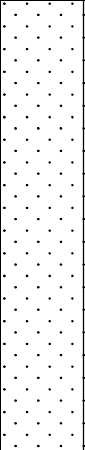


HAND AUGER LOG

PROJECT: MacKays to Peka Peka Expressway JOB NUMBER: 3320901/1000/013
 SITE LOCATION: 58 Kiwi Road, Paraparaumu, Wellington CLIENT: New Zealand Transport Agency

CIRCUIT: AUGER LOCATION:
 COORDINATES: N 5,468,552.52 m R L:
 E 1,767,677.3 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | γ (kPa) | SAMPLES | DEPTH (m) |
|-----------|-------------|---|------|----------|---|--------------------|-------|----|----------------|---------|-----------|
| | |  | SW | M | Fine to coarse SAND, some organics; dark brown; moist, non-plastic. Organics: rootlets. No organics. | Interdune Deposits | | | | DS12A | |
| | | | | | END OF LOG @ 0.15 m | | | | | | |

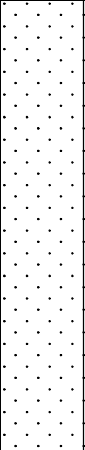
DATE AUGERED: 12/2/13 DIAMETER:
 LOGGED BY: KMW METHOD:
 SHEAR VANE No: COMMENTS: Comp12A 13:013 S12A 0.0m-0.15m

HAND_AUGER_P:\3320901\TENICON LAND\PHASE 1B GROUND INVESTIGATION_POST-LODGE\GINT LOGS\58 KIWI ROAD\58 KIWI ROAD.GPJ BECA.GDT 16/4/13

HAND AUGER LOG

PROJECT: MacKays to Peka Peka Expressway JOB NUMBER: 3320901/1000/013
 SITE LOCATION: 58 Kiwi Road, Paraparaumu, Wellington CLIENT: New Zealand Transport Agency

CIRCUIT: AUGER LOCATION:
 COORDINATES: N 5,468,574.41 m R L:
 E 1,767,692.76 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | τ (kPa) | SAMPLES | DEPTH (m) |
|-----------|-------------|---|------|----------|--|--------------------|-------|----|--------------|---------|-----------|
| | |  | SW | M | Fine to coarse SAND, some silt, some organics; dark brown; moist, non-plastic. Organics: rootlets. No organics. | Interdune Deposits | | | | DS12C | |
| | | | | | END OF LOG @ 0.15 m | | | | | | |

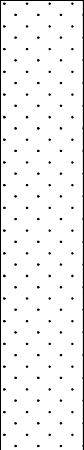
DATE AUGERED: 12/2/13 DIAMETER:
 LOGGED BY: KMW METHOD:
 SHEAR VANE No: COMMENTS: Comp12C 13:013 S12C 0.0m-0.15m

HAND_AUGER_P:13320901\TENICON LAND\PHASE 1B GROUND INVESTIGATION_POST-LODGE\GINT LOGS\58 KIWI ROAD\58 KIWI ROAD.GPJ BECA.GDT 16/4/13

HAND AUGER LOG

PROJECT: MacKays to Peka Peka Expressway JOB NUMBER: 3320901/1000/013
 SITE LOCATION: 58 Kiwi Road, Paraparaumu, Wellington CLIENT: New Zealand Transport Agency

CIRCUIT: AUGER LOCATION:
 COORDINATES: N 5,468,594.65 m R L:
 E 1,767,663.3 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | σ_v (kPa) | SAMPLES | DEPTH (m) |
|-----------|-------------|---|------|----------|--|---------------------------|-------|----|------------------|---------|-----------|
| | |  | SW | D | Fine to coarse SAND, some organics; light brown; dry, non-plastic. Organics: rootlets. No organics. | Interdune Deposits | | | | DS12D | |
| | | | | | END OF LOG @ 0.15 m | | | | | | |

