

Table 1: Lithology fields and their use with different styles of logging

Field Name	Description	Drill Chips		Diamond Drill Core
		RAB	RC or AC	
ROCK1	Dominant rock type – includes bedrock and transported cover	✓✓	✓✓	✓✓
R1_STRAT	Local stratigraphic unit	✓	✓	✓
ROCK2	Subordinate rock type	✓	✓	✓
ROCK2PCT	Percentage of subordinate rock type	✓	✓	✓
R1_TEXTURE1	Most obvious texture of dominant rock type	✓	✓	✓
R1_TEXTURE2	Additional texture of dominant rock type	✓	✓	✓
R1_GSIZE	Grain size of dominant rock type	✓	✓	✓
AGE	Geological age of rock unit	✓	✓	✓
R1_COLOUR	Colour	✓	✓	✓
WTHG	Weathering state and/or secondary overprint	✓✓	✓✓	✓✓
R1_COMP1	Mineral component 1	✓	✓	✓
R1_COMP1PCT	% abundance component 1			✓
R1_COMP2	Mineral component 2	✓	✓	✓
R1_COMP2PCT	% abundance component 2			✓
R1_COMP3	Mineral component 3		✓	✓
R1_COMP3PCT	% abundance component 3			✓
R1_COMP4	Mineral component 4		✓	✓
R1_COMP4PCT	% abundance component 4			✓
R1_COMP5	Mineral component 5			✓
R1_COMP5PCT	% abundance component 5			✓
R1_COMP6	Mineral component 6			✓
R1_COMP6PCT	% abundance component 6			✓
TOTAL_OREPCT	Total % of sulfide in the interval (syngenetic and epigenetic)	✓	✓	✓
R1_OREASS	Primary (syngenetic) ore mineral assemblage	✓	✓	✓
R1_OREPCT	% abundance of primary ore minerals	✓	✓	✓
R1_ORETEXT	Texture of primary ore minerals	✓	✓	✓
R1_PYRPCT	% abundance of primary pyrite		✓	✓
R1_PYOPCT	% abundance of primary pyrrhotite		✓	✓
R1_CHRPCT	% abundance of primary chromite		✓	✓
R1_MNTPCT	% abundance of primary magnetite		✓	✓
R1_OREMIN1	Other primary ore mineral 1 (excluding pyr, pyo, chr or mnt)		✓	✓
R1_OREMIN1PCT	% abundance of other primary ore mineral 1		✓	✓
R1_OREMIN2	Other primary ore mineral 2 (excluding pyr, pyo, chr or mnt)		✓	✓
R1_OREMIN2PCT	% abundance of other primary ore mineral 2		✓	✓

Logging priority: ✓✓ required - feature should always be logged; ✓ feature logged if present / identifiable; ✓ feature logged if present / identifiable and time is available, or required for geophysical investigations

Table 2: Alteration fields and their use with different styles of logging

Field Name	Description	Drill Chips		Diamond Drill Core
		RAB	RC or AC	
ALTN_ASS	Alteration gangue assemblage	✓✓	✓✓	✓✓
ALTN_I	Alteration intensity	✓✓	✓✓	✓✓
ALTN_SS	Alteration style and scale			✓✓
COMP1	Alteration gangue component 1		✓	✓
COMP2	Alteration gangue component 2		✓	✓
COMP3	Alteration gangue component 3		✓	✓
OREASS	Alteration ore assemblage	✓✓	✓✓	✓✓
OREASSPCT	% abundance of ore assemblage	✓✓	✓✓	✓✓
ORETEXT	Alteration ore texture		✓	✓✓
PYRPCT	% abundance pyrite in alteration		✓	✓
PYOPCT	% abundance pyrrhotite in alteration		✓	✓
APYPCT	% abundance arsenopyrite in alteration		✓	✓
HEMPCT	% abundance hematite in alteration		✓	✓
MNTPCT	% abundance magnetite in alteration		✓	✓
TIPHASE	Ti mineral phase in alteration		✓	✓
OMIN1	Alteration ore mineral 1		✓	✓
OMIN1PCT	% abundance alteration ore mineral 1		✓	✓
OMIN2	Alteration ore mineral 2		✓	✓
OMIN2PCT	% abundance alteration ore mineral 2		✓	✓
OMIN3	Alteration ore mineral 3		✓	✓
OMIN3PCT	% abundance alteration ore mineral 3		✓	✓
Logging priority: ✓✓ required - feature should always be logged; ✓ feature logged if present / identifiable; ✓ feature logged if present / identifiable and time is available, or required for geophysical investigations				

Table 3: Veining fields and their use with different styles of logging

Field Name	Description	Drill Chips		Diamond Drill Core
		RAB	RC or AC	
VASSM	Gangue assemblage of veins within a vein set	✓✓	✓✓	✓✓
TEXSTY	Texture and morphology of veins within set	✓	✓✓	✓✓
SVSCALE	Width estimate of veins within set		✓	✓✓
ZONEINT	Percentage abundance of veins within an interval or set	✓✓	✓✓	✓✓
VNOLOC	Local vein set number, based on the order of formation of vein sets			✓
DNOLOC	Relative deformation timing			✓
ALTASSOC	Associated alteration assemblage		✓	✓
VCOM1	Vein component 1 (most abundant component, gangue or ore)	✓	✓	✓
VCOM1ABD	Vein component 1 abundance		✓	✓
VCOM2	Vein component 2 (next most abundant component, gangue or ore)	✓	✓	✓
VCOM2ABD	Vein component 2 abundance		✓	✓
VCOM3	Vein component 3 (next most abundant component, gangue or ore)	✓	✓	✓
VCOM3ABD	Vein component 3 abundance		✓	✓
VCOM4	Vein component 4 (next most abundant component, gangue or ore)			✓
VVCOM4ABD	Vein component 4 abundance			✓
VCOM5	Vein component 5 (next most abundant component, gangue or ore)			✓
VCOM5ABD	Vein component 5 abundance			✓
VORE	Broad classification of ore/opaque components within a vein set	✓	✓	✓
VOREABD	Abundance of ore minerals within a vein set	✓	✓	✓
VOREASSM	Vein ore assemblage	✓	✓	✓
VORESTY	Style of ore minerals within the vein			✓
ELEMENT1	Geometric element of vein being measured – typically vein wall		✓	✓
ELEM1A	Element 1 alpha angle		✓	✓
ELEM1B	Element 1 beta angle			✓
ELEM1TD	Element 1 true dip			✓
ELEM1TDD	Element 1 true dip direction			✓
ELEMENT2	Geometric element of vein – typically fibre or crystal long axis			✓
ELEM2A	Element 2 alpha angle			✓
ELEM2B	Element 2 beta angle			✓
ELEM2TD	Element 2 true dip			✓
ELEM2TDD	Element 2 true dip direction			✓

Logging priority: ✓✓ required - feature should always be logged; ✓ feature logged if present / identifiable, core is oriented; ✓ feature logged if present / identifiable and time is available, or required for geophysical investigations

Table 4: Structure fields and their use with different styles of logging

Field Name	Description	Drill Chips		Diamond Drill Core
		RAB	RC or AC	
STRTYPE	Type of deformation zone, metamorphic zone or primary layering	✓✓	✓✓	✓✓
ZONEINT	Intensity of deformation zone	✓✓	✓✓	✓✓
TEXSTY	Fabric, style and/or texture of deformation zone or metamorphic zone	✓✓	✓✓	✓✓
MMDOMAIN	Metamorphic facies	✓	✓	✓
SVSCALE	Scale of structures within deformation zone			✓✓
DNOLOC	Relative deformation timing			✓
DNOREGN	Timing with respect to established regional deformation scheme			✓
ELEMENT1	Geometric element being measured – typically planar feature			✓
ELEM1A	Element 1 alpha angle		✓	✓
ELEM1B	Element 1 beta angle			✓
ELEM1TD	Element 1 true dip			✓
ELEM1TDD	Element 1 true dip direction			✓
ELEMENT2	Geometric element being measured – typically linear feature			✓
ELEM2A	Element 2 alpha angle			✓
ELEM2B	Element 2 beta angle			✓
ELEM2TD	Element 2 true dip			✓
ELEM2TDD	Element 2 true dip direction			✓

Logging priority: ✓✓ required - feature should always be logged; ✓ feature logged if present / identifiable, core is oriented; ✓ feature logged if present / identifiable and time is available, or required for geophysical investigations

