Appendix G

Results of Field Work

CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 68 AHD

EASTING: NORTHING:

DIP/AZIMUTH: 90°/-- SHEET

BORE No: 101 PROJECT No: 72138 DATE: 20/12/2010 SHEET 1 OF 2

ſ			Description	Degree of Weathering	<u>.</u> 2	Rock Strength		Fracture	Discontinuities		Samp	ling &	In Situ Testing
ā		Depth (m)	of Strata		Graph	Ex Low Very Low Low Medium High	Water	Spacing (m)	B - Bedding J - Joint S - Shear F - Fault	Tvne	ore	RQD %	Test Results &
-	8		CONCRETE - 180mm	E S S & E E	Ø · ∠		面	0.05	G-Great F-Fault	+	- 0,	2 4	Comments
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		FILLING - poorly compacted, grey gravel filling CONCRETE - 350mm FILLING - poorly compacted, yellow brown, sandstone cobbles and boulders filling							A/E			
	-2		CONCRETE - 300mm FILLING - poorly compacted, grey gravel filling		\bigotimes_{A}				Note: Unless otherwise stated, rock is fractured along rough planar bedding planes dipping between 0°- 10°				
. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	3		SANDSTONE - high strength, moderately then highly weathered, fractured to slightly fractured, light grey and red-purple, medium to coarse grained sandstone							С	96	84	PL(A) = 1.6
- 49	-4								4m; J85°, pl, ro, fe	С	100	100	
ŧ		4.2 4.36	LAMINITE - high then medium] [4.18m: CORE LOSS: 20mm	С	100	77	PL(A) = 0.6
ŀ			strength, moderately weathered, slightly fractured, dark grey laminite						4.2m: J80°, pl, ro, fe 4.34m: CORE LOSS:	С	100	92	
63	-5	4.82	SANDSTONE - high strength, fresh and fresh stained then slightly weathered, slightly fractured and unbroken, medium to coarse grained sandstone with distinct						20mm 4.75m: Cz, 20mm 5.23m: Cs, 10mm	С	100	94	PL(A) = 1.2
62	-6		laminations							С	100	100	
61	-7									С	100	100	PL(A) = 1.1
09	-8												PL(A) = 2
59	9									С	100	97	PL(A) = 1.6
F F										-			PL(A) = 1
E F				5						С	100	100	
					<u>:::1</u>								

RIG: Multi-drill DRILLER: Traccess LOGGED: PGH CASING: NW to 2.0m

TYPE OF BORING: Diatube 0.00-0.18m & 0.3-0.60m; Solid flight auger (TC-bit) 0.18-0.30 & 0.60-2.0m; NMLC-Coring 2.0-2.3m & 2.8-12.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Difficulty recovering samples in filling due to collapsing ground conditions

	SAME	LIN	3 & IN SITU TESTING		
Α	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
В	Bulk sample	Р	Piston sample) Point load axial test Is(50) (MPa)
BLK	Block sample	U,	Tube sample (x mm dia.)	PL(D) Point load diametral test (s(50) (MPa)
l C	Core drilling	W	Water sample`	pp `	Pocket penetrometer (kPa)
D	Disturbed sample	\triangleright	Water seep	S	Standard penetration test
E	Environmental sample	¥	Water level	V	Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 68 AHD

EASTING: NORTHING:

DATE: 20/12/2010 DIP/AZIMUTH: 90°/--SHEET 2 OF 2

BORE No: 101

PROJECT No: 72138

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		Depth	Description	W	Jeg ∕ea	ree the	ot ring	Graphic		St:	coc en	ж gth	,	70	Fr	actu pacii	ire	Discontinu	ities				In Situ Testing
	립	(m)	of					ab	ا ق	31	151	15	Ex High	Vate	S	(m)	ng	B - Bedding J	Joint	Туре	<u>е</u> %	RQD %	Test Results
	8		Strata	ΕW	Ž Š	ΝS	ε π	9	E	§ (§	Sed	를			0.05	0.10	6.5 8.8	S - Shear F -	Fault	Ţ	ပို့ မွ	RG %	& Comments
		-	SANDSTONE - high strength, fresh and fresh stained then slightly weathered, slightly fractured and unbroken, medium to coarse grained sandstone with distinct laminations (continued)		1										1					С		100	PL(A) = 2.5
		12 12.0																		С	100	100	PL(A) = 2
F	-		Bore discontinued at 12.0m	1					1		1			T	T								
		13									·												
F	F			1	 	1			1	{	1	 				1							
-3	-1	14		1		ļ			İ	ij	į į	ij		Įį.	ij	į	j						
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53	1	5																					
52	- 1€	6																					
51	· 17	7							1			1		1									
50	18													 									
49	19																						

RIG: Multi-drill **DRILLER:** Traccess LOGGED: PGH CASING: NW to 2.0m

TYPE OF BORING: Diatube 0.00-0.18m & 0.3-0.60m; Solid flight auger (TC-bit) 0.18-0.30 & 0.60-2.0m; NMLC-Coring 2.0-2.3m & 2.8-12.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Difficulty recovering samples in filling due to collapsing ground conditions

Environmental sample

LEGEND
PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
p Pocket penetrometer (kPa)
Standard penetration test
V Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72.2 AHD

EASTING: NORTHING:

DIP/AZIMUTH: 90°/--

PROJECT No: 72138 DATE: 9/12/2010 SHEET 1 OF 2

BORE No: 102

Degree of Weathering Rock Fracture Description Discontinuities Sampling & In Situ Testing Strength Depth Spacing R of Core Rec. % RQD % Test Results (m) (m) B - Bedding J - Joint Strata S - Shear F - Fault 86 SW HW Comments ASPHALT - 50mm thick E/A -2 Note: Unless otherwise FILLING (ROADBASE) - grey blue stated, rock is fractured metal gravel filling 0.46 along rough planar E/A CLAY - red brown clay with bedding planes dipping 0.66 \ironstone bands between 0°- 10° SANDSTONE - extremely low E/A strength, extremely weathered, 1m: CORE LOSS: sandstone with high strength 360mm 1.36 ironstone bands SANDSTONE - extremely low and low strength with medium to high PL(A) = 0.8strength ironstone bands, extremely and highly weathered, 82 77 fractured, red brown and light grey, medium grained sandstone PL(A) = 0.61 1 1 2.77m: J50°, pl, ro 3.0 SANDSTONE - medium to high . 65 strength, moderately weathered, fractured and slightly fractured, 3.07m: Cz, 20mm PL(A) = 0.7light grey, fine to medium grained 100 88 sandstone - distinct and indistinct laminations 3.7m: Cs, 10mm from 3.7 to 4.6m SANDSTONE - high strength, slightly and moderately weathered, slightly fractured, light grey and PL(A) = 1.8light orange, medium grained sandstone 5 PL(A) = 1.3100 100 6 -ස SANDSTONE - medium to high 6.22m: Cs, 10mm strength, moderately weathered. 6.36m: Cz, pl, ro, cly slightly fractured, orange brown, PL(A) = 0.5medium grained sandstone SANDSTONE - high strength, slightly weathered then fresh, -8 slightly fractured, light orange then 7.13m; Cs. 10mm grey, medium grained sandstone 7.4-7.5m: distinct laminations PL(A) = 1.1. 8 С 100 100 PL(A) = 1.69 PL(A) = 1.6

RIG: Bobcat

DRILLER: SS

LOGGED: PGH

CASING: HW to 13.05m

9.78m: J70°, pl, ro, cln

TYPE OF BORING: Solid flight auger (TC-bit) to 0.90m; NMLC-Coring to 13.05m

WATER OBSERVATIONS: No free groundwater observed whilst augering REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C C core drilling
D Disturbed sample
E Environmental sample

SAMPLING & IN SITU TESTING
G Gas sample
U Tube sample (x mm dia.)
W Water sample
W Water seep
E Environmental sample

PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
pp Pocket penetrometer (kPa)
S standard penetration test
V Shear vane (kPa)



CLIENT: Stamford Property Services Ptv Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72.2 AHD

EASTING: NORTHING:

DIP/AZIMUTH: 90°/--

DATE: 9/12/2010 SHEET 2 OF 2

PROJECT No: 72138

BORE No: 102

Degree of Weathering Rock Strength Description Fracture Discontinuities Sampling & In Situ Testing Depth Spacing 교 of Core Rec. % RQD % Test Results (m) B - Bedding J - Joint (m) Strata S - Shear F - Fault 80 8.6 SW HW Comments SANDSTONE - high strength, 62 slightly weathered then fresh, slightly fractured, light orange then grey, medium grained sandstone PL(A) = 1.3(continued) PL(A) = 1.711.36m: Cs, 10mm С 100 98 12 -8 12.45-13.05m: distinct laminations ¹³13.05 Bore discontinued at 13.05m -69 . 80 15 16 17 18 19 11

RIG: Bobcat DRILLER: SS LOGGED: PGH CASING: HW to 13.05m

TYPE OF BORING: Solid flight auger (TC-bit) to 0.90m; NMLC-Coring to 13.05m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

Environmental sample

A Auger sample B Bulk sample BLK Block sample Core drilling Disturbed sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample
Piston sample
Piston sample
U, Tube sample (x mm dia.)
Water sample
Water seep
P Water level
P S Standard penetration test
V Shear vane (kPa)



Stamford Property Services Pty Ltd CLIENT:

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72.3 AHD

EASTING: PROJECT No: 72138 **NORTHING: DATE:** 14/12/2010

BORE No: 103

DIP/AZIMUTH: 90°/--SHEET 1 OF 2

		Description	L C	Deg /eat	ree d	of na S	<u> </u>	R Str	ocl	ith		Fracture		Discontinuities	s			In Situ Testing
꿉	Depth (m)	of Strata	2 :	≥ ≥	ree d	Jan Jan	Log	Ex Low Very Low Low	edium	High High	Water	Spacing (m) 5 89 89		B - Bedding J - Joint S - Shear F - Fault	Type	Core	RQD %	Test Results & Comments
	0.05	\ASPHALT - 50mm		I S	1 1	T.	$\langle \rangle$	ביצוש ו	21	- 1 	-				A/E			Comments
72	0.4 - 0.4 	FILLING (ROADBASE) - grey blue metal gravel filling SANDSTONE - extremely low strength, extremely weathered, orange and grey sandstone					× : : : : : : : : : : : : : : : : : : :							Note: Unless otherwise stated, rock is fractured along rough planar bedding planes dipping between 0*- 10*	A/E			
12									İ					between 0 - 10	s			11,17,22 N = 39
	1.61		T	≢			\leq		<u> </u>	Ħ			7	1.5m: CORE LOSS: 110mm				
69 70	2.4 2.4 3 3.3	SANDSTONE - very low to low strength, highly weathered, slightly fractured, orange, medium grained sandstone SANDSTONE - medium strength, fresh and moderately weathered, slightly fractured, light grey, medium grained sandstone with distinct laminations SANDSTONE - high strength, slightly and moderately weathered then fresh, slightly fractured and unbroken, light orange and light grey, medium grained sandstone												2.38m: Cs, 10mm 2.52m: J70°- 85°, pl, ro, cln 2.84m: J55°, pl, ro, he 2.95m: Cs, 20mm	С	96		PL(A) = 0.6 PL(A) = 0.9
67 68	5	L. siltstone laminations from 3.3 to 4.0m									Ā			,				PL(A) = 1.3
99	6													5.85m: J70°, pl, ro, fe	С	100		PL(A) = 1.8 PL(A) = 1.8
65																		PL(A) = 1.6
64	В						.							7.81m: Cs, 8mm	С	100		PL(A) = 1.1
63	9																	PL(A) = 1.5

RIG: DT 100 DRILLER: SY LOGGED: PGH CASING: HW to 1.50m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.50m; NMLC-Coring to 14.08m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 14.0m; Groundwater measured at 4.3m on 20/12/10, 4.7 on

22/12/10 and 4.6m on 11/1/11

Environmental sample

SAMPLING & IN SITU TESTING LEGEND LEGEND
PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
pp Pocket penetrometer (kPa)
Standard penetration test
V Shear vane (kPa) A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sam
E Environmental Gas sample
Piston sample
Tube sample (x mm dia.)
Water sample
Water seep
Water level Core drilling Disturbed sample



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72.3 AHD

EASTING: NORTHING:

DIP/AZIMUTH: 90°/--

BORE No: 103 PROJECT No: 72138 **DATE:** 14/12/2010 SHEET 2 OF 2

		Description	Degree of Weathering	U	Rock	\top	Fracture	Discontinuities	S	ilame	na &	In Situ Testing
占	Depth (m)	of	vveatnering	Graphic Log	Strength New Low Medium High Medium	afer	Spacing (m)	B - Bedding J - Joint	+			
	(111)	Strata	HW MW SW FR	ق ا	Aediur /ery L	N A High		S - Shear F - Fault	Type	င် င် င်	RQD %	& Comments
61 62	-11	SANDSTONE - high strength, slightly and moderately weathered then fresh, slightly fractured and unbroken, light orange and light grey, medium grained sandstone (continued)							С	100		PL(A) = 2 PL(A) = 1.4
09	-12											PL(A) = 1.5
99	¹⁴ 14.08								С	100		PL(A) = 1.5
-88	14,00	Bore discontinued at 14.08m	11111									
57	15											
55	17					***************************************						
53 54												

