
Appendix G

Results of Field Work

BOREHOLE LOG

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°/-

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities	Sampling & In Situ Testing			Test Results & Comments		
			EW	HW	MW	SW	FS		FR	Ex Low	Very Low	Low	Medium			High	Very High	Ex High	B - Bedding S - Shear		J - Joint F - Fault	Type
68	0.18	CONCRETE - 180mm																				
	0.3	FILLING - poorly compacted, grey gravel filling																				
	0.65	CONCRETE - 350mm																				
67	1	FILLING - poorly compacted, yellow brown, sandstone cobbles and boulders filling																				
	2.0	CONCRETE - 300mm																				
66	2.3	FILLING - poorly compacted, grey gravel filling																				
	2.9	SANDSTONE - high strength, moderately then highly weathered, fractured to slightly fractured, light grey and red-purple, medium to coarse grained sandstone																				
65	4																					
64	4.2																					
	4.36	LAMINITE - high then medium strength, moderately weathered, slightly fractured, dark grey laminite																				
	4.82	SANDSTONE - high strength, fresh and fresh stained then slightly weathered, slightly fractured and unbroken, medium to coarse grained sandstone with distinct laminations																				
63	5																					
	6																					
62	7																					
	8																					
61	9																					

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

SURVEY DATUM:

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

BOREHOLE LOG

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°/--

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities	Sampling & In Situ Testing				
			EW	HW	MW	SW	FS		FR	Ex Low	Very Low	Low	Medium				High	Very High	Ex High	B - Bedding S - Shear	J - Joint F - Fault
58		SANDSTONE - high strength, fresh and fresh stained then slightly weathered, slightly fractured and unbroken, medium to coarse grained sandstone with distinct laminations (continued)																C	100	100	PL(A) = 2.5
57	11																		C	100	100
56	12	12.0	Bore discontinued at 12.0m																		
55	13																				
54	14																				
53	15																				
52	16																				
51	17																				
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

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND			
A Auger sample	G Gas sample	PID Photo ionisation detector (ppm)	
B Bulk sample	P Piston sample	PL(A) Point load axial test $1s(50)$ (MPa)	
BLK Block sample	U _t Tube sample (x mm dia.)	PL(D) Point load diametral test $1s(50)$ (MPa)	
C Core drilling	W Water sample	pp Pocket penetrometer (kPa)	
D Disturbed sample	W _s Water seep	S Standard penetration test	
E Environmental sample	W _l Water level	V Shear vane (kPa)	

BOREHOLE LOG

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: 102
PROJECT No: 72138
DATE: 9/12/2010
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering				Graphic Log	Rock Strength						Water	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing			
			EW	HW	MW	SW		FS	FR	Ex Low	Very Low	Low	Medium			High	Very High	Ex High	B - Bedding S - Shear	J - Joint F - Fault	Type
72	0.05	ASPHALT - 50mm thick																E/A			
	0.46	FILLING (ROADBASE) - grey blue metal gravel filling																E/A			
	0.68	CLAY - red brown clay with ironstone bands																E/A			
1	1.0	SANDSTONE - extremely low strength, extremely weathered, sandstone with high strength ironstone bands																			
	1.36	SANDSTONE - extremely low and low strength with medium to high strength ironstone bands																			
2		SANDSTONE - extremely low and low strength with medium to high strength ironstone bands, extremely and highly weathered, fractured, red brown and light grey, medium grained sandstone																C	82	77	PL(A) = 0.8
																					PL(A) = 0.6
3	3.0	SANDSTONE - medium to high strength, moderately weathered, fractured and slightly fractured, light grey, fine to medium grained sandstone - distinct and indistinct laminations from 3.7 to 4.6m																C	100	88	PL(A) = 0.7
	4.2	SANDSTONE - high strength, slightly and moderately weathered, slightly fractured, light grey and light orange, medium grained sandstone																			PL(A) = 1.8
5																		C	100	100	PL(A) = 1.3
	6.2	SANDSTONE - medium to high strength, moderately weathered, slightly fractured, orange brown, medium grained sandstone																			PL(A) = 0.5
7	6.7	SANDSTONE - high strength, slightly weathered then fresh, slightly fractured, light orange then grey, medium grained sandstone 7.4-7.5m: distinct laminations																			PL(A) = 1.1
																		C	100	100	PL(A) = 1.6
																					PL(A) = 1.6

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:

SURVEY DATUM:

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



Douglas Partners
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BOREHOLE LOG

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: 102
PROJECT No: 72138
DATE: 9/12/2010
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing			
			EW	HW	MW	SW	FS		Ex Low	Very Low	Low	Medium	High	Very High		B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %	RQD %	Test Results & Comments
62		SANDSTONE - high strength, slightly weathered then fresh, slightly fractured, light orange then grey, medium grained sandstone (continued)																			PL(A) = 1.3
11																					PL(A) = 1.7
61																					
12		12.45-13.05m: distinct laminations														11.36m: Cs, 10mm		C	100	98	
60																					
13		Bore discontinued at 13.05m																			
13.05																					
59																					
14																					
58																					
15																					
57																					
16																					
56																					
17																					
55																					
18																					
54																					
19																					
53																					

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:

SURVEY DATUM:

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

BOREHOLE LOG

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 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities	Sampling & In Situ Testing				
			EW	HW	MW	SW	FS		FR	Ex Low	Very Low	Low	Medium			High	Very High	Ex High	B - Bedding S - Shear	J - Joint F - Fault	Type
72.05	0.05	ASPHALT - 50mm																A/E			
72.4	0.4	FILLING (ROADBASE) - grey blue metal gravel filling																A/E			
71.0	1.0	SANDSTONE - extremely low strength, extremely weathered, orange and grey sandstone																A/E			
71.61	1.61																	S			11,17,22 N = 39
70.161	1.95	SANDSTONE - very low to low strength, highly weathered, slightly fractured, orange, medium grained sandstone																			
70.24	2.4	SANDSTONE - medium strength, fresh and moderately weathered, slightly fractured, light grey, medium grained sandstone with distinct laminations																C	96		PL(A) = 0.6
69.33	3.3	SANDSTONE - high strength, slightly and moderately weathered then fresh, slightly fractured and unbroken, light orange and light grey, medium grained sandstone																			PL(A) = 0.9
68.4	4.0	- siltstone laminations from 3.3 to 4.0m																			PL(A) = 1.3
67.5	5.0																	C	100		PL(A) = 1.8
66.6	6.0																				PL(A) = 1.8
65.7	7.0																				PL(A) = 1.6
64.8	8.0																	C	100		PL(A) = 1.1
63.9	9.0																				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

SURVEY DATUM:

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

BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering				Graphic Log	Rock Strength						Water	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing			Test Results & Comments																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
			EW	HW	MW	SW		FS	FR	Ex Low	Very Low	Low	Medium			High	Very High	Ex High	B - Bedding S - Shear	J - Joint F - Fault		Type	Core Rec. %	RQD %																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
62		SANDSTONE - high strength, slightly and moderately weathered then fresh, slightly fractured and unbroken, light orange and light grey, medium grained sandstone (continued)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

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

SURVEY DATUM:

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

BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Rock Strength	Fracture Spacing (m)	Discontinuities	Sampling & In Situ Testing				Test Results & Comments
			EW	HW	MW	SW	FS				Type	Core Rec. %	RQD %		
	0.05	ASPHALT - 50mm thick									A/E				
	0.3	FILLING - roadbase gravel filling									A/E				
	1	SANDSTONE - extremely low strength, red grey sandstone with clay								Note: Unless otherwise stated, rock is fractured along rough planar bedding planes dipping between 0° - 10°	A/E				
	1.6	CLAY - apparently very stiff, grey clay with some sand									S				10,16,21 N = 37
	2.1	SANDSTONE - medium to high strength, highly and moderately weathered, fractured, grey and purple red, medium to coarse grained sandstone with distinct laminations									C	100	71		PL(A) = 0.9 PL(A) = 1.9 PL(A) = 1.3
	3.1	SANDSTONE - medium to high strength, highly and moderately weathered, fractured then slightly fractured, grey and purple red, medium to coarse grained sandstone								3.45m: Cs, 9mm					
	3.46	SANDSTONE - high strength, 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
	5	- siltstone laminations from 5.7m to 7.4m								5.68m: Cs, 20mm	C	100	91		PL(A) = 1
	6	6.55-6.6m: very low strength, black carbonaceous band								6.65m: J85°, pl, ro, fe					PL(A) = 1
	7	7.30-7.35m: very low strength, black carbonaceous band								7.72m: J82°, pl, ro, cln					PL(A) = 0.1
	8										C	100	98		PL(A) = 1
	9														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:

SURVEY DATUM:

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

BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Rock Strength	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing			
			EW	HW	MW	SW	FS			B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %	RQD %	Test Results & Comments
63		SANDSTONE - high strength, highly and slightly weathered then fresh, slightly fractured and unbroken, red purple then light grey, medium to coarse sandstone (continued)													PL(A) = 1.1
11															
62												C	100	99	PL(A) = 2.2
12															
61															
13		12.72-12.74m: very low strength, laminite band													PL(A) = 3.2
60															
14												C	100	100	PL(A) = 2.2
59															
14.7		Bore discontinued at 14.7m													
15															
58															
16															
57															
17															
56															
18															
55															
19															
54															

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:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W	Water seep
E	Environmental sample	W	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)
		S	Standard penetration test
		V	Shear vane (kPa)

BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)				Discontinuities		Sampling & In Situ Testing							
			EW	HW	MW	SW	FS		FR	Ex	Low	Very Low	Low		Medium	High	Very High	Ex	0.01	0.05	0.10	0.50	1.00	B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %	RQD %
73	0.04	ASPHALT																										
	0.2	FILLING - crushed sandstone gravel filling with some sand CLAY - red and grey clay																										
71	1.0	SHALY CLAY - hard, grey shaly clay with some high strength ironstone bands																										
70	2.44	LAMINITE - high strength, highly to slightly weathered, slightly fractured, light grey and red, medium to coarse grained sandstone																										
69	3.6	SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone																										
68																												
67																												
66																												
65																												
64																												

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:

SURVEY DATUM:

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



Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

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 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing								
			EW	HW	MW	SW	FS		FR	Ex Low	Very Low	Low	Medium			High	Very High	Ex High	B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %	RQD %	Test Results & Comments		
63	11	SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone <i>(continued)</i>																							PL(A) = 1.7	
																										PL(A) = 1.6
62	12																									PL(A) = 1.6
61	13																									PL(A) = 1.6
60	14																								PL(A) = 2	
59	15																								PL(A) = 1.9	
15.0	15.0	Bore discontinued at 15.0m																								
58	16																									
57	17																									
56	18																									
55	19																									
54																										

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:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U _s	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W _s	Water seep
E	Environmental sample	W _l	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)
		S	Standard penetration test
		V	Shear vane (kPa)

BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing			
			EW	HW	MW	SW	FS		Ex Low	Very Low	Low	Medium	High	Very High		B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %	RQD %	Test Results & Comments
73	0.05	ASPHALT																A/E			
	0.2	FILLING - crushed sandstone filling with some sand																A/E			
	0.7	CLAY - red grey clay																A/E			
	1.0	LAMINITE - extremely low strength, extremely and highly weathered laminite																			
	1.88	LAMINITE - extremely low and very low strength, extremely and highly weathered, slightly fractured, grey laminite with clay bands																			
	2	LAMINITE - medium to high strength, moderately to highly then slightly weathered, slightly fractured, purple-red and grey, medium to coarse grained laminite																C	100	71	PL(A) = 0.8
	3																				PL(A) = 0.9
	3.61	SANDSTONE - high strength, moderately to highly weathered, slightly fractured, purple-red and grey, medium to coarse grained sandstone																			PL(A) = 1.5
	4																				
	5																				
	5.58																	C	100	97	PL(A) = 1.2
	6																				PL(A) = 1.5
	6.81	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																			PL(A) = 0.7
	7																				
	8																				PL(A) = 1.3
	9																				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

SURVEY DATUM:

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

BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities B - Bedding J - Joint S - Shear F - Fault	Sampling & In Situ Testing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
			EW	HW	MW	SW	FS		FR	Ex Low	Very Low	Low	Medium				High	Very High	Ex High	Type	Core Rec. %	RQD %	Test Results & Comments																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
63		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)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

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

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U _s	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W _s	Water seep
E	Environmental sample	WL	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)
		S	Standard penetration test
		V	Shear vane (kPa)



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BOREHOLE LOG

CLIENT: Stamford Property Services Pty Ltd
PROJECT: Macquarie Village
LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 74.6 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/-

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities	Sampling & In Situ Testing				
			EW	HW	MW	SW	FS		FR	Ex Low	Very Low	Low	Medium			High	Very High	Ex High	B - Bedding S - Shear	J - Joint F - Fault	Type
74	0.05	ASPHALT - 50mm thick																A/E			9,21,25 N = 46
	0.45	FILLING (ROADBASE) - sub-angular blue metal gravel filling																A/E			
1	0.7	FILLING - red brown, silty clay filling with some blue metal gravel, dry																S/E			
73	1.6	SHALY CLAY - hard, highly weathered, grey shaly clay with ironstone bands																			
2	1.83	LAMINITE - medium strength with medium to high strength ironstone bands, highly and moderately weathered, fractured and slightly fractured, grey with purple red bands laminite																			
72																		C	96	90	PL(A) = 0.3
3																					PL(A) = 1.5
71																					
4	4.0	SANDSTONE - high strength, moderately weathered, slightly fractured, purple red with grey bands, medium grained sandstone with distinct laminations																			PL(A) = 1.6
70																					
5																		C	100	95	PL(A) = 1.4
69																					
6																					PL(A) = 1.6
68																					
7	7.0	SANDSTONE - high strength, slightly and moderately weathered with some fresh stained zones, slightly fractured, light grey and orange, medium grained sandstone																			PL(A) = 1.4
67																					
8																					
66																					PL(A) = 2.2
9																		C	100		PL(A) = 1.5
65																					

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	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W	Water seep
E	Environmental sample	W	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)
		S	Standard penetration test
		V	Shear vane (kPa)

BOREHOLE LOG

CLIENT: Stamford Property Services Pty Ltd
PROJECT: Macquarie Village
LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 74.6 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities	Sampling & In Situ Testing				
			EW	HW	MW	SW	FS		FR	Ex-Low	Very Low	Low	Medium			High	Very High	Ex-High	B - Bedding S - Shear	J - Joint F - Fault	Type
64	11	SANDSTONE - high strength, slightly and moderately weathered with some fresh stained zones, slightly fractured, light grey and orange, medium grained sandstone (continued)																			PL(A) = 1.3
63	12																	C	100	98	PL(A) = 1.4
62	13																				PL(A) = 1.3
61	14																	C	100	98	PL(A) = 1.2
60	15																	C	100	100	PL(A) = 1.1
59	16																				PL(A) = 1.4
58	17																				
57	18																				
56	19																				
55	20																				
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0	137																				
0	138																				