Table A2_1: Rock type codes

Root Character		Secondary Character		Code			
A	Alkaline rocks	e	Extrusive	Ae	Alkaline extrusive rock		
				f	Volcaniclastic	Af	Alkaline volcanoclastic rock
						Afc	Alkaline volcanoclastic conglomerate
						Afm	Alkaline volcanoclastic sandstone,siltstone
		Afs	Alkaline volcanoclastic mudstone				
		i	Intrusive	Ai	Alkaline intrusive		
				Ail	Lamprophyre		
				Ais	Syenite Porphyry		
				Ak	Kimberlite		
		n	Gneiss	An	Alkaline gneiss		
				r	Granulite	Ar	Alkaline granulite
		v	Volcanic			As	Syenite
				Asq	Quartz Syenite		
				Av	Alkaline (sub)volcanic rock; coherent, undivided		
				x	Breccia	Ax	Alkaline breccia
		Ac	Carbonatite				
C	Cover rocks	a	Alluvium	Ca	Alluvium		
				Caq	Alluvial - quartz sand, grit, gravel		
		c	Colluvium	Cc	Colluvium		
				Ccl	Colluvial Lag		
				Cco	Colluvial Soil		
				Cg	Glacial deposit		
		g	Glacial	h	Hardpan or duricrust	Chc	Calcrete-pedogenic (vadose)
						Chf	Ferricrete
		l	Lacustrine	m	Marine	Chs	Silcrete
						Chv	Calcrete-groundwater (phreatic)
						Chx	Hardpan, undivided
						Cl	Lacustrine Deposit
		p	Playa	v	Evaporite	Cm	Marine Deposit
						Cp	Playa Deposit
		w	Aeolian	x	Breccia	Cv	Evaporite
						Cw	Aeolian Deposit
		E	Erosional deposits			Cx	Disturbed Deposit, anthropogenic deposit
						Ei	Erosional Lag
F	Felsic rocks			Eo	Erosional Soil		
				F	Felsic Rock		
F	Felsic rocks	c	Schist	Fc	Felsic Schist		
				Fcqb	Felsic Schist/Rock - Qtz(-fpr)-bio(-mus)		
				Fcqm	Felsic Schist/Rock - Qtz(-fpr)-mus		
				e	Extrusive	Fe	Felsic Extrusive
		Fed	Felsic Extrusive - Dacite				
		Fer	Felsic Extrusive - Rhyolite				
		f	Volcaniclastic			Ff	Felsic Volcaniclastic
				Ffc	Felsic Volcaniclastic Conglomerate		
				Ffd	Felsic Volcaniclastic - Dacite		
				Ffm	Felsic Volcaniclastic Mudstone		
		g	Granitoid	Ffr	Felsic Volcaniclastic - Rhyolite		
				Ffs	Felsic Volcaniclastic Sandstone		
				Fg	Felsic Granitoid		
				Fga	Aplite		
		i	Intrusive	Fgd	Granodiorite		
				Fgg	Syenogranite/Monzogranite/Alkali Feldspar Granite		
				Fgn	Granitoid Gneiss		
				Fgp	Pegmatite		
		l	Lapilli tuff	Fgr			
				Fgt	Tonalite/Trondhemite		
				Fgz	Monzonite		
				Fgzq	Quartz Monzonite		
		n	Gneiss	Fi	Felsic Intrusive (dyke, sill)		
				Fid	Felsic Intrusive - Dacite Porphyry		
				Fig	Felsic Intrusive - Syenogranite, monzogranite, Alkali feldspar		
				Fir	Felsic Intrusive - Rhyolite Porphyry		
		r	Granulite	Fit	Felsic Intrusive - Tonalite (porphyry)		
				Fiz	Felsic Intrusive - Monzonite (porphyry)		
				Fl	Felsic Lapilli Tuff		
				Fld	Felsic Lapilli Tuff - Dacite		
		t	Tuff	Flr	Felsic Lapilli Tuff - Rhyolite		
				Fn	Felsic Gneiss		
				Fr	Felsic Granulite		
				Ft	Felsic Tuff		
		v	Volcanic	Ftd	Felsic Tuff - Dacite		
				Ftr	Felsic Tuff - Rhyolite		
				Fv	Felsic (Sub-)Volcanic - Coherent		
				Fvd	Felsic (Sub-)Volcanic Dacite - Coherent		
		x	Breccia	Fvr	Felsic (Sub-)Volcanic Rhyolite - Coherent		
				Fx	Felsic Breccia		
				Fxd	Felsic Breccia - Dacite		
				Fxr	Felsic Breccia - Rhyolite		

Table A2_1: Rock type codes (continued)

Root Character	Secondary Character	Code	
Hx	Magmatic-Hydrothermal Breccia	Hx	Magmatic-Hydrothermal Breccia (Magmatic)
		Hxa	Magmatic-Hydrothermal Breccia - Andesite
		Hxd	Magmatic-Hydrothermal Breccia - Dacite
		Hxf	Magmatic-Hydrothermal Breccia - Felsic
		Hxi	Magmatic-Hydrothermal Breccia - Intermediate
		Hxm	Magmatic-Hydrothermal Breccia - Mafic
		Hxr	Magmatic-Hydrothermal Breccia - Rhyolite
I	Intermediate rocks	I	Intermediate Rocks
		Ic	Intermediate schist
		Icab	Intermediate Schist/Rock - plg-amp-bio(-qtz)
		Icbc	Intermediate Schist/Rock - plg-cht-bio(-crb-qtz)
		Icmc	Intermediate Schist/Rock - plg-cht-mus(-crb-qtz)
		e	Extrusive
		f	Volcaniclastic
		Ie	Intermediate Extrusive (Andesitic)
		If	Intermediate Volcaniclastic (Andesitic)
		Ifc	Intermediate Volcaniclastic - Conglomerate
		Ifm	Intermediate Volcaniclastic - Mudstone
		Ifs	Intermediate Volcaniclastic - Sandstone
		g	Granitoid
		Igd	Diorite
		Igdq	Quartz Diorite
		Igz	Monzodiorite/Monzogabbro
		Igzq	Quartz Monzodiorite/Quartz Monzogabbro
		Ii	Intermediate Intrusive (dyke, sill)
		Iia	Intermediate Intrusive (Andesite Porphyry)
		Iid	Intermediate Intrusive (Diorite Porphyry)
		Iiz	Intermediate Intrusive (Monzodiorite/Monzogabbro Porphyry)
l	Lapilli tuff		
Il	Intermediate Lapilli Tuff (Andesitic)		
n	Gneiss		
In	Intermediate Gneiss		
r	Granulite		
Ir	Intermediate Granulite		
t	Tuff		
It	Intermediate Tuff (Andesitic)		
v	Volcanic		
Iv	Intermediate (Sub)Volcanic - Coherent, Andesitic		
x	Breccia		
Ix	Intermediate Breccia (Andesitic)		
L	Laterite	Lb	Bauxite
		Lf	Laterite
M	Mafic rocks	M	Mafic Rocks
		Mb	Basalt
		Mbm	High Magnesium Basalt
		c	Schist
		Mc	Mafic Schist
		Mcac	
		Mccb	Mafic Schist/Rock - cht-crb
		d	Dolerite
		Md	Dolerite
		Mdl	Leuco Dolerite
		Mdq	Quartz Dolerite
		f	Volcaniclastic
		Mf	Mafic Volcaniclastic
		Mfc	Mafic Volcaniclastic - Conglomerate
		Mfm	Mafic Volcaniclastic - Mudstone
		Mfs	Mafic Volcaniclastic - Sandstone
		g	Gabbroid
		Mg	Gabbro
		Mgl	Leuco Gabbro
		Mgq	Quartz Gabbro
		Mh	Hornblendite
m	Amphibolite		
Mm	Amphibolite		
Mmac	Mafic Schist/Rock - cht-amp(-plg)		
Mmq	Quartz Amphibolite		
n	Gneiss		
Mn	Mafic Gneiss		
r	Granulite		
Mr	Mafic Granulite		
x	Breccia		
Mx	Mafic Breccia		
Ma	Anorthosite		
Mt	Troctolite		
S	Sedimentary rocks	S	Sedimentary Rock
		Sbd	Dolomite
		Sbl	Limestone
		c	Schist
		Sc	Sedimentary schist
		Scm	Psammite (Schistose)
		Scp	Pelitic schist
		g	Granitoid
		Sg	Conglomerate
		Sgo	Conglomerate - Oligomictic
		Sgp	Conglomerate - Polymictic
		i	Chemogenic
		Sic	Chert
		Sif	Iron Formation
		l	Mud rock
		Sic	Claystone/Mudstone
		m	Metasedimentary
		Smb	Marble
		Sml	Pelite - Non-schistose
		Smp	Psammite - Non-schistose
		Smq	Quartzite
		n	Gneiss
		Sn	Metasedimentary Gneiss
		p	Arenite
		Sps	Sandstone
		Spt	Siltstone
		r	Granulite
		Sr	Granulitic Sedimentary Rock
		s	Shale
		Ssh	Shale
		Sshg	Black (graphitic) Shale
Ssy	Phyllite		
w	Wacke		
Sw	graywacke		
x	Breccia		
Sx	Sedimentary Breccia		
Sxo	Sedimentary Breccia - Oligomictic		
Sxp	Sedimentary Breccia - Polymictic		

Table A2_1: Rock type codes (continued)