RIG: DT 100

Environmental sample

DRILLER: SY

LOGGED: PGH

CASING: HW to 1.50m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.50m; NMLC-Coring to 14.08m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 14.0m; Groundwater measured at 4.3m on 20/12/10, 4.7 on 22/12/10 and 4.6m on 11/1/11

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental Core drilling Disturbed sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample
Piston sample
U, Tube sample (x mm dia.)
W Water sample
Water seep

Water level
PiD Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
PCKET penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.6 AHD

EASTING:

NORTHING: DIP/AZIMUTH: 90°/--

BORE No: 104 PROJECT No: 72138 **DATE:** 20/12/2010

SHEET 1 OF 2

	D	Description	Degree of Weathering	. <u>S</u>	Rock Strength	Fracture Spacing	Discontinuities	S			In Situ Testing
R	Depth (m)	of Strata	Weathering	Graph	Ex tow Very Low Medium High Very High Ex High Very High Water	(m)	B - Bedding J - Joint S - Shear F - Fault	Type	Core	RGD %	Test Results & Comments
		ASPHALT - 50mm thick FILLING - roadbase gravel filling SANDSTONE - extremely low						A/E			
23	-1	strength, red grey sandstone with clay					Note: Unless otherwise stated, rock is fractured along rough planar bedding planes dipping between 0°- 10°	A/E S			10,16,21 N = 37
77 77	1.6 -2 2.1	CLAY - apparently very stiff, grey clay with some sand SANDSTONE - medium to high strength, highly and moderately weathered, fractured, grey and purple red, medium to coarse grained sandstone with distinct laminations				<u> </u>		С	100	71	PL(A) = 0.9 PL(A) = 1.9
702	3.1- 3.46-	SANDSTONE - medium to high strength, highly and moderately weathered, fractured then slightly fractured, grey and purple red, medium to coarse grained sandstone SANDSTONE - high strength					3.45m: Cs, 9mm				PL(A) = 1.3
69	5	highly and slightly weathered then fresh, slightly fractured and unbroken, red purple then light grey, medium to coarse sandstone									PL(A) = 1.5 PL(A) = 1.4
89	6	- siltstone laminations from 5.7m to 7.4m					5.68m: Cs, 20mm	С	100	91	PL(A) = 1
. 19		6.55-6.6m: very low strength, black carbonaceous band					6.65m: J85°, pl, ro, fe				PL(A) = 1
99	В	7.30-7.35m: very low strength, black carbonaceous band					7.72m: J82°, pl, ro, cln				PL(A) = 0.1
99								С	100	98	PL(A) = 1
64											PL(A) = 1.4

RIG: DT 100 DRILLER: SS LOGGED: PGH CASING:

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; Rotary (water) to 1.5m; NMLC-Coring to 14.70m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sam Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
W Water seep
P Piston Sample (x mm dia.)
W Water seep
S Standard penetralitest (s(50) (MPa)
P Pic(D) Point load diametral test Is(50) (MPa)
P Picket Penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.6 AHD

EASTING: NORTHING:

DIP/AZIMUTH: 90°/--

BORE No: 104 PROJECT No: 72138 **DATE:** 20/12/2010 SHEET 2 OF 2

Γ	T		Description	Degree of Weathering	j <u>e</u>	Rock Strength) <u>.</u>	Fracture		Discontinuities	S	ampli	ng &	In Situ Testing
ă		Depth (m)	of Strate		Graph	Ex Low Very Low Low Medium High	Water Water	Spacing (m)	_	B - Bedding J - Joint S - Shear F - Fault	Type	ore %	RQD %	Test Results &
-	+		SANDSTONE - high strength.	WH WE WE THE					Į,	3-Shear F-Fault		0 %	ir.	Comments
+ + + + + + + + + + + + + + + + + + +	ŀ	-11	highly and slightly weathered then fresh, slightly fractured and unbroken, red purple then light grey, medium to coarse sandstone (continued)											PL(A) = 1.1
61 63		12									С	100	99	PL(A) = 2.2
9	ŀ	13	12.72-12.74m: very low strength, laminite band											PL(A) = 3.2
59 60		14									С	100	100	PL(A) = 2.2
E	-	- 1	Bore discontinued at 14.7m	11111	,,,,									
89	-1													
57	-													
	- 1	7												
55	- 18													
54	13													

RIG: DT 100 DRILLER: SS LOGGED: PGH CASING:

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; Rotary (water) to 1.5m; NMLC-Coring to 14.70m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

Environmental sample

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sam
E Environmenta Core drilling Disturbed sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample
P Piston sample (xmm dia.)
W Water sample (xmm dia.)
P Decket penetrometer (kPa)
P Decket penetrometer (kPa)
P Decket penetrometer (kPa)
S Standard penetration test
Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.9 AHD

EASTING:

NORTHING: DIP/AZIMUTH: 90°/--

BORE No: 105 PROJECT No: 72138

DATE: 14/12/2010 SHEET 1 OF 2

Strata Strata St	Testing
CLAY - red and grey clay SHALY CLAY - hard, grey shaly clay with some high strength ironstone bands LAMINITE - high strength, highly to slightly weathered, slightly fractured, light grey and red, medium to coarse grained sandstone SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone Note: Unless otherwise stated, rock is fractured, along rough planar bedding planes diong rough planar bedding planes diong rough planar bedding planes diop in the pedding planes diong rough planar bedding rough planar bedding planes diong rough planar bedding Results &	
FLLING - crushed sandstone gravel filling with some sand CLAY - red and grey clay 1	ments
CLAY - red and grey clay SHALY CLAY - hard, grey shaly clay with some high strength ironstone bands 2 2.44 LAMINITE - high strength, highly to slightly fractured, light grey and red, medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly fractured, light grey, medium to coarse grained sandstone 3.45m: Cs, 10mm SHALY CLAY - hard, grey shaly bedding planes dipping between 0°- 10° A/E C 100 51 PL(4) PL(4) PL(4) PL(5) PL(6) PL(6) PL(6) PL(6) PL(7) PL(7) PL(8) PL(8) PL(9)	
SHALY CLAY - hard, grey shaly clay with some high strength ironstone bands 2 2.44 LAMINITE - high strength, highly to slightly weathered, slightly fractured, light grey and red, medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly fractured, light grey, medium to coarse grained sandstone 3.45m: Cs, 10mm PL(A	
SANDSTONE - high strength, slightly weathered and fresh, slightly weathered and fresh, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly fractured, light grey, medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly fractured, light grey, medium to coarse grained sandstone PL(A	
LAMINITE - high strength, highly to slightly weathered, slightly fractured, light grey and red, medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly fractured, light grey, medium to coarse grained sandstone 3.45m: Cs, 10mm PL(A	
2.44 LAMINITE - high strength, highly to slightly weathered, slightly weathered, slightly fractured, light grey and red, medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly fractured, light grey, medium to coarse grained sandstone PL(A	
2.44 LAMINITE - high strength, highly to slightly weathered, slightly weathered, slightly fractured, light grey and red, medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly fractured, light grey, medium to coarse grained sandstone PL(A	
LAMINITE - nigh strength, nighly to slightly weathered, slightly fractured, light grey and red, medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly weathered and fresh, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone 3.6 PL(A	
slightly weathered, slightly fractured, light grey and red, medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone 3.4 SANDSTONE - high strength, slightly fractured, light grey, medium to coarse grained sandstone PL(A	
medium to coarse grained sandstone 3.6 SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone PL(A) = 1.5
3.6 SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone PL(A	
SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone PL(A) = 1.6
slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone PL(A	
PL(A	
	=13
[= 1.5
PL(A)	= 1.4
to 7.8m	
	= 27
C 100 100 PL(A)	_ 4 5
	= 1.5
	= 3

RIG: Scout DRILLER: RKE LOGGED: PGH CASING: HW to 1.0m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; NMLC-Coring to 15.0m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample PL(A) Point load axial test ts(50) (MPa)
U, Flube sample (x mm dia.)
W Water sample PL(B) Point load diametral test is(50) (MPa)
PL(D) Point load diametral test is(50) (MPa)
POCKet penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.9 AHD

EASTING: NORTHING: DIP/AZIMUTH: 90°/--

DATE: 14/12/2010 SHEET 2 OF 2

BORE No: 105

PROJECT No: 72138

Degree of Weathering Rock Strength Description Fracture Discontinuities Sampling & In Situ Testing Core Depth Spacing Rec. % 꿉 Test Results of (m) B - Bedding J - Joint (m) & S - Shear F - Fault Strata 0.05 EW HWW SW SW SW SW 88 Comments SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained PL(A) = 1.7sandstone (continued) - 82 PL(A) = 1.611.26m: J45°, pl, ro, cly 100 100 12 PL(A) = 1.613 13.18m: Cs, 3mm PL(A) = 214 100 100 PL(A) = 1.915 15.0 Bore discontinued at 15.0m -88 - 16 - 17 11 -8 - 19

RIG: Scout DRILLER: RKE LOGGED: PGH CASING: HW to 1.0m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; NMLC-Coring to 15.0m WATER OBSERVATIONS: No free groundwater observed whilst augering **REMARKS:**

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sam Gas sample
Piston sample
Tube sample (x mm dia.)
Water sample Core drilling Disturbed sample Water seep

Environmental sample

LEGEND
PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
PC(D) Point load diametral test Is(50) (MPa)
Pocket penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.2 AHD

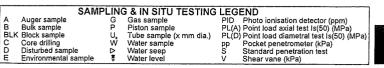
EASTING: NORTHING: DIP/AZIMUTH: 90°/-- BORE No: 106 PROJECT No: 72138 DATE: 16/12/2010 SHEET 1 OF 2

П		Description	Degree of	. <u>.</u> .	Rock Strength	Fracture	Discontinuities	s	ampl	ing &	In Situ Testing
Ζ	Depth (m)	of Strata	Degree of Weathering	Graph	Nate In Inches	Spacing (m)	B - Bedding J - Joint S - Shear F - Fault	Type	Sore %	ROD %	Test Results &
	0.05	\ASPHALT /	WH WE EN		EX LOW Very Very Low	0.05	o onedi i radic	A/E			Comments
73	0.2						Note: Unless otherwise stated, rock is fractured along rough planar	A/E	7		
	0.7	LAMINITE - extremely low strength,					bedding planes dipping between 0°- 10°	A/E			
72	1.88	LAMINITE - extremely low and very low strength, extremely and highly weathered, slightly fractured, grey laminite with clay bands									
	3	LAMINITE - medium to high strength, moderately to highly then slightly weathered, slightly fractured, purple-red and grey, medium to coarse grained laminite						С	100	71	PL(A) = 0.8
02	3.61	SANDSTONE - high strength,					3.38m: B110°, pl, ro, cly 3.6m: Cz, 10mm				PL(A) = 0.9
69 89	5	moderately to highly weathered, slightly fractured, purple-red and grey, medium to coarse grained sandstone					5.58m: Cz, 30mm	С	100	97	PL(A) = 1.5 PL(A) = 1.2
29	6.81	SANDSTONE - medium to high					6.77m: Cs, 30mm				PL(A) = 1.5
99		and high strength, moderately and slightly weathered, slightly fractured, orange and light grey, medium to coarse grained sandstone with indistinct cross-beds									PL(A) = 0.7
64 65								С	100	100	PL(A) = 1.3
											PL(A) = 1.3

RIG: Scout DRILLER: KKE LOGGED: PGH CASING: HW to 1.0m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; NMLC-Coring to 15.0m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: 30% Water loss at 7.30m





CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.2 AHD

EASTING:

NORTHING: DIP/AZIMUTH: 90°/--

BORE No: 106 PROJECT No: 72138 **DATE:** 16/12/2010

SHEET 2 OF 2

		Description	Degree of Weathering ≅	Rock Strength	Fracture	Discontinuities	Sa	ampl	ing &	In Situ Testing
R	Dep (m)	pth n) of Strata	Degree of Weathering Oraphic Cod	Ex Low Very Low Needium and State Very High Very High Very High Very High Vary High Vare Mater	Spacing (m)	B - Bedding J - Joint S - Shear F - Fault	Туре	ore %	RQD %	Test Results &
63	-11	SANDSTONE - medium to high and high strength, moderately and slightly weathered, slightly fractured, orange and light grey, medium to coarse grained sandstone with indistinct cross-beds (continued)	WH WW W & & & & & & & & & & & & & & & &	EX	0.10	10m: J85°, pl, ro, fe 10.72m: J80°, pl, ro, he 10.87m: J85°, pl, ro, he 11.04m: J75°, pl, ro, fe		0 2		PL(A) = 1.2
61 62	11.	1.45 SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light orange and grey, medium to coarse grained sandstone				11.15m: J85°, pl, ro, fe 11.45m: J80°, pl, ro, fe 12.14m: B, cly	С	100	100	PL(A) = 1
										PL(A) = 1.1
- 8	- - 13 -					12.95m: J80°, pl, ro, fe				
	-14					13.8m: B, cly	С	100	100	PL(A) = 1
	-15 15	5.0					С	100	100	PL(A) = 1
58	-16	Bore discontinued at 15.0m								
26	17									
55	18									
9	<i>.</i>									