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



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BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering EW HW MW SW FS FR	Graphic Log	Rock Strength Ex Low Very Low Low Medium High Very High Ex High	Water	Fracture Spacing (m) 0.01 0.05 0.10 0.50 1.00	Discontinuities B - Bedding J - Joint S - Shear F - Fault	Sampling & In Situ Testing			
									Type	Core Rec. %	ROD %	Test Results & Comments
76	0.05	ASPHALT - 50mm							A/E			
	0.2	FILLING (ROADBASE) - blue metal gravel							A/E			
		SILTY CLAY - red brown, silty clay							A/E			
74	1.1	LAMINITE - extremely low to very low strength, light grey siltstone						Note: Unless otherwise stated, rock is fractured along rough planar bedding planes dipping between 0° - 10°	S			10/100mm refusal
73	1.93	LAMINITE - medium strength, moderately to highly weathered, unbroken, grey and red brown, fine grained laminite						1.8m: CORE LOSS: 130mm 1.93-2.07m: dib	C	90	92	PL(A) = 0.4
72	3							2.53-2.80m: dib				PL(A) = 0.9
71	4							2.96-3.05m: dib	C	100	97	PL(A) = 0.5
70	4.71	SANDSTONE - high strength, highly and moderately weathered then slightly weathered, slightly fractured, red brown and light orange, medium to coarse grained sandstone										PL(A) = 1
69	6											PL(A) = 1.6
68	7								C	100	98	PL(A) = 1.2
67	8											PL(A) = 0.8
66	9							8.4m: J55°, pl, ro, fe	C	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:

SURVEY DATUM:

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

BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			EW	HW	MW	SW	FS		FR	Ex Low	Very Low	Low	Medium			High	Very High	Ex High	B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %	RQD %	Test Results & Comments																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
65		SANDSTONE - high strength, highly and moderately weathered then slightly weathered, slightly fractured, red brown and light orange, medium to coarse grained sandstone (continued)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

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:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	>	Water seep
E	Environmental sample	≡	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)
		S	Standard penetration test
		V	Shear vane (kPa)

BOREHOLE LOG

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: 109
PROJECT No: 72138
DATE: 20/12/2010
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities	Sampling & In Situ Testing				
			EW	HW	MW	SW	FS		FR	Ex Low	Very Low	Low	Medium				High	Very High	Ex High	Type	Core Rec. %
	0.2	ASPHALT & ROADBASE - 200mm																			
	0.3	FILLING - gravelly sandy clay filling																			
73		FILLING - crushed sandstone gravel filling with some clay																			
1																					
1.3		SANDSTONE - extremely low strength, extremely weathered sandstone																			
1.8		SHALY CLAY - hard, grey shaly clay																			
2																					
2.4		LAMINITE - very low strength, highly weathered, fragmented, grey, medium to coarse grained laminite																			
2.73																					
3		SANDSTONE - medium to high and high strength, highly to slightly weathered, slightly fractured, purple red to light orange, medium to coarse grained sandstone																			
4		- very high strength from 3.9-4.0m																			
5																					
6																					
7																					
8																					
8.2		SANDSTONE - medium to high strength, slightly weathered and fresh, slightly fractured to unbroken, light orange and grey, medium to coarse grained sandstone																			
9																					

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:

SURVEY DATUM:

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



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BOREHOLE LOG

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: 109
PROJECT No: 72138
DATE: 20/12/2010
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities	Sampling & In Situ Testing			Test Results & Comments			
			EW	HW	MW	SW	FS		FR	Ex Low	Very Low	Low	Medium			High	Very High	Ex High	B - Bedding S - Shear		J - Joint F - Fault	Type	Core Rec. %
63		SANDSTONE - medium to high strength, slightly weathered and fresh, slightly fractured to unbroken, light orange and grey, medium to coarse grained sandstone <i>(continued)</i>																				PL(A) = 0.9	
11																		C	100	100		PL(A) = 0.8 PL(A) = 1	
62																							PL(A) = 1
12																							PL(A) = 1
61																							PL(A) = 1
13																		C	100	100		PL(A) = 0.4	
60																						PL(A) = 0.7	
14																						PL(A) = 0.7	
59																						PL(A) = 0.7	
15																		C	100	100		PL(A) = 1.2	
58																						PL(A) = 1.2	
16	16.18	Bore discontinued at 16.18m																					
57																							
17																							
56																							
18																							
55																							
19																							
54																							

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:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U _s	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W _s	Water seep
E	Environmental sample	W _l	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)
		S	Standard penetration test
		V	Shear vane (kPa)

BOREHOLE LOG

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 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering					Rock Strength	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing			
			EW	HW	MW	SW	FS			B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %	RQD %	Test Results & Comments
74		FILLING - poorly compacted, brown silty clay filling with organic matter, moist										A/E			
73	0.7	CONCRETE - 300mm thick										A/E			
73	1.0	LAMINITE - low strength, moderately weathered, brown laminite										S			
72	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
71	3.1	2.72-3.10m: extremely low strength band with 200mm thick clay seam													
70	4	SANDSTONE - high strength, moderately weathered and fresh, fractured and slightly fractured, orange brown and light grey, medium grained sandstone													
69	5	distinct laminations from 3.1m to 5.2m, 5.9m to 6.2m and 7.3m to 7.7m													
68	6														
67	7														
66	8														
65	9														
	9.3														