Root Character	Secondary Character	Code			
U	Ultramafic rocks		U Ultramafic Rock		
		c	Schist	Uc Ultramafic Schist	
				Ucac Ultramafic Schist - trm(-cht)	
				Ucat Ultramafic Schist - tlc-trm(-crb)	
				Uctb Ultramafic Schist - tlc-crb	
				Uctc Ultramafic Schist - tlc-cht-crb	
				Ucts UltramaficSchist - tlc-srp(-crb)	
			f	Volcaniclastic	Uf Ultramafic Fragmental
			k	Komatiite	Uk Komatiite
			m	Metamorphic	Umac
					Umaf Ultramafic Rock - trm-for
					Umfa Ultramafic Rock - tlc-for-ant
					Umf Ultramafic Rock - tlc-for
					Umtt Ultramafic Rock - tlc-trm(-crb)
			n	Gneiss	Un Ultramafic Gneiss
			r	Granulite	Ur Ultramafic Granulite
					Upd Peridotite
					Upx Pyroxenite
					Ud Dunite
					Us Serpentinite
		V	Vein flag	V	Vein
		X	Unkown rock	X	Unknown Rock
				Xc	Unknown Schist
Xf	Ferricrete - unknown origin				
Xo	Soil - Undifferentiated				
Xx	Breccia - Origin unknown				
Xxo	Breccia- Origin unknown - Oligomictic				
Xxp	Breccia - Origin unknown - Polymictic				
N	No data	NL	Not Logged		
		NS	No Sample		
		#	Massive Sulfide		

Table A2_2: Intensity and percentage abundance codes

Intensity	% Abundance	Numeric code
Trace	Tr	0.1
Weak	1%	1
	2%	2
	3%	3
	4%	4
	5%	5
	6%	6
	7%	7
	8%	8
	9%	9
Weak to moderate	10-15%	10
	15-20%	15
	20-25%	20
Moderate	25-30%	25
	30-35%	30
	35-40%	35
Moderate to strong	40-45%	40
	45-50%	45
Strong	50-75%	50
Strong to extreme	75-100%	75
Extreme	100%	100

Table A2_3: Rock texture codes

Code	Description	Code	Description
aci	Acicular	myr	Myrmekitic
adc	Adcumulate	nod	Nodular
amy	Amygdaloidal	ocl	Ocellar
asb	Asbestiform	ool	Oolitic
bdd	Bedded	oph	Ophitic
bdk	Thickly Bedded	orc	Orthocumulate
bdn	Thinly Bedded	osp	Olivine spinifex
bgn	Bimodal Grainsize Network	pep	Pepperitic
bld	Bladed	pgm	Pegmatitic
ble	Bleached	pis	Pisolitic
bnd	Banded	pla	Plastic
brx	Brecciated	plm	plumose
bxw	boxworks	plw	Pillowed
cbd	Cross Bedded	pob	Porphyroblastic
cel	Cellular	poc	Porphyroclastic
col	Colloform	pod	Poddy/Lenticular
con	Concretionary	poi	poikilitic
cru	Crustiform	pow	Powdery
cum	Cumulate	pph	Pophyritic
dcs	Decussate	psp	Pyroxene spinifex
ear	Earthy	sac	Saccharoidal
eqg	Equigranular	sch	Schistose
fia	fiamme	ser	Seriate
fib	Fibrous	sop	Subophitic
frg	Fragmental	sor	Sorted
fri	Friable	sph	Spherulitic
gbd	Graded Bedding	spn	Spinifex Texture
glo	Glomeroporphyritic	spt	Spotted
gls	Glassy	ssd	Soft Sediment Deformation
gns	Gneissic	stf	Stratiform
gos	Gossanous	tuf	Tuffaceous
gpy	Granophyre	uns	Unsorted
grn	Granoblastic	ust	Unidirectional Solidification Texture
gsb	Grainsize Banding	var	Variolitic
har	harrisitic	ver	Vermiform
hyl	Hyaloclastic	ves	Vesicular
ind	Indurated	vfr	Volcanic Fragments
lam	Laminated	voi	Voided
lpd	Lepidoblastic	vsh	Volcanic Shard Texture
mas	Massive	vug	Vuggy
mgm	Megamottled	wld	Welded
mgx	Megacrystic	xct	Cross-cutting
mot	Mottled	xln	Crystalline
msc	Mesocumulate		

Table A2_4: Grainsize codes

Code	Description
aph	aphanitic
cg	coarse-grained
fg	fiine-grained
fmg	fine- to medium-grained
mcb	medium- to coarse-grained
mg	medium-grained
vcb	very coarse-grained
vfg	very fine-grained

Table A2_5: Rock age codes

Code	Description
Cz	Cainozoic
Qu	Quaternary
Te	Tertiary
Mz	Mesozoic
Cr	Cretaceous
Ju	Jurassic
Tr	Triassic
Pz	Palaeozoic
Pe	Permian
Cb	Carboniferous
De	Devonian
Si	Silurian
Or	Ordovician
Ca	Cambrian
Pr	Proterozoic
PrM	MesoProterozoic
PrN	NeoProterozoic
PrP	PaleoProterozoic
Ar	Archaean

Table A2_6: Weathering codes

Code	Description	Code	Description
Cb	Transported Cover - Calcareous	Lc	Clay Zone
Cf	Transported Cover - Ferruginized	Lcb	Clay Zone - Calcareous
Chc	Calcrete-pedogenic (vadose)	Lcf	Clay Zone - Ferruginized
Ci	Transported Cover - Ferruginized+Silicified	Lci	Clay Zone - Ferruginized+Silicified
Cm	Transported Cover - Mottled/Ferruginous	Lcs	Clay Zone - Silicified
Cq	Transported Cover - quartz sand, grit, gravel	Lk	Clay Saprolite
Cs	Transported Cover - Silicified	Lkb	Clay Saprolite - Calcareous
Chf	Hardpan/duricrust - ferricrete	Lkf	Clay Saprolite - Ferruginized
Chs	Hardpan/duricrust - silcrete	Lki	Clay Saprolite - Ferruginized+Silicified
Chv	Hardpan/duricrust - calcrete-groundwater (phreatic)	Lks	Clay Saprolite - Silicified
Chx	Hardpan/duricrust - undifferentiated	Ls	Saprolite
Xf	Ferricrete - Unknown origin	Lsb	Saprolite - Calcareous
Lf	Laterite	Lsf	Saprolite - Ferruginized
Lb	Bauxite	Lsi	Saprolite - Ferruginized+Silicified
Lg	Gossan	Lss	Saprolite - Silicified
Lgf	Gossan - Ferruginised	Lr	Saprock
Lgi	Gossan - Ferruginised+Silicified	Lrb	Saprock - Calcareous
Lgs	Gossan - Silicified	Lrf	Saprock - Ferruginized
Lm	Mottled Zone	Lri	Saprock - Ferruginized+Silicified
Lmb	Mottled Zone - Calcareous	Lrs	Saprock - Silicified
Lmf	Mottled Zone - Ferruginized	c	Clayey Joints
Lmi	Mottled Zone - Ferruginized+Silicified	j	Oxidized Joints
Lms	Mottled Zone - Silicified	f	Fresh

