Connell Wagner

Borehole Number: CW-03

Commenced: 31/07/08
Completed: 31/07/08
Location: CH 32878
Easting: 468719m
Northing: 7054364m
Elevation: Not Surveyed
Inclination: 90°

Datum: UTM - Zone 56J
Sheet: 1 of 4

Client: Department of Main Roads
Project: Maleny to Kenilworth
Project Number: 37009-001
File Name: P:\WP\37009\Winlog

Drilling Information				Soil Description			Testing		Strata Information		
Groundwater	Drilling Method	Sample Type	Elevation (m LAT)	USC	Material Type; Colour; Plasticity Or Particle Characteristics; Structure	Moisture Content	Consistency/ Relative Density (VS VL, S L, F MD, St D, VSt VD, H C)	Comments/ Test Results/ Origin	SPT Values	Graphic Log	Elevation (m LAT)	Depth (m)
	RC			FILL	**FILL (Sandy GRAVEL)** Yellow brown, silt, sand, gravel and cobbles present (road base), no organic material present, loose	D		Embankment Fill				
		SPT		HW	**CONGLOMERATE** Yellow brown mottled white and red, grey and blue cobbles, highly weathered, extremely low strength			Bedrock	SPT @ 1.50m to 1.95m (5, 22, 30) N = 52			
		SPT		SW	Blue grey cobbles, slightly weathered, low strength **Begin NMLC Rock Log @ 2.60m**				SPT @ 2.50m to 2.61m (30/105mm) N* = 86			

1.0
2.0
3.0
4.0
5.0

Driller: GEODRILL
Remarks:
Logged By: JSM
Date Logged: 31/07/08

Drill Type: Truck Mounted Hydrapower
Support: Casing - 2.50m
Checked By: MS
Date Checked: 12/08/08

Connell Wagner

Borehole Number: CW-03

Commenced: 31/07/08
Completed: 31/07/08
Location: CH 32878
Easting: 468719m
Northing: 7054364m
Elevation: Not Surveyed
Inclination: 90°

Datum: UTM - Zone 56J
Sheet: 2 of 4

Client: Department of Main Roads
Project: Maleny to Kenilworth
Project Number: 37009-001-01
File Name: P:\WP\37009\Winlog

Drilling Information				Rock Description			Intact Strength			Rock Mass Defects		Strata Information		
Groundwater	Drilling Method	Core Recovery	Elevation (m LAT)	Weathering	Material Type; Colour; Plasticity Or Particle Characteristics; Structure	RQD (%)	Estimated Strength (VL M VH / EL L H)	Is(50) A/Ir/D(MPa)	UCS (MPa)	Defect Spacing (m) (0.02 0.2 / 0.006 0.06 0.6)	Defect Description (depth, type, angle, roughness, infill, thickness)	Graphic Log	Elevation (m LAT)	Depth (m)
					Start NMLC Rock Core Log @ 2.60m									
	NMLC	25			**CORE LOSS - 1800mm** 2.60m to 4.40m	0					Refer to attached sheet for defect descriptions Start to lose water @ 3.50m			
				HW	**CONGOLOMERATE** Yellow and grey, crushed, highly weathered, extremely low strength									
				HW	**SANDSTONE** Yellow, highly weathered with white and yellow clay, high plasticity, extremely low strength									

1.0
2.0
3.0
4.0
5.0

Driller: GEODRILL
Remarks:
Logged By: JSM
Date Logged: 31/07/08

Drill Type: Truck Mounted Hydrapower
Support: Casing - 2.50m
Checked By: MS
Date Checked: 12/08/08

Connell Wagner

Borehole Number: CW-03

Commenced: 31/07/08
Completed: 31/07/08
Location: CH 32878
Easting: 468719m
Northing: 7054364m
Elevation: Not Surveyed
Inclination: 90°

Datum: UTM - Zone 56J
Sheet: 3 of 4

Client: Department of Main Roads
Project: Maleny to Kenilworth
Project Number: 37009-001-01
File Name: P:\WP\37009\Winlog

