

Table 3.1 Mineralogy of the major lithostratigraphic zones present in the lower manganese orebody as determined by petrographic studies and XRD. Unaltered (REX44), weakly (REX70) and strongly supergene altered ore (REX2).

Mineralogy		Diagenetic mineral assemblage							Supergene mineral assemblage					
Borehole	Zone	Oxides			Carbonates			Others Serp	Oxides			Others Quartz	Supergene alteration	
		Brnte	Hem	Jacob	Haus	Kutn	Calc		Mn-Calc	Rhodo	Cryp			Todo
REX2	M	xx	xx		xx		xxx		xx	xxx	xxx			Strongly altered
	C	xx			xx	xx				xxxx	xxx	xx		Strongly altered
	N	xx			xxx				xxx	xx	xxx	xx		Strongly altered
	B		xx	xxx							xx	xx	x	Strongly altered
	L		xxxx	xx							xx		xx	Strongly altered
REX70	Y	xxx	xx		x	xxx	xx			x	x			Weakly altered
	Z	xx	x		xx	xxx		x		x	x			Weakly altered
	M	xxx	xx			xxx	xx			x	x			Weakly altered
	C1	xxx	xx		x	xx	xx							Unaltered
	C2	xxx	x		xx	xx	xx							Unaltered
	N	xx	xx	xx	xx	xxx	xx							Unaltered
	B	xx	xx			xxx	xx	x	xx					Unaltered
	L		xxx	xx	xx	xxx	xx		xxx					Unaltered
REX44	V	xxx	xxx		xx	xx	x							Unaltered
	W	xxx	xx	x	x	xx	x		x					Unaltered
	X1	xxx	xx		xx	xxx	xx							Unaltered
	X2	xxx	xx		xx	xxx	xxx							Unaltered
	X3	xxx	x		xx	xx	xx							Unaltered
	Y	xxx	xx		xx	xxx	xx							Unaltered
	Z	xxx	xx		xx	xx	xx							Unaltered
	M1	xxx	xx		xx	xx	xx							Unaltered
	M2	xxx	xx		x	xxx	xx							Unaltered
	M3	xxx			xx	xxx	x							Unaltered
	M4	xxx	xx		xx	xx	x							Unaltered
	C1	xxx	xx		xxx	xx	x							Unaltered
	C2	xxx	xx		xx	xx	x							Unaltered
	N	xxx	xx	xx	x	xxx	xx							Unaltered
	B	xxx	xx	xx	xx	xxx	xxx							Unaltered
		L		xxxx		xx	xxx		xxx	xx				

KEY:
 Brnte - Braunite Haus - Hausmannite Calc - Calcite Serp - Serpentine
 Hem - Hematite Pyr - Pyrolusite Mn-Calc - Mangano-calcite Cryp - Cryptomelane
 Jacob - Jacobsite Kutn - Kutnahorite Rhodo - Rhodochrosite Todo - Todorokite

xxxx - Dominant (> 50%); xxx - Major (20 - 50%); xx - Minor (5 - 20%); x - Trace (<5%)