Table A2_6: Mineral component codes

Code	Description	Code	Description	Code	Description
act	Actinolite	fer	Ferruginous Minerals	opx	Orthopyroxene
actP	Actinolite phenocryst or porphyroblast	flt	Fluorite	opxP	Orthopyroxene phenocryst
adu	Adularia	for	Forsterite	oxs	Oxide Minerals
aeg	Aegirine	forP	Forsterite phenocryst or porphyroblast	pet	Petalite
alb	Albite	fpr	Feldspar	phl	Phlogopite
albP	Albite phenocryst or porphyroblast	fprP	feldspar phenocryst or porphyroblast	pis	Pisolite
alu	Alunite	fuc	Fuchsite	plg	Plagioclase
amo	Orthoamphibole	gib	Gibbsite	plgP	Plagioclase phenocryst or porphyroblast
amp	Amphibole	gnt	Garnet	pre	Prehnite
ampP	Amphibole phenocryst or porphyroblast	gntP	garnet porphyroblast	pyx	Pyroxene
and	Andalusite	goe	Goethite	pyxP	Pyroxene phenocryst
andP	andalusite porphyroblast	grp	Graphite	qtz	Quartz
ank	Ankerite	gru	Grunerite	qtzP	Quartz phenocryst
ankP	Ankerite porphyroblasts	gvl	Gravel	rbl	Rubble
ant	Anthophyllite	gyp	Gypsum	ros	Roscoelite
antP	Anthophyllite porphyroblast	hal	Halite	rut	Rutile
any	Anhydrite	hbd	Hornblende	sau	Saussurite
apt	Apatite	hbdP	Hornblende phenocryst or porphyroblast	sca	Scapolite
asb	Asbestos	hed	Hedenbergite	ser	Sericite
axi	Axinite	hem	Hematite	sid	Siderite
bar	Barite	ilm	Ilmenite	sil	Silica
bio	Biotite	jar	Jarosite	sif	Sulfide
bioP	Biotite phenocryst or porphyroblast	kfp	K Feldspar	slm	Sillimanite
cal	Calcareous minerals	kfpP	K feldspar phenocryst	slmP	Sillimanite porphyroblast
cbn	Carbonaceous matter	klm	Kaolinite	slt	Silt
cct	Calcite	kyn	Kyanite	sme	Smectite
cctP	Calcite porphyroblast	kynP	kyanite porphyroblast	snd	Sand
cht	Chlorite	lat	Laterite	spd	Spodumene
chtP	Chlorite phenocryst	lcx	Leucoxene	srp	Serpentine
chy	Chalcedony	lep	Lepidolite	str	Staurolite
clv	Cleavlandite	lim	Limonite	strP	Staurolite porphyroblast
cly	Clay Minerals	lip	Lithium phosphates	tit	Titanite
cpx	Clinopyroxene	lit	Lithic Clasts	tlc	Talc
cpxP	clinopyroxene phenocryst	mgh	Maghemite	tml	Tourmaline
crb	Carbonate	mgs	Magnesite	tpz	Topaz
crbP	Carbonate porphyroblast	mgsP	Magnesite porphyroblast	tra	Tremolite-Actinolite
crd	Cordierite	mic	Mica	traP	Tremolite-actinolite phenocryst or
crdP	Cordierite porphyroblast	micP	Mica phenocryst or porphyroblast	trm	Tremolite
cry	Chrysotile	mng	Manganese Minerals	trmP	Tremolite phenocryst or porphyroblast
ctd	Chloritoid	mnt	Magnetite	ves	Vesuvianite
ctdP	Chloritoid porphyroblast	mntP	Magnetite porphyroblast	vit	Vitric Clasts
cum	Cummingtonite	mus	Muscovite	wol	Wollastonite
dol	Dolomite	musP	Muscovite porphyroblast	xtl	Crystal
dolP	Dolomite porphyroblast	non	Nontronite	zin	Zinnwaldite
dps	Diopside	olv	Olivine		
epd	Epidote	olvP	Olivine phenocryst or porphyroblast		

Table A2_7: Primary ore mineral assemblage codes

Root Character		Code	Description		
2	Secondary sulfide and/or oxide assemblages	2Cu	Secondary copper minerals		
		2Fe	Secondary Fe minerals		
		2Ni	Secondary nickel minerals		
		2Pb	Secondary lead minerals		
		2Zn	Secondary zinc minerals		
B	Base-metal sulfide-bearing assemblages	Bb	Bornite		
		Bbc	Bornite-chalcopyrite		
		Bbcm	Bornite-chalcopyrite-magnetite		
		Bbm	Bornite-magnetite		
		Bbr	Bornite-pyrite		
		Bbrc	Bornite-Pyrite-chalcopyrite		
		Bc	Chalcopyrite		
		Bcgz	Chalcopyrite-galena-sphalerite		
		Bcm	Chalcopyrite-magnetite		
		Bcz	Chalcopyrite-sphalerite		
		Bgz	Galena-sphalerite		
		Boc	Pyrrhotite-chalcopyrite		
		Bocg	Pyrrhotite-chalcopyrite-galena		
		Bocgz	Pyrrhotite-chalcopyrite-galena-sphalerite		
		Bocz	Pyrrhotite-chalcopyrite-sphalerite		
		Bog	Pyrrhotite-galena		
		Bogz	Pyrrhotite-galena-sphalerite		
		Bomc	Pyrrhotite-magnetite-chalcopyrite		
		Borc	Pyrrhotite-pyrite-chalcopyrite		
		Borcg	Pyrrhotite-pyrite-chalcopyrite-galena		
		Borcgz	Pyrrhotite-pyrite-chalcopyrite-galena-sphalerite		
		Borcz	Pyrrhotite-pyrite-chalcopyrite-sphalerite		
		Borg	Pyrrhotite-pyrite-galena		
		Borgz	Pyrrhotite-pyrite-galena-sphalerite		
		Bormc	Pyrite-pyrrhotite-magnetite-chalcopyrite		
		Borz	Pyrrhotite-pyrite-sphalerite		
		Boz	Pyrrhotite-sphalerite		
		Brc	Pyrite-chalcopyrite		
		Brcg	Pyrite-chalcopyrite-galena		
		Brcgz	Pyrite-chalcopyrite-galena-sphalerite		
		Brcz	Pyrite-chalcopyrite-sphalerite		
		Brg	Pyrite-galena		
		Brgz	Pyrite-galena-sphalerite		
Brmc	Pyrite-magnetite-chalcopyrite				
Brz	Pyrite-sphalerite				
F	Iron-sulfide bearing assemblages	Fo	Pyrrhotite		
		Fom	Pyrrhotite-magnetite		
		Fr	Pyrite		
		Frh	Pyrite-hematite		
		Frm	Pyrite-magnetite		
		Frmh	Pyrite-magnetite-hematite		
		Fro	Pyrite-pyrrhotite		
		From	Pyrite-pyrrhotite-magnetite		
N	Nickel-sulfide bearing assemblages	Nn	Pentlandite		
		Nnv	Pentlandite-violarite		
		Non	Pyrrhotite-pentlandite		
		Nrn	Pyrite-pentlandite		
		Nrnv	Pyrite-pentlandite-violarite		
		Nron	Pyrite-pyrrhotite-pentlandite		
		Nrv	Pyrite-violarite		
		Nv	Violarite		
		Other assemblages		xx	Other ore assemblages

Table A2_8: Primary ore mineral components

Code	Description	Code	Description
2Cu	Copper Minerals (2ndary)	mal	Malachite
2Ni	Nickel Minerals (2ndary)	mcs	Marcasite
2Pb	Lead Minerals (2ndary)	mng	Manganese Minerals
azu	Azurite	mnt	Magnetite
bor	Bornite	oxs	Oxide Minerals
cas	Cassiterite	pen	Pentlandite
cha	Chalcocite	pyo	Pyrrhotite
chr	Chromite	pyr	Pyrite
cpy	Chalcopyrite	slf	Sulphide Minerals
gah	Gahnite	spl	Sphalerite
gld	Gold	tan	Tanatalite
gna	Galena	vio	Violarite
hem	Hematite	wlf	Wolframite

APPENDIX III – ALTERATION CODES

Table A3_1: Alteration assemblage codes

Root Character		Code	Description		
A	Al enrichment	ASa	Aluminosilicate (andalusite): and ± crb, mus, slf, qtz		
		ASc	Aluminosilicate (chloritoid): ctd ± crb, mus, cht, slf, qtz		
CA	Epidotisation	CAe	Epidote: epd ± crb, qtz, cht, fpr, slf		
C	Carbonation	CB	Carbonation (undivided): crb ± cht, tlc, qtz		
		CBa	Carbonation (ankerite): ank ± qtz, plg, slf		
		CBb	Carbonation (carbonate-dominated): crb(dol/mag) ± qtz, cht, fuc, slf, trm		
		CBc	Carbonation (calcite): cct ± qtz, plg, slf		
		CBca	Carbonation (chlorite-ankerite): cht, ank ± plg, slf, lcx		
		CBcc	Carbonation (chlorite-calcite): cht, cct ± plg, slf, lcx		
		CBf	Carbonation (forsterite-carbonate): for, crb ± mnt, slf		
		CBo	Carbonation (enstatite): opx ± trm, for, mgs, dps		
		CBp	Carbonation (anthophyllite): ant ± trm, mgs, for, tlc		
		CBrc	Carbonation (tremolite-calcite): trm, cct ± tlc, cht		
		CBrm	Carbonation (tremolite-magnesite): trm, mgs ± tlc, cht		
		CBt	Carbonation (talc): tlc ± amp, slf		
		CBtb	Carbonation (talc-carbonate): tlc, crb ± slf		
		CBtc	Carbonation(talc-chlorite+/-carbonate): tlc, cht ± dol, slf		
		CS	Calc-silicate	CS	Calc-silicate (undivided): dps, gnt, epd, amp, slf, crb
				CSa	Calc-silicate (amphibole dominant): amp ± dps, gnt, epd, slf, crb
CSd	Calc-silicate (diopside dominant): dps ± gnt, epd, amp, slf, crb				
CSg	Calc-silicate (garnet dominant): gnt ± dps, epd, amp, slf, crb				
CSV	Calc-silicate (vesuvianite dominant): ves ± dps, gnt, epd, amp, slf, crb				
FEa	Ferruginous (actinolite-magnetite): mnt, act ± cht, crb, qtz, slf				
FEc	Ferruginous (chlorite-magnetite): mnt, cht ± act, crb, qtz, slf				
G	Greisen	Gf	Greisen (fluorite): flt ± qtz, mus, slf		
		Gm	Greisen (muscovite): mus ± qtz, slf		
		Gt	Greisen (topaz): tpz ± qtz, mus, slf		
H	Hydration	Hag	Argillic		
		Hcht	Retrograde Hydration - Chloritisation		
		Hpr	Propylitic, cht, epd ± crb, tit, plg		
		Hs	Hydration ± Carbonation - Serpentinisation		
		Hser	Retrograde Hydration - Sericitisation		
K	K metasomatism	Kb	Potassic (biotite): bio ± crb, qtz, cht, mus, amp, slf		
		Kbc	Biotite-chlorite, bio, cht ± crb, slf		
		Kbio	Biotite, bio ± cht, crb, amp, slf		
		Kcs	Potassic-calc-silicate, bio, amp ± plg, slf, crb		
		Kfp	K-feldspar, kfp ± qtz, slf, bio		
		Km	Potassic (muscovite): mus, ank ± bio, cht, crb, qtz, slf		
		Kmc	Muscovite-chlorite, mus/ser, cht ± crb, qtz, slf		
		Kmus	Muscovite, mus/ser ± crb, plg, cht, bio, amp, slf		
		Kph	Phyllic, mus/ser ± qtz, crb, slf		
		Kser	Sericite, ser ± epd		
MG	Mg metasomatism	MGca	Magnesian (cordierite-anthophyllite): crd, ant ± plg, slf		
		MGcb	Potassic-magnesian (biotite-cordierite): bio, crd ± qtz, plg, cum, gnt, crb, slf		
		MGch	Chlorite, cht ± qtz, slf, ser, crb		
NA	Na metasomatism	NA	Sodic (hematite-free): alb ± mus, crb, qtz, slf		
		NAh	Sodic(hematitic): alb, hem ± qtz, crb, mnt, bio, slf		
		NCf	Sodic-calci (plagioclase): plg ± qtz, bio, amp, slf		
		NCfa	Sodic-calcic (plagioclase-amphibole/clinopyroxene): plg, amp ± dps, qtz, slf, tit		
O	Oxidation	Ohm	Hematitisation: hem		
S	Sulphidation	S	Sulphidisation: slf		
SI	Silicification	SI	Silicification: qtz ± crb, slf		
		SIa	Silicification (amphibole): amp ± tlc, bio, crb, slf		
		SIgr	Silicification (grunerite): gru ± qtz, slf, mnt		
		X1	Temporary code		
		X2	Temporary code		