DATE AUGERED: 12/2/13 DIAMETER:
 LOGGED BY: KMW METHOD:
 SHEAR VANE No: COMMENTS: Comp12D 13:013 S12D 0.0m-0.15m

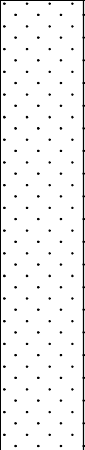
FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS SEE KEY SHEET Revision 1

HAND_AUGER_P:\3320901\TENICON LAND\PHASE 1B GROUND INVESTIGATION_POST-LODGE\GINT LOGS\58 KIWI ROAD\58 KIWI ROAD.GPJ BECA.GDT 16/4/13

HAND AUGER LOG

PROJECT: MacKays to Peka Peka Expressway JOB NUMBER: 3320901/1000/013
 SITE LOCATION: 58 Kiwi Road, Paraparaumu, Wellington CLIENT: New Zealand Transport Agency

CIRCUIT: AUGER LOCATION:
 COORDINATES: N 5,468,545.72 m R L:
 E 1,767,630.48 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | τ (kPa) | SAMPLES | DEPTH (m) |
|-----------|-------------|---|------|----------|--|--------------------|-------|----|--------------|---------|-----------|
| | |  | SW | M | Fine to coarse SAND, some organics; light brown; moist, non-plastic. Organics: rootlets. No organics. | Interdune Deposits | | | | DS13A | |
| | | | | | END OF LOG @ 0.15 m | | | | | | |

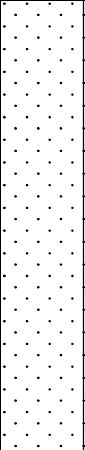
DATE AUGERED: 12/2/13 DIAMETER:
 LOGGED BY: KMW METHOD:
 SHEAR VANE No: COMMENTS: Comp13A 13:016 S13A 0.0m-0.15m

HAND_AUGER_P:13320901\TENICON LAND\PHASE 1B GROUND INVESTIGATION_POST-LODGE\GINT LOGS\58 KIWI ROAD\58 KIWI ROAD.GPJ BECA.GDT 16/4/13

HAND AUGER LOG

PROJECT: MacKays to Peka Peka Expressway JOB NUMBER: 3320901/1000/013
 SITE LOCATION: 58 Kiwi Road, Paraparaumu, Wellington CLIENT: New Zealand Transport Agency

CIRCUIT: AUGER LOCATION:
 COORDINATES: N 5,468,641.09 m R L:
 E 1,767,596.51 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | τ (kPa) | SAMPLES | DEPTH (m) |
|-----------|-------------|---|------|----------|--|--------------------|-------|----|--------------|---------|-----------|
| | |  | SW | M | Silty fine to coarse SAND, some organics; dark brown; moist, non-plastic. Organics: rootlets. No organics | Interdune Deposits | | | | DDS1 | |
| | | | | | END OF LOG @ 0.15 m | | | | | | |

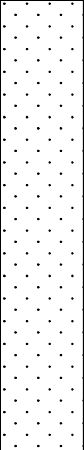
DATE AUGERED: 12/2/13 DIAMETER:
 LOGGED BY: KMW METHOD:
 SHEAR VANE No: COMMENTS: S1:HA101 13:016 0.0m-0.15m

HAND_AUGER_P:13323320901\TENICON LAND\PHASE 1B GROUND INVESTIGATION_POST-LODGE\GINT LOGS\58 KIWI ROAD\58 KIWI ROAD.GPJ BECA.GDT 16/4/13

HAND AUGER LOG

| | |
|--|--------------------------------------|
| PROJECT: MacKays to Peka Peka Expressway | JOB NUMBER: 3320901/1000/013 |
| SITE LOCATION: 58 Kiwi Road, Paraparaumu, Wellington | CLIENT: New Zealand Transport Agency |

| | |
|-------------------------------|-----------------|
| CIRCUIT: | AUGER LOCATION: |
| COORDINATES: N 5,468,617.63 m | R L: |
| E 1,767,580.77 m | DATUM: |