Drilling Information				Rock Description				Intact Strength			Rock Mass Defects		Strata Information		
Groundwater	Drilling Method	Core Recovery	Elevation (m LAT)	Weathering	Material Type; Colour; Plasticity Or Particle Characteristics; Structure	RQD (%)		Estimated Strength (VL L M H VH / EL)	Is(50) A/Ir/D(MPa)	UCS (MPa)	Defect Spacing (m) (0.02 0.2 / 0.006 0.06 0.6)	Defect Description (depth, type, angle, roughness, infill, thickness)	Graphic Log	Elevation (m LAT)	Depth (m)
	NMLC	75			**CORE LOSS - 100mm** 5.00m to 5.10m	0						Refer to attached sheet for defect descriptions			
				HW	**CONGLOMERATE** Yellow brown, fine grained with angular and sub-angular gravel, up to 7mm diameter, some infill of joints with white high plasticity clay, highly weathered, medium strength	0									
		100				90									
		100		HW-MW	Highly to moderately weathered, medium strength	43									6.0
				XW	**CLAY** Yellow, high plasticity, with some fragments of extremely weathered conglomerate, possible shear zone, soft										
					CONGLOMERATE Yellow brown, extremely weathered, medium strength	64									
				CH	**CLAY** Yellow, high plasticity, with some crushed rock, soft										
				MW-SW	White, no rock fragments, stiff										
					CONGLOMERATE Yellow grey mottled black, white and yellow, moderately to slighly weathered, medium strength										
		100				80									7.0
				SW	Crushed rock in clay seam, 60mm thick										
					Yellow grey mottled white, grey black, up to 10mm, slightly weathered, very high strength					5.53					
										10.66					8.0
				HW	Yellow and white clay, possible shear zone, highly weathered, 100-150mm thick, very stiff										9.0
		100		SW		90				9.82					
					Yellow grey mottled white, grey black, slightly weathered, very high strength										10.0

Driller: GEODRILL
Remarks:
Logged By: JSM
Date Logged: 31/07/08

Drill Type: Truck Mounted Hydrapower
Support: Casing - 2.50m
Checked By: MS
Date Checked: 12/08/08

Connell Wagner

Borehole Number: CW-03

Commenced: 31/07/08
Completed: 31/07/08
Location: CH 32878
Easting: 468719m
Northing: 7054364m
Elevation: Not Surveyed
Inclination: 90°

Datum: UTM - Zone 56J
Sheet: 4 of 4

Client: Department of Main Roads
Project: Maleny to Kenilworth
Project Number: 37009-001-01
File Name: P:\WP\37009\Winlog

Drilling Information				Rock Description			Intact Strength			Rock Mass Defects		Strata Information		
Groundwater	Drilling Method	Core Recovery	Elevation (m LAT)	Weathering	Material Type; Colour; Plasticity Or Particle Characteristics; Structure	RQD (%)	Estimated Strength (VL M VH / EL L H)	Is(50) A/Ir/D(MPa)	UCS (MPa)	Defect Spacing (m) (0.02 0.2 / 0.006 0.06 0.6)	Defect Description (depth, type, angle, roughness, infill, thickness)	Graphic Log	Elevation (m LAT)	Depth (m)
	NMLC	100		SW	**CONGLOMERATE (Continued)** Yellow grey mottled white, grey black, up to 10mm, slightly weathered, very high strength	90					Refer to attached sheet for defect descriptions			
		100				0								11.0
		100		FR	Grey, clasts up to 10mm diameter, sub-rounded, quartz infill of defects, up to 1mm, fresh, high to very high strength	71								12.0
					End of Borehole @ 12.85m									13.0
														14.0
														15.0

Driller: GEODRILL
Remarks:
Logged By: JSM
Date Logged: 31/07/08

Drill Type: Truck Mounted Hydrapower
Support: Casing - 2.50m
Checked By: MS
Date Checked: 12/08/08