Table A3_2: Alteration ore mineral assemblages (continued)

Root Character		Code	Description		
2	Secondary sulfide and/or oxide assemblages	2Cu	Secondary copper minerals		
		2Ni	Secondary nickel minerals		
		2Pb	Secondary lead minerals		
		2Zn	Secondary zinc minerals		
A	Arsenopyrite-bearing assemblages	Aa	Arsenopyrite		
		Aoa	Pyrrhotite-arsenopyrite		
		Ara	Pyrite-arsenopyrite		
		Aroa	Pyrite-pyrrhotite-arsenopyrite		
B	Base-metal sulfide-bearing assemblages	Bb	Bornite		
		Bbc	Bornite-chalcopyrite		
		Bbcm	Bornite-chalcopyrite-magnetite		
		Bbm	Bornite-magnetite		
		Bbr	Bornite-pyrite		
		Bbrc	Bornite-pyrite-chalcopyrite		
		Bc	Chalcopyrite		
		Bcgz	Chalcopyrite-galena-sphalerite		
		Bcm	Chalcopyrite-magnetite		
		Bcz	Chalcopyrite-sphalerite		
		Bgz	Galena-sphalerite		
		Boc	Pyrrhotite-chalcopyrite		
		Bocg	Pyrrhotite-chalcopyrite-galena		
		Bocgz	Pyrrhotite-chalcopyrite-galena-sphalerite		
		Bocz	Pyrrhotite-chalcopyrite-sphalerite		
		Bog	Pyrrhotite-galena		
		Bogz	Pyrrhotite-galena-sphalerite		
		Bom	Pyrrhotite-magnetite		
		Bomc	Pyrrhotite-magnetite-chalcopyrite		
		Borc	Pyrrhotite-pyrite-chalcopyrite		
		Borcg	Pyrrhotite-pyrite-chalcopyrite-galena		
		Borcgz	Pyrrhotite-pyrite-chalcopyrite-galena-sphalerite		
		Borcz	Pyrrhotite-pyrite-chalcopyrite-sphalerite		
		Borg	Pyrrhotite-pyrite-galena		
		Borgz	Pyrrhotite-pyrite-galena-sphalerite		
		Bormc	Pyrite-pyrrhotite-magnetite-chalcopyrite		
		Borz	Pyrrhotite-pyrite-sphalerite		
		Boz	Pyrrhotite-sphalerite		
		Brc	Pyrite-chalcopyrite		
		Brcg	Pyrite-chalcopyrite-galena		
		Brcgz	Pyrite-chalcopyrite-galena-sphalerite		
		Brcz	Pyrite-chalcopyrite-sphalerite		
		Brg	Pyrite-galena		
		Brgz	Pyrite-galena-sphalerite		
		Brmc	Pyrite-magnetite-chalcopyrite		
		Brz	Pyrite-sphalerite		
		F	Iron-sulfide bearing assemblages	Fo	Pyrrhotite
				Fom	Pyrrhotite-magnetite
				Fr	Pyrite
				Frh	Pyrite-hematite
Frm	Pyrite-magnetite				
Frmh	Pyrite-magnetite-hematite				
Fro	Pyrite-pyrrhotite				
From	Pyrite-pyrrhotite-magnetite				
M	Molybdenite-bearing assemblages			Mry	Pyrite-molybdenite
				Mryc	Pyrite-molybdenite-chalcopyrite
		My	Molybdenite		
N	Nickel-sulfide bearing assemblages	Nn	Pentlandite		
		Nnv	Pentlandite-violarite		
		Non	Pyrrhotite-pentlandite		
		Nrn	Pyrite-pentlandite		
		Nrmv	Pyrite-pentlandite-violarite		
		Nron	Pyrite-pyrrhotite-pentlandite		
		Nrv	Pyrite-violarite		
		Nv	Violarite		
			Other assemblages	xx	Other ore assemblages

Table A3_3: Alteration style codes

Root Character	Style	Secondary Character	Scale	Code	Description
b	Bands			b	bands
		l	mm-scale	bl	banded, mm-scale
		c	cm-scale	bc	banded, cm-scale
		d	dm-scale	bd	banded, dm-scale
		m	m-scale	bm	banded, metre-scale
		h	heterogeneous	bh	banded, heterogeneous
d	Disseminated			d	disseminated
f	Foliation-controlled			f	foliation-controlled
		l	mm-scale	fl	foliation-controlled, mm-scale
		c	cm-scale	fc	foliation-controlled, cm-scale
		d	dm-scale	fd	foliation-controlled, dm-scale
		m	m-scale	fm	foliation-controlled, metre-scale
		h	heterogeneous	fh	foliation-controlled, heterogeneous
m	Massive			m	massive, pervasive
p	Poddy			p	poddy
		l	mm-scale	pl	poddy, mm-scale
		c	cm-scale	pc	poddy, cm-scale
		d	dm-scale	pd	poddy, dm-scale
		m	m-scale	pm	poddy, metre-scale
		h	heterogeneous	ph	poddy, heterogeneous
v	Vein			v	vein or fracture-controlled
		l	mm-scale	vl	vein or fracture-controlled, mm-scale
		c	cm-scale	vc	vein or fracture-controlled, cm-scale
		d	dm-scale	vd	vein or fracture-controlled, dm-scale
		m	m-scale	vm	vein or fracture-controlled, metre-scale
		h	heterogeneous	vh	vein or fracture-controlled, heterogeneous

Table A3_4: Alteration gangue component codes

Code	Description	Code	Description	Code	Description
act	Actinolite	fit	Fluorite	oxs	Oxide Minerals
adu	Adularia	for	Forsterite	pet	Petalite
aeg	Aegirine	fpr	Feldspar	phl	Phlogopite
alb	Albite	fuc	Fuchsite	plg	Plagioclase
alu	Alunite	gib	Gibbsite	pre	Prehnite
amo	Orthoamphibole	gnt	Garnet	pyx	Pyroxene
amp	Amphibole	goe	Goethite	qtz	Quartz
and	Andalusite	grp	Graphite	ros	Roscoelite
ank	Ankerite	gru	Grunerite	rut	Rutile
ant	Anthophyllite	gyp	Gypsum	sau	Saussurite
any	Anhydrite	hal	Halite	sca	Scapolite
apt	Apatite	hbd	Hornblende	ser	Sericite
asb	Asbestos	hed	Hedenbergite	sid	Siderite
axi	Axinite	hem	Hematite	sil	Silica
bar	Barite	ilm	Ilmenite	slm	Sillimanite
bio	Biotite	jar	Jarosite	sme	Smectite
cct	Calcite	kfp	K Feldspar	spd	Spodumene
cht	Chlorite	kln	Kaolinite	srp	Serpentine
chy	Chalcedony	kyn	Kyanite	str	Staurolite
clv	Cleavandite	lcx	Leucoxene	tit	Titanite
cly	Clay Minerals	lep	Lepidolite	tlc	Talc
cpx	Clinopyroxene	lim	Limonite	tml	Tourmaline
crb	Carbonate	lip	lithium phosphates	tpz	Topaz
crd	Cordierite	mgs	Magnesite	tra	Tremolite-Actinolite
cry	Chrysotile	mic	Mica	trm	Tremolite
ctd	Chloritoid	mng	Manganese Minerals	ves	vesuvianite
cum	Cummingtonite	mus	Muscovite	wol	Wollastonite
dol	Dolomite	non	Nontronite	zin	Zinnwaldite
dps	Diopside	olv	Olivine		
epd	Epidote	opx	Orthopyroxene		

