INDEX TO MINES AND PROSPECTS

1	Deposit P	Fe	074504
2	Deposit B	Fe	111481
3	Deposit D	Fe	251481
4	Deposit C	Fe	206456
5	Constance Range	Fe	970402
6	Highland Plains	Ph	851381
7	Deposit F	Fe	211376
8	Deposit E	Fe	281376
9	Ridgepole	Cu	126358
10	Mount O'Connor	Ph	163351
11	Babbling Brooke Hill	Ph	314323

The reference number is a six figure abbreviated MGA coordinate to the nearest 100 metres

Cu—Copper, Fe—Iron, Ph—Phosphate Rock (Phosphorite)

MINING SYMBOLS

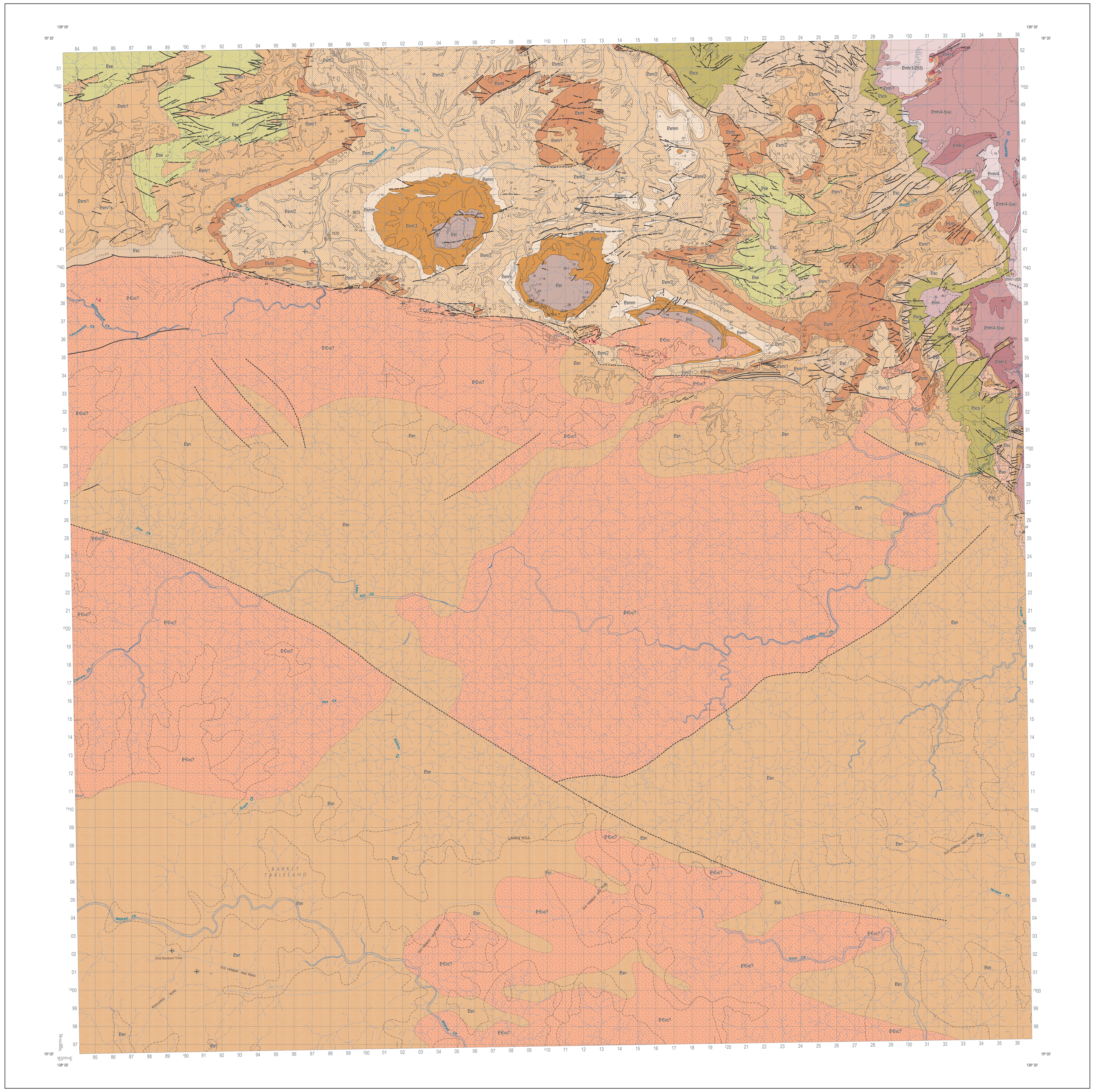
- *Prospect*
- *Prospect, abandoned*
- *Mine, abandoned*
- *Mineral occurrence*