Maleny To Kenilworth

CW-03

37009-001-01

Depth (m)	Type	Dip (Degrees)	Aperture (mm)	Nature of Infilling	Infill Consistency	Roughness (Profile, JRC @ 100mm)
5.16	Joint	5	Very Narrow (2-6mm)	Surface Staining	High Strength	Rough - Planar
5.22	Joint	5	Very Narrow (2-6mm)	Cohesive (clay/silts)	Soft / Loose	Rough - Planar
5.26	Joint	15	Very Narrow (2-6mm)	Surface Staining	High Strength	Rough - Undulating
5.50	Joint	15	Extremely Narrow (2mm)	Surface Staining	High Strength	Rough - Undulating
5.60	Joint	73	Extremely Narrow (2mm)	Surface Staining	High Strength	Smooth - Planar
6.62	Joint	15	Moderately Narrow (20-60mm)	Cohesive (clay/silts)	Soft / Loose	Rough - Planar
6.74	Joint	5	Narrow (6-20mm)	Cohesive (clay/silts)	Stiff / Dense	Rough - Planar
6.93	Joint	60	Extremely Narrow (2mm)	Cohesive (clay/silts)	Soft / Loose	Rough - Planar
7.15	Joint	5	Moderately Narrow (20-60mm)	Other	Stiff / Dense	Rough - Planar
7.22	Joint	15	Very Narrow (2-6mm)	Surface Staining	High Strength	Rough - Undulating
7.48	Joint	0	Moderately Narrow (20-60mm)	Other	Very Low Strength	
7.85	Joint	0	Extremely Narrow (2mm)	Surface Staining	Extremely High	Rough - Undulating
8.15	Joint	5	Very Narrow (2-6mm)	Surface Staining	High Strength	Rough - Undulating
8.36	Joint	15	Very Narrow (2-6mm)	Surface Staining/Other	Firm / Med. Dense	Rough - Planar
8.52	Joint	30	Extremely Narrow (2mm)	Quartz	Very High Strength	Rough - Planar
8.95-9.15	Shear	15	Wide (>200mm)	Cohesive (clay/silts)	Stiff / Dense	Rough - Planar
9.50	Joint	65	Tight	Surface Staining	Very High Strength	Smooth - Planar
9.53	Joint	15	Very Narrow (2-6mm)	Surface Staining	Very High Strength	Smooth - Planar
9.65	Joint	30	Extremely Narrow (2mm)	Quartz	Very High Strength	Rough - Undulating
9.76	Joint	75	Tight	Surface Staining	Very High Strength	Rough - Planar
9.87	Joint	45	Extremely Narrow (2mm)	Clean	Very High Strength	Rough - Planar
10.15	Joint	60	Moderately Narrow (20-60mm)	Surface Staining	Soft / Loose	Rough - Planar
10.42	Joint	10	Moderately Narrow (20-60mm)	Cohesive (clay/silts)	Soft / Loose	Rough - Planar
10.74	Joint	45	Tight	Surface Staining	Very High Strength	Smooth - Planar
10.80	Joint	55	Tight	Surface Staining	Very High Strength	Smooth - Planar
10.85 - 10.95	Crushed					
10.94	Joint	40	Very Narrow (2-6mm)	Surface Staining	High Strength	Rough - Undulating
11.00	Joint	40	Very Narrow (2-6mm)	Cohesive (clay/silts)	Soft / Loose	Rough - Planar
11.33	Joint	45	Tight	Surface Staining	Extremely High	Smooth - Planar
11.40	Joint	40	Tight	Surface Staining	Extremely High	Smooth - Planar
11.46	Joint	30	Tight	Surface Staining	Extremely High	Smooth - Planar
11.62	Joint	55	Very Narrow (2-6mm)	Cohesive (clay/silts)	Soft / Loose	Smooth - Planar
11.74	Joint	20	Extremely Narrow (2mm)	Surface Staining	Very High Strength	Rough - Planar
11.92	Joint	65	Tight	Surface Staining	Extremely High	Smooth - Planar
12.16	Joint	20	Extremely Narrow (2mm)	Quartz	Very High Strength	Rough - Planar
12.23	Joint	70	Very Narrow (2-6mm)	Cohesive (clay/silts)	Soft / Loose	Smooth - Planar
12.29	Joint	70	Very Narrow (2-6mm)	Cohesive (clay/silts)	Soft / Loose	Smooth - Planar
12.48	Joint	70	Tight	Surface Staining	Extremely High	Smooth - Planar
12.54	Joint	75	Tight	Surface Staining	Extremely High	Smooth - Planar
12.60	Joint	75	Extremely Narrow (2mm)	Surface Staining	Very High Strength	Smooth - Planar
12.64	Joint	75	Extremely Narrow (2mm)	Surface Staining	Very High Strength	Smooth - Planar
12.72	Joint	0	Extremely Narrow (2mm)	Surface Staining	Very High Strength	Smooth - Planar
12.76	Joint	70	Extremely Narrow (2mm)	Surface Staining	Very High Strength	Smooth - Planar

Connell Wagner

Grey Scale

Colour Scale

Borehole Number			BH03
Page	1	of	2
Depth	2.60	to	8.15
Project	Maleny to Kenilworth Slope Stability Investigation		
Number	37009-001-01		
Client	Department of Main Roads		

Connell Wagner

Grey Scale

Colour Scale

Borehole Number			BH03
Page	2	of	2
Depth	8.15	to	12.85
Project	Maleny to Kenilworth Slope Stability Investigation		
Number	37009-001-01		
Client	Department of Main Roads