RIG: Scout DRILLER: KKE LOGGED: PGH CASING: HW to 1.0m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; NMLC-Coring to 15.0m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: 30% Water loss at 7.30m

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample Piston sample Piston sample PliD Photo ionisation detector (ppm) PL(A) Point load axial test Is(50) (MPa) PL(D) Point load diametral test Is(50) (MPa) PL



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 74.6 AHD

EASTING: PF
NORTHING: DA
DIP/AZIMUTH: 90°/-- SF

BORE No: 107 PROJECT No: 72138 DATE: 13/12/2010 SHEET 1 OF 2

	Dep	ofb	Description	N	Degree of leathering	을 _	Rock Strength	5	Fracture Spacing	Discontinuities	s			In Situ Testing
占	(m		of Strata	8	Degree of leathering	Grap	Ex Low Very Low Low Medium High Very High Ex High	Water	(m)	B - Bedding J - Joint S - Shear F - Fault	Type	Core	ROD %	Test Results &
-	- (0.05	ASPHALT - 50mm thick	Ξ I	ΞΣσχί 			Ī	11 11		A/E			Comments
ļ	ļ (0.45	FILLING (ROADBASE) - sub-angular blue metal gravel			\bowtie					A/E			
- 42	<u> </u>	0.7	\filling	İ		\bowtie				Note: Unless otherwise stated, rock is fractured	~-	-		
ŀ	-1		filling with some blue metal gravel, dry							along rough planar bedding planes dipping 0°- 10°	-	-		
Ė	<u> </u>		SHALY CLAY - hard, highly weathered, grey shaly clay with			-/-				0 - 10	S/E			9,21,25 N = 46
73	<u> </u>	1.6	ironstone bands				###	Ŧ		1.5m: CORE LOSS: 100mm		1		
ļ	1 -2	.83	LAMINITE - medium strength with medium to high strength ironstone	-				C						
E			bands, highly and moderately weathered, fractured and slightly	1				li	 					PL(A) = 0.3
-2			fractured, grey with purple red bands laminite					ļi						1 L(A) = 0.0
	-3							li			С	96	90	
<u> </u>	• • •			1				1	 					
				-			;	1						PL(A) = 1.5
							1 1 1 1 1							
	-4 4	1.0	SANDSTONE - high strength, moderately weathered, slightly	1			 - 		<u> </u>					
			fractured, purple red with grey bands, medium grained sandstone	1										PL(A) = 1.6
			with distinct laminations	!	h]									
F F	-5			1										
<u> </u>				!							_	400		
69				1							С	100	95	PL(A) = 1.4
	6													
				L						, 6.3m: B10°, pl, ro, fe				
88										6.36m: B10°, pl, ro, fe				PL(A) = 1.6
FF	7 7.	.0	CANDOTONIE L'.L.											
FF		5	SANDSTONE - high strength, slightly and moderately weathered with some fresh stained zones,											
19		1 5	slightly fractured, light grey and brange, medium grained sandstone											PL(A) = 1.4
ΕĒ.	D		gg.											
	6													
99					اللم					8.41m: B0°, pl, ro, fe	С	100		
"														PL(A) = 2.2
-	€			: ! 	4	:::]								
<u> </u>								ļ						
65														DI (A) = 4.5
止				L	Tiil:			_ئاـ						PL(A) = 1.5

RIG: Bobcat DRILLER: SS LOGGED: PGH CASING: HW to 1.5m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.5m; NMLC-Coring to 16.0m WATER OBSERVATIONS: No free groundwater observed whilst augering REMARKS: 15% Water loss at 8.90m; 90% water loss from 13.0m

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND

A Auger sample G Gas sample
B Bulk sample P P Piston sample (x mm dia.)
BLK Block sample U, Tube sample (x mm dia.)
C Core drilling W Water sample
D Disturbed sample D Water seep S Standard penetration test
E Environmental sample



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 74.6 AHD

EASTING: PROJECT No: 72138 NORTHING: DATE: 13/12/2010

BORE No: 107

DIP/AZIMUTH: 90°/-- SHEET 2 OF 2

	T	D	Description	Degree of Weathering	ျှို့	Rock Strength	Fracture	Discontinuities	S	ampl	ing &	In Situ Testing
ã		Depth (m)	of Strata	2 2 3 2	Graph	Ex Low Very Low Needium High Very High Ex High Water	Spacing (m)	B - Bedding J - Joint S - Shear F - Fault	Type	Core	RQD %	Test Results &
199		11	SANDSTONE - high strength, slightly and moderately weathered with some fresh stained zones, slightly fractured, light grey and orange, medium grained sandstone (continued)	EW HW WWW		(57.1)	0.00	10.68m: B11°, pl, ro, fe 10.78m: B11°, pl, ro, fe 10.85m: B11°, pl, ro, fe		J - W		Comments PL(A) = 1.3
63	-	12						11.76m: B10°, pl, ro, fe 12.12m: B11°, pl, ro, fe	С	100	98	PL(A) = 1.4
62	-	13						12.27m: B11°, pl, ro, fe 12.58m: B11°, pl, ro, fe 12.72m: B11°, pl, ro, fe				PL(A) = 1.3
61	-								С	100	98	PL(A) = 1.2
90	1	4						13.73-14.0m: J85°, pl, ro, fe 14.6m: B15°, pl, ro, fe				
59	- 1:	5						15.25m: J45°, pl, ro, fe 15.5m: J70°, pl, ro, he &	С	100	100	PL(A) = 1.1
		6 16.0	Bore discontinued at 16.0m					fe				PL(A) = 1.4
288	- 17	7										
57	- 18	,										
56												
25	19											

RIG: Bobcat DRILLER: SS LOGGED: PGH CASING: HW to 1.5m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.5m; NMLC-Coring to 16.0m WATER OBSERVATIONS: No free groundwater observed whilst augering REMARKS: 15% Water loss at 8.90m; 90% water loss from 13.0m





CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 75 AHD

EASTING: NORTHING:

DIP/AZIMUTH: 90°/--

BORE No: 108 PROJECT No: 72138 **DATE:** 20/12/2010 SHEET 1 OF 2

	Depth	Description	Deg Wea	ree of	f g ¦≧	Str	ock ength	_	Fractur			Sam	pling	& In Situ Testing
R	(m)	of			rapt	8 2	ength	Nate	Spacin (m)	B - Bedding J - Joint		Type	Rec. %	Test Result
32	0.05	Strata	N I N	\$ ₹ 1	ž O	휘를	집티		0.05		1	<u>ک</u> ک	Rec	Comments
74	0.2	1 0 101 10 101 100111111									A	/E		10/100mm refusal
 			iii	<u> </u>	· · · · ·	111								
72 73		LAMINITE - medium strength, moderately to highly weathered, unbroken, grey and red brown, fine grained laminite								130mm 1.93-2.07m: dib 2.53-2.80m: dib	C	96	0 92	PL(A) = 0.4
71	4									>>				PL(A) = 0.9
70	5	SANDSTONE - high strength, highly and moderately weathered then slightly weathered, slightly fractured, red brown and light orange, medium to coarse grained sandstone									С	100	97	PL(A) = 0.5
69 7											С	100	98	PL(A) = 1.6
8										8.4m: J55°, pl, ro, fe				PL(A) = 1.2 PL(A) = 0.8
9											С	100	96	PL(A) = 1

RIG: Bobcat DRILLER: SS LOGGED: PGH CASING: HW to 1.50m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.50m; Rotary (water) to 1.80m; NMLC-Coring to 17.55m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

Environmental sample

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample Piston sample PlD Photo ionisation detector (ppm) PL(A) Point load axial test Is(50) (MPa) PL(D) Point load diameteral test Is(50) (MPa) PL(D) Point load diameteral test Is(50) (MPa) Pocket penetrometer (kPa) Pocket penetrometer (kPa) S Standard penetralion test sample Water seep S Standard penetralion test



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 75 AHD

EASTING: NORTHING:

DIP/AZIMUTH: 90°/--

BORE No: 108 PROJECT No: 72138 **DATE:** 20/12/2010

SHEET 2 OF 2

		D	Description	Degree of Weathering :≅	Rock Strength	Fracture	Discontinuities	s	ampli	ng &	In Situ Testing
	교	Depth (m)	of Strata	Degree of WWW WWW WWW WWW WWW WWW WWW WWW WWW	Ex Low Low Low Low Low Low Low Low Low Low	Spacing (m)	B - Bedding J - Joint S - Shear F - Fault	Туре	Core Rec. %	RQD %	Test Results & Comments
	64	- 11	SANDSTONE - high strength, highly and moderately weathered then slightly weathered, slightly fractured, red brown and light orange, medium to coarse grained sandstone (continued)				10.38m: B3°, pl, ro, cly	С	100	96	PL(A) = 1.3
	63	12									PL(A) = 1.1
	1	13						С	100	100	PL(A) = 1.3
61			SANDSTONE - medium strength, fresh, slightly fractured, light grey, medium to coarse grained sandstone				:				PL(A) = 1.2
-	-					النبداا	14.34m: Cz				
09	1	5] 						PL(A) = 0.9
59	1	6					15.4m: J25°, pl, ro, fe				PL(A) = 0.8
58							15.94m: Cs, 10mm	С	100 1	00	PL(A) = 0.9
		17.55 E	Bore discontinued at 17.55m								PL(A) = 0.9
56 57		3									

RIG: Bobcat DRILLER: SS LOGGED: PGH CASING: HW to 1.50m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.50m; Rotary (water) to 1.80m; NMLC-Coring to 17.55m

WATER OBSERVATIONS: No free groundwater observed whilst augering **REMARKS:**

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample PlD Photo ionisation detector (ppm)
Piston sample PL(A) Point load axial test Is(50) (MPa)
U Tube sample (x mm dia.)
W Water sample Pp Pocket penetrometer (kPa)

Water seep S S Standard penetration test
Water level V Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.6 AHD

EASTING:

NORTHING:

PROJECT No: 72138 **DATE:** 20/12/2010 SHEET 1 OF 2

BORE No: 109

DIP/AZIMUTH: 90°/--

		Description	\V	Degree of /eathering	. <u>e</u>	Rock Strength	Fracture	Discontinuities	S			In Situ Testing
R	Depth (m)	of			Log	Water utgnests	Spacing (m)	B - Bedding J - Joint	Type	<u>е</u> è	Rab %	Test Results
	()	Strata	3	MW MW SW SW SW	Ō	Ex Low Mediu	0.05 0.10 0.50 1.00	S - Shear F - Fault	7	ြပ္ပ	5 5 %	& Comments
F		ASPHALT & ROADBASE - 200mm	T						A/E		+	
FF	0.2 0.3	FILLING - gravelly sandy clay filling-	1	1111	\otimes							
[m		FILLING - crushed sandstone gravel filling with some clay	j		\otimes				A/E	=		
1		graver mining with some clay			\bowtie							
	-1		i	iiii	$\langle \times \rangle$			Note: Unless otherwise stated, rock is fractured	A/E			9,10/30mm
					\bowtie		11 11	along rough planar	A/E S			refusal
ŧ ŧ	1.3	SANDSTONE - extremely low	li					bedding planes dipping between 0°- 10°				
2		strength, extremely weathered sandstone	1									
<u> </u>	1.8	SHALY CLAY - hard, grey shaly	+		7-7				 	+	1	
 	2	clay	İ		[-]		# !!					
 			1		[-]		—————————————————————————————————————		C	100	11	PL(A) = 0.1
E_E	2.4	LAMINITE - very low strength,	i,	iiii								
	2.73	highly weathered, fragmented, \grey, medium to coarse grained	#			▝ ╬┼┼┼┤╠	##	2.63m: CORE LOSS:				
‡ ‡	3	laminite		li i i i				100mm				
‡ ‡		SANDSTONE - medium to high and high strength, highly to slightly										PL(A) = 0.9
ĒĒ		weathered, slightly fractured,	i				┡┿┱┆┆	3.38m: J85°, pl, ro, he			1	
[R		purple red to light orange, medium to coarse grained sandstone	- 1					2,00m, 000 ; pi, 10; 110				
<u> </u>		-	i				i					PL(A) = 5
‡ ‡	4	- very high strength from 3.9-4.0m	-			++++		4.05m: Cs, 5mm	С	97	82	
F			il					1.00111.00, 0111111				
- 63												PL(A) = 0.9
9			[' n'								
<u> </u>	5		į									
;			ł									PL(A) = 1
;			i	ili i i		i i i i i	i di di					
-8												
<u> </u>			i	iliii			ii ii					PL(A) = 0.8
	5											1 2019 - 0.5
			i									
	ļ			!!	::::							
-6			İ	i i l i i i								PL(A) = 1.2
:	,		1	! ! ! ! ! !								1 = (1) = 1.2
:			1	:					С	100	98	
•			1	! ! [PL(A) = 0.7
-96			1	╎╎┙╣┆┋								
:		İ	-	! i ! ! i [
- -8	1		1									
:	8.2	SANDSTONE - medium to high	į				 					PL(A) = 1
9		strength, slightly weathered and fresh, slightly fractured to	1				<u> </u>					
9		unbroken, light orange and grey,	i	i ili i E				-				
- 5		medium to coarse grained sandstone										
ţ				`^' `								PL(A) = 0.5
F							!!		c	100	100	, , ,
8			1	 L								
E			į	ili i								
			L									