MUSSELBROOK

QUEENSLAND

AUSTRALIA 1:100 000 BASEMENT GEOLOGY COMPILATION

SHEET 6560



AGE	GROUP	SUBGROUP	FORMATION	MEMBER	SYMBOL	LITHOLOGY SUMMARY
NEOPROTEROZOIC - EARLY CAMBRIAN	Kalkarindji Volcanic Group		Colless Volcanics		ᵽЄvc	*Amygdaloidal basalt, trachyte, arenite*
MESOPROTEROZOIC	South Nicholson Group				Ᵽsn	*Siltstone, shale, sandstone*
	South Nicholson Group	Accident Subgroup	Tidna Sandstone		Ᵽst	*Thin-bedded, very fine to fine-grained sandstone passing upwards into thick-bedded, medium-grained, well-sorted, cross-bedded sandstone*
	South Nicholson Group	Accident Subgroup	Mullera Formation		Ᵽsm	*Siltstone, shale, sandstone and ironstone*
	South Nicholson Group	Accident Subgroup	Mullera Formation		Ᵽsm/3	*Thin-bedded, micaceous and siliceous siltstone, shale and fine-grained sandstone*
	South Nicholson Group	Accident Subgroup	Mullera Formation	Middle Creek Sandstone Member	Ᵽsmm	*Cross-bedded, fine to medium-grained, quartz-rich sandstone and mudstone*
	South Nicholson Group	Accident Subgroup	Mullera Formation		Ᵽsm/2	*Thin-bedded, micaceous and siliceous siltstone and shale*
	South Nicholson Group	Accident Subgroup	Mullera Formation	Train Range Ironstone Member	Ᵽsmt	*Hematitic and limonitic sandstone; hematitic, sideritic and chamosite-rich oolites at depth; siltstone and shale interbeds*
	South Nicholson Group	Accident Subgroup	Mullera Formation		Ᵽsm/1s	*Fine to medium-grained sandstone*
	South Nicholson Group	Accident Subgroup	Mullera Formation		Ᵽsm/1	*Thin-bedded, micaceous and siliceous siltstone, shale, fine-grained sandstone, oolitic ironstone and ferruginous sandstone*
	South Nicholson Group	Accident Subgroup	Elizabeth Sandstone		Ᵽse	*Thick-bedded, trough cross-bedded, coarse to very coarse-grained and granule-rich, quartzose sandstone*
	South Nicholson Group	Accident Subgroup	Constance Sandstone		Ᵽsc	*Very fine to coarse-grained and granule-rich to pebbly, lithic to quartzose (mostly sublithic) sandstone, mostly trough cross-bedded; conglomerate; siltstone and shale associated with very fine-grained sandstone intervals*
	South Nicholson Group	Accident Subgroup	Constance Sandstone	Schultz Sandstone Member	Ᵽscs	*Fine to coarse-grained, well-sorted, thick-beddded, cross-bedded quartzose and sublithic sandstone; minor hematitic siltstone and very fine to fine-grained sandstone*
	South Nicholson Group	Wild Cow Subgroup	Burangoo Sandstone		Ᵽsu	*Thick-bedded, medium to coarse-grained, sublithic to quartzose sandstone, with scattered grains and layers of granules and pebble; strongly trough cross-bedded and also planar cross-beds, planar beds and hummocky cross-stratification*
	South Nicholson Group	Wild Cow Subgroup	Pandanus Formation		Ᵽsp	*Greyish green to greyish red, thin-bedded and laminated, micaceous siltstone, shale and fine-grained sandstone*
	South Nicholson Group	Wild Cow Subgroup	Wallis Formation		Ᵽsw	*Laminated and thin-bedded shale and siltstone and thinly interbedded sandstone*
				Hedleys Sandstone	Ᵽsh	*Cross-bedded, medium to coarse-grained quartzose sandstone with scattered granule and pebble bands; pebble to cobble conglomerate lenses at base with well-rounded quartz and quartzite and subangular to subrounded chert and silicified limestone clasts*
PALEOPROTEROZOIC - MESOPROTEROZOIC	McNamara Group	Wide Supersequence			Ᵽmh/4-5(w)	*Grey to brown, siltstone and shale, tuffaceous siltstone and sandstone, feldspathic, micaceous sandstone and siltstone interbeds, minor dolomite*
	McNamara Group		Lawn Hill Formation		Ᵽmh	*Siltstone, shale, tuff, minor sandstone and dolomite*
	McNamara Group		Lawn Hill Formation		Ᵽmh/6	*Brown and green shale and flaggy, thin-bedded siltstone and fine-grained sandstone*
	McNamara Group		Lawn Hill Formation	Widdallion Sandstone Member	Ᵽmh/5	*Reddish-brown, flaggy to blocky, fine to medium-grained ferruginous micaceous, feldspathic sandstone; brown to purple siltstone interbeds*
	McNamara Group		Lawn Hill Formation		Ᵽmh/4	*Grey, fissile to flaggy siltstone and shale; tuffaceous siltstone and sandstone; flaggy tuff beds; minor dolomite*
	McNamara Group		Lawn Hill Formation	Bulmung Sandstone Member	Ᵽmh/3	*Flaggy to blocky, micaceous, lithic sandstone and conglomeratic sandstone, shale clasts common near base*
	McNamara Group		Lawn Hill Formation		Ᵽmh/2	*Grey to light green, fissile to flaggy tuff and tuffaceous siltstone, thinly interbedded micaceous siltstone,shale and claystone*
	McNamara Group		Lawn Hill Formation		Ᵽmh/1	*Grey to black carbonaceous shale containing light grey silty carbonate concretions and flaggy siltstone interbeds; minor tuff*
	McNamara Group	Lawn Supersequence			Ᵽmh/3-4(l)	*Grey to black carbonaceous shale and siltstone, greenish grey tuff and tuffaceous siltstone, micaceous lithic sandstone and conglomeratic sandstone*
	McNamara Group	Term Supersequence-3			Ᵽmh/1-2(t3)	*White and grey thick-bedded sandstone and lithic sandstone interbedded with siltstone*
	McNamara Group		Termite Range Formation		Ᵽmt/2	*Thin to medium-bedded, light brown clayey siltstone and ferruginous, fine to medium-grained sandstone*