Table A3_5: Alteration ore mineral components

Code	Description	Code	Description
2Cu	Copper Minerals (2ndary)	mol	Molybdenite
2Ni	Nickel Minerals (2ndary)	oxs	Oxide Minerals
apy	Arsenopyrite	pb2	Lead Minerals (2ndary)
azu	Azurite	pen	Pentlandite
bis	Bismuth Minerals	pyo	Pyrrhotite
bor	Bornite	pyr	Pyrite
cas	Cassiterite	sbs	Antimonial Sulfides
cha	Chalcocite	sch	Scheelite
cpy	Chalcopyrite	sfs	Sulphosalts
gah	Gahnite	sif	Sulphide Minerals
gld	Gold	spl	Sphalerite
gna	Galena	stb	Stibnite
hem	Hematite	tan	Tanatalite
mal	Malachite	tel	Tellurides
mcs	Marcasite	vio	Violarite
mng	Manganese Minerals	wlf	Wolframite
mnt	Magnetite		

APPENDIX IV – VEIN CODES

Table A4_1: Vein assemblage codes

Root Character		Code	Description
A	Amphibole	AC	Amphibole-calcite
		AD	Amphibole-ankerite(dolomite/magnesite/siderite)
		AR	Amphibole-carbonate
B	Biotite	B	Biotite
		BC	Biotite-calcite
		BD	Biotite-ankerite(dolomite/magnesite/siderite)
		BR	Biotite-carbonate
R	Carbonate	R	Carbonate
		RC	Calcite
		RD	Ankerite(dolomite/magnesite/siderite)
		RF	Carbonate-forsterite
F	Feldspar	F	Feldspar
H	Chlorite	H	Chlorite
		HD	Chlorite-ankerite(dolomite/magnesite/siderite)
		HC	Chlorite-calcite
		HR	Chlorite-carbonate
M	Muscovite	M	Muscovite
		MC	Muscovite-calcite
		MD	Muscovite-ankerite(dolomite/magnesite/siderite)
		MR	Muscovite-carbonate
O	Oxide	O	Oxide
		OS	Oxide-sulphide
P	Clinopyroxene	P	Clinopyroxene
Q	Quartz	Q	Quartz dominant
		QA	Quartz-amphibole
		QB	Quartz-biotite
		QC	Quartz-calcite
		QD	Quartz-ankerite(dolomite/magnesite/siderite)
		QF	Quartz-feldspar
		QH	Quartz-chlorite
		QM	Quartz-muscovite
		QP	Quartz-clinopyroxene
		QR	Quartz-carbonate
QT	Quartz-tourmaline		
S	Sulphide	S	Sulphide
T	Tourmaline	T	Tourmaline
		TC	Tourmaline-calcite
		TD	Ankerite(dolomite/magnesite/siderite)-tourmaline
		TR	Tourmaline-carbonate
		XX	Other vein assemblages
	Other assemblages	XX	Other vein assemblages

Table A4_2: Vein texture and style codes

Root Characters	Texture	Secondary Character	Style	Code	Description
va	Cockade			va	Cockade vein
		d	Sheeted	vad	Cockade sheeted vein
		e	En echelon	vae	Cockade en echelon vein
		f	Floating wall-rock	vaf	Cockade floating wall-rock clast vein
		h	Healed breccia	vah	Cockade healed breccia vein
		j	Jigsaw fit	vaj	Cockade jigsaw fit vein
		l	Ladder	val	Cockade ladder vein
		s	Stockwork	vas	Cockade stockwork vein
		t	Tabular	vat	Cockade tabular vein
		u	Boudinaged or folded	vau	Cockade boudinaged or folded vein
vb	Buck			vb	Buck vein
		b	bleb	vbb	Buck bleb vein
		d	Sheeted	vbd	Buck sheeted vein
		e	En echelon	vbe	Buck en echelon vein
		f	Floating wall-rock	vbf	Buck floating wall-rock clast vein
		g	Stringer	vbg	Buck stringer vein
		h	Healed breccia	vbh	Buck healed breccia vein
		i	Spider	vbi	Buck spider vein
		j	Jigsaw fit	vbj	Buck jigsaw fit vein
		l	Ladder	vbl	Buck ladder vein
		m	Sigmoid extension	vbm	Buck sigmoid vein
		n	Lensoïd	vbn	Buck lensoïd vein
		o	Foliation parallel	vbo	Buck foliation parallel vein
		p	Pinch-and-swell	vbp	Buck pinch-and-swell vein
		s	Stockwork	vbs	Buck stockwork vein
		t	Tabular	vbt	Buck tabular vein
u	Boudinaged or folded	vbu	Buck boudinaged or folded vein		
vd	Laminated			vd	Laminated vein
		d	Sheeted	vdd	Laminated sheeted vein
		e	En echelon	vde	Laminated en echelon vein
		g	Stringer	vdg	Laminated stringer vein
		l	Ladder	vdl	Laminated ladder vein
		m	Sigmoid extension	vdm	Laminated sigmoid vein
		n	Lensoïd	vdn	Laminated lensoïd vein
		o	Foliation parallel	vdo	Laminated foliation parallel vein
		p	Pinch-and-swell	vdp	Laminated pinch-and-swell vein
		s	Stockwork	vds	Laminated stockwork vein
t	Tabular	vdt	Laminated tabular vein		
u	Boudinaged or folded	vdu	Laminated boudinaged or folded vein		
vg	Shear banded/ribboned			vg	Shear banded/ribboned vein
		e	En echelon	vge	Shear banded/ribboned en echelon vein
		g	Stringer	vgg	Shear banded/ribboned stringer vein
		l	Ladder	vgl	Shear banded/ribboned ladder vein
		m	Sigmoid extension	vgm	Shear banded/ribboned sigmoid vein
		n	Lensoïd	vgn	Shear banded/ribboned lensoïd vein
		o	Foliation parallel	vgo	Shear banded/ribboned foliation parallel
		p	Pinch-and-swell	vgp	Shear banded/ribboned pinch-and-swell vein
		t	Tabular	vgt	Shear banded/ribboned tabular vein
		u	Boudinaged or folded	vgu	Shear banded/ribboned boudinaged or folded vein
h	Saccharoidal			vh	Saccharoidal vein
		b	bleb	vhb	Saccharoidal bleb vein
		d	Sheeted	vhd	Saccharoidal sheeted vein
		e	En echelon	vhe	Saccharoidal en echelon vein
		f	Floating wall-rock	vhf	Saccharoidal floating wall-rock clast vein
		g	Stringer	vhg	Saccharoidal stringer vein
		h	Healed breccia	vhh	Saccharoidal healed breccia vein
		i	Spider	vhi	Saccharoidal spider vein
		j	Jigsaw fit	vhj	Saccharoidal jigsaw fit vein
		l	Ladder	vhl	Saccharoidal ladder vein
		m	Sigmoid extension	vhm	Saccharoidal sigmoid vein
		n	Lensoïd	vhn	Saccharoidal lensoïd vein
		o	Foliation parallel	vho	Saccharoidal foliation parallel vein
		p	Pinch-and-swell	vhp	Saccharoidal pinch-and-swell vein
		s	Stockwork	vhs	Saccharoidal stockwork vein
		t	Tabular	vht	Saccharoidal tabular vein
u	Boudinaged or folded	vhu	Saccharoidal boudinaged or folded vein		

Table A4_2: Vein texture and style codes (continued)