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)	
B Bulk sample	P Piston sample	PL(A) Point load axial test (50) (MPa)	
BLK Block sample	U ₂ Tube sample (x mm dia.)	PL(D) Point load diametral test (50) (MPa)	
C Core drilling	W Water sample	pp Pocket penetrometer (kPa)	
D Disturbed sample	W Water seep	S Standard penetration test	
E Environmental sample	W Water level	V Shear vane (kPa)	



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BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering				Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing			
			EW	HW	MW	SW	FR	Ex Low	Low	Medium	High	Very High			B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %	RQD %	Test Results & Comments
64																				
	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 (continued)													10.27m: Cs, 10mm		C	100		PL(A) = 0.2
	11	SANDSTONE - high strength, fresh, slightly fractured, light grey, medium grained sandstone													10.63m: Cz, 50mm					PL(A) = 1
	11.66	SANDSTONE - medium strength, moderately weathered, slightly fractured, orange brown, medium grained sandstone													11.46m: Cs, 10mm 11.66m: Cs, 10mm 11.73m: J35°, pl, ro		C	100		PL(A) = 0.3
	12																			PL(A) = 1.1
	13	SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light orange and grey, medium grained sandstone																		PL(A) = 1
	13.1																			PL(A) = 1.3
	14																			
	15																			
	16	Bore discontinued at 16.0m																		
	16.0																			
	17																			
	18																			
	19																			

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)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	Δ	Water seep	S	Standard penetration test
E	Environmental sample	≡	Water level	V	Shear vane (kPa)

BOREHOLE LOG

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 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering				Graphic Log	Rock Strength						Water	Fracture Spacing (m)				Discontinuities		Sampling & In Situ Testing						
			EW	FW	MW	SW		FS	FR	Ex Low	Very Low	Low	Medium		High	Very High	Ex High	0.01	0.05	0.10	0.50	1.00	B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %	RQD %
72	0.15	CONCRETE - 150mm thick																									
	0.5	FILLING - brown silty clay filling, with some organic matter (grass cuttings) and sub-rounded gravel																					A/E				
	0.8	FILLING - light brown, silty clay filling with some angular gravel																					A/E				
71	1.1	LAMINITE - extremely low strength extremely weathered, red purple laminite with some clay																					A				20/40mm refusal
		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																					S				PL(A) = 1.2
70	2																						C				
																											PL(A) = 1.1
69	3																										
68	4																										
	4.36	SANDSTONE - medium to high then high strength, slightly weathered then fresh, slightly fractured, light grey then orange brown, medium grained sandstone, thickly bedded with indistinct and distinct laminations																									PL(A) = 1
67	5																						C	100	34		PL(A) = 0.9
66	6																										PL(A) = 0.9
65	7																										PL(A) = 1.5
64	8																						C	100	99		PL(A) = 1.1
																											PL(A) = 0.8
63	9.0	SANDSTONE - high strength, slightly then moderately weathered, light grey then orange brown, slightly fractured, medium grained sandstone, thickly bedded with distinct laminations																									PL(A) = 1.2
																							C	100	92		

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:

SURVEY DATUM:

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



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BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering				Graphic Log	Rock Strength						Water	Fracture Spacing (m)	Discontinuities	Sampling & In Situ Testing										
			EW	HW	MW	SW		FS	Ex Low	Very Low	Low	Medium	High			Very High	Ex High	B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %	RQD %	Test Results & Comments				
62		SANDSTONE - high strength, slightly then moderately weathered, light grey then orange brown, slightly fractured, medium grained sandstone, thickly bedded with distinct laminations (continued)																								PL(A) = 1.3	
11	61																										PL(A) = 1.2
12	60																										PL(A) = 1.3
13	59																										PL(A) = 1.4
14	58	14.2 Bore discontinued at 14.2m																								PL(A) = 1	
15	57																										
16	56																										
17	55																										
18	54																										
19	53																										

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:

SURVEY DATUM:

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

BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities B - Bedding J - Joint S - Shear F - Fault	Sampling & In Situ Testing				Test Results & Comments
			EW	HW	MW	SW	FS		FR	Ex Low	Very Low	Low	Medium				High	Very High	Ex High	Type	
72	0.08	PAVERS																			
	0.1	FILLING - yellow brown, sand filling																			
	0.2	FILLING (ROADBASE) - grey blue metal gravel filling																			
		LAMINITE - extremely low strength, yellow brown laminite																			10,12/125mm refusal
71	1.2	LAMINITE - medium and high strength, highly to moderately weathered, slightly fractured, orange brown, grey and purple red laminite																			
70	2	2.19-2.4m: fragmented zone																			PL(A) = 0.8
69	3																				PL(A) = 0.6
68	4	3.83-3.95m: 130mm clay band																			
67	5	SANDSTONE - high strength, highly weathered to fresh, fractured to slightly fractured, orange brown and grey, medium to coarse grained sandstone																			PL(A) = 1.4
66	6																				PL(A) = 1.6
65	7																				PL(A) = 1.5
64	8																				PL(A) = 1
63	9	9.45-11.20m: distinctly laminated																			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:

SURVEY DATUM:

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



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BOREHOLE LOG

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 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing			
			EW	HW	MW	SW	FS		Ex Low	Low	Medium	High	Ex High			B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %	RQD %	Test Results & Comments
62		SANDSTONE - high strength, highly weathered to fresh, fractured to slightly fractured, orange brown and grey, medium to coarse grained sandstone (<i>continued</i>)																			PL(A) = 1.5
61	11																	C	100	99	PL(A) = 1.3
60	12																				PL(A) = 1.3
59	13																	C	100	94	PL(A) = 1.1
58	14	Bore discontinued at 14.0m														13.52m: Cs, 12mm					
57	15																				
56	16																				
55	17																				
54	18																				
53	19																				

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:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	>	Water seep
E	Environmental sample	=	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)
		S	Standard penetration test
		V	Shear vane (kPa)

BOREHOLE LOG

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°/--

BORE No: 113
PROJECT No: 72138
DATE: 17/12/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Degree of Weathering				Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing			Test Results & Comments
			EW	HW	SW	FS		Ex Low	Very Low	Low	Medium	High			Very High	Ex High	B - Bedding S - Shear J - Joint F - Fault	Type	Core Rec. %	
68	0.17	CONCRETE - 170mm thick																		
	0.4	SANDY CLAY - orange brown sandy clay															A/E			
	0.5	SANDSTONE - weathered sandstone															A/E			
67	1.2	SANDSTONE - high strength, slightly weathered, fractured to slightly fractured, light grey, medium to coarse grained sandstone														0.93m: Cs, 4mm	C	100	100	PL(A) = 1.4 PL(A) = 0.9
66	2.0	SANDSTONE - medium strength, moderately weathered to fresh, slightly fractured and unbroken, medium to coarse grained sandstone														1.66m: CORE LOSS: 340mm 2.1m: CORE LOSS: 400mm	C	48	100	PL(A) = 0.8
65	3.0																C	100	100	PL(A) = 0.8
64	4.0															3.94m: J50°, pl, ro	C	100	100	PL(A) = 0.7 PL(A) = 0.5
63	5.0																C	100	100	PL(A) = 0.6 PL(A) = 0.7
62	6.0																C	100	100	
61	7.0																C	100	100	
60	8.0															7.92m: CORE LOSS: 80mm 8.7m: Cs, 5mm	C	94	100	PL(A) = 0.9
59	9.0	- distinctly laminated from 8.4m to 9.7m															C	100	100	
58	10.0																C	100	100	

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:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U _t	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	Δ	Water seep
E	Environmental sample	≡	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)
		S	Standard penetration test
		V	Shear vane (kPa)

BOREHOLE LOG

CLIENT: Stamford Property Services Pty Ltd
PROJECT: Macquarie Village
LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 67.9 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/-

BORE No: 114
PROJECT No: 72138
DATE: 14/12/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Degree of Weathering				Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing			Test Results & Comments	
			EW	HW	MW	SW		FS	FR	Ex Low	Very Low	Low			Medium	High	Very High	Ex High	B - Bedding S - Shear		J - Joint F - Fault
	0.17	CONCRETE - 170mm thick																			
		SANDY CLAY - orange brown and red, sandy clay (possible filling)																A/E			
	0.95	SANDSTONE - weathered sandstone																A			
	1.0	SANDSTONE - medium strength, moderately to slightly weathered, slightly fractured, purple-red and light grey, medium to coarse grained sandstone with indistinct cross beds																C	100	100	PL(A) = 0.5
	2																	C	100	99	PL(A) = 0.7
	3																				
	4																	C	100	100	PL(A) = 0.8
	5																				
	5.5	SANDSTONE - high strength, moderately weathered then slightly weathered to fresh, slightly fractured and unbroken, orange and light orange-grey, medium to coarse grained, massive sandstone																C	91	89	PL(A) = 1.2
	6.05																				
	6																				
	7																	C	100	100	PL(A) = 1
	8																	C	100	100	PL(A) = 1.5
	9																				
	10																	C	100	100	PL(A) = 1.2
	10.0																				

Bore discontinued at 10.0m

RIG: Underpinner

DRILLER: LC

LOGGED: PGH

CASING: NQ to 1.0m

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:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND			
A Auger sample	G Gas sample	PID Photo ionisation detector (ppm)	
B Bulk sample	P Piston sample	PL(A) Point load axial test 1s(50) (MPa)	
BLK Block sample	U Tube sample (x mm dia.)	PL(D) Point load diametral test 1s(50) (MPa)	
C Core drilling	W Water sample	pp Pocket penetrometer (kPa)	
D Disturbed sample	> Water seep	S Standard penetration test	
E Environmental sample	= Water level	V Shear vane (kPa)	

