



GENERAL FEATURES		PHYSICAL PROPERTIES		CURRENT PROCESSES		SUITABILITY FOR SPECIFIED LAND USE		NOTES
Map Unit	Description	Equivalent units in geological maps	Relief; Slope	Rock/mineral resources	Permeability; potential	Soil erosion; potential	Drainage; potential	
Unconsolidated Material								
Map2	GRAVELLY SANDY SILT - dark brown/ fine to medium angular quartz; common fine gravel; cohesive; mainly alluvial	Alluvium (Gr)	200-270 m; G	Clay from underlying peat/sandy silt	L	L	L	High seasonal water table, minor flooding, thick, overlie white kaolinitic silts
Map3	CLAYEY SANDY SILT - orange and brown, fine to medium, angular quartz/kaolinitic sand; moderate cohesion; alluvial origin	Alluvium (Gr)	240-280 m; G	Clay from underlying peat/sandy silt	L	L	L	High seasonal water table, swampy where undrained, usually thin, overlie white, kaolinitic, silt, quartz sand and boulder beds which provide good aquifers for small dams
Map4	SILT SAND - white to grey; fine to medium, angular quartz, minor kaolinite common to abundant silt; predominantly colluvial origin	Colluvium (Gr)	240-280 m; G	Sand	L	L	L	Swamps with seasonal flooding, contains S _g lenses
Map5	GRAVELLY SILTY SAND - as for S _g but has more coarse sand and common fine gravel; colluvial origin	Colluvium (Gr, Co)	200-280 m; G-M	Sand	L-M	L	M	Generally well consolidated, good foundation conditions, subsoil lenses of coarse gravel may impede excavation
Map6	CLAYEY GRAVELLY SAND - grey and yellow, kaolinitic, microparticulate, sand and gravel veneer; granitic/gneissic origin	Colluvium (Gr, Gt)	200-400 m; G-M	Gravel/Land	L-M	L	M	Well consolidated, good foundation conditions, weathered and fresh bedrock may impede excavation; rare quartz fragments
Map7	GRAVELLY CLAYEY SAND - grey, brown, closely associated with S _g and G ₂ ; clastic origin	Colluvium (Gr)	300-320 m; M		L-M	L	M	Poorly consolidated, prone to slumping when saturated, may contain boulders of fresh rocks; impede excavation
Map8	SAND - light grey, white and yellow, angular to sub-rounded quartz, some feldspar, moderately sorted; colluvial origin	Colluvium (Gr)	250-310 m; F	Construction sand	H	L	M	Provides sound foundations, some settlement depending on degree of consolidation, occurs in pockets within S _g and S _g 2, heads of valleys and mid to upper slopes
Map9	GRAVEL - yellow-brown to reddish brown, loose, fine to coarse, irregularly rounded, poorly sorted; variable amounts of sand and silt in matrix, minor recementation; colluvial origin	Colluvium (Gr)	200-400 m; F-G	Gravel	H	L	L	Very loose, occasionally weakly consolidated, needs protection against water erosion, when compacted can withstand heavy loads
Map10	LATERITE - massive, hard, cemented, vuggy and plastic; up to 4 m thick - overlain by and associated with G ₂ and G ₂ 1 of residual origin	Laterite (Co)	270-510 m; F-G	Basalt, gravel building stone	L	L	M	Compacted, requires blasting to excavate, strong foundations but poorly drained, may be ferruginous or basaltic, overlie peat/saprolite, some breakouts on eastern part of sheet
Map11	DOLERITE - fine to medium-grained, sub-vertical dykes up to 10 m wide, associated with granites and gneisses	Dolerite dykes (Co)	200-570 m; G-S	Crushed rock aggregate	L	V	V	Stability of slopes dependent on orientation of joints, competent foundations where fresh, weakens to expansive clay, resulting in unstable foundation conditions if moisture is not kept constant
Map12	GRANITES - fine to coarse-grained, occasionally porphyritic rocks of granitic, gneissic and dioritic composition	Granite (App, Apr, Apr, Apr)	200-580 m; G-S	Aggregate, armour stone	L-M	L	V	Foundations may be unstable on slopes, permeability and degree stability dependent on jointing, strike and orientation, soil ranges from boundary, silty sand to sandy clay depending on degree of weathering
Map13	GRANITES AND GNEISSES - intimate association of granites (GR) and gneisses (GN)	Migmatite (An)	230-350 m; G-S	Aggregate, armour stone	L-M	L	V	As for GR, minor plane heterogeneity upon weathering, often simply contorted

REFERENCES

1 See Lithological Classification

2 The terms unconsolidated material and rock are used in the engineering sense of "soil and rock"

3 Colours were derived from Standard Soil Colour Charts, relative content

4 Maximum and minimum elevation of the unit with respect to Australian Height Datum

5 Slopes expressed qualitatively

6 H - high

M - moderate

L - low

V - variable

Properties vary with degree of weathering

7 Snowy Mountains Engineering Corporation Soil Classification which describes soils in terms of grain size, grading characteristics and compressibility

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