

LEGEND



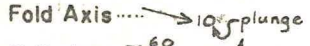


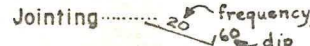
ROCK TYPE	SYMBOL	COLOUR
Quartz sericite phyllite	S	736
White phyllite	S _s	
Bleached phyllite	S _b	735½
Graphite phyllite	G	
Calcite phyllite	K	740½
Chlorite phyllite	C	104-51
Higher rank phyllite	H	
Granitic rocks	G _n	

SULPHIDES

Structureless fine grained	M
With up to 50% barite	M _b
With up to 50% quartz	M _q
Composition banded	MB
Porous granular	MV
Banded and porous	MVB
With rounded inclusions and/or pore fillings	MI
Quartz-sericite-sulphide	P
Banded or laminated	PB
Foliated	PF
Granulose	PP
Breccia	X


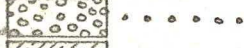
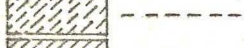


e.g. MX_M, SX_K, SX_q

STRUCTURE

Fault	
Fault + gouge	
Fold Axis	
Foliation	
Fi Banding	
Jointing	
Fold nose	η
Shear zone	sh

MINERAL SUBSCRIPTS

Q - quartz, k - calcite, c - chlorite, t - talc, b - barite
 B - biotite, st - staurolite, gt - garnet, G - graphite
 m - mariposite, py - pyrite, po - pyrrothite, ga - galena
 sp - sphalerite, mag - magnetite, as - arsenopyrite

%SULPHIDES	SYMBOL	OUTLINE	ASSAY VALUE % Pb + Zn	COLOUR
2-5			0-3.99	
5-25			4-5.99	71
25-50			6-7.99	737
50-75			8-9.99	745
75-100			10-11.99	752
			12-13.99	742
			14-15.99	740
			16+	

ROCK TYPE DESCRIPTION

SYMBOL - S

NAME - Quartz Sericite Phyllite

DESCRIPTION - Pale grey to dark grey, phyllitic, very fine grained rock. Often with interbands of white quartz up to 5mm. in small complex folded structures, cut and transposed by the phyllitic foliation.

DIAGNOSTIC CHARACTERISTICS - Grey colour. Silvery sheen on cleavage planes.

- VARIATIONS -
- ① With traces of graphite - S_G
 - ② With lenticular flakes of chlorite and angular chloritic inclusions which may have been tuff fragments - S_C
 - ③ With secondary bands and veinlets of white calcite - S_K
 - ④ With traces of higher rank metamorphic minerals; biotite - S_B, staurolite - S_{st}, garnet - S_{gt}
 - ⑤ With occasional bands of sulphides - S_P
 - ⑥ With talc - S_T

SYMBOL - S₅

NAME - White Phyllite

DESCRIPTION - White to very pale yellow grey sericite phyllite

DIAGNOSTIC CHARACTERISTICS - White colour. Silvery sheen on cleavage planes.

SYMBOL - S₆

NAME - Bleached Phyllite

DESCRIPTION - Buff to yellow-grey colour. Earthy lustre. Generally softer than typical Quartz Sericite Phyllite due to presence of kaolin

DIAGNOSTIC CHARACTERISTICS - Buff colour. Earthy lustre

VARIATIONS - ① With flecks of bright green mariposite associated with fault gouge. S_{6m}
② With lenticular flakes of dark green chlorite and angular chloritic inclusions which may have been tuff fragments S_{6c}

SYMBOL - G

NAME - Graphite Phyllite

DESCRIPTION - Dark grey to black colour.
Sericite phyllite with enough graphite and/or carbonaceous material to mark the fingers or give a black streak when scratched.

DIAGNOSTIC CHARACTERISTICS - Black colour.
Black streak.

VARIATIONS - ① With bands and veinlets of white calcite - G_K
② With bands and veinlets of white quartz - G_Q

SYMBOL - K

NAME - Calcite Phyllite

DESCRIPTION - Similar to Quartz Sericite Phyllite but with white calcite bands up to 5mm and up to 50% fine disseminated calcite. Colour generally grey.

DIAGNOSTIC CHARACTERISTICS - Fine disseminated calcite

VARIATIONS - ① With traces of chlorite - K_c

SYMBOL - C

NAME - Chlorite Phyllite

DESCRIPTION - A fine grained mixture of chlorite and sericite with enough chlorite to impart a dark green colour to the rock.

DIAGNOSTIC CHARACTERISTICS - Phyllitic texture. Dark green colour.

SYMBOL H

NAME - High rank phyllite

DESCRIPTION - Includes all previous described phyllites which have undergone a higher degree of thermal metamorphism than the prevalent greenschist facies. Generally contains streaks of dark brown phlogopite or biotite mica, scattered 1-5 mm pink garnets, scattered 1-5 mm pale yellow staurolite crystals.

DIAGNOSTIC CHARACTERISTICS - Presence of garnets.

SYMBOL - M

NAME - Massive Sulphide Group

DESCRIPTION - Fine grained and equigranular.

Generally high sulphide content well over 50% except in quartz - barite zones where sulphide content can be as low as 25%. Appears to consist of at least two components, an older one consisting of subhedral pyrite with small amounts sphalerite and galena and a younger one consisting mainly of galena and sphalerite. Common minerals are pyrite, sphalerite, galena, barite, quartz, calcite, ankerite, magnetite, pyrrhotite, arsenopyrite, and chalcopyrite.

Almost no F_2 foliation structures can be identified. Compositional banding, which is presumed to be an F_1 structure similar to the F_1 in the phyllites, is common. Except where drag folding has taken place the contacts of the massive sulphide are parallel to the compositional banding within it.

DIAGNOSTIC CHARACTERISTICS - Fine equigranular sulphides, lacking F_2 foliation

graphite, chlorite, sphalerite, galena, pyrite, pyrrhotite, magnetite, chalcopyrite, arsenopyrite, calcite and ankerite.

DIAGNOSTIC CHARACTERISTICS Streaks and bands of sulphides in quartz sericite or graphite phyllite

VARIATIONS

P - General term for quartz sulphides

PB - Interbanded massive sulphide laminae and quartz, chert and sericite or graphite. Generally appears to follow F₁ structure

PF - Foliated quartz and sulphide. Foliation is defined by the parallel orientation of platy minerals (sericite, graphite) and is exclusively F₂

PP - Granulose quartz and sulphide. Defined by streaks and bands of coarse rounded 2-5mm aggregates of quartz and pyrite giving the rock a beaded texture with a groundmass of platy minerals (sericite, chlorite, graphite) plus galena and sphalerite. This texture appears to be the result of the destruction of the F₁ banding by the F₂ foliation.

SYMBOL - Gn

NAME - Granite

DESCRIPTION - Pale grey to pink, muscovite granite.
Forms the major portion of the Anvil Batholith.

DIAGNOSTIC CHARACTERISTICS - Granitic texture and composition. Presence of muscovite

VARIATIONS - Rhyolite, aplite and pegmatite dykes are known to occur around the contact zone of the batholith. They occur only rarely close to the Grouse ore zone, and symbols have not been assigned to them.

SYMBOL - X

NAME - Breccia

DESCRIPTION - All rocks consisting of angular fragments above 5 mm in size in a finer grained groundmass.

Symbolically the fragment type is shown first followed by X followed by a subscript letter denoting the groundmass
eg. - MX_K, SX_a