Root Characters	Texture	Secondary Character	Style	Code	Description		
vj	Colloform			vj	Colloform vein		
		b	bleb	vjb	Colloform bleb vein		
		d	Sheeted	vjd	Colloform sheeted vein		
		f	Floating wall-rock	vjf	Colloform floating wall-rock clast vein		
		g	Stringer	vjg	Colloform stringer vein		
		h	Healed breccia	vjh	Colloform healed breccia vein		
		j	Jigsaw fit	vjj	Colloform jigsaw fit vein		
		l	Ladder	vjl	Colloform ladder vein		
		n	Lensoid	vjn	Colloform lensoid vein		
		o	Foliation parallel	vjo	Colloform foliation parallel vein		
		p	Pinch-and-swell	vjp	Colloform pinch-and-swell vein		
		s	Stockwork	vjs	Colloform stockwork vein		
		t	Tabular	vjt	Colloform tabular vein		
		u	Boudinaged or folded	vju	Colloform boudinaged or folded vein		
vo	Comb			vo	Comb vein		
		b	bleb	vob	Comb bleb vein		
		d	Sheeted	vod	Comb sheeted vein		
		e	En echelon	voe	Comb en echelon vein		
		f	Floating wall-rock	vof	Comb floating wall-rock clast vein		
		g	Stringer	vog	Comb stringer vein		
		h	Healed breccia	voh	Comb healed breccia vein		
		i	Spider	voi	Comb spider vein		
		j	Jigsaw fit	voj	Comb jigsaw fit vein		
		l	Ladder	vol	Comb ladder vein		
		m	Sigmoid extension	vom	Comb sigmoid vein		
		n	Lensoid	von	Comb lensoid vein		
		o	Foliation parallel	voo	Comb foliation parallel vein		
		p	Pinch-and-swell	vop	Comb pinch-and-swell vein		
s	Stockwork	vos	Comb stockwork vein				
t	Tabular	vot	Comb tabular vein				
u	Boudinaged or folded	vou	Comb boudinaged or folded vein				
vr	Replacement			vr	Replacement vein		
		b	bleb	vrb	Replacement bleb vein		
		d	Sheeted	vrd	Replacement sheeted vein		
		g	Stringer	vrg	Replacement stringer vein		
		l	Ladder	vrl	Replacement ladder vein		
		n	Lensoid	vrn	Replacement lensoid vein		
		o	Foliation parallel	vro	Replacement foliation parallel vein		
		p	Pinch-and-swell	vrp	Replacement pinch-and-swell vein		
		s	Stockwork	vrs	Replacement stockwork vein		
		t	Tabular	vrt	Replacement tabular vein		
		u	Boudinaged or folded	vru	Replacement boudinaged or folded vein		
		vt	Crustiform			vt	Crustiform vein
				b	bleb	vtb	Crustiform bleb vein
				d	Sheeted	vtd	Crustiform sheeted vein
f	Floating wall-rock			vtf	Crustiform floating wall-rock clast vein		
g	Stringer			vtg	Crustiform stringer vein		
h	Healed breccia			vth	Crustiform healed breccia vein		
j	Jigsaw fit			vtj	Crustiform jigsaw fit vein		
l	Ladder			vtl	Crustiform ladder vein		
n	Lensoid			vtn	Crustiform lensoid vein		
o	Foliation parallel			vto	Crustiform foliation parallel vein		
p	Pinch-and-swell			vtp	Crustiform pinch-and-swell vein		
s	Stockwork			vts	Crustiform stockwork vein		
t	Tabular			vtl	Crustiform tabular vein		
u	Boudinaged or folded			vtu	Crustiform boudinaged or folded vein		
vu	Fibrous			vu	Fibrous vein		
		d	Sheeted	vud	Fibrous sheeted vein		
		g	Stringer	vug	Fibrous stringer vein		
		l	Ladder	vul	Fibrous ladder vein		
		n	Lensoid	vun	Fibrous lensoid vein		
		o	Foliation parallel	vuo	Fibrous foliation parallel vein		
		p	Pinch-and-swell	vup	Fibrous pinch-and-swell vein		
		t	Tabular	vut	Fibrous tabular vein		
		u	Boudinaged or folded	vuu	Fibrous boudinaged or folded vein		

Table A4_2: Vein texture and style codes (continued)

Root Characters	Texture	Secondary Character	Style	Code	Description
vx	Recrystallised			vx	Recrystallised vein
		b	bleb	vxb	Recrystallised bleb vein
		d	Sheeted	vxd	Recrystallised sheeted vein
		e	En echelon	vxe	Recrystallised en echelon vein
		f	Floating wall-rock	vxf	Recrystallised floating wall-rock clast
		g	Stringer	vvg	Recrystallised stringer vein
		h	Healed breccia	vvh	Recrystallised healed breccia vein
		i	Spider	vxi	Recrystallised spider vein
		j	Jigsaw fit	vxi	Recrystallised jigsaw fit vein
		l	Ladder	vxl	Recrystallised ladder vein
		m	Sigmoid extension	vxm	Recrystallised sigmoid vein
		n	Lensoid	vxn	Recrystallised lensoid vein
		o	Foliation parallel	vxo	Recrystallised foliation parallel vein
		p	Pinch-and-swell	vxp	Recrystallised pinch-and-swell vein
		s	Stockwork	vxs	Recrystallised stockwork vein
		t	Tabular	vxt	Recrystallised tabular vein
		u	Boudinaged or folded	vxu	Recrystallised boudinaged or folded vein
		vz	Zoned		
b	bleb			vzb	Zoned bleb vein
d	Sheeted			vzd	Zoned sheeted vein
e	En echelon			vze	Zoned en echelon vein
f	Floating wall-rock			vzf	Zoned floating wall-rock clast vein
g	Stringer			vzg	Zoned stringer vein
h	Healed breccia			vzh	Zoned healed breccia vein
i	Spider			vzi	Zoned spider vein
j	Jigsaw fit			vzj	Zoned jigsaw fit vein
l	Ladder			vzl	Zoned ladder vein
m	Sigmoid extension			vzm	Zoned sigmoid vein
n	Lensoid			vzn	Zoned lensoid vein
o	Foliation parallel			vzo	Zoned foliation parallel vein
p	Pinch-and-swell			vzp	Zoned pinch-and-swell vein
s	Stockwork			vzs	Zoned stockwork vein
t	Tabular			vzt	Zoned tabular vein
u	Boudinaged or folded			vzu	Zoned boudinaged or folded vein

Table A4_3: Vein mineral component codes

Code	Description	Code	Description	Code	Description	Code	Description
act	Actinolite	cht	Chlorite	hbd	Hornblende	rut	Rutile
adu	Adularia	chy	Chalcedony	hem	Hematite	sca	Scapolite
alb	Albite	cpx	Clinopyroxene	jar	Jarosite	sch	Scheelite
alu	Alunite	cpy	Chalcopyrite	kfp	K Feldspar	ser	Sericite
amo	Orthoamphibole	crb	Carbonate	lim	Limonite	sid	Siderite
amp	Amphibole	cry	Chrysotile	mgs	Magnesite	sil	Silica
ank	Ankerite	cu2	Copper Minerals (2ndary)	mic	Mica	sfl	Sulfide
ant	Anthophyllite	dol	Dolomite	mng	Manganese Minerals	spl	Sphalerite
apt	Apatite	dps	Diopside	mol	Molybdenite	srp	Serpentine
apy	Arsenopyrite	epd	Epidote	mus	Muscovite	stb	Stibnite
azu	Azurite	flt	Fluorite	ni2	Nickel Minerals (2ndary)	tel	Tellurides
bar	Barite	for	Forsterite	opx	Orthopyroxene	tlc	Talc
bio	Biotite	fpr	Feldspar	oxs	Oxide Minerals	tml	Tourmaline
bis	Bismuth Minerals	fuc	Fuchsite	pb2	Lead Minerals (2ndary)	tpz	Topaz
bor	Bornite	gld	Gold	plg	Plagioclase	tra	Tremolite-Actinolite
cas	Cassiterite	gna	Galena	pyo	Pyrrhotite	trm	Tremolite
cct	Calcite	gnt	Garnet	pyr	Pyrite	wlf	Wolframite
cha	Chalcocite	grp	Graphite	pyx	Pyroxene		
chr	Chromite	gru	Grunerite	qtz	Quartz		

Table A4_4: Vein ore flag codes

Code	Description
g	Gold-bearing
o	Oxide-bearing
og	Oxide- & gold-bearing
s	Sulphide-bearing
sg	Sulphide- & gold-bearing
x	Sulphide- & oxide-bearing
xg	Sulphide-, oxide- & gold bearing