Note:
(i) Informal lithological subdivisions within a unit are preceded by a forward slash (/).
(ii) The displayed superposition of units does not necessarily reflect relative ages or spatial relationships.
(iii) The extent of cover units (although unlabelled) are shown on this map. Reference should be made to the companion Surface Geology compilation map for details of these units.
(iv) Uncoloured units indicate no data is currently available.

GEOLOGICAL SYMBOLS

- *Anticline approximate*
- *Escarpment*
- *Fault accurate*
- *Fault approximate*
- *Fault concealed*
- *Fault inferred*
- *Fault inferred/concealed*
- *Geological boundary accurate*
- *Geological boundary approximate*
- *Geological boundary inferred*
- *Geological boundary concealed*
- *Geological boundary inferred/concealed*
- *Lineament*
- *Syncline approximate*
- *Trend line*
- *Strike and dip of strata*
- *Vertical strata*
- *Photo-interpreted strike and dip of strata <5 Degrees*
- *Photo-interpreted strike and dip of strata 5-15 Degrees*
- *Photo-interpreted strike and dip of strata 15-45 Degrees*
- *Photo-interpreted strike and dip of strata >45 Degrees*
- *Isotopic age in millions of years*

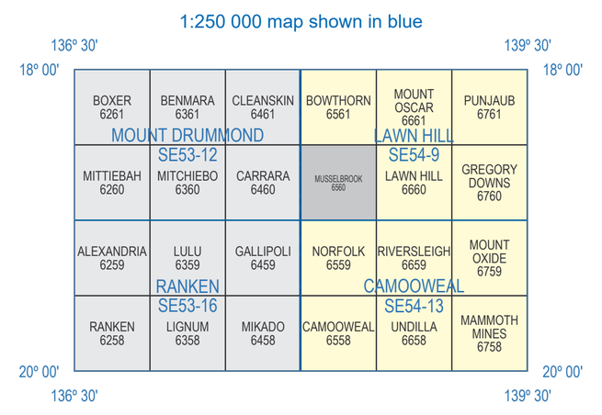
TOPOGRAPHICAL AND CULTURAL SYMBOLS

- *Local; Private or restricted road*
- *Vehicular track*
- *Bikeway; Walkway*
- *Waterbody; Canal line*
- *Major perennial watercourse*
- *Major non-perennial watercourse*
- *Minor non-perennial watercourse*
- *Homestead*
- *Landing ground*
- *Intermittent lake*
- *Swamp*
- *Land subject to inundation*

Produced by Spatial and Graphic Services, Statewide Operations,
Department of Natural Resources, Mines and Energy.
For further information email the Geological Survey of Queensland
geological_info@dnrme.qld.gov.au

INDEX TO 1:100 000 MAPS

1:250 000 map shown in blue



SCALE 1:100 000

1 0 1 2 3 4 5 6 7 8 9 10

KILOMETRES

GREY NUMBERED LINES ARE 1 000 METRE INTERVALS OF THE MAP GRID OF AUSTRALIA 1994, ZONE 54
UNIVERSAL TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: GEOCENTRIC DATUM OF AUSTRALIA 1994 (GDA94)

Queensland Government

MUSSELBROOK

BASEMENT GEOLOGY
SHEET 6560
COMPILATION MAP

The geology on this map depicts data from the current MinesOnline geodatabase release.
Compiled on 23 May 2019

Digital copies of this map may be downloaded from QDEX Data
http://qdexdata.dnrm.qld.gov.au/flamingo