						2			Some ironstone pieces				
SPT				E, QC25, QC25A+1.4ppm									
									ALLUVIUM: Sandy CLAY: Low plasticity, orange grey	D	F		No odour or staining
				E+2.0ppm									
						3							
				E, A+1.5ppm									
				E+1.9ppm					**SAND:** Alluvial, fine to medium grained, dark grey	D	H		No odour or staining
				E+2.5ppm		4							Slight organic matter odour, no staining
									Borehole BH122A terminated at 4m				
						5							
						6							

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown
water inflow
water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

Form GEO 5.3 Issue 3 Rev.2

coffey environments

Environmental Log - Borehole

Borehole No.	**BH123**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Client:	***Infrastructure NSW***
Date started:	**13.12.2012**
Principal:	
Date completed:	**13.12.2012**
Project:	***SICEEP***
Logged by:	**PD**
Borehole Location:	***Darling Harbour, NSW***
Checked by:	**ML**

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
HA									**MULCH, WOODCHIP AND TOPSOIL**	D	L		No odour or staining
SS/T				E, A+19.2ppm					**FILL:** Gravelly Clayey SAND: Fine grained, brown. Gravel is very fine brown and dark grey rock fragments	D	H		No odour or staining
						0.5			Some white crushed concrete				
				E+20.1ppm									
						1.0			Some very fine crushed orange brick fragments				
				E+29.0ppm									
						1.5							
				E, A+41.7ppm									
						2.0			Borehole BH123 terminated at 1.7m				

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support: M mud, N nil, C casing

penetration: 1 2 3 4 — no resistance ranging to refusal

water: 10/1/98 water level on date shown; water inflow; water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

Form GEO 5.3 Issue 3 Rev.2

coffey environments

Environmental Log - Borehole

Borehole No.	**BH123A**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Client:	**Infrastructure NSW**
Date started:	**13.12.2012**
Principal:	
Date completed:	**13.12.2012**
Project:	**SICEEP**
Logged by:	**PD**
Borehole Location:	**Darling Harbour, NSW**
Checked by:	**ML**

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
HA				E+1.3ppm					**MULCH, WOODCHIPS AND TOPSOIL**	D	L		No odour or staining
SST				E, QC23, QC23A+1.4ppm		1			**FILL:** Gravelly Clayey SAND: Fine grained, brown. Gravel is very fine brown and dark grey rock fragments	D	H		No odour or staining
				E, A+1.4ppm									
				E, A+1.5ppm		2							
SPT				E+1.9ppm					**ALLUVIUM:** CLAY: Low plasticity, grey mottled orange red, some fine black seams/layering within the clay	D	F		No odour or staining
				E+1.7ppm		3							
SS				E, A+1.5ppm							H		
				E, QC24+2.1ppm					**Clayey SAND:** Fine grained, dark brown	D	F		No odour or staining
				E+1.9ppm		4			Sand becomes medium grained, grey brown	M			No odour or staining
				E+2.1ppm					Remnants of vegetation		H		Slight orangic matter odour, no staining
						5			Borehole BH123A terminated at 4.5m				
						6							

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

Form GEO 5.3 Issue 3 Rev.2

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 no resistance ranging to refusal

water

10/1/98 water level on date shown
water inflow
water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey environments

Environmental Log - Piezometer

Borehole No. **BH124/MW124**

Sheet 1 of 1

Office Job No.: **GEOTLCOV24303AF**

Client: ***Infrastructure NSW***

Date started: ***14.12.2012***

Principal:

Date completed: ***14.12.2012***

Project: ***SICEEP***

Logged by: ***PD***

Borehole Location: ***Darling Harbour, NSW***

Checked by: ***ML***

drill model & mounting: Komatsu 05 Track | Easting: 333566.149 | slope: -90° | R.L. Surface: 4.465