RIG: Bobcat DRILLER: SY/SS LOGGED: PGH CASING: HW to 1.40m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.40m; NMLC-Coring to 16.18m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample Gas sample
Piston sample
Tube sample (x mm dia.)
Water sample
Water saep
Water level

PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
pp Pocket penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 73.6 AHD

EASTING: NORTHING:

DATE: 20/12/2010 SHEET 2 OF 2

BORE No: 109

PROJECT No: 72138

DIP/AZIMUTH: 90°/--

Γ	Τ,	D	Description	De We	gree atheri	of ing		St	Rock reng	th		Fracture	Discontinuities	S	ampl	ing &	In Situ Testing
ā	1	Depth ((m)	of Strata		WW SW		Log	Ex Low Very Low	Medium	Very High Ex High	VValt		B - Bedding J - Joint S - Shear F - Fault	Type	Core	Rab %	Test Results & Comments
62 63	1	11	SANDSTONE - medium to high strength, slightly weathered and fresh, slightly fractured to unbroken, light orange and grey, medium to coarse grained sandstone (continued)										10.68m: J80°, pl, ro, fe	С	100	100	PL(A) = 0.9 PL(A) = 0.8 PL(A) = 1
	- 1:	2															PL(A) = 1
61	- - - 13	3															PL(A) = 1
09													13.4m: Cs, 10mm	С	100	100	PL(A) = 0.4
59	- 14	4															PL(A) = 0.7
58	- 15													С	100	100	PL(A) = 1.2
57			Bore discontinued at 16.18m														
26	- 17																
54 55	19																

RIG: Bobcat DRILLER: SY/SS LOGGED: PGH CASING: HW to 1.40m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.40m; NMLC-Coring to 16.18m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

Environmental sample

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sam
E Environmental Core drilling Disturbed sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample Piston sample PL(A) Point load axial test Is(50) (MPa) PL(D) Point load diametral test Is(50) (MPa) PL(D) Point load diametral test Is(50) (MPa) PL(D) Point load diametral test Is(50) (MPa) PC(X) Point load diametral test Is(50) (MPa) PC(X) Point load diametral test Is(50) (MPa) PC(X) Point load diametral test Is(50) (MPa) PC(X) Point load diametral test Is(50) (MPa) PC(X) POINT IS(X) PO



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 74 AHD

EASTING: PRO-NORTHING: DATE DIP/AZIMUTH: 90°/-- SHEE

BORE No: 110 PROJECT No: 72138 DATE: 10/12/2010 SHEET 1 OF 2

Depth	Description	Degree of Weathering Sw W W W W W W W W W W W W W W W W W W	<u></u>	Fracture Spacing	Discontinuities		Sampling	& In Situ Testing
교 (m)	of Strata	Medium Me	х ніди Wate	0.00 0.00 0.10 0.50 0.10 0.10	B - Bedding J - Joint S - Shear F - Fault		Core Rec. %	Test Results & Comments
-2 − 1 1.0	FILLING - poorly compacted, brown silty clay filling with organic matter, moist CONCRETE - 300mm thick LAMINITE - low strength, moderately weathered, brown laminite				Note: Unless otherwise stated, rock is fractured along rough planar bedding planes dipping between 0°- 10°	A	/E	Comments
1.6	LAMINITE - high strength with low strength, bands, slightly and moderately weathered, fragmented to fractured, purple red and grey laminite							PL(A) = 0.8 PL(A) = 3
3.1	2.72-3.10m: extremely low strength band with 200mm thick clay seam SANDSTONE - high strength, moderately weathered and fresh, fractured and slightly fractured, orange brown and light grey,				2.9m: Cs, 200mm	С	100	
4	medium grained sandstone - distinct laminations from 3.1m to 5.2m, 5.9m to 6.2m and 7.3m to 7.7m				3.54m: J80°- 90°, cu, ro, fe			PL(A) = 1.4
-8-5						The state of the s		PL(A) = 1.4
689						С	100	PL(A) = 1.4 PL(A) = 1.6
7								PL(A) = 1.4
8 99 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						С	100	PL(A) = 1.9
9.3					09m: J35°, pl, ro, fe 6m: B20°, pl, ro, cly			PL(A) = 0.6

RIG: Bobcat DRILLER: SS LOGGED: PGH CASING: HW to 0.70m

TYPE OF BORING: Solid flight auger (TC-bit) to 0.70m; NMLC-Coring to 16.0m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 16.0m; Water level measured at 11.5m on 20/12/10 and 11.7m on 22/12/10
SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND

A Auger sample G Gas sample PID Photo ionisation detector (ppm)
Bulk sample P Piston sample PL(A) Point load axial test is(50) (MPa)
BLK Block sample U, Tube sample (x mm dia.)
C Core drilling W Water sample p Pocket penetrometer (kPa)
D Disturbed sample V Water seep S Standard penetration test
E Environmental sample S Water level V Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 74 AHD

EASTING: NORTHING: DIP/AZIMUTH: 90°/--

BORE No: 110 PROJECT No: 72138 **DATE:** 10/12/2010

SHEET 2 OF 2

Γ	T		Description	Degree of Roc Weathering 을 Stren	ck	Fracture	Discontinuities	s	ampl	ing &	In Situ Testing
ā	1	Depth (m)	of	Meathering Graphic Craphic Company of the company o	High Very High HS Ex High Water	Spacing (m)	B - Bedding J - Joint				· · · · · · · · · · · · · · · · · · ·
-	5		Strata	HWW MWW SWW SWW FR FS Gold Gold Gold Gold Gold Gold Gold Gold	E KIND		S - Shear F - Fault	Туре	ပြည်	RQD %	& Comments
******		10.7	SANDSTONE - medium then low strength with some extremely low strength zones, fresh then slightly and moderately weathered, slightly fractured, light grey and orange brown, medium grained sandstone				10.27m: Cs, 10mm 10.63m: Cz, 50mm	С	100		PL(A) = 0.2
		11.66	(continued) SANDSTONE - high strength, fresh, slightly fractured, light grey, medium grained sandstone SANDSTONE - medium strength,				11.46m: Cs, 10mm				PL(A) = 1
62	- 1 - 1	2	moderately weathered, slightly fractured, orange brown, medium grained sandstone				11.66m: Cs, 10mm 11.73m: J35°, pl, ro	С	100		
61	- 1:	13.1	SANDSTONE - high strength,				12.5-12.54m: B (x2) 10°, pl, ro, cly				PL(A) = 0.3
-		- 1	slightly weathered and fresh, slightly fractured, light orange and grey, medium grained sandstone								PL(A) = 1.1
09	- 14	4									
59	15							С	100		PL(A) = 1
58	16	16.0 E	Bore discontinued at 16.0m								PL(A) = 1.3
25	17										
95	8										
55 1	9		1								

RIG: Bobcat DRILLER: SS LOGGED: PGH CASING: HW to 0.70m

TYPE OF BORING: Solid flight auger (TC-bit) to 0.70m; NMLC-Coring to 16.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 16.0m; Water level measured at 11.5m on 20/12/10 and 11.7m on 22/12/10 SURVEY DATUM:

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
E D Water seep
P Water seep
P Pocket penetrometer (kPa)
S Standard penetration test
S Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72.2 AHD

EASTING: NORTHING: PROJECT No: 72138 **DATE:** 9/12/2010

BORE No: 111

DIP/AZIMUTH: 90°/--SHEET 1 OF 2

			Description	Degree of Weathering	, <u>.</u>	Rock Strength	F	racture	Discontinuities		Sam	pling 8	& In Situ Testing
	귛	Depth (m)	of		le g	Ex Low Very Low Low Low Low Medium High Very High Ex High Stringh Water Vivater	S	pacing (m)	B - Bedding J - Joint		g g	% 0	Test Results
				EW HEW ES SW BEW	Ō	EXTON FILE	0.04	50.0	S - Shear F - Fault		Core	Rob Rob	% & Comments
	72	0.15- 0.5- 0.8-	CONCRETE - 150mm thick FILLING - brown silty clay filling, with some organic matter (grass cuttings) and sub-rounded gravel FILLING - light brown, silty clay filling with some angular gravel LAMINITE - extremely low strength.						Note: Unless otherwise stated, rock is fractured along rough planar bedding planes dipping between 0°- 10°	A	/E		20/40mm
ŀ	7	'.'	extremely weathered, red purple /		::::			5	· · · · · · · · · · · · · · · · · · ·	13			refusal
	70 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	LAMINITE - high strength with extremely low strength bands, highly weathered with extremely weathered bands, highly fractured to fractured, grey and red brown, medium grained laminite				T		1.7m: Cs, 10mm 2.05m: Cs, 20mm 2.4m: Cs, 20mm 2.53m: J45°, pl, ro, cly 2.7-2.9m: F90°, pl, ro,	C			PL(A) = 1.2
		3							50mm displaced				PL(A) = 1.1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5	t \ f	SANDSTONE - medium to high then high strength, slightly weathered then fresh, slightly fractured, light grey then orange brown, medium grained sandstone, hickly bedded with indistinct and					#	4.09m: Cs, 30mm	С	100	34	PL(A) = 1
9 99	6		distinct laminations					5	i.3m: J60°, pl, ro, he				PL(A) = 0.9
65	-7							6	.35m: Cs, 20mm				PL(A) = 0.9 PL(A) = 1.5
64	-8	9.0	ANDSTONE - high strength,							С	100	99	PL(A) = 1.1 PL(A) = 0.8
63		lig sli sa	ightly then moderately weathered, ht grey then orange brown, ightly fractured, medium grained andstone, thickly bedded with stinct laminations							С	100	92	PL(A) = 1.2

RIG: Bobcat DRILLER: SY LOGGED: PGH CASING: HW to 1.0m TYPE OF BORING: Diatube to 0.15m; Solid flight auger (TC-bit) to 1.0m; Rotary (water) to 1.10m; NMLC-Coring to 14.20m

WATER OBSERVATIONS: No free groundwater observed whilst augering REMARKS:

Environmental sample

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample G Gas sample
P Piston sample (x mm dia.)
U Tube sample (x mm dia.)
W Water sample
D Water seep
Water level

PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
pp Pocket penetrometer (kPa)
Standard penetration test
V Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72.2 AHD

EASTING: NORTHING: DIP/AZIMUTH: 90°/--

BORE No: 111 PROJECT No: 72138 **DATE:** 9/12/2010 SHEET 2 OF 2

Γ	T	Description	Degree of WWW 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Rock	Fracture	Discontinuities	-	ama!	ing °	In City Tastin
교	Depth	of	Weathering	Ex Low Lery Low Lery Low Lery Low Lery Low Lery Low Lery Low Lery High Lery High Lery Water	Spacing					In Situ Testing Test Results
-	(m)	Strata	C S < <	Waling Paris	(m)	B - Bedding J - Joint S - Shear F - Fault	Type	ore of	Rab %	&
-		SANDSTONE - high strength,	WH WE SEE	E KE HE ME LE KE TE LE LE LE LE LE LE LE LE LE LE LE LE LE	0.05 0.10 0.50 1.00	o onour 1 Tuur	1-	10 %	1-	Comments
62	-11	slightly then moderately weathered, light grey then orange brown, slightly fractured, medium grained sandstone, thickly bedded with distinct laminations (continued)				10.78m: Cs, 7mm				PL(A) = 1.3
61	-						С	100	92	PL(A) = 1.2
09	-12									PL(A) = 1.3
59	-13					į	С	100	97	
FF										DI (A) = 4.4
+ +	14	İ			[PL(A) = 1.4
18	14.2	Bore discontinued at 14.2m	1 1 1 1	╏╸ ┇	- 				-	PL(A) = 1
5 95 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7										

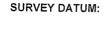
RIG: Bobcat DRILLER: SY LOGGED: PGH CASING: HW to 1.0m TYPE OF BORING: Diatube to 0.15m; Solid flight auger (TC-bit) to 1.0m; Rotary (water) to 1.10m; NMLC-Coring to 14.20m

WATER OBSERVATIONS: No free groundwater observed whilst augering REMARKS:

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G G Gas sample Piston sample Piston sample Pl.(A) Point load axial test ls(50) (MPa) PL.(D) Point load diametral test ls(50) (MPa) PL.(D) Point load diametral test ls(50) (MPa) pp Pocket penetrometer (kPa) pp S Standard penetration test water seep S Standard penetration test Standard penetratio





CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72 AHD

EASTING: NORTHING:

DIP/AZIMUTH: 90°/--

BORE No: 112 PROJECT No: 72138 **DATE:** 20/12/2010 SHEET 1 OF 2

	T		Description	Degree of Weathering .♀	Rock Strength	Fracture	Discontinuities		Samp	ling &	In Situ Testing
ā	뢰	Depth (m)	of	Meathering Graphic Log	Ex Low Very Low Clow Medium High Very High Ex High Water Water Water Water Water	Spacing (m)	B - Bedding J - Joint		g g	% <u>0</u>	Test Results
	2		Strata	EW MWW SW SW FIS FIS	Very Very Very Very Very Very Very Very		S - Shear F - Fault	F	Core	RQD %	& Comments
			PAVERS FILLING - yellow brown, sand filling FILLING (ROADBASE) - grey blue metal gravel filling LAMINITE - extremely low strength, yellow brown laminite				Note: Unless otherwise stated, rock is fractured along rough planar bedding planes dipping between 0°- 10°	A	E		10,12/125mm refusal
02			LAMINITE - medium and high strength, highly to moderately weathered, slightly fractured, orange brown, grey and purple red laminite					С	100	98	PL(A) = 0.8
69		3	2.19-2.4m: fragmented zone				2.93m: J45°, st, ro, cln				PL(A) = 0.6
67 68		4.6	SANDSTONE - high strength, nighly weathered to fresh, fractured o slightly fractured, orange brown and grey, medium to coarse grained sandstone					С	100	96	PL(A) = 1.4
99	-6										PL(A) = 1.6
66	7							С	100	93	PL(A) = 1.5
64	8										PL(A) = 1
63	€					;					PL(A) = 1
		9.	45-11.20m: distinctly laminated I I					С	100	99	PL(A) = 1

RIG: Multi-drill DRILLER: SK LOGGED: PGH CASING: NW to 1.2m

TYPE OF BORING: Diatube to 0.1m; Solid flight auger (TC-bit) to 1.2m; NMLC-Coring to 14.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
W Water seep

Water level

Water level
PID Photo ionisation detector (ppm)
PL(A) Point load diametral test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
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PL(D) Point load dia



CLIENT:

Stamford Property Services Pty Ltd

PROJECT:

Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72 AHD

EASTING: NORTHING: PROJECT No: 72138

BORE No: 112

DIP/AZIMUTH: 90°/--

DATE: 20/12/2010 SHEET 2 OF 2

		Donth	Description	Degree of Weathering	j <u>e</u>	Rock Strength	Fracture	Discontinuities	s	ampl	ing &	In Situ Testing
Ī	뢰	Depth (m)	of Strata		Graph	Ex Low Very Low Medium High Very High Ex High Ex High Oot	Spacing (m)	B - Bedding J - Joint S - Shear F - Fault	Туре	ore %	RQD %	Test Results &
H	8		SANDSTONE - high strength.	T SW HW		Nedy Very Lex High Control Con	0.05	S - Shear F - Fault	-	0 %	2 122	Comments
		-11	highly weathered to fresh, fractured to slightly fractured, orange brown and grey, medium to coarse grained sandstone (continued)						С	100	99	PL(A) = 1.5
		12										PL(A) = 1.3
59		13							С	100	94	PL(A) = 1.3 PL(A) = 1.1
			•	- 				13.52m: Cs, 12mm				
88	-1	14 14.0	Bore discontinued at 14.0m	 								
54 55 64 65 65 65 65 65 65 65 65 65 65 65 65 65	17	7										
89	19		1 1 1 1 1 1 1 1 1 1									

RIG: Multi-drill

DRILLER: SK

LOGGED: PGH

CASING: NW to 1.2m

TYPE OF BORING: Diatube to 0.1m; Solid flight auger (TC-bit) to 1.2m; NMLC-Coring to 14.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample Piston sample PL(A) Point load axial test is(50) (MPa)
U, Tube sample (xmm dia.) PL(D) Point load diametral test is(50) (MPa)
PL(D) Point load diametral test is(50) (MPa)
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PL(D) Point load diametral test is(50) (MPa)
PL(D) Point load diametral



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 68.1 AHD

EASTING: NORTHING:

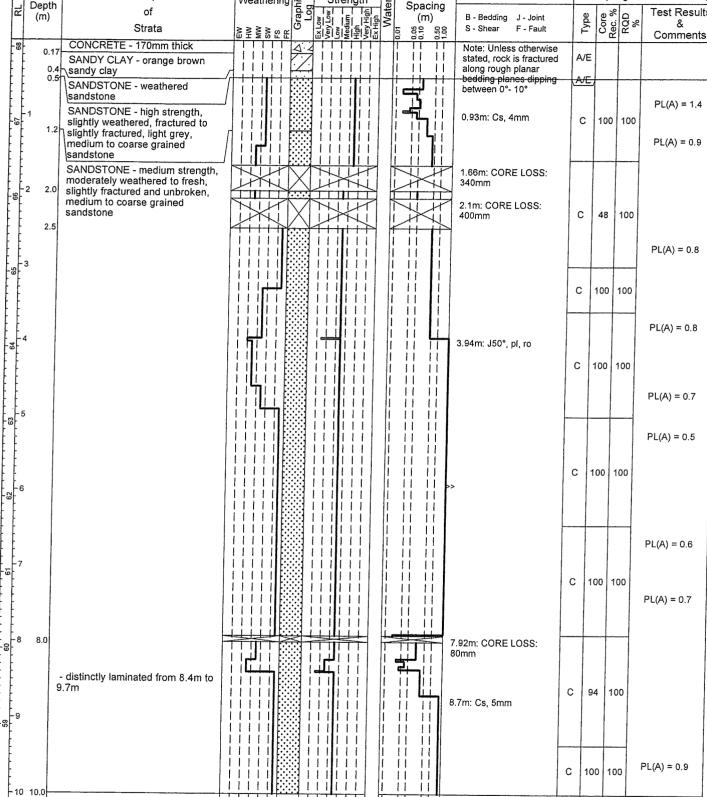
DIP/AZIMUTH: 90°/--

DATE: 17/12/2011 SHEET 1 OF 1

PROJECT No: 72138

BORE No: 113

Rock Fracture Discontinuities Sampling & In Situ Testing Description Weathering Strength Depth Spacing ٥f Core Rec. % Test Results (m) B - Bedding J - Joint ROD Ex Low Very Low Medium High Very High (m) Rec. Strata S - Shear 0.50 W T W S S S E 9,0 Comments CONCRETE - 170mm thick Note: Unless otherwise 0.17 SANDY CLAY - orange brown 11 stated, rock is fractured A/E ∖sandy clay 11 along rough planar bedding planes dippir



Bore discontinued at 10.0m

RIG: Underpinner DRILLER: LC LOGGED: PGH CASING: HW to 0.50m

TYPE OF BORING: Solid flight auger (TC-bit) to 0.50m; NMLC-Coring to 10.0m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

Environmental sample

SAMPLING & IN SITU TESTING LEGEND

Water seep Water level

Gas sample Piston sample Auger sample Bulk sample B Bulk sample
BLK Block sample Tube sample (x mm dia.) Water sample Core drilling Disturbed sample

PID Photo ionisation detector (ppm)
PL(A) Point load axial test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
PL(D) Point load diametral test Is(50) (MPa)
P Pocket penetrometer (kPa)
S Standard penetration test
V Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 67.9 AHD

EASTING: PROJECT No: 72138 NORTHING: DATE: 14/12/2011 SHEET 1 OF 1

BORE No: 114

Rock Strength Degree of Fracture Discontinuities Sampling & In Situ Testing Description Weathering 을 Spacing Depth 굾 of Ex Low Very Low Low Medium High Very High Ex High Core Sec. % Test Results (m) (m) B - Bedding J - Joint Strata S - Shear F - Fault 0.05 0.50 EW HW SW MW FR SW FR Comments CONCRETE - 170mm thick 0.17 Note: Unless otherwise SANDY CLAY - orange brown and stated, rock is fractured red, sandy clay (possible filling) along rough planar A/E bedding planes dipping between 0°- 10° SANDSTONE - weathered 1m: J80°, pl, ro, cln sandstone С 100 100 SANDSTONE - medium strength, PL(A) = 0.5moderately to slightly weathered, slightly fractured, purple-red and light grey, medium to coarse 1 grained sandstone with indistinct cross beds PL(A) = 0.7C 100 99 2.44m; Cs. 6mm -69 PL(A) = 0.8100 100 PL(A) = 0.8-8 - 5 С 91 89 SANDSTONE - high strength moderately weathered then slightly PL(A) = 1.2weathered to fresh, slightly fractured and unbroken, orange 6,05 5.92m: CORE LOSS: and light orange-grey, medium to coarse grained, massive sandstone 130mm С 100 100 PL(A) = 1PL(A) = 1.5-8 100 | 100 PL(A) = 1С 100 100 PL(A) = 1.2

Bore discontinued at 10.0m

RIG: Underpinner DRILLER: LC LOGGED: PGH

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; NMLC-Coring to 10.0m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

10 10.0

SAMPLING & IN SITU TESTING LEGEND

A Auger sample
B B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sample
W Water sample
W Water seep
Water level

LEGEND
PID Photo ionisation detector (ppm)
PL(A) Point load axial test is(50) (MPa)
PL(D) Point load diametral test is(50) (MPa)
PL(D) Point load diametral test is(50) (MPa)
p
Pocket penetrometer (kPa)
Standard penetration test
V Shear vane (kPa)



CASING: NQ to 1.0m

CLIENT: Stamford Property Services Ptv Ltd PROJECT: Macquarie Village

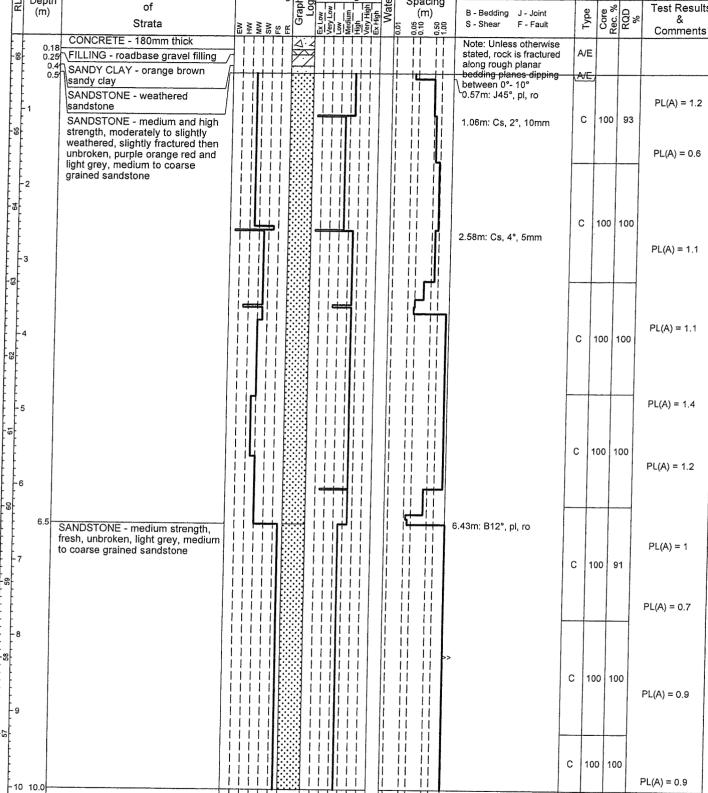
LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 66.3 AHD

EASTING: PROJECT No: 72138 **NORTHING:** DATE: 15/12/2011

BORE No: 115

DIP/AZIMUTH: 90°/--SHEET 1 OF 1 Degree of Weathering Rock Description Fracture Discontinuities Sampling & In Situ Testing Strength Depth Spacing of Core Rec. % RQD Test Results (m) (m) B - Bedding J - Joint Strata S - Shear F - Fault 0.05 99 EW HW SW FS SW FR CONCRETE - 180mm thick Note: Unless otherwise stated, rock is fractured A/E FILLING - roadbase gravel filling 11 along rough planar



Bore discontinued at 10.0m

RIG: Underpinner DRILLER: LC LOGGED: PGH CASING: HQ to 0.50m

TYPE OF BORING: Solid flight auger (TC-bit) to 0.50m; NMLC-Coring to 10.0m WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

Environmental sample

SAMPLING & IN SITU TESTING LEGEND

Water level

Gas sample Piston sample Tube sample (x mm dia.) Water sample Water seep

LEGEND
PID Photo ionisation detector (ppm)
PL(A) Point load axial test is(50) (MPa)
PL(D) Point load diametral test is(50) (MPa)
p Pocket penetrometer (kPa)
S standard penetration test Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 66.8 AHD

EASTING: NORTHING:

DIP/AZIMUTH: 90°/--

BORE No: 116 PROJECT No: 72138 **DATE:** 16/12/2010 SHEET 1 OF 2

Degree of Rock Fracture Discontinuities Sampling & In Situ Testing Description Weathering Strength Spacing Depth Test Results of ROD % 7 Core (m) B - Bedding J - Joint (m) Rec. F - Fault S - Shear Strata 92 1.00 ୴ଵୄୗୢୢ୕ଌୗଵୄୄୗଵୄୗୄଌୗ Comments CONCRETE - 300mm ΑÆ FILLING - yellow brown, crushed sandstone gravel filling Α/E Α/E SANDY CLAY - orange brown sandy clay (possible filling) Note: Unless otherwise stated, rock is fractured Α along rough planar 9 bedding planes dipping between 0°- 10° Α SANDSTONE - weathered sandstone PL(A) = 1.1SANDSTONE - medium to high strength, slightly weathered and fresh, slightly fractured, medium to 8 С coarse grained sandstone 2.93m: CORE LOSS: 3.07 140mm PL(A) = 0.6С PL(A) = 0.6SANDSTONE - high strength. moderately weathered and fresh, unbroken, purple-red and grey, medium to coarse grained С sandstone PL(A) = 1.36.18m; Cs. 20mm С PL(A) = 1PL(A) = 1.2-60 С PL(A) = 1.5С PL(A) = 1.2

