

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 | | | | 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 | 0.01 | 0.05 | 0.10 | 0.50 | 1.00 | B - Bedding S - Shear | J - Joint F - Fault | Type | Core Rec. % | RQD % |
| 73 | 0.05 | ASPHALT - 50mm thick | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0.3 | FILLING - roadbase gravel filling | | | | | | | | | | | | | | | | | | | A/E | | | | | |
| | | SANDSTONE - extremely low strength, red grey sandstone with clay | | | | | | | | | | | | | | | | | | | A/E | | | | | |
| | | | | | | | | | | | | | | | | | | | | | A/E | | | | | |
| 72 | 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3.1 | SANDSTONE - medium to high strength, highly and moderately weathered, fractured then slightly fractured, grey and purple red, medium to coarse grained sandstone | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3.46 | SANDSTONE - high strength, highly and slightly weathered then fresh, slightly fractured and unbroken, red purple then light grey, medium to coarse sandstone | | | | | | | | | | | | | | | | | | | | | | | | |
| 69 | 4 | SANDSTONE - high strength, highly and slightly weathered then fresh, slightly fractured and unbroken, red purple then light grey, medium to coarse sandstone | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | - siltstone laminations from 5.7m to 7.4m | | | | | | | | | | | | | | | | | | | | | | | | |
| | 67 | 6.55-6.6m: very low strength, black carbonaceous band | | | | | | | | | | | | | | | | | | | | | | | | |
| 66 | 7 | 7.30-7.35m: very low strength, black carbonaceous band | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 65 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 64 | | | | | | | | | | | | | | | | | | | | | | | | | | |

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 | 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) |

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 | | | | | 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. % | RQD % | Test Results & Comments | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 | 11 | SANDSTONE - high strength, highly and slightly weathered then fresh, slightly fractured and unbroken, red purple then light grey, medium to coarse sandstone (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | </ |

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) |

DOUGLAS PARTNERS PTY LTD

MACQUARIE VILLAGE

BORE 104 PROJECT 72138 14 DECEMBER 2010



DOUGLAS PARTNERS PTY LTD

MACQUARIE VILLAGE

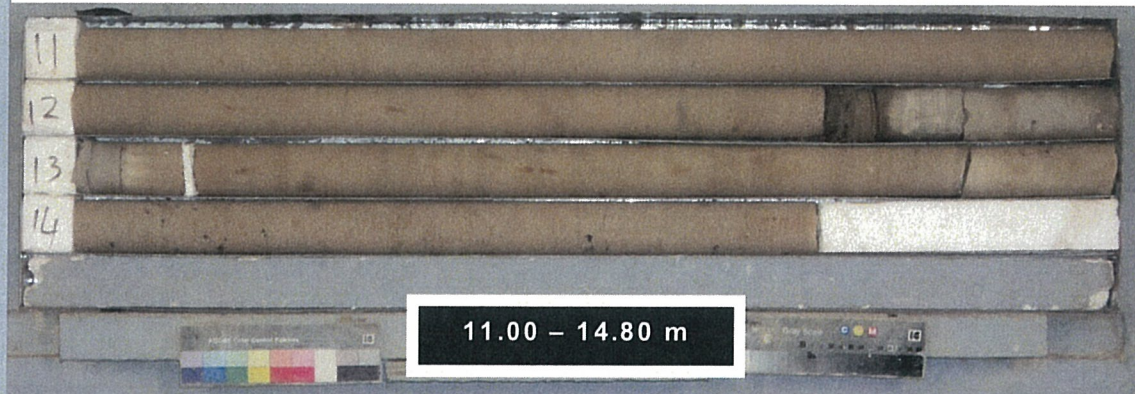
BORE 104 PROJECT 72138 14 DECEMBER 2010



DOUGLAS PARTNERS PTY LTD

MACQUARIE VILLAGE

BORE 104 PROJECT 72138 14 DECEMBER 2010



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 High | B - Bedding S - Shear | J - Joint F - Fault | Type |
| | 0.04 | ASPHALT | | | | | | | | | | | | | | | | A/E | | | |
| | 0.2 | FILLING - crushed sandstone gravel filling with some sand | | | | | | | | | | | | | | | | A/E | | | |
| | | CLAY - red and grey clay | | | | | | | | | | | | | | | | A/E | | | |
| 73 | 1 | SHALY CLAY - hard, grey shaly clay with some high strength ironstone bands | | | | | | | | | | | | | | | | | | | |
| 72 | 2 | | | | | | | | | | | | | | | | | | | | |
| | 2.44 | LAMINITE - high strength, highly to slightly weathered, slightly fractured, light grey and red, medium to coarse grained sandstone | | | | | | | | | | | | | | | | C | 100 | 51 | PL(A) = 1.5 |
| 71 | 3 | | | | | | | | | | | | | | | | | | | | PL(A) = 1.6 |
| | 3.6 | SANDSTONE - high strength, slightly weathered and fresh, slightly fractured, light grey, medium to coarse grained sandstone | | | | | | | | | | | | | | | | | | | PL(A) = 1.3 |
| 70 | 4 | | | | | | | | | | | | | | | | | | | | |
| 69 | 5 | | | | | | | | | | | | | | | | | C | 100 | 93 | PL(A) = 1.5 |
| 68 | 6 | | | | | | | | | | | | | | | | | | | | PL(A) = 1.4 |
| 67 | 7 | - siltstone laminations from 6.7m to 7.8m | | | | | | | | | | | | | | | | | | | PL(A) = 2.7 |
| 66 | 8 | | | | | | | | | | | | | | | | | C | 100 | 100 | PL(A) = 1.5 |
| 65 | 9 | | | | | | | | | | | | | | | | | | | | PL(A) = 3 |
| 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 | 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) |

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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 | Ex Low | Very Low | Low | Medium | | | | High | Very High | Ex High | B - Bedding S - Shear | J - Joint F - Fault | Type |
| 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 |
| 62 | 12 | | | | | | | | | | | | | | | | | | | | PL(A) = 1.6 |
| 61 | 13 | | | | | | | | | | | | | | | | | | | | PL(A) = 1.6 |
| 60 | 14 | | | | | | | | | | | | | | | | | | | | PL(A) = 2 |
| 59 | 15 | 15.0 | Bore discontinued at 15.0m | | | | | | | | | | | | | | | | | | PL(A) = 1.9 |
| 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

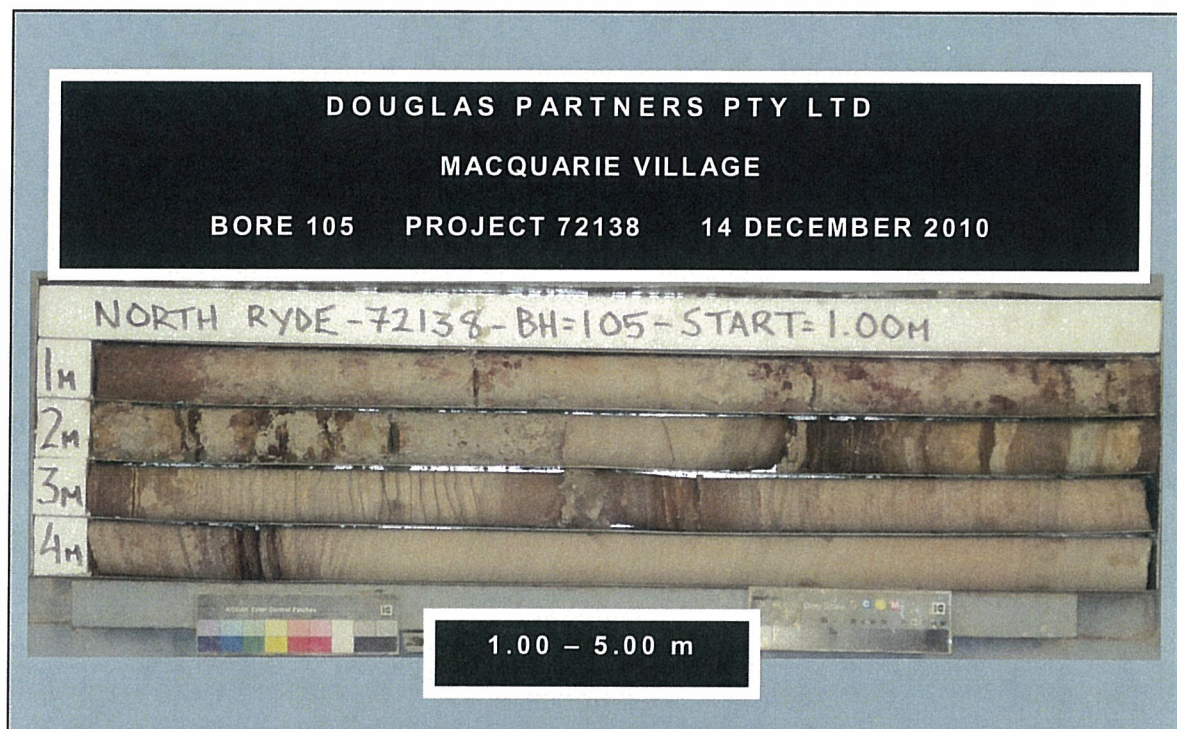
WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND

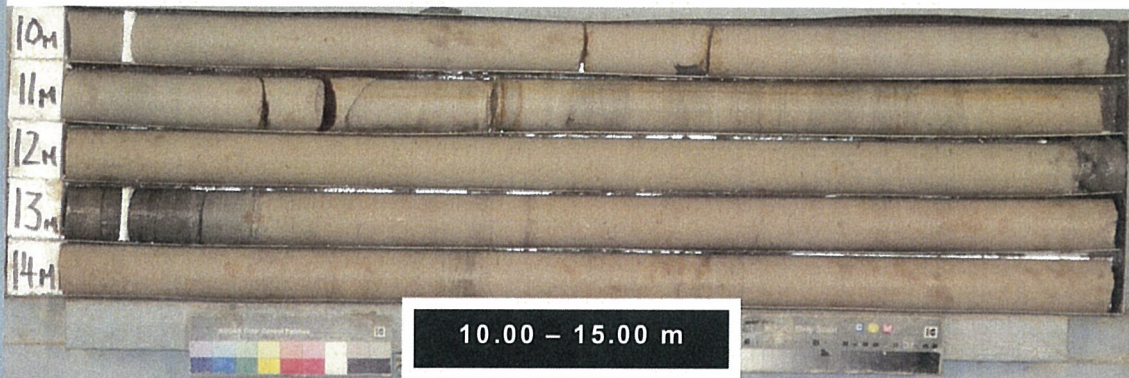
| | | | | | |
|-----|----------------------|---|-------------------------|-------|--|
| A | Auger sample | G | Gas sample | PID | Photo ionisation detector (ppm) |
| B | Bulk sample | P | Piston sample | PL(A) | Point load axial test Is(50) (MPa) |
| BLK | Block sample | U | Tube sample (x mm dia.) |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



DOUGLAS PARTNERS PTY LTD

MACQUARIE VILLAGE

BORE 105 PROJECT 72138 14 DECEMBER 2010



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 | | | Ex-High | B - Bedding S - Shear | J - Joint F - Fault | Type | Core Rec. % |
| 73 | 0.05 | ASPHALT | | | | | | | | | | | | | | | | | | | |
| | 0.2 | FILLING - crushed sandstone filling with some sand | | | | | | | | | | | | | | | | | | | |
| | 0.7 | CLAY - red grey clay | | | | | | | | | | | | | | | | | | | |
| 1 | 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 | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |

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 | 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: 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 | Sampling & In Situ Testing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | 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 | | 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 <i>(continued)</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RIG: Scout

DRILLER: KKE

LOGGED: PGH

CASING: HW to 1.0m

TYPE OF BORING: Solid flight auger (TC-bit) to 1.0m; NMLC-Coring to 15.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS: 30% Water loss at 7.30m

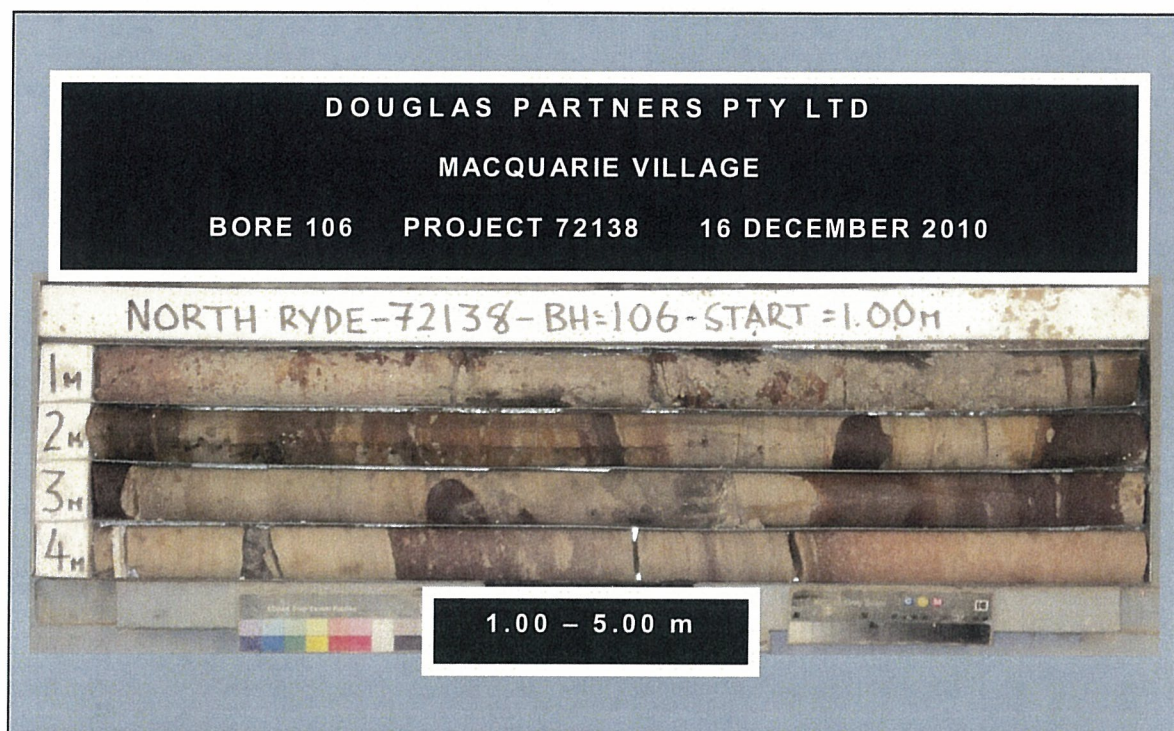
SURVEY DATUM:

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) |



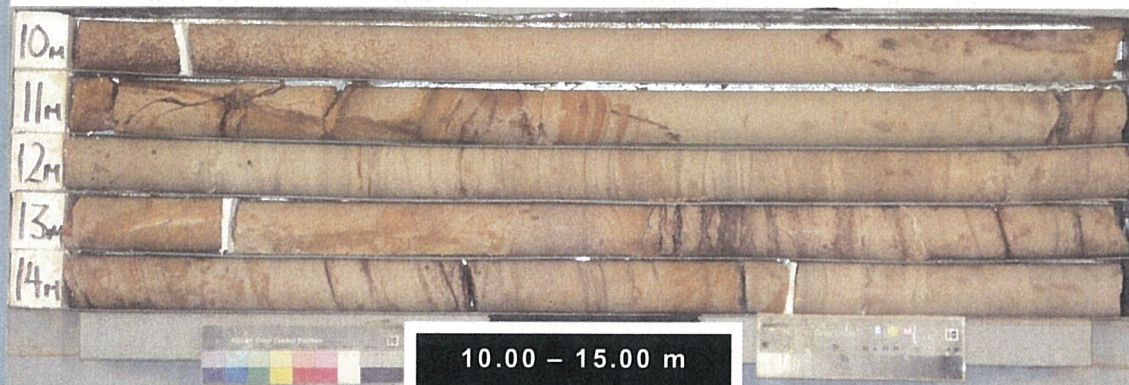
Douglas Partners
 Geotechnics | Environment | Groundwater



DOUGLAS PARTNERS PTY LTD

MACQUARIE VILLAGE

BORE 106 PROJECT 72138 13 DECEMBER 2010



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 | | | |
| | 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 | | | | | | | | | | | | | | | | | | | |
| 72 | 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 | | | | | | | | | | | | | | | | | | | |
| 71 | | | | | | | | | | | | | | | | | | | | | |
| 70 | 4.0 | SANDSTONE - high strength, moderately weathered, slightly fractured, purple red with grey bands, medium grained sandstone with distinct laminations | | | | | | | | | | | | | | | | | | | |
| 69 | | | | | | | | | | | | | | | | | | | | | |
| 68 | | | | | | | | | | | | | | | | | | | | | |
| 67 | 7.0 | SANDSTONE - high strength, slightly and moderately weathered with some fresh stained zones, slightly fractured, light grey and orange, medium grained sandstone | | | | | | | | | | | | | | | | | | | |
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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 | Ex Low | Low | Medium | High | Very High | | | B - Bedding S - Shear | J - Joint F - Fault | Type | Core Rec. % | RQD % | Test Results & Comments |
| 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 |
| | | | | | | | | | | | | | | | 10.68m: B11°, pl, ro, fe 10.78m: B11°, pl, ro, fe 10.85m: B11°, pl, ro, fe | | | | | |
| | | | | | | | | | | | | | | | | | C | 100 | 98 | PL(A) = 1.4 |
| | | | | | | | | | | | | | | | 11.76m: B10°, pl, ro, fe | | | | | |
| | | | | | | | | | | | | | | | 12.12m: B11°, pl, ro, fe 12.27m: B11°, pl, ro, fe | | | | | PL(A) = 1.3 |
| | | | | | | | | | | | | | | | 12.58m: B11°, pl, ro, fe 12.72m: B11°, pl, ro, fe | | C | 100 | 98 | PL(A) = 1.2 |
| | | | | | | | | | | | | | | | 13.73-14.0m: J85°, pl, ro, fe | | | | | |
| | | | | | | | | | | | | | | | 14.6m: B15°, pl, ro, fe | | C | 100 | 100 | PL(A) = 1.1 |
| | | | | | | | | | | | | | | | 15.25m: J45°, pl, ro, fe 15.5m: J70°, pl, ro, he & fe | | | | | PL(A) = 1.4 |
| | | | | | | | | | | | | | | | | | | | | |
| | 16.0 | Bore discontinued at 16.0m | | | | | | | | | | | | | | | | | | |
| 58 | 17 | | | | | | | | | | | | | | | | | | | |
| 57 | 18 | | | | | | | | | | | | | | | | | | | |
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