

List of Photo

Photo		Page
Photo-3.1a	An exposure of quartzite near Mawryngkneng Dispensary	24
Photo-3.1b	Weathering of phyllite (Ksehpondeng road)	25
Photo-3.1c	Spheroidal weathering in amphibolite at Ksehpondeng.	26
Photo-3.1d	Boulders of granite at Ksehpondeng	26
Photo-4.1a	Current bedding in quartzite exposed on the bed of the river at Ksehpondeng	31
Photo-4.1b	Lithological contact between quartzite and phyllite on the road cutting at Lulang.	31
Photo-4.1c	Lithological contact between quartzite and conglomerate exposed at Lulang.	32
Photo-4.1d	Current bedding free band in current bedded quartzite exposed on the road sides at Mawryngkneng.	33
Photo-4.2a	Overtuned cross-lamination in quartzite on the valley at Thangshalai.	34
Photo-4.2b	Convolute lamination in quartzite on the Ksehpondeng road	34
Photo-4.2c	Pebbles are comparatively finer towards northern part in the conglomerate at Lulang.	35
Photo-4.3a	Asymmetrical sinuous crested ripple marks in quartzite on the road side at Thangshalai.	36
Photo-4.3b	Preferred orientation of long axes of the pebbles in conglomerates at Lulang.	36
Photo-4.3c	Current bedding in quartzite with truncated top and tangential bottom at Shormo.	38
Photo-4.3d	Pebbles free band in conglomerate at Lulang.	42
Photo-4.4a	Parallel arrangement of platy minerals in quartzite. Cross polars x10. Locality: Mawryngkneng.	46
Photo-4.4b	Tabular thin plates or sheets developed due to slaty cleavage in phyllite at Mawryngkneng near petrol pump.	46
Photo-4.4c	Crinkles (crenulation cleavage) developed in phyllites at Pamlyer Ksehpondeng road.	47

Photo-4.4d	Gently plunging minor open fold in phyllite at Japshyndit hillock, Mawryngkneng	48
Photo-4.5a	Accumulation of mica minerals along the strain zones of F_2 fold. Crosspolars x10. Locality. Ksehpondeng road.	48
Photo-4.5b	Joints developed in quartzites of Shillong Group. Locality: - Near Puriang.	49
Photo-4.5c	Quartz vein developed across the foliation in quartzites at Ksehpondeng	57
Photo-4.6a	Quartz vein developed along the foliation in quartzites at Pamura.	57
Photo-4.6b	Mineral lineation in quartzites at Puriang.	58
Photo-4.6c	Mineral lineation shown by parallel arrangement of mineral in mica schist at Mawryngkneng. Cross polars x10	58
Photo-4.6d	Isoclinal fold in phyllites of Shillong Group. Locality:- Puriang.	60
Photo-4.7a	F_2 fold in phyllite of the Shillong Group at right angle to F_1 fold. Locality:- Puriang	61
Photo-4.7b	Kink developed in phyllites of the Shillong Group at Puriang	63
Photo-4.8a	Chevron fold developed in phyllites at Puriang	64
Photo-4.8b	Conjugate kink developed in phyllites at Puriang	64
Photo-4.8c	Open F_3 fold in quartzites of Shillong Group at Thangshalai.	65
Photo-4.8d	Flexural slip folding has segmented the quartz vein, where upper segment has moved updip relative to the lower segment at Thangshalai	65
Photo-5.1a	Sutured contact between quartz grains in quartzites, cross polars x10 (Locality:- Puriang	92
Photo-5.1b	Interlocking quartz grains in quartzites, cross polars x10 (Locality: - Puriang)	93
Photo-5.1c	Well recrystallized quartz grains with straight grain boundaries meeting in triple points in quartzites, cross polars x10 (Locality: - Puriang)	93
Photo-5.1d	Quartz, muscovite and sericite in parallel order in micaceous quartzites, cross polars x10 (Locality: - Ksehpondeng)	93

Photo-5.2a	Secondary growth of quartz in quartzites, forming a rim around the periphery of the original grain, cross polars x10 (Locality - Puriang)	94
Photo-5.2b	Inclusion of muscovite and sericite through fracture in quartzites of Shillong Group, cross polars x10 (Locality - Puriang)	94
Photo-