RIG: Underpinner DRILLER: LC LOGGED: PGH CASING: HW to 2.30m

TYPE OF BORING: Diatube to 0.2m; Solid flight auger (TC-bit) to 2.30m; NMLC-Coring to 11.84m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 11.8m; Water level measured at 2.4m on 20/12/10, 2.6m on 22/12/10 and 2.7m on 11/1/11

Water seep Water level

Auger sample Bulk sample Block sample Core drilling Disturbed sam

Environmental sample

SAMPLING & IN SITU TESTING LEGEND

G Gas sample Piton sample PL(A) Point load axial test Is(50) (MPa)
Tube sample (x mm dia.)
W Water sample POCKet penetrometer (kPa)
Water sample S Standard penetration test
With I should V Short van e (kPa) Shear vane (kPa)



CLIENT: Stamford Property Services Pty Ltd

PROJECT: Macquarie Village

LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 66.8 AHD

EASTING:

NORTHING: DIP/AZIMUTH: 90°/--

BORE No: 116 PROJECT No: 72138 **DATE:** 16/12/2010

SHEET 2 OF 2

		Description	Degree of Weathering	<u>.</u> 0	Rock Strength		Fracture	Discontinuities				In Situ Testing
ā	Depth (m)	of	vveathering	aph Log		Water	Spacing (m)	B - Bedding J - Joint	ø	ъ %	RQD %	Test Results
		Strata	EW HW SW FR	Ō	Ex Low Low Low Medium High Ex High	> 6		S - Shear F - Fault	Туре	ပြည်	RG %	& Comments
95	-11	SANDSTONE - high strength, moderately weathered and fresh, unbroken, purple-red and grey, medium to coarse grained sandstone (continued)							С			PL(A) = 1.1
55		Bore discontinued at 11.84m							С			PL(A) = 1.7
	-12	Bore discontinued at 11.04m										
54	-13											
53	-14											
52	- 15											
51	16											
20	17											
49	18											
	19											
47						1						

RIG: Underpinner DRILLER: LC LOGGED: PGH CASING: HW to 2.30m

TYPE OF BORING: Diatube to 0.2m; Solid flight auger (TC-bit) to 2.30m; NMLC-Coring to 11.84m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: Standpipe installed to 11.8m; Water level measured at 2.4m on 20/12/10, 2.6m on 22/12/10 and 2.7m on 11/1/11

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND

G Gas sample
P Piston sample
U, Tube sample (x mm dia.)
W Water sample
E D Water seep
S Standard penertation test
Water level
V Shear vane (kPa) A Auger sample
B Bulk sample
BLK Block sample
C Core drilling
D Disturbed sample
E Environmental sar

Environmental sample



Appendix H

Laboratory Test Results



Envirolab Services Pty Ltd ABN 37 112 535 645 12 Ashley St Chatswood NSW 2067 ph 02 9910 6200 fax 02 9910 6201 enquiries@envirolabservices.com.au www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS 50196

Client:

Douglas Partners 96 Hermitage Rd West Ryde NSW 2114

Attention: Gavin Boyd

Sample log in details:

Your Reference: 72138, Macquarie Village

No. of samples: 19 Soils Date samples received: 24/12/2010 Date completed instructions received: 24/12/2010

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data. Samples were analysed as received from the client. Results relate specifically to the samples as received. Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by:

6/01/11

Date of Preliminary Report:

Not issued

Issue Date:

6/01/11

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Accredited for compliance with ISO/IEC 17025.

Tests not covered by NATA are denoted with *.

Results Approved By:

M. Slaudield Matt Mansfield Approved Signatory

> Manay Nancy Zhang Chemist

> > TECHNICAL

Nick Sarlamis Inorganics Supervisor

Envirolab Reference:

50196

Revision No:

R 00

Reporting Supervisor

Jacinta/Hurst

Laboratory Manager

Page 1 of 30

vTRH & BTEX in Soil						
Our Reference:	UNITS	50196-1	50196-2	50196-3	50196-4	50196-5
Your Reference		101/1.0-1.4	102/0.1-0.2	102/0.5-0.6	102/1.0-1.1	103/0.1-0.2
Date Sampled Type of sample		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	05/01/2011	05/01/2011	05/01/2011	05/01/2011	05/01/2011
vTRH C6 - C9	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
m+p-xylene	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Surrogate aaa-Trifluorotoluene	%	110	117	118	116	126
			Y	1		
vTRH & BTEX in Soil						
Our Reference:	UNITS	50196-6	50196-7	50196-8	50196-9	50196-10
Your Reference Date Sampled		104/0.1-0.2	107/0.1-0.2	107/0.5-0.6	109/0.1-0.2	109/0.5-0.6
Type of sample		20/12/2010 Soil	20/12/2010 Soil	20/12/2010 Soil	20/12/2010 Soil	20/12/2010 Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	05/01/2011	05/01/2011	05/01/2011	05/01/2011	05/01/2011
vTRH C6 - C9	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
m+p-xylene	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Surrogate aaa-Trifluorotoluene	%	120	127	117	117	119
vTRH & BTEX in Soil	LAUTO	50400 44	50400.40	mo400.40	50400.44	50100.15
Our Reference: Your Reference	UNITS	50196-11 110/0.1-0.2	50196-12 110/0.5-0.6	50196-13 111/0.2-0.3	50196-14	50196-15
Date Sampled		20/12/2010	20/12/2010	9/12/2010	111/0.5-0.6 9/12/2010	112/0.1-0.2 20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
i ybe di Sallible						
		04/04/2044	04/04/2044	04/04/2044	D 4 / D 4 / D D 4 4 1	
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date extracted Date analysed	- - ma/ka	05/01/2011	05/01/2011	05/01/2011	05/01/2011	05/01/2011
Date extracted Date analysed vTRH C6 - C9	- mg/kg	05/01/2011 <25	05/01/2011 <25	05/01/2011 <25	05/01/2011 <25	05/01/2011 <25
Date extracted Date analysed vTRH C6 - C9 Benzene	mg/kg	05/01/2011 <25 <0.5	05/01/2011 <25 <0.5	05/01/2011 <25 <0.5	05/01/2011 <25 <0.5	05/01/2011 <25 <0.5
Date extracted Date analysed vTRH C6 - C9 Benzene Toluene	mg/kg mg/kg	05/01/2011 <25 <0.5 <0.5	05/01/2011 <25 <0.5 <0.5	05/01/2011 <25 <0.5 <0.5	05/01/2011 <25 <0.5 <0.5	05/01/2011 <25 <0.5 <0.5
Date extracted Date analysed vTRH C6 - C9 Benzene	mg/kg	05/01/2011 <25 <0.5	05/01/2011 <25 <0.5	05/01/2011 <25 <0.5	05/01/2011 <25 <0.5	05/01/2011 <25 <0.5

<1.0

110

mg/kg

%

<1.0

121

<1.0

126

<1.0

123

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o-Xylene

Surrogate aaa-Trifluorotoluene

<1.0

130

Client Reference: 72138, Macquarie Village

vTRH & BTEX in Soil				
Our Reference:	UNITS	50196-16	50196-17	50196-18
Your Reference		115/0.1-0.2	116/0.3-0.4	116/1.0-1.1
Date Sampled		16/12/2010	17/12/2010	17/12/2010
Type of sample		Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	05/01/2011	05/01/2011	05/01/2011
vTRH C6 - C9	mg/kg	<25	<25	<25
Benzene	mg/kg	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1.0	<1.0	<1.0
m+p-xylene	mg/kg	<2.0	<2.0	<2.0
o-Xylene	mg/kg	<1.0	<1.0	<1.0
Surrogate aaa-Trifluorotoluene	%	122	127	119

Envirolab Reference: 50196

Total Reference.

Revision No:

R 00

Client Reference: 72138, Macquarie Village

TDILL: 0-11 (040,000)					T	
sTRH in Soil (C10-C36) Our Reference:	UNITS	50196-1	50196-2	50196-3	50196-4	E0106 E
Your Reference		101/1.0-1.4	102/0.1-0.2	102/0.5-0.6	102/1.0-1.1	50196-5 103/0.1-0.2
Date Sampled	*****	20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	_	04/01/2011	04/01/2011	04/01/2011	04/01/2011	
	-					04/01/2011
Date analysed	-	05/01/2011	05/01/2011	05/01/2011	05/01/2011	05/01/2011
TRH C10 - C14	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRH C29 - C36	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	104	109	93	95	95
sTRH in Soil (C10-C36)						
Our Reference:	UNITS	50196-6	50196-7	50196-8	50196-9	50196-10
Your Reference		104/0.1-0.2	107/0.1-0.2	107/0.5-0.6	109/0.1-0.2	109/0.5-0.6
Date Sampled		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	_	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	05/01/2011	05/01/2011	05/01/2011	05/01/2011	05/01/2011
TRH C10 - C14	mg/kg	<50	<50	<50	<50	<50
TRH C15 - C28	mg/kg	<100	<100	<100	<100	<100
TRH C29 - C36	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	//////////////////////////////////////	94	95			
Surrogate 0-1 erprienty	/0] 34	90	94	94	94
sTRH in Soil (C10-C36)						
Our Reference:	UNITS	50196-11	50196-12	50196-13	50196-14	50196-15
Your Reference	********	110/0.1-0.2	110/0.5-0.6	111/0.2-0.3	111/0.5-0.6	112/0.1-0.2
Date Sampled		20/12/2010	20/12/2010	9/12/2010	9/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	05/01/2011	05/01/2011	05/01/2011	05/01/2011	05/01/2011
TRH C10 - C14	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRH C29 - C36	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	99	96	96	94	93
oTBIL in Sell (040, 000)						
sTRH in Soil (C10-C36) Our Reference:	UNITS	50196-16	50196-17	E0106 40		
Your Reference	UNITO	115/0.1-0.2	116/0.3-0.4	50196-18 116/1.0-1.1		
Date Sampled		16/12/2010	17/12/2010	17/12/2010		
Type of sample		Soil	Soil	Soil		
Date extracted	-	04/01/2011	04/01/2011	04/01/2011		
Date analysed	_	05/01/2011	05/01/2011	05/01/2011		
TRH C10 - C14	mg/kg	<50	<50	<50		
TRH C15 - C28	mg/kg	<100	<100	<100		
TRH C29 - C36				Į		
Surrogate o-Terphenyl	mg/kg	<100	<100	<100		
	%	96	95	94		

Envirolab Reference: 50196 Revision No: R 00

PAHs in Soil		T				
Our Reference:	UNITS	50196-1	50196-2	50196-3	50196-4	50196-5
Your Reference		101/1.0-1.4	102/0.1-0.2	102/0.5-0.6	102/1.0-1.1	103/0.1-0.2
Date Sampled		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d14	%	106	103	101	99	101

PAHs in Soil						
Our Reference:	UNITS	50196-6	50196-7	50196-8	50196-9	50196-10
Your Reference		104/0.1-0.2	107/0.1-0.2	107/0.5-0.6	109/0.1-0.2	109/0.5-0.6
Date Sampled		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d14	%	102	102	101	98	102

Envirolab Reference: 50196 R 00 Revision No:

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PAHs in Soil						
Our Reference:	UNITS	50196-11	50196-12	50196-13	50196-14	50196-15
Your Reference		110/0.1-0.2	110/0.5-0.6	111/0.2-0.3	111/0.5-0.6	112/0.1-0.2
Date Sampled		20/12/2010	20/12/2010	9/12/2010	9/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.3	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.3	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	0.4	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.2	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d14	%	106	109	106	100	102

PAHs in Soil				
Our Reference:	UNITS	50196-16	50196-17	50196-18
Your Reference		115/0.1-0.2	116/0.3-0.4	116/1.0-1.1
Date Sampled		16/12/2010	17/12/2010	17/12/2010
Type of sample		Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	1.2	<0.1
Anthracene	mg/kg	<0.1	0.3	<0.1
Fluoranthene	mg/kg	<0.1	2.4	<0.1
Pyrene	mg/kg	<0.1	2.0	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.9	<0.1
Chrysene	mg/kg	<0.1	1.0	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	1.4	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.9	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.5	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.4	<0.1
Surrogate p-Terphenyl-d14	%	103	104	103

Organochlorine Pesticides in soil						
Our Reference:	UNITS	50196-1	50196-2	50196-3	50196-4	50196-5
Your Reference		101/1.0-1.4	102/0.1-0.2	102/0.5-0.6	102/1.0-1.1	103/0.1-0.2
Date Sampled		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	121	111	116	112	112

Organochlorine Pesticides in soil						
Our Reference:	UNITS	50196-6	50196-7	50196-8	50196-9	50196-10
Your Reference		104/0.1-0.2	107/0.1-0.2	107/0.5-0.6	109/0.1-0.2	109/0.5-0.6
Date Sampled	***********	20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	112	111	105	111	114

Envirolab Reference: 50196

Revision No:

Organochlorine Pesticides in soil						
Our Reference:	UNITS	50196-11	50196-12	50196-13	50196-14	50196-15
Your Reference		110/0.1-0.2	110/0.5-0.6	111/0.2-0.3	111/0.5-0.6	112/0.1-0.2
Date Sampled	*******	20/12/2010	20/12/2010	9/12/2010	9/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	107	114	117	115	112

Organochlorine Pesticides in soil				
Our Reference:	UNITS	50196-16	50196-17	50196-18
Your Reference		115/0.1-0.2	116/0.3-0.4	116/1.0-1.1
Date Sampled		16/12/2010	17/12/2010	17/12/2010
Type of sample		Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011
HCB	mg/kg	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Surrogate TCLMX	%	112	115	114

Organophosphorus Pesticides Our Reference: Your Reference Date Sampled Type of sample	UNITS	50196-1 101/1.0-1.4 20/12/2010 Soil	50196-2 102/0.1-0.2 20/12/2010 Soil	50196-3 102/0.5-0.6 20/12/2010 Soil	50196-4 102/1.0-1.1 20/12/2010 Soil	50196-5 103/0.1-0.2 20/12/2010 Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	121	111	116	112	112

Organophosphorus Pesticides						
Our Reference:	UNITS	50196-6	50196-7	50196-8	50196-9	50196-10
Your Reference		104/0.1-0.2	107/0.1-0.2	107/0.5-0.6	109/0.1-0.2	109/0.5-0.6
Date Sampled		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	•	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	112	111	105	111	114

Envirolab Reference: 50196

Revision No:

Organophosphorus Pesticides	T					
Our Reference:	UNITS	50196-11	50196-12	50196-13	50196-14	50196-15
Your Reference		110/0.1-0.2	110/0.5-0.6	111/0.2-0.3	111/0.5-0.6	112/0.1-0.2
Date Sampled		20/12/2010	20/12/2010	9/12/2010	9/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	_	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	107	114	117	115	112

Organophosphorus Pesticides			4	
Our Reference:	UNITS	50196-16	50196-17	50196-18
Your Reference		115/0.1-0.2	116/0.3-0.4	116/1.0-1.1
Date Sampled		16/12/2010	17/12/2010	17/12/2010
Type of sample		Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1
Surrogate TCLMX	%	112	115	114

PCBs in Soil	<u> </u>	T				
Our Reference:	UNITS	50196-1	50196-2	50196-3	50196-4	50196-5
Your Reference		101/1.0-1.4	102/0.1-0.2	102/0.5-0.6	102/1.0-1.1	103/0.1-0.2
Date Sampled		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	121	111	116	112	112
			1		112	112
PCBs in Soil						
Our Reference:	UNITS	50196-6	50196-7	50196-8	50196-9	50196-10
Your Reference		104/0.1-0.2	107/0.1-0.2	107/0.5-0.6	109/0.1-0.2	109/0.5-0.6
Date Sampled		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample	- Article date of the second	Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	112	111	105	111	114
PCBs in Soil						
Our Reference:	UNITS	50196-11	50196-12	50196-13	50196-14	50196-15
Your Reference Date Sampled		110/0.1-0.2	110/0.5-0.6	111/0.2-0.3	111/0.5-0.6	112/0.1-0.2
Type of sample	# 75 th at at at an at at at at	20/12/2010 Soil	20/12/2010 Soil	9/12/2010 Soil	9/12/2010 Soil	20/12/2010 Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	107	114	117	115	1
Carrogate TOLIVIA	/0	107	114	117	110	112

PCBs in Soil				
Our Reference:	UNITS	50196-16	50196-17	50196-18
Your Reference		115/0.1-0.2	116/0.3-0.4	116/1.0-1.1
Date Sampled		16/12/2010	17/12/2010	17/12/2010
Type of sample		Soil	Soil	Soil
Date extracted	-	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1
Surrogate TCLMX	%	112	115	114

Total Phenolics in Soil						
Our Reference:	UNITS	50196-1	50196-2	50196-3	50196-6	50196-7
Your Reference		101/1.0-1.4	102/0.1-0.2	102/0.5-0.6	104/0.1-0.2	107/0.1-0.2
Date Sampled		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	5/1/2011	5/1/2011	5/1/2011	5/1/2011	5/1/2011
Date analysed	-	5/1/2011	5/1/2011	5/1/2011	5/1/2011	5/1/2011
Total Phenolics (as Phenol)	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Total Phenolics in Soil						7
Our Reference:	UNITS	50196-9	50196-10	50196-13	50196-14	
	į.	1	I	i .	!	1

Total Phenolics in Soil					
Our Reference:	UNITS	50196-9	50196-10	50196-13	50196-14
Your Reference		109/0.1-0.2	109/0.5-0.6	111/0.2-0.3	111/0.5-0.6
Date Sampled		20/12/2010	20/12/2010	9/12/2010	9/12/2010
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	5/1/2011	5/1/2011	5/1/2011	5/1/2011
Date analysed	-	5/1/2011	5/1/2011	5/1/2011	5/1/2011
Total Phenolics (as Phenol)	mg/kg	<5.0	<5.0	<5.0	<5.0

Acid Fater stable westels in sail		T	1	T	T	
Acid Extractable metals in soil Our Reference:	UNITS	50196-1	50196-2	50196-3	50196-4	50196-5
Your Reference		101/1.0-1.4	102/0.1-0.2	102/0.5-0.6	102/1.0-1.1	103/0.1-0.2
Date Sampled		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Arsenic	mg/kg	9	<4	6	9	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	9	33	35	40	33
Copper	mg/kg	35	54	9	4	64
Lead	mg/kg	14	4	11	13	4
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	14	100	21	9	81
Zinc	mg/kg	62	42	10	5	39
140 144 144 144 144 144 144 144 144 144						
Acid Extractable metals in soil						
Our Reference:	UNITS	50196-6	50196-7	50196-8	50196-9	50196-10
Your Reference	***************************************	104/0.1-0.2	107/0.1-0.2	107/0.5-0.6	109/0.1-0.2	109/0.5-0.6
Date Sampled Type of sample		20/12/2010 Soil	20/12/2010 Soil	20/12/2010 Soil	20/12/2010 Soil	20/12/2010 Soil
Date digested	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Arsenic	mg/kg	<4	<4	11	<4	7
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	17	39	22	65	17
Copper	mg/kg	59	61	4	43	10
Lead	mg/kg	3	4	17	7	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	110	110	13	69	6
Zinc	mg/kg	44	43	6	40	15
A - 11 (" - 4 - 14 - 14 - 14 - 14 - 14 - 14 - 14				<u> </u>	<u></u>	1
Acid Extractable metals in soil Our Reference:	UNITS	50196-11	50196-12	50196-13	50196-14	50196-15
Your Reference		110/0.1-0.2	110/0.5-0.6	111/0.2-0.3	111/0.5-0.6	112/0.1-0.2
Date Sampled		20/12/2010	20/12/2010	9/12/2010	9/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011	04/01/2011	04/01/2011
Arsenic	mg/kg	18	8	7	<4	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	24	23	19	14	15
Copper	mg/kg	36	18	6	3	16
Lead	mg/kg	210	61	19	16	9
Mercury	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	6	5	2	13
Zinc	mg/kg	230	74	11	6	28
	J. J				-	

Acid Extractable metals in soil				
Our Reference:	UNITS	50196-16	50196-17	50196-18
Your Reference		115/0.1-0.2	116/0.3-0.4	116/1.0-1.1
Date Sampled		16/12/2010	17/12/2010	17/12/2010
Type of sample		Soil	Soil	Soil
Date digested	-	04/01/2011	04/01/2011	04/01/2011
Date analysed	-	04/01/2011	04/01/2011	04/01/2011
Arsenic	mg/kg	<4	<4	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5
Chromium	mg/kg	11	10	23
Copper	mg/kg	28	27	9
Lead	mg/kg	5	43	7
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	28	13	21
Zinc	mg/kg	38	43	22

Miscellaneous Inorg - soil				
Our Reference:	UNITS	50196-4	50196-18	50196-19
Your Reference		102/1.0-1.1	116/1.0-1.1	103/1.0-1.1
Date Sampled		20/12/2010	17/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil
Date prepared	-	5/1/2011	5/1/2011	5/1/2011
Date analysed	-	5/1/2011	5/1/2011	5/1/2011
pH 1:5 soil:water	pH Units	5.5	8.6	5.2
Chloride, Cl 1:5 soil:water	mg/kg	27	15	17
Sulphate, SO4 1:5 soil:water	mg/kg	31	45	40

Moisture			T		T	1
Our Reference:	UNITS	50196-1	50196-2	50196-3	50196-4	50196-5
Your Reference		101/1.0-1.4	102/0.1-0.2	102/0.5-0.6	102/1.0-1.1	103/0.1-0.2
Date Sampled		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
		1/01/0011				
Date prepared	-	4/01/2011	4/01/2011	4/01/2011	4/01/2011	4/01/2011
Date analysed	-	5/01/2011	5/01/2011	5/01/2011	5/01/2011	5/01/2011
Moisture	%	15	16	21	22	5.9
			1		1	
Moisture						
Our Reference:	UNITS	50196-6	50196-7	50196-8	50196-9	50196-10
Your Reference		104/0.1-0.2	107/0.1-0.2	107/0.5-0.6	109/0.1-0.2	109/0.5-0.6
Date Sampled		20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	4/01/2011	4/01/2011	4/01/2011	4/01/2011	4/01/2011
Date analysed	-	5/01/2011	5/01/2011	5/01/2011	5/01/2011	5/01/2011
Moisture	%	16	9.5	18	12	28
Moisture						
Our Reference:	UNITS	50196-11	50196-12	50196-13	50196-14	50196-15
Your Reference		110/0.1-0.2	110/0.5-0.6	111/0.2-0.3	111/0.5-0.6	112/0.1-0.2
Date Sampled		20/12/2010	20/12/2010	9/12/2010	9/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	4/01/2011	4/01/2011	4/01/2011	4/01/2011	4/01/2011
Date analysed	-	5/01/2011	5/01/2011	5/01/2011	5/01/2011	5/01/2011
Moisture	%	43	20	24	24	12
Moisture						
Our Reference:	UNITS	50196-16	50196-17	50196-18		
Your Reference		115/0.1-0.2	116/0.3-0.4	116/1.0-1.1		
Date Sampled		16/12/2010	17/12/2010	17/12/2010		
Type of sample		Soil	Soil	Soil		
Date prepared	-	4/01/2011	4/01/2011	4/01/2011		
Date analysed	-	5/01/2011	5/01/2011	5/01/2011		
Moisture	%	15	13	14		
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Asbestos ID - soils						
Our Reference:	UNITS	50196-1	50196-2	50196-5	50196-6	50196-7
Your Reference		101/1.0-1.4	102/0.1-0.2	103/0.1-0.2	104/0.1-0.2	107/0.1-0.2
Date Sampled	******	20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	5/01/2011	5/01/2011	5/01/2011	5/01/2011	5/01/2011
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected
Asbestos ID - soils		1	1	T	1	٦
Our Reference:	UNITS	50196-9	50196-11	50196-15	50196-16	
Your Reference	ONITS	109/0.1-0.2	110/0.1-0.2	112/0.1-0.2	115/0.1-0.2	
Date Sampled		20/12/2010	20/12/2010	20/12/2010	16/12/2010	
Type of sample		Soil	Soil	Soil	Soil	
Date analysed	-	5/01/2011	5/01/2011	5/01/2011	5/01/2011	
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	
Trace Analysis	-	Respirable fibres not	Respirable fibres not	Respirable fibres not	Respirable fibres not	

detected

detected

detected

detected

00.40	
GC.16	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
GC.3	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
GC.12 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
GC-5	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
LAB.30	Total Phenolics - determined colorimetrically following disitillation.
Metals.20 ICP-AES	Determination of various metals by ICP-AES.
Metals.21 CV-AAS	Determination of Mercury by Cold Vapour AAS.
LAB.1	pH - Measured using pH meter and electrode in accordance with APHA 20th ED, 4500-H+.
	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA 21st ED, 4110-B.
LAB.8	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.
	Asbestos ID - Qualitative identification of asbestos type fibres in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques.