BOREHOLE LOG

CLIENT: Stamford Property Services Pty Ltd
PROJECT: Macquarie Village
LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 66.3 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 115
PROJECT No: 72138
DATE: 15/12/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Degree of Weathering				Graphic Log	Rock Strength					Water	Fracture Spacing (m)	Discontinuities		Sampling & In Situ Testing							
			EW	HW	MW	SW		FS	FR	Ex	Low	Very Low			Low	Medium	High	Very High	Ex	High	B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %
66.18	0.18	CONCRETE - 180mm thick																						
66.25	0.25	FILLING - roadbase gravel filling																						
66.4	0.4	SANDY CLAY - orange brown sandy clay																						
66.5	0.5	SANDSTONE - weathered sandstone																						
65.1	1	SANDSTONE - medium and high strength, moderately to slightly weathered, slightly fractured then unbroken, purple orange red and light grey, medium to coarse grained sandstone																						PL(A) = 1.2
64.1	2																							PL(A) = 0.6
63.1	3																							PL(A) = 1.1
62.1	4																							PL(A) = 1.1
61.1	5																							PL(A) = 1.4
60.1	6																							PL(A) = 1.2
59.1	6.5	SANDSTONE - medium strength, fresh, unbroken, light grey, medium to coarse grained sandstone																						PL(A) = 1
58.1	7																							PL(A) = 0.7
57.1	8																							PL(A) = 0.9
56.1	9																							PL(A) = 0.9
55.1	10																							PL(A) = 0.9

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:

SURVEY DATUM:

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

BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering	Graphic Log	Rock Strength	Fracture Spacing (m)	Discontinuities	Sampling & In Situ Testing			
								Type	Core Rec. %	RQD %	Test Results & Comments
		CONCRETE - 300mm									
	0.3	FILLING - yellow brown, crushed sandstone gravel filling						A/E			
	1.0	SANDY CLAY - orange brown sandy clay (possible filling)						A/E			
	2.1	SANDSTONE - weathered sandstone						A			
	2.3	SANDSTONE - medium to high strength, slightly weathered and fresh, slightly fractured, medium to coarse grained sandstone						A			
	3.07										PL(A) = 1.1
	3						2.93m: CORE LOSS: 140mm	C			
	4							C			PL(A) = 0.6
	4.6	SANDSTONE - high strength, moderately weathered and fresh, unbroken, purple-red and grey, medium to coarse grained sandstone						C			PL(A) = 0.6
	5							C			PL(A) = 1.3
	6						6.18m: Cs, 20mm	C			PL(A) = 1
	7							C			PL(A) = 1.2
	8							C			PL(A) = 1.5
	9							C			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

SURVEY DATUM:


SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	Δ	Water seep
E	Environmental sample	≡	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)
		S	Standard penetration test
		V	Shear vane (kPa)

BOREHOLE LOG

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

RL	Depth (m)	Description of Strata	Degree of Weathering					Graphic Log	Rock Strength					Water	Fracture Spacing (m)				Discontinuities		Sampling & In Situ Testing					
			EW	HW	MW	SW	FS		FR	Ex Low	Very Low	Low	Medium		High	Very High	Ex High	0.01	0.05	0.10	0.50	1.00	B - Bedding S - Shear	J - Joint F - Fault	Type	Core Rec. %
56	11	SANDSTONE - high strength, moderately weathered and fresh, unbroken, purple-red and grey, medium to coarse grained sandstone (continued)																					C			PL(A) = 1.1
55	11.84																							C		
12		Bore discontinued at 11.84m																								
54	13																									
53	14																									
52	15																									
51	16																									
50	17																									
49	18																									
48	19																									
47																										

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

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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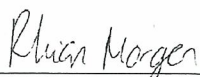
This document is issued in accordance with NATA's accreditation requirements.


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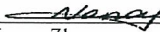
Tests not covered by NATA are denoted with *.

Results Approved By:


Matt Mansfield
Approved Signatory


Rhian Morgan
Reporting Supervisor


Nick Sarlamis
Inorganics Supervisor


Nancy Zhang
Chemist


Jacinta Hurst
Laboratory Manager

EnviroLab Reference: 50196

Revision No: R 00



Client Reference: 72138, Macquarie Village

vTRH & BTEX in Soil	UNITS	50196-1	50196-2	50196-3	50196-4	50196-5
Our 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
Your Reference	-----	20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
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 C ₆ - C ₉	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

vTRH & BTEX in Soil	UNITS	50196-6	50196-7	50196-8	50196-9	50196-10
Our 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
Your Reference	-----	20/12/2010	20/12/2010	20/12/2010	20/12/2010	20/12/2010
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
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 C ₆ - C ₉	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	UNITS	50196-11	50196-12	50196-13	50196-14	50196-15
Our 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
Your Reference	-----	20/12/2010	20/12/2010	9/12/2010	9/12/2010	20/12/2010
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
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 C ₆ - C ₉	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	121	126	123	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 C ₆ - C ₉	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

Client Reference: 72138, Macquarie Village

sTRH in Soil (C10-C36)						
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	-	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	%	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	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 C15 - C28	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

sTRH in Soil (C10-C36)				
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
TRH C10 - C14	mg/kg	<50	<50	<50
TRH C15 - C28	mg/kg	<100	<100	<100
TRH C29 - C36	mg/kg	<100	<100	<100
Surrogate o-Terphenyl	%	96	95	94

Client Reference: 72138, Macquarie Village

PAHs in Soil 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
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: Your Reference Date Sampled Type of sample	UNITS ----- -----	50196-6 104/0.1-0.2 20/12/2010 Soil	50196-7 107/0.1-0.2 20/12/2010 Soil	50196-8 107/0.5-0.6 20/12/2010 Soil	50196-9 109/0.1-0.2 20/12/2010 Soil	50196-10 109/0.5-0.6 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
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