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | τ (kPa) | SAMPLES | DEPTH (m) |
|-----------|-------------|---|------|----------|--|---------------------------|-------|----|---------|---------|-----------|
| | |  | SW | D | Fine to coarse SAND, some organics; light brown; dry, non-plastic. Organics: rootlets. No organics. | Interdune Deposits | | | | DDS1 | |
| | | | | | END OF LOG @ 0.15 m | | | | | | |

| | | |
|---|----------------------|---|
| DATE AUGERED: 12/2/13 LOGGED BY: KMW SHEAR VANE No: | DIAMETER: METHOD: | COMMENTS: S1:HA122 13:016 0.0m-0.15m |
|---|----------------------|---|

HAND_AUGER_P:\332\3320901\TENICON LAND\PHASE 1B GROUND INVESTIGATION_POST-LODGE\GINT LOGS\58 KIWI ROAD\58 KIWI ROAD.GPJ BECA.GDT 16/4/13

SECTOR 2 – TEST PIT LOGS

| Test Pits | Location |
|----------------|-----------------|
| TP101 to TP115 | 109 Kāpiti Road |

SECTOR 2 – SUMMARY OF SOIL SAMPLING AND ANALYSIS

| Location | Test Pit Depth (m bgl) | Laboratory Number | Sample Depth (m) | Soil Type | Analysis Suite |
|----------|---------------------------|----------------------|---------------------|-------------|----------------|
| TP101 | 3 | 1110684.20 | 0.1 | Sand | HM, TPH, PAH |
| | | 1110684.21 | 1.2 | Clayey silt | HM, TPH, PAH |
| | | 1110684.22 | 2.2 | Clayey silt | Hold Cold |
| TP102 | 2.5 | 1110684.17 | 0.4 | Clayey silt | HM, TPH, PAH |
| | | 1110684.18 | 1.1 | Clayey silt | HM, TPH, PAH |
| | | 1110684.19 | 2.4 | Silt | Hold Cold |
| TP103 | 2.5 | 1110684.15 | 0.2 | Silt | HM, TPH, PAH |
| | | 1110684.16 | 1.2 | Sand | Hold Cold |
| TP104 | 2 | 1110684.1 | 0.1 | Silt | HM, TPH, PAH |
| | | 1110684.2 | 0.6 | Silt | HM, TPH, PAH |
| | | 1110684.3 | 1.9 | Sand | Hold Cold |
| TP105 | 1.6 | 1110684.4 | 0.3 | Silt | HM, TPH, PAH |
| | | 1110684.5 | 1.0 | Sandy silt | Hold Cold |
| | | 1110684.6 | 1.5 | Sandy silt | Hold Cold |
| TP106 | 1.7 | 1110684.10 | 0.2 | Sandy silt | HM, TPH, PAH |
| | | 1110684.11 | 1.0 | Sandy silt | Hold Cold |

| Location | Test Pit Depth (m bgl) | Laboratory Number | Sample Depth (m) | Soil Type | Analysis Suite |
|----------|------------------------|-------------------|------------------|---------------|----------------|
| | | 1110684.12 | 1.5 | Sand | Hold Cold |
| TP107 | 2.9 | 1110684.25 | 0.2 | Sand | HM, TPH, PAH |
| | | 1110684.26 | 1.3 | Silty sand | Hold Cold |
| TP108 | 2.8 | 1110684.23 | 0.1 | Sandy silt | HM, TPH, PAH |
| | | 1110684.24 | 0.9 | Sandy silt | Hold Cold |
| TP109 | 1.6 | 1110964.3 | 0.2-0.3 | Gravelly silt | HM, TPH, PAH |
| | | 1110964.4 | 1.3-1.4 | Sandy silt | Hold Cold |
| TP110 | 1.4 | 1110964.5 | 0.2-0.3 | Silt | HM, TPH, PAH |
| | | 1110964.6 | 1.3-1.4 | Silt | Hold Cold |
| TP111 | 2 | 1110964.1 | 0.2-0.3 | Silt | HM, TPH, PAH |
| | | 1110964.2 | 0.7-0.8 | Sand | Hold Cold |
| | | 1110964.25 | 1.9-2m | Peat | Hold Cold |
| TP112 | 2.2 | 1110684.27 | 0.1 | Silty sand | HM, TPH, PAH |
| | | 1110684.28 | 1.2 | Silt | Hold Cold |
| TP113 | 2.9 | 1110684.7 | 0.2 | Silty sand | HM, TPH, PAH |
| | | 1110684.8 | 1.1 | Clayey silt | HM, TPH, PAH |
| | | 1110684.9 | 2.8 | Peat | Hold Cold |
| TP114 | 2.2 | 1110964.9 | 0.2-0.3 | Silty gravel | HM, TPH, PAH |
| | | 1110964.10 | 1.0-1.1 | Silt | Hold Cold |
| TP115 | 1.3 | 1110964.7 | 0.1-0.2 | Silt | HM, TPH, PAH |