hole diameter: 115 | Northing: 6249900.057 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
HA				E, A+31.7ppm		4	1			**MULCH, SAWDUST AND TOPSOIL**	D	H	No odour or staining
SST				E+86.1ppm						**FILL:** Gravelly Clayey SAND: Fine grained, brown. Gravel is fine crushed sandstone and orange brick fragments and some rootlet pieces			
				E+42.3ppm									
SST	SPT			E+43.4ppm		3				Fine to medium sized orange brick pieces and some glass shards			
				E+41.3ppm			2			**FILL:** CLAY: Low plasticity, grey, orange mottled yellow	D	H	No odour or staining
SPT				E+40.4ppm		2							
				E, A+117ppm			3			Some crushed grey sandstone			Slight HC odour and sligh black staining in the crushed sandstone
				E+45.5ppm		1				Some red ironstone, darker grey seams/layers of clay within the clay			Moderate HC odour, no staining
				E+107ppm			4			**SAND:** Fine grained, dark grey. Reworked natural?	D	H	Moderate HC odour and slight black staining Very slight HC odour. no staining
				E+25.8ppm		0				Some wood/vegetation within sand. Alluvial matter?			Very slight HC odour, no staining
				E, A+45.7ppm			5			**ALLUVIUM:** Sandy CLAY: Low plasticity, dark brown slightly mottled orange grey	D	H	Moderate HC odour
										Back into grey sand	D	H	Very slight HC odour, no staining
				E, QC27, QC27A+4.6ppm		-1				**SANDSTONE:** Highly weathered, medium grained, pale grey	D	VH	No odour or staining
				E, A+4.9ppm			6			Borehole terminated at 5.6m			
						-2	7						
						-3	8						

PIEZOMETER GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

Form GEO 5.10 Issue 3 Rev.0

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex

*bit shown by suffix e.g. ADT

support: C casing; N nil

penetration: 1 2 3 4 — no resistance ranging to refusal

water: 10/1/98 water level on date shown; water inflow; water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey environments

Environmental Log - Borehole

Borehole No.	**BH125**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Date started:	**11.12.2012**
Date completed:	**11.12.2012**
Logged by:	**PD**
Checked by:	**ML**

Client: ***Infrastructure NSW***

Principal:

Project: ***SICEEP***

Borehole Location: ***Darling Harbour, NSW***

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information							material substance						
method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
DT									**CONCRETE**				
SS				E+6.2ppm					**FILL:** Gravelly Sandy CLAY: Low plasticity, dark brown. Gravel is fine unidentified brown and grey rock pieces and some pieces of concrete and orange brick fragments	D	H		No odour or staining
				E+25.6ppm		0.5							
				E+25.1ppm		1.0			No concrete brick fragments				
									Very hard surface, potentially concrete Borehole BH125 terminated at 1.1m				
						1.5							
						2.0							

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

Form GEO 5.3 Issue 3 Rev.2

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration 1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown
water inflow
water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey environments

Environmental Log - Borehole

Borehole No.	**BH125A**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Date started:	**17.12.2012**
Date completed:	**17.12.2012**
Logged by:	**PD**
Checked by:	**ML**

Client: ***Infrastructure NSW***

Principal:

Project: ***SICEEP***

Borehole Location: ***Darling Harbour, NSW***

drill model and mounting: Mobile B80 Truck | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
SS				E+3.2ppm					**ASPHALT**				
									FILL: Gravelly SILT: Dark grey. Gravel is fine grey rock fragments	D	H		No odour or staining
				E, A+1.2ppm					**FILL:** Gravelly SAND: Medium grained, yellow brown. Gravel is fine to medium crushed sandstone	D	H		No odour or staining
						1			**ASPHALT**				
									Gravelly SAND: Fine grained, dark grey. Gravel is very fine to fine dark grey and brown rock fragments and asphalt pieces	D	H		No odour or staining
				E+1.6ppm					**CONCRETE**	D	H		No odour or staining
				E+1.9ppm					**FILL:** Gravelly Sandy CLAY: Low plasticity, yellow brown. Gravel is medium crushed red bricks and yellow brown sandstone and grey rock pieces				
SPT									**IRONSTONE:** Fine grained, red	D	F		No odour or staining
						2			**CLAY:** Low to medium plasticity, grey mottled red orange				
				E, A+2ppm					**FILL:** SAND: Fine grained, yellow brown	M	F		No odour or staining
				E+2.0ppm									
			▼			3			Becoming more grey	W	F		No odour or staining
				E, QC31, QC31A+2.1ppm									
				E+2.3ppm					**ALLUVIUM:** Sandy CLAY: Alluvial, medium plasticity, dark grey, white shell fragments	W	F		No odour or staining
				E+2.3ppm		4			Decomposed vegetation/rootlets	W	F		Strong organic matter odour, no staining
									Borehole BH125A terminated at 4m				
						5							
						6							