Client Reference: 72138, Macquarie Village

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	50196-11 110/0.1-0.2 20/12/2010 Soil	50196-12 110/0.5-0.6 20/12/2010 Soil	50196-13 111/0.2-0.3 9/12/2010 Soil	50196-14 111/0.5-0.6 9/12/2010 Soil	50196-15 112/0.1-0.2 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
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: Your Reference Date Sampled Type of sample	UNITS ----- -----	50196-16 115/0.1-0.2 16/12/2010 Soil	50196-17 116/0.3-0.4 17/12/2010 Soil	50196-18 116/1.0-1.1 17/12/2010 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

Client Reference: 72138, Macquarie Village

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

Client Reference: 72138, Macquarie Village

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

Client Reference: 72138, Macquarie Village

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

Client Reference: 72138, Macquarie Village

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

Client Reference: 72138, Macquarie Village

Organophosphorus Pesticides						
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
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
Chlorpyrifos-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
Chlorpyrifos	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
Chlorpyrifos-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
Chlorpyrifos	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

Client Reference: 72138, Macquarie Village

Organophosphorus Pesticides						
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
Chlorpyrifos-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
Chlorpyrifos	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				
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
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Chlorpyrifos	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

Client Reference: 72138, Macquarie Village

PCBs in Soil 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
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

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	50196-6 104/0.1-0.2 20/12/2010 Soil	50196-7 107/0.1-0.2 20/12/2010 Soil	50196-8 107/0.5-0.6 20/12/2010 Soil	50196-9 109/0.1-0.2 20/12/2010 Soil	50196-10 109/0.5-0.6 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	%	112	111	105	111	114

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	50196-11 110/0.1-0.2 20/12/2010 Soil	50196-12 110/0.5-0.6 20/12/2010 Soil	50196-13 111/0.2-0.3 9/12/2010 Soil	50196-14 111/0.5-0.6 9/12/2010 Soil	50196-15 112/0.1-0.2 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
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	112

Client Reference: 72138, Macquarie Village

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

Client Reference: 72138, Macquarie Village

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					
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

Client Reference: 72138, Macquarie Village

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

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	-----	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	<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

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

Client Reference: 72138, Macquarie Village

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

Client Reference: 72138, Macquarie Village

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

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Moisture						
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 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

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

Client Reference: 72138, Macquarie Village

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					
Our Reference:	UNITS	50196-9	50196-11	50196-15	50196-16
Your Reference	-----	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 detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Method ID	Methodology Summary
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.
GC.8	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
GC-6	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+.
LAB.81	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.
ASB.1	Asbestos ID - Qualitative identification of asbestos type fibres in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques.

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH & BTEX in Soil						Base II Duplicate II %RPD		
Date extracted	-			04/01/2011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Date analysed	-			05/01/2011	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	-			04/01/2011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Date analysed	-			05/01/2011	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 C15 - C28	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		
Date extracted	-			04/01/2011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Date analysed	-			04/01/2011	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]
Fluoranthene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	LCS-3	96%
Pyrene	mg/kg	0.1	GC.12 subset	<0.1	50196-1	<0.1 <0.1	LCS-3	102%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
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-d14	%		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 % Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			04/01/2011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Date analysed	-			04/01/2011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
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]
Surrogate TCLMX	%		GC-5	112	50196-1	121 109 RPD: 10	LCS-3	119%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organophosphorus Pesticides						Base II Duplicate II %RPD		
Date extracted	-			04/01/2011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Date analysed	-			04/01/2011	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]
Chlorpyrifos-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]
Chlorpyrifos	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 % Recovery
PCBs in Soil						Base II Duplicate II %RPD		
Date extracted	-			04/01/2011	50196-1	04/01/2011 04/01/2011	LCS-3	04/01/2011
Date analysed	-			04/01/2011	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 % Recovery
Total Phenolics in Soil						Base II Duplicate II %RPD		
Date extracted	-			5/1/2011	50196-1	5/1/2011 5/1/2011	LCS-1	5/1/2011
Date analysed	-			5/1/2011	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	-			04/01/2011	50196-1	04/01/2011 04/01/2011	LCS-1	04/01/2011
Date analysed	-			04/01/2011	50196-1	04/01/2011 04/01/2011	LCS-1	04/01/2011
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%

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			5/1/2011	50196-4	5/1/2011 5/1/2011	LCS-1	5/1/2011
Date analysed	-			5/1/2011	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	UNITS	PQL	METHOD	Blank
Moisture				
Date prepared	-			04/01/2011
Date analysed	-			05/01/2011
Moisture	%	0.1	LAB.8	<0.10

QUALITY CONTROL Asbestos ID - soils	UNITS	PQL	METHOD	Blank	
Date analysed	-			[NT]	
QUALITY CONTROL vTRH & BTEX 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	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 C15 - C28	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
<i>Surrogate</i> p-Terphenyl-d14	%	50196-11	106 104 RPD: 2	50196-2	98%
QUALITY CONTROL Organochlorine Pesticides 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
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]
<i>Surrogate</i> TCLMX	%	50196-11	107 111 RPD: 4	50196-2	113%

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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	<0.1 <0.1	[NR]	[NR]
Dimethoate	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Ronnel	mg/kg	50196-11	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos	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%

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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%