| Location | Test Pit Depth (m bgl) | Laboratory Number | Sample Depth (m) | Soil Type | Analysis Suite |
|----------|------------------------|-------------------|------------------|-----------|----------------|
| | | 1110964.8 | 1.2-1.3 | Peat | Hold Cold |

HM = Heavy metals


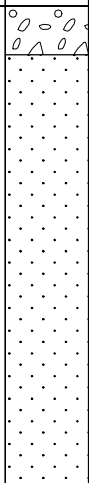
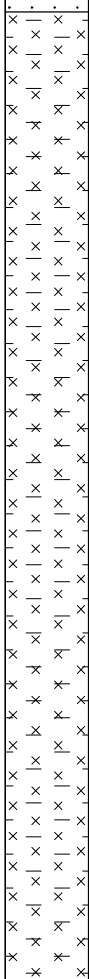

TPH = Total Petroleum Hydrocarbons

PAH = Polycyclic Aromatic Hydrocarbons

TEST PIT LOG

PROJECT: **MacKays to Peka Peka Expressway** JOB NUMBER: **3320901/1000/013**
 SITE LOCATION: **109 Kapiti Road, Paraparaumu** CLIENT: **NZTA**

CIRCUIT: TEST PIT LOCATION:
 COORDINATES: N 5,469,401.31 m R L:
 E 1,768,389.27 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | σ_v (kPa) | SAMPLES | DEPTH (m) | |
|-----------|---|--|------|----------|---|-----------------|-------|----|------------------|---------|-----------|-----|
| | |  | GW | D | Fine to coarse sandy fine to coarse GRAVEL; light grey; dry, non plastic. Gravel: Angular. | Fill | | | | | | |
| | |  | SW | M | Fine to coarse SAND, minor fill (concrete); light greyish brown; moist, non plastic. Organic odour. | | | | | | DS1 | |
| 0.5 | | | | | | | | | | | | 0.5 |
| 1.0 | |  | CH | M | Clayey SILT, some coarse gravel; grey mottled orange; moist, high plasticity. Gravel: Rounded. | | | | | | | 1.0 |
| 1.5 | | | | | | | | | | DS2 | | 1.5 |
| 2.0 | | | | | | | | | | | | 2.0 |
| 2.5 | | | | | Minor fibrous organics. | | | | | | | 2.5 |
| 3.0 |  | | | | END OF LOG @ 3 m | | | | | DS3 | | 3.0 |


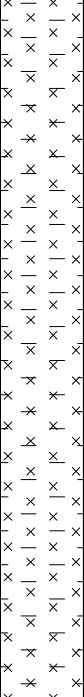
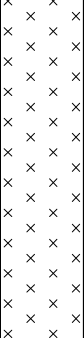

DATE EXCAVATED: 11/3/13 CONTRACTOR: Goodman Contractors Ltd COMMENTS:
 LOGGED BY: KMW EQUIPMENT: 12 tonne Kobelco S1 13:024 TP101 S1 0.1-0.2m
 SHEAR VANE No: METHOD: Excavation S2 13:024 TP101 S2 1.2-1.3m
 S3 13:024 TP101 S3 2.2-2.3m
 Groundwater as rapid inflow at 3m