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

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method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 — no resistance ranging to refusal

water

▼ 10/1/98 water level on date shown
► water inflow
◄ water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey environments

Environmental Log - Borehole

Borehole No.	**BH126**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Date started:	**12.12.2012**
Date completed:	**12.12.2012**
Logged by:	**PD**
Checked by:	**ML**

Client: ***Infrastructure NSW***

Principal:

Project: ***SICEEP***

Borehole Location: ***Darling Harbour, NSW***

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information							material substance						
method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetro-meter kPa 100 200 300 400	structure and additional observations
DT									**CONCRETE**				
SS/T				E, QC19, QC19A+11.5ppm		0.5			**FILL:** Sandy GRAVEL: Fine grained, dark grey to black. Gravel is dark grey and pale grey sandstone and igneous rock pieces. Potential ash noted	D	H		No odour or staining
				E, A+10ppm									
				E+20.5ppm		1.0			**FILL:** Sandy CLAY: Low plasticity, yellow brown	D	H		No odour or staining
				E+14.1ppm		1.5			Material becomes more brown to dark grey, piece of orange brick				
				E, A+17.2ppm		2.0			**FILL:** CLAY: Medium to high plasticity, grey mottled yellow	D	H		No odour or staining
SPT				E+19.3ppm		2.5			**ALLUVIUM:** Sandy CLAY: Organic, medium plasticity, dark grey	D	H		Slight organic matter odour, no staining
				E+12.1ppm		3.0			Very sandy				
									Borehole BH126 terminated at 3m				
						3.5							
						4.0							

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown
water inflow
water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description
based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

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coffey environments

Environmental Log - Borehole

Borehole No.	**BH127**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Client:	***Infrastructure NSW***
Date started:	***10.12.2012***
Principal:	
Date completed:	***10.12.2012***
Project:	***SICEEP***
Logged by:	***PD***
Borehole Location:	***Darling Harbour, NSW***
Checked by:	***ML***

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
DT									**CONCRETE**				
SS				E+6.5ppm					**SAND:** Fine grained, yellow brown	D	S		No odour or staining
				E, A+8.2ppm					**FILL:** Gravelly Clayey SAND: Fine grained, dark grey. Gravel is fine, dark grey ballast	D	H		No odour or staining
				E+9.3ppm					**FILL:** Gravelly SAND: Fine grained, dark grey. Gravel is fine dark grey and orange brick fragments	D	H		No odour or staining
				E+3.5ppm		1							
				E, A+4.6ppm					Old metal bolt and orange brick pieces within fill				
				E+5.4ppm		2			**Sandy CLAY:** Low to medium plasticity, grey	D	F		No odour or staining
				E+6.0ppm					Clay becomes more pale grey and slightly mottled orange red				
				E+6.3ppm						D	F		No odour or staining
				E+4.4ppm					**CLAY:** Low to medium plasticity, grey slightly mottled red	D	F		Slight organic matter odour, no staining
			▼			3			**SAND:** Fine grained, yellow brown	M	F		
				E, QC17, QC17A+5.7ppm					**Sandy CLAY:** Low to medium plasticity, dark grey, minor white shell fragments and orange brown sandstone fragments	W	F		Organic matter odour, no staining
				E+4ppm		4							
									Borehole BH127 terminated at 4m				
						5							
						6							

BOREHOLE GEOTLCOV24303AF.GPJ COFFEY.GDT 16.1.13

Form GEO 5.3 Issue 3 Rev.2

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 no resistance ranging to refusal

water

▼ 10/1/98 water level on date shown
► water inflow
◄ water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey environments

Environmental Log - Borehole

Borehole No.	**BH128**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Date started:	**17.12.2012**
Date completed:	**17.12.2012**
Logged by:	**PD**
Checked by:	**ML**

Client: ***Infrastructure NSW***

Principal:

Project: ***SICEEP***

Borehole Location: ***Darling Harbour, NSW***

drill model and mounting: Mobile B80 Truck | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information							material substance						
method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
DT									**CONCRETE**				
SS				E, A+2.9ppm		0.5			**FILL:** Gravelly Clayey SAND: Fine grained, brown. Gravel is fine to coarse grained, grey and brown and cream rock pieces with orange brick fragments and crushed concrete	D	H		No odour or staining
				E+3.4ppm		1.0							
				E+2.9ppm		1.5							
				E, A+2.8ppm		2.0			Material becoming more clayey				No odour, some black staining
SPT				E+2.8ppm									
				E+2.6ppm					**FILL:** SAND: Fine grained, dark grey	M	F		No odour or staining
			▼	E, QC30+2.6ppm		2.5			**IRONSTONE:** Highly weathered, medium grained, red	D	F		No odour or staining
									ALLUVIUM: Sandy Silty CLAY: Medium plasticity, dark grey	M	F		Slight organic odour, no staining
				E+2.5ppm		3.0							
				E+2.4ppm		3.5			Some white shells present				
									Borehole BH128 terminated at 3.5m				
						4.0							

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method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support

M mud N nil
C casing

penetration

1 2 3 4 — no resistance ranging to refusal

water

▼ 10/1/98 water level on date shown

► water inflow

◄ water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
V	vane shear (kPa)
P	pressuremeter
Bs	bulk sample
E	environmental sample
R	refusal

classification symbols and soil description

based on unified classification system

moisture

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VL	very loose
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coffey environments

Environmental Log - Borehole

Borehole No.	**BH129**
Sheet	1 of 1
Office Job No.:	**GEOTLCOV24303AF**
Client:	***Infrastructure NSW***
Date started:	***10.12.2012***
Principal:	
Date completed:	***10.12.2012***
Project:	***SICEEP***
Logged by:	***PD***
Borehole Location:	***Darling Harbour, NSW***
Checked by:	***ML***

drill model and mounting: Komatsu 05 Track | Easting: | slope: -90° | R.L. Surface:

hole diameter: 100 mm | Northing | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetrometer kPa 100 200 300 400	structure and additional observations
DT									**CONCRETE:** Grey, pebbly on sides				
HA				E, A+4.1ppm					**Sandy GRAVEL:** Fine grained, dark grey to black	D	F		No odour or staining
SS				E +8.2ppm					**FILL:** Sandy Clayey GRAVEL: Fine to medium grained, dark grey	D	H		No odour or staining
DT				E+23.7ppm					**CONCRETE SLAB**				
SPT				E, A+20.6ppm		1			**FILL:** Sandy Clayey GRAVEL: Gravel orange crushed sandstone	D	H		No odour or staining
				E+31.6ppm					Crushed glass and orange brick pieces and fragments				No odour or staining
				E, QC18+86.7ppm		2			Brick fragments present, no glass noted. Some black ash type material and cream crushed sandstone fragments		F		No odour or staining
				E, A+33.4ppm									
				E+51.7ppm		3			Material becoming more sandy clay. Very less gravel				No odour or staining
				E+53.9ppm					Piece of buried wood reminants and glass shards and white shell fragments with crushed cream sandstone				No odour or staining
				E+53.3ppm		4			Same fill material, white shell fragments (possibly reworked natural material)				No odour or staining
				E+54.1ppm					Very minor white shell fragments, some wood/ vegetation piece				
				45.2ppm		5			**ALLUVIUM:** CLAY: Medium plasticity, dark grey, very minor dark grey damp wood piece and white shell fragments. Clay turns orange mottled	M			No odour or staining
				E+35.3ppm						D			No odour or staining
						6			Borehole BH129 terminated at 5.5m				

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
HA	hand auger
DT	diatube
B	blank bit
V	V bit
T	TC bit

*bit shown by suffix e.g. ADT

support: M mud, C casing, N nil

penetration: 1 2 3 4 — no resistance ranging to refusal

water: 10/1/98 water level on date shown; water inflow; water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
U_{63}	undisturbed sample 63mm diameter
D	disturbed sample
N	standard penetration test (SPT)
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