Duplicate Sm#

Duplicate results

Spike Sm#

Spike %

					'	'	•	Recovery
vTRH & BTEX in Soil						Base II Duplicate II %RPD		
Date extracted	-			04/01/2 011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Date analysed	-			05/01/2 011	50196-1	05/01/2011 05/01/2011	LCS-3	05/01/2011
vTRH C6 - C9	mg/kg	25	GC.16	<25	50196-1	<25 <25	LCS-3	102%
Benzene	mg/kg	0.5	GC.16	<0.5	50196-1	<0.5 <0.5	LCS-3	107%
Toluene	mg/kg	0.5	GC.16	<0.5	50196-1	<0.5 <0.5	LCS-3	101%
Ethylbenzene	mg/kg	1	GC.16	<1.0	50196-1	<1.0 <1.0	LCS-3	94%
m+p-xylene	mg/kg	2	GC.16	<2.0	50196-1	<2.0 <2.0	LCS-3	104%
o-Xylene	mg/kg	1	GC.16	<1.0	50196-1	<1.0 <1.0	LCS-3	105%
Surrogate aaa-Trifluorotoluene	%		GC.16	116	50196-1	110 119 RPD: 8	LCS-3	114%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Soil (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			04/01/2 011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Date analysed	-			05/01/2 011	50196-1	05/01/2011 05/01/2011	LCS-3	05/01/2011
TRH C10 - C14	mg/kg	50	GC.3	<50	50196-1	<50 <50	LCS-3	109%
TRH C ₁₅ - C ₂₈	mg/kg	100	GC.3	<100	50196-1	<100 <100	LCS-3	115%
TRH C29 - C36	mg/kg	100	GC.3	<100	50196-1	<100 <100	LCS-3	112%
Surrogate o-Terphenyl	%		GC.3	101	50196-1	104 97 RPD: 7	LCS-3	103%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		1.000.0.,
Date extracted	-			04/01/2 011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Date analysed	-			04/01/2 011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Naphthalene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	LCS-3	93%
Acenaphthylene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	LCS-3	104%
Phenanthrene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	LCS-3	95%
Anthracene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
		1	00.40	<0.1	50196-1	<0.1 <0.1	LCS-3	96%
Fluoranthene	mg/kg	0.1	GC.12 subset	10.1				

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Duplicate Sm#

Duplicate results

Spike Sm#

Spike %

Blank

QUALITY CONTROL	UNITS	PQL	METHOD	Віапк	Duplicate Sm#	Duplicate results	Spike Sm#	Recovery
PAHs in Soil						Base II Duplicate II %RPD		recovery
Benzo(a)anthracene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	LCS-3	96%
Benzo(b+k)fluoranthene	mg/kg	0.2	GC.12 subset	<0.2	50196-1	<0.2 <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	GC.12 subset	<0.05	50196-1	<0.05 <0.05	LCS-3	90%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%		GC.12 subset	104	50196-1	106 97 RPD: 9	LCS-3	116%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike %
						•	орико оппи	Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			04/01/2 011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/20
Date analysed	-			04/01/2 011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/201
HCB	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	LCS-3	89%
gamma-BHC	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	LCS-3	75%
Heptachlor	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	LCS-3	86%
delta-BHC	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	LCS-3	83%
Heptachlor Epoxide	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	LCS-3	92%
gamma-Chlordane	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	LCS-3	71%
Dieldrin	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	LCS-3	111%
Endrin	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	LCS-3	91%
pp-DDD	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	LCS-3	75%
Endosulfan II	mg/kg	0.1	GC-5	<0.1	50196-1	 <0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	LCS-3	104%
Methoxychlor	mg/kg	0.1	GC-5	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
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Envirolab Reference: 50196

Revision No:

QUALITY CONTROL

UNITS

PQL

METHOD

Client Reference:

72138, Macquarie Village

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organophosphorus Pesticides						Base II Duplicate II %RPD		
Date extracted	-			04/01/2	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Date analysed	_			011 04/01/2 011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Diazinon	mg/kg	0.1	GC.8	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Dimethoate	mg/kg	0.1	GC.8	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Chlorpyriphos-methyl	mg/kg	0.1	GC.8	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Ronnel	mg/kg	0.1	GC.8	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Chlorpyriphos	mg/kg	0.1	GC.8	<0.1	50196-1	<0.1 <0.1	LCS-3	105%
Fenitrothion	mg/kg	0.1	GC.8	<0.1	50196-1	<0.1 <0.1	LCS-3	116%
Bromophos-ethyl	mg/kg	0.1	GC.8	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Ethion	mg/kg	0.1	GC.8	<0.1	50196-1	<0.1 <0.1	LCS-3	90%
Surrogate TCLMX	%		GC.8	112	50196-1	121 109 RPD: 10	LCS-3	134%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike %
PCBs in Soil						Base II Duplicate II %RPD		Recovery
Date extracted	-			04/01/2 011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Date analysed	-			04/01/2 011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Arochlor 1016	mg/kg	0.1	GC-6	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1221*	mg/kg	0.1	GC-6	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	GC-6	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	GC-6	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	GC-6	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	GC-6	<0.1	50196-1	<0.1 <0.1	LCS-3	111%
Arochlor 1260	mg/kg	0.1	GC-6	<0.1	50196-1	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		GC-6	112	50196-1	121 109 RPD: 10	LCS-3	113%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike %
Total Phenolics in Soil						Base II Duplicate II %RPD		Recovery
Date extracted	-			5/1/201	50196-1	5/1/2011 5/1/2011	LCS-1	5/1/2011
Date analysed	-			5/1/201 1	50196-1	5/1/2011 5/1/2011	LCS-1	5/1/2011
Total Phenolics (as Phenol)	mg/kg	5	LAB.30	<5.0	50196-1	<5.0 <5.0	LCS-1	90%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Date digested	-			04/01/2 011	50196-1	04/01/2011 04/01/2011	LCS-1	04/01/201
Date analysed	-			04/01/2 011	50196-1	04/01/2011 04/01/2011	LCS-1	04/01/201
Arsenic	mg/kg	4	Metals.20 ICP-AES	<4	50196-1	9 9 RPD: 0	LCS-1	107%
Cadmium	mg/kg	0.5	Metals.20 ICP-AES	<0.5	50196-1	<0.5 <0.5	LCS-1	103%
Chromium	mg/kg	. 1	Metals.20 ICP-AES	<1	50196-1	9 9 RPD: 0	LCS-1	101%
Copper	mg/kg	1	Metals.20 ICP-AES	<1	50196-1	35 34 RPD: 3	LCS-1	108%
Lead	mg/kg	1	Metals.20 ICP-AES	<1	50196-1	14 14 RPD: 0	LCS-1	101%
Mercury	mg/kg	0.1	Metals.21 CV-AAS	<0.1	50196-1	<0.1 <0.1	LCS-1	104%
Nickel	mg/kg	1	Metals.20 ICP-AES	<1	50196-1	14 14 RPD: 0	LCS-1	105%
Zinc	mg/kg	1	Metals.20 ICP-AES	<1	50196-1	62 64 RPD: 3	LCS-1	101%
	T	I	1	1	1			
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike %

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			5/1/201 1	50196-4	5/1/2011 5/1/2011	LCS-1	5/1/2011
Date analysed	-			5/1/201 1	50196-4	5/1/2011 5/1/2011	LCS-1	5/1/2011
pH 1:5 soil:water	pH Units		LAB.1	[NT]	50196-4	5.5 5.5 RPD: 0	LCS-1	101%
Chloride, Cl 1:5 soil:water	mg/kg	2	LAB.81	<2.0	50196-4	27 [N/T]	LCS-1	104%
Sulphate, SO4 1:5 soil:water	mg/kg	2	LAB.81	<2.0	50196-4	31 [N/T]	LCS-1	112%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			04/01/2 011
Date analysed	-			05/01/2 011
Moisture	%	0.1	LAB.8	<0.10

Client Reference:

72138, Macquarie Village

QUALITY CONTROL Asbestos ID - soils	UNITS PO	DL METHOD	Blank		
Date analysed	-		[NT]		
QUALITY CONTROL	UNITS	Dup. Sm#	Duplicate	Spike Sm#	Spike % Recovery
vTRH & BTEX in Soil			Base + Duplicate + %RPD		
Date extracted	-	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011
Date analysed	-	50196-11	05/01/2011 05/01/2011	50196-2	05/01/2011
vTRH C6 - C9	mg/kg	50196-11	<25 <25	50196-2	95%
Benzene	mg/kg	50196-11	<0.5 <0.5	50196-2	100%
Toluene	mg/kg	50196-11	<0.5 <0.5	50196-2	95%
Ethylbenzene	mg/kg	50196-11	<1.0 <1.0	50196-2	86%
m+p-xylene	mg/kg	50196-11	<2.0 <2.0	50196-2	97%
o-Xylene	mg/kg	50196-11	<1.0 <1.0	50196-2	98%
Surrogate aaa-Trifluorotoluene	%	50196-11	110 104 RPD: 6	50196-2	118%
QUALITY CONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011
Date analysed	-	50196-11	05/01/2011 05/01/2011	50196-2	05/01/2011
TRH C10 - C14	mg/kg	50196-11	<50 <50	50196-2	101%
TRH C ₁₅ - C ₂₈	mg/kg	50196-11	<100 <100	50196-2	105%
TRH C29 - C36	mg/kg	50196-11	<100 <100	50196-2	96%
Surrogate o-Terphenyl	%	50196-11	99 95 RPD: 4	50196-2	98%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011
Date analysed	-	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011
Naphthalene	mg/kg	50196-11	<0.1 <0.1	50196-2	86%
Acenaphthylene	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	50196-11	<0.1 <0.1	50196-2	85%
Phenanthrene	mg/kg	50196-11	<0.1 0.1	50196-2	87%
Anthracene	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	50196-11	0.3 0.4 RPD: 29	50196-2	87%
Pyrene	mg/kg	50196-11	0.3 0.4 RPD: 29	50196-2	90%
Benzo(a)anthracene	mg/kg	50196-11	0.2 0.2 RPD: 0	[NR]	[NR]
Chrysene	mg/kg	50196-11	0.2 0.3 RPD: 40	50196-2	88%
Benzo(b+k)fluoranthene	mg/kg	50196-11	0.4 0.6 RPD: 40	[NR]	[NR]
Benzo(a)pyrene	mg/kg	50196-11	0.2 0.3 RPD: 40	50196-2	80%
Indeno(1,2,3-c,d)pyrene	mg/kg	50196-11	0.2 0.2 RPD: 0	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	50196-11	0.2 0.2 RPD: 0	[NR]	[NR]

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QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery				
17/110/11/00/1			Dasc : Duplicate : 7811 D						
Surrogate p-Terphenyl-d ₁₄	%	50196-11	106 104 RPD: 2	50196-2	98%				
QUALITY CONTROL	UNITS	Dup. Sm#	Duplicate	Spike Sm#	Spike % Recovery				
Organochlorine Pesticides in soil			Base + Duplicate + %RPD						
Date extracted	-	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011				
Date analysed	-	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011				
HCB	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]				
alpha-BHC	mg/kg	50196-11	<0.1 <0.1	50196-2	82%				
gamma-BHC	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]				
beta-BHC	mg/kg	50196-11	<0.1 <0.1	50196-2	70%				
Heptachlor	mg/kg	50196-11	<0.1 <0.1	50196-2	84%				
delta-BHC	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]				
Aldrin	mg/kg	50196-11	<0.1 <0.1	50196-2	77%				
Heptachlor Epoxide	mg/kg	50196-11	<0.1 <0.1	50196-2	86%				
gamma-Chlordane	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]				
alpha-chlordane	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]				
Endosulfan I	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]				
pp-DDE	mg/kg	50196-11	<0.1 <0.1	50196-2	66%				
Dieldrin	mg/kg	50196-11	0.1 0.1 RPD: 0	50196-2	104%				
Endrin	mg/kg	50196-11	<0.1 <0.1	50196-2	88%				
pp-DDD	mg/kg	50196-11	<0.1 <0.1	50196-2	70%				
Endosulfan II	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]				
pp-DDT	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]				
Endrin Aldehyde	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]				
Endosulfan Sulphate	mg/kg	50196-11	<0.1 <0.1	50196-2	99%				
Methoxychlor	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]				
Surrogate TCLMX	%	50196-11	107 111 RPD: 4	50196-2	113%				

		Client Reference	ce: 72138, Macquarie	e Village	
QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	_	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011
Date analysed	_	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011
Diazinon	mg/kg	50196-11		[NR]	[NR]
Dimethoate	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Chlorpyriphos-methyl	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Ronnel	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Chlorpyriphos	mg/kg	50196-11	<0.1 <0.1	50196-2	105%
Fenitrothion	mg/kg	50196-11	<0.1 <0.1	50196-2	112%
Bromophos-ethyl	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Ethion	mg/kg	50196-11	<0.1 <0.1	50196-2	92%
Surrogate TCLMX	%	50196-11	107 111 RPD: 4	50196-2	115%
QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011
Date analysed	_	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011
Arochlor 1016	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Arochlor 1221*	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	50196-11	<0.1 <0.1	50196-2	108%
Arochlor 1260	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%	50196-11	107 111 RPD: 4	50196-2	97%
QUALITY CONTROL Total Phenolics in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	50196-2	5/1/2011
Date analysed	-	[NT]	[NT]	50196-2	5/1/2011
Total Phenolics (as Phenol)	mg/kg	[NT]	[NT]	50196-2	85%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011
Date analysed	-	50196-11	04/01/2011 04/01/2011	50196-2	04/01/2011
Arsenic	mg/kg	50196-11	18 19 RPD: 5	50196-2	94%
Cadmium	mg/kg	50196-11	<0.5 <0.5	50196-2	82%
Chromium	mg/kg	50196-11	24 22 RPD: 9	50196-2	85%
Copper	mg/kg	50196-11	36 43 RPD: 18	50196-2	110%
Lead	mg/kg	50196-11	210 280 RPD: 29	50196-2	79%
Mercury	mg/kg	50196-11	0.1 0.1 RPD: 0	50196-2	107%
Nickel	mg/kg	50196-11	7 7 RPD: 0	50196-2	95%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Zinc	mg/kg	50196-11	230 240 RPD: 4	50196-2	86%