TEST_PIT_P:\3320901\TENICON LAND\PHASE 1B GROUND INVESTIGATION_POST-LODGE\GINT LOGS\109 KAPITI ROAD\KAPITI ROAD.GPJ BECA.GDT 16/4/13

TEST PIT LOG

PROJECT: MacKays to Peka Peka Expressway JOB NUMBER: 3320901/1000/013
 SITE LOCATION: 109 Kapiti Road, Paraparaumu CLIENT: NZTA

CIRCUIT: TEST PIT LOCATION:
 COORDINATES: N 5,469,383.67 m R L:
 E 1,768,368.73 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | τ (kPa) | SAMPLES | DEPTH (m) |
|-----------|-------------|---|------|----------|--|-----------------|-------|----|---------|---------|-----------|
| | |  | GP | D | Loosely compacted ASPHALT (road millings). | Fill | | | | | |
| 0.5 | |  | OH | M | Clayey SILT, minor fine to medium gravel, minor fine to coarse sand; light greyish brown; moist, high plasticity. Organic odour. | | | | | DS1 | 0.5 |
| 1.0 | |  | OL | M | Organic SILT; dark brown; moist, non plastic. Organics: rootlets. | | | | | DS2 | 1.0 |
| 1.5 | |  | ML | M | SILT, some fine to coarse sand; light grey stained dark red; moist, non plastic. | | | | | DS3 | 1.5 |
| 2.0 | | | | | | | | | | | |
| 2.5 | | | | | END OF LOG @ 2.5 m | | | | | | 2.5 |

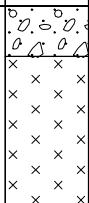
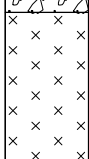
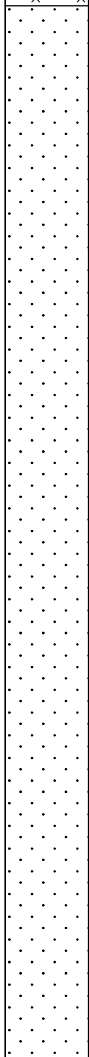
DATE EXCAVATED: 11/3/13 CONTRACTOR: Goodman Contractors Ltd COMMENTS: S1 13:024 TP102 S1 0.4-0.5m
 LOGGED BY: KMW EQUIPMENT: 12 tonne Kobelco S2 13:024 TP102 S2 1.1-1.2m
 SHEAR VANE No: METHOD: Excavation S3 13:024 TP102 S3 2.4-2.5m

TEST_PIT_P:\3320901\TENICON LAND\PHASE 1B GROUND INVESTIGATION_POST-LODGE\GINT LOGS\109 KAPITI ROAD\KAPITI ROAD_GPJ BECA.GDT 16/4/13

TEST PIT LOG

PROJECT: MacKays to Peka Peka Expressway JOB NUMBER: 3320901/1000/013
 SITE LOCATION: 109 Kapiti Road, Paraparaumu CLIENT: NZTA

CIRCUIT: TEST PIT LOCATION:
 COORDINATES: N 5,469,368 m R L:
 E 1,768,354.08 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | τ (kPa) | SAMPLES | DEPTH (m) |
|-----------|-------------|--|------|----------|--|-----------------|-------|----|---------|---------|-----------|
| | |  | GW | D | Fine to coarse sandy fine to coarse GRAVEL; light grey; dry, non plastic. Gravel: Angular. | Fill | | | | | |
| | |  | ML | D | SILT, some clay, minor fine sand; light grey; dry, low plasticity. | | | | | | DS1 |
| 0.5 | |  | SW | M | Fine to coarse SAND; light greyish brown; moist, non plastic. | | | | | | DS2 |
| 1.0 | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | |
| 2.0 | | | | | | | | | | | |
| 2.5 | | | | | END OF LOG @ 2.5 m | | | | | | |