Table A4_5: Vein ore mineral assemblage codes

Root Character		Code	Description		
2	Secondary sulfide and/or oxide assemblages	2Cu	Secondary copper minerals		
		2Ni	Secondary nickel minerals		
		2Pb	Secondary lead minerals		
		2Zn	Secondary zinc minerals		
A	Arsenopyrite-bearing assemblages	Aa	Arsenopyrite		
		Aoa	Pyrrhotite-arsenopyrite		
		Ara	Pyrite-arsenopyrite		
		Aroa	Pyrite-pyrrhotite-arsenopyrite		
B	Base-metal sulfide-bearing assemblages	Bb	Bornite		
		Bbc	Bornite-chalcopyrite		
		Bbcm	Bornite-chalcopyrite-magnetite		
		Bbm	Bornite-magnetite		
		Bbr	Bornite-pyrite		
		Bbrc	Bornite-pyrite-chalcopyrite		
		Bc	Chalcopyrite		
		Bcgz	Chalcopyrite-galena-sphalerite		
		Bcm	Chalcopyrite-magnetite		
		Bcz	Chalcopyrite-sphalerite		
		Bgz	Galena-sphalerite		
		Boc	Pyrrhotite-chalcopyrite		
		Bocg	Pyrrhotite-chalcopyrite-galena		
		Bocgz	Pyrrhotite-chalcopyrite-galena-sphalerite		
		Bocz	Pyrrhotite-chalcopyrite-sphalerite		
		Bog	Pyrrhotite-galena		
		Bogz	Pyrrhotite-galena-sphalerite		
		Bom	Pyrrhotite-magnetite		
		Bomc	Pyrrhotite-magnetite-chalcopyrite		
		Borc	Pyrrhotite-pyrite-chalcopyrite		
		Borcg	Pyrrhotite-pyrite-chalcopyrite-galena		
		Borcgz	Pyrrhotite-pyrite-chalcopyrite-galena-sphalerite		
		Borcz	Pyrrhotite-pyrite-chalcopyrite-sphalerite		
		Borg	Pyrrhotite-pyrite-galena		
		Borgz	Pyrrhotite-pyrite-galena-sphalerite		
		Bormc	Pyrite-pyrrhotite-magnetite-chalcopyrite		
		Borz	Pyrrhotite-pyrite-sphalerite		
		Boz	Pyrrhotite-sphalerite		
		Brc	Pyrite-chalcopyrite		
		Brcg	Pyrite-chalcopyrite-galena		
		Brcgz	Pyrite-chalcopyrite-galena-sphalerite		
		Brcz	Pyrite-chalcopyrite-sphalerite		
		Brg	Pyrite-galena		
		Brgz	Pyrite-galena-sphalerite		
		Brmc	Pyrite-magnetite-chalcopyrite		
		Brz	Pyrite-sphalerite		
		F	Iron-sulfide bearing assemblages	Fo	Pyrrhotite
				Fom	Pyrrhotite-magnetite
				Fr	Pyrite
				Frh	Pyrite-hematite
Frm	Pyrite-magnetite				
Frmh	Pyrite-magnetite-hematite				
Fro	Pyrite-pyrrhotite				
From	Pyrite-pyrrhotite-magnetite				
M	Molybdenite-bearing assemblages			Mry	Pyrite-molybdenite
				Mryc	Pyrite-molybdenite-chalcopyrite
		My	Molybdenite		
N	Nickel-sulfide bearing assemblages	Nn	Pentlandite		
		Nnv	Pentlandite-violarite		
		Non	Pyrrhotite-pentlandite		
		Nrn	Pyrite-pentlandite		
		Nrmv	Pyrite-pentlandite-violarite		
		Nron	Pyrite-pyrrhotite-pentlandite		
		Nrv	Pyrite-violarite		
		Nv	Violarite		
		Other assemblages		xx	Other ore assemblages

Table A4_6: Vein ore style codes

Code	Description
b	Breccia fill
c	Colloform
d	Disseminated
f	Fracture
g	Stringer
k	Cockade
l	Laminated
m	Massive
r	Replacement
s	Selvedge
x	Matrix
y	Blebby

Table A4_7: Vein element codes

Code	Description
lvf	Vein/pressure shadow fibre
pvn	Vein

APPENDIX V – STRUCTURE CODES

Table A5_1: Structural zone codes

Code	Description
C	Cleavage Set
F	Folds Domain
L	Stylolite Set
M	Metamorphic Domain
P	Primary layering
R	Fracture Set/Fault
Z	Foliated/Shear Zone

Table A5_2: Fabric, texture and style codes

Root Character	Secondary Character	Tertiary Characters	Code	Description					
c	Cleavage		c	Cleavage					
			cc	Crenulation cleavage					
			cf	Fracture cleavage					
			cr	Foliation reactivation cleavage					
			cs	Slaty cleavage					
		f	Fold	e	fe	Sheath fold			
					fi	Intrafolial fold			
					fk	Kink fold			
				l	Polyclinal	s	S vergent	fks	Kink fold S vergence
						z	Z vergent	fkz	Kink fold Z vergence
						fl	Polyclinal fold		
a	Asymmetric					fla	Polyclinal fold asymmetric		
m	Symmetric					flm	Polyclinal fold symmetric		
s	S vergent					fls	Polyclinal fold S vergence		
n	Isoclinal			z	Z vergent	flz	Polyclinal fold Z vergence		
				fn	Isoclinal fold				
		a	Asymmetric	fna	Isoclinal fold asymmetric				
		m	Symmetric	fnm	Isoclinal fold symmetric				
		s	S vergent	fns	Isoclinal fold S vergence				
		z	Z vergent	fnz	Isoclinal fold Z vergence				
p	Parallel			fp	Parallel fold				
		a	Asymmetric	fpa	Parallel fold asymmetric				
		m	Symmetric	fpm	Parallel fold symmetric				
		s	S vergent	fps	Parallel fold S vergence				
		z	Z vergent	fpz	Parallel fold Z vergence				
		v	Chevron			fv	Chevron fold		
				a	Asymmetric	fva	Chevron fold asymmetric		
				m	Symmetric	fvm	Chevron fold symmetric		
				s	S vergent	fvs	Chevron fold S vergence		
				z	Z vergent	fvz	Chevron fold Z vergence		
w	Similar					fw	Similar fold		
		a	Asymmetric	fwa	Similar fold asymmetric				
		m	Symmetric	fwm	Similar fold symmetric				
		s	S vergent	fws	Similar fold S vergence				
		z	Z vergent	fwz	Similar fold Z vergence				
		y	Ptygmatic			fy	Ptygmatic fold		
a	Asymmetric			fya	Ptygmatic fold asymmetric				
m	Symmetric			fym	Ptygmatic fold symmetric				
s	S vergent			fys	Ptygmatic fold S vergence				
z	Z vergent			fyz	Ptygmatic fold Z vergence				
l	Stylolite			k	Slickolite	lk	Slickolite		
		y	Stylolite	ly	Stylolite				
		r	Ragged	lyr	Ragged stylolite				
		s	Smooth	lys	Smooth stylolite				
m	Metamorphic			mb	Banded				
				mc	Crystalloblastic				
				md	Decussate				
				me	Mimetic				
				mf	Fibroblastic				
				mk	Poikiloblastic				
				ml	Laminated				
				mm	Blastomylonitic				
				mn	Hornfelsic				
				mo	Granoblastic				
				mp	Porphyroclastic				
				mu	Granuloblastic				
				mw	Web texture				
				mx	Mortar texture				
				my	Porphyroblastic				
		mz	Rotated porphyroblasts						

Table A5_2: Fabric, texture and style codes (continued)

Root Character	Secondary Character	Tertiary Characters	Code	Description		
r	Brittle		rb	Fault breccia		
			rc	Cataclasite		
			re	Foliated cataclasite		
			rf	Fractures		
			rfc	Complex fractures		
			rfp	Parallel fractures		
			rg	Gouge		
			rk	Slickensides		
			rq	Quasi-conglomerate		
			rua	Anastomosing slickensides		
			rup	Parallel slickensides		
			rv	Hydrothermally cemented gouge		
			rx	Hydrothermally cemented breccia		
			ry	Pseudotachylite		
		s	Ductile		sa	Augen structure
					sf	Foliation
					sg	Gneissosity
	sh			Schistosity		
	sl			Linear fabric		
	sm			Mylonite		

Table A5_3: Metamorphic-facies codes

Code	Description
A	Amphibolite-facies domain
AL	Lower-amphibolite facies domain
AU	Upper-amphibolite facies domain
G	Greenschist-facies domain
GL	Lower-greenschist facies domain
GM	Mid-greenschist facies domain
GR	Granulite-facies domain
GU	Upper-greenschist facies domain
H	Hornfels domain
M	Migmatitic domain
PP	Prehnite-pumpellyite facies domain
RG	Retrograde domain

Table A5_4: Structural element codes

Root Character		Secondary Character		Code	Description		
l	linear	c	Cleavage	lci	Intersection lineation		
				lcr	Rodding		
		f	Fold	lfa	Fold axis		
				llt	Stylolite tooth axis		
		l	Stylolite	lrg	Slickenside groove/striae		
				lrr	Fault/bedding shear fibre		
		s	Ductile	lsb	Boudin axis		
				lsl	Mineral stretching lineation		
				lul	Undifferentiated lineation		
				lzl	Bedding lineation (primary)		
z	Primary			lzl	Bedding lineation (primary)		
p	Planar	c	Cleavage	pcl	Cleavage		
				f	Fold	pfk	Kink band boundary
		pfp	Fold axial plane				
		l	Stylolite	plk	Slickolite		
				ply	Stylolite		
				pmb	Banding/gneissosity		
		m	Metamorphic	r	Brittle	prf	Fault slickenside
						pri	Fault slickenside - vein interior
						prj	Single fracture/joint
						prm	Fault slickenside - vein margin
						pro	Fault slickenside - lithological contact
						prp	Fault plane
						prt	Fracture/joint set
						psc	C fabric
						psf	Foliation
						psh	Schistosity
		pss	S fabric				
		pup	Undifferentiated plane				
		z	Primary			pzb	Bedding
						pzf	Lava-flow banding
						pzg	Gradational contact
						pzi	Irregular contact
						pzm	Magmatic foliation
						pzo	Lithological contact
						pzs	Sharp contact