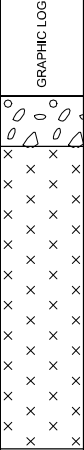
| | | |
|-------------------------|-------------------------------------|---|
| DATE EXCAVATED: 11/3/13 | CONTRACTOR: Goodman Contractors Ltd | COMMENTS: S1 13:024 TP103 S1 0.2-0.3m S2 13:024 TP103 S2 1.2-1.3m |
| LOGGED BY: KMW | EQUIPMENT: 12 tonne Kobelco | |
| SHEAR VANE No: | METHOD: Excavation | |

TEST_PIT_P:\3320901\TENICON LAND\PHASE 1B GROUND INVESTIGATION_POST-LODGE\GINT LOGS\109 KAPITI ROAD\KAPITI ROAD_GPJ BECA.GDT 16/4/13

TEST PIT LOG

PROJECT: MacKays to Peka Peka Expressway JOB NUMBER: 3320901/1000/013
 SITE LOCATION: 109 Kapiti Road, Paraparaumu CLIENT: NZTA

CIRCUIT: TEST PIT LOCATION:
 COORDINATES: N 5,469,340.98 m R L:
 E 1,768,347.31 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | τ (kPa) | SAMPLES | DEPTH (m) |
|-----------|-------------|---|------|----------|---|-----------------|-------|----|---------|---------|-----------|
| 0.5 | |  | GW | D | Fine to coarse GRAVEL, some fine to coarse sand; light grey; dry, non plastic. Gravel: Angular. | Fill | | | | DS1 | 0.5 |
| | | | ML | D | SILT, some clay, minor fine sand; brown mottled orange and grey; dry, low plasticity. | | | | | | |
| 1.0 | | | OL | D | Organic fine to medium sandy SILT; orange brown speckled dark brown; dry, non plastic. Organics: amorphous. | | | | | | |
| 1.5 | | | | | END OF LOG @ 1.6 m | | | | | DS3 | 1.5 |
| 2.0 | | | | | | | | | | | 2.0 |
| 2.5 | | | | | | | | | | | 2.5 |

| | | |
|-------------------------|-------------------------------------|--|
| DATE EXCAVATED: 11/3/13 | CONTRACTOR: Goodman Contractors Ltd | COMMENTS: S1 13:024 TP105 S1 0.3-0.4m S2 13:024 TP105 S2 1.0-1.1m S3 13:024 TP105 S3 1.5-1.6m |
| LOGGED BY: KMW | EQUIPMENT: 12 tonne Kobelco | |
| SHEAR VANE No: | METHOD: Excavation | |

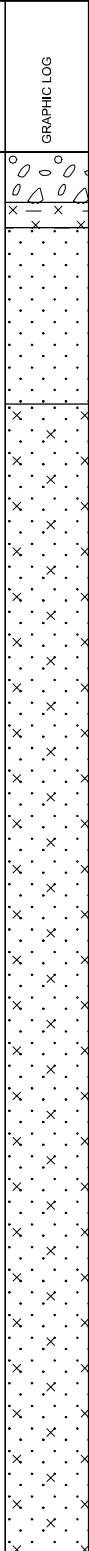
FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS SEE KEY SHEET

Revision 1

TEST PIT LOG

PROJECT: MacKays to Peka Peka Expressway JOB NUMBER: 3320901/1000/013
 SITE LOCATION: 109 Kapiti Road, Paraparaumu CLIENT: NZTA

CIRCUIT: TEST PIT LOCATION:
 COORDINATES: N 5,469,368.58 m R L:
 E 1,768,382.62 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | τ (kPa) | SAMPLES | DEPTH (m) |
|-----------|-------------|--|------|----------|---|-----------------|-------|----|---------|---------|-----------|
| 0.5 | ▽ |  | GW | D | Fine to coarse sandy fine to coarse GRAVEL; light grey; dry, non plastic. Gravel: Angular. | Fill | | | | DS1 | 0.5 |
| | | | OH | D | Clayey SILT; light yellowish brown; dry, high plasticity. | | | | | | |
| | | | SW | M | Organic fine to coarse SAND; dark reddish brown; moist, non plastic. Organics: rootlets. | | | | | | |
| 0.5 | | | SM | M | Silty fine to coarse SAND, minor organics; greyish brown; moist, non plastic. Organics: rootlets. | | | | | | 0.5 |
| 1.0 | | | | | | | | | | | 1.0 |
| 1.5 | | | | | | | | | | | 1.5 |
| 2.0 | | | | | | | | | | | 2.0 |
| 2.5 | | | | | | | | | | | 2.5 |
| | ▽ | | PT | W | PEAT; dark brown; wet, non plastic. Organics: fibrous. Organic odour. | ID | | | | | |
| | | | | | END OF LOG @ 2.9 m | | | | | | |

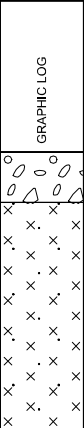
DATE EXCAVATED: 11/3/13 CONTRACTOR: Goodman Contractors Ltd COMMENTS: S1 13:024 TP107 S1 0.2-0.3m
 LOGGED BY: KMW EQUIPMENT: 12 tonne Kobelco S2 13:024 TP109 S2 1.3-1.4m
 SHEAR VANE No: METHOD: Excavation ID = Interdune Deposits (Peat)
 Groundwater as moderate inflow at 2.8m

TEST_PIT_P:\3320901\TENCON LAND\PHASE 1B_GROUND INVESTIGATION_POST-LODGE\GINT LOGS\109 KAPITI ROAD\KAPITI ROAD_GPJ_BECA.GDT 16/4/13

TEST PIT LOG

PROJECT: **MacKays to Peka Peka Expressway** JOB NUMBER: **3320901/1000/013**
 SITE LOCATION: **109 Kapiti Road, Paraparaumu** CLIENT: **NZTA**

CIRCUIT: TEST PIT LOCATION:
 COORDINATES: N 5,469,384.33 m R L:
 E 1,768,403.51 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | σ_v (kPa) | SAMPLES | DEPTH (m) | |
|-----------|-------------|---|------|----------|--|-----------------|-------|----|------------------|---------|-----------|-----|
| 0.5 | |  | GW | D | Fine to coarse sandy fine to coarse GRAVEL; light grey; dry, non plastic. Gravel: Angular. | FII | | | | | 0.5 | |
| | | | ML | D | Sandy SILT, some clay; yellowish grey; dry, low plasticity. | | | | | | | DS1 |
| | | | ML | M | Sandy SILT, some fibrous organics; dark brown; moist, non plastic. Organics: roots. Minor fibrous organics; dark greyish brown. | | | | | | | DS2 |
| 1.0 | | | | | | | | | | 1.0 | | |
| 1.5 | | | | | | | | | | | 1.5 | |
| 2.0 | | | | | | | | | | | 2.0 | |
| 2.5 | | | | | | | | | | | 2.5 | |
| | | | PT | W | Fibrous PEAT; dark brown; wet, non plastic. Organic odour. | ID | | | | | | |
| | | | | | END OF LOG @ 2.8 m | | | | | | | |

| | | |
|-------------------------|-------------------------------------|---|
| DATE EXCAVATED: 11/3/13 | CONTRACTOR: Goodman Contractors Ltd | COMMENTS: S1 13:024 TP108 S1 0.1-0.2m S2 13:024 TP108 S2 0.9-1.0m ID = Interdune Deposits (Peat) |
| LOGGED BY: KMW | EQUIPMENT: 12 tonne Kobelco | |
| SHEAR VANE No: | METHOD: Excavation | |

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TEST PIT LOG

PROJECT: MacKays to Peka Peka Expressway JOB NUMBER: 3320901/1000/013
 SITE LOCATION: 109 Kapiti Road, Paraparaumu CLIENT: NZTA

CIRCUIT: TEST PIT LOCATION:
 COORDINATES: N 5,469,381.92 m R L:
 E 1,768,439.79 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | τ (kPa) | SAMPLES | DEPTH (m) |
|-----------|--------------|-------------|------|----------|--|-----------------|-------|----|--------------|---------|-----------|
| | | x | GP | D | ASPHALT (Road millings). | Fill | | | | | |
| | | x | ML | M | SILT, some clay; light brown; moist, low plasticity. | | | | | DS1 | |
| | | x | OH | M | Clayey SILT; dark grey; moist, high plasticity. | | | | | | |
| 0.5 | | x | | | | | | | | | 0.5 |
| 1.0 | | x | | | | | | | | | 1.0 |
| | ▽ 12/3/13 | x | OL | S | Organic SILT; dark brownish black; saturated; non plastic. | ID | | | | DS2 | |
| 1.5 | | | | | END OF LOG @ 1.4 m | | | | | | 1.5 |
| 2.0 | | | | | | | | | | | 2.0 |
| 2.5 | | | | | | | | | | | 2.5 |
| 3.0 | | | | | | | | | | | 3.0 |


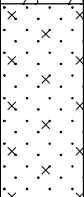
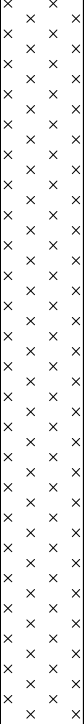

DATE EXCAVATED: 12/3/13 CONTRACTOR: Goodman Contractors Ltd COMMENTS:
 LOGGED BY: KMW EQUIPMENT: 12 tonne Kobelco S1 13:024 TP110 S1 0.2-0.3m
 SHEAR VANE No: METHOD: Excavation S2 13:024 TP110 S2 1.3-1.4m
 Groundwater as rapid inflow at 1.3m
 ID = Interdune Deposits (Peat)

TEST_PIT_P:\3320901\TENICON LAND\PHASE 1B GROUND INVESTIGATION_POST-LODGE\GINT LOGS\109 KAPITI ROAD\KAPITI ROAD.GPJ BECA.GDT 16/4/13

TEST PIT LOG

PROJECT: **MacKays to Peka Peka Expressway** JOB NUMBER: **3320901/1000/013**
 SITE LOCATION: **109 Kapiti Road, Paraparaumu** CLIENT: **NZTA**

CIRCUIT: TEST PIT LOCATION:
 COORDINATES: N 5,469,350.85 m R L:
 E 1,768,390.08 m DATUM:

| DEPTH (m) | WATER LEVEL | GRAPHIC LOG | USCS | MOISTURE | SOIL / ROCK DESCRIPTION | GEOLOGICAL UNIT | Scale | SV | τ (kPa) | SAMPLES | DEPTH (m) | |
|-----------|-------------|---|------|----------|---|-----------------|-------|----|--------------|---------|-----------|-----|
| | |  | GW | D | Fine to coarse sandy fine to coarse GRAVEL; light grey; dry, non plastic. Gravel: Angular. | Fill | | | | | | |
| | |  | SM | M | Silty fine to coarse SAND, some organics; dark greyish brown; moist, non plastic. Organics: timber. | | | | | | DS1 | |
| 0.5 | |  | ML | M | Silt, some clay, trace fine sand; light grey; moist, non plastic. | | | | | | | 0.5 |
| 1.0 | | | | | | | | | | | 1.0 | |
| 1.5 | | | | | | | | | | | 1.5 | |
| 2.0 | |  | PT | M | PEAT; dark brown; moist, non plastic. Organics: Fibrous. Organic odour. | ID | | | | | 2.0 | |
| | | | | | END OF LOG @ 2.2 m | | | | | | | |
| 2.5 | | | | | | | | | | | 2.5 | |
| 3.0 | | | | | | | | | | | 3.0 | |

DATE EXCAVATED: 11/3/13 CONTRACTOR: Goodman Contractors Ltd COMMENTS: S1 13:024 TP112 S1 0.1-0.2m
 LOGGED BY: KMW EQUIPMENT: 12 tonne Kobelco S2 13:024 TP112 S2 1.2-1.3m
 SHEAR VANE No: METHOD: Excavation ID = Interdune Deposits (Peat)

FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS SEE KEY SHEET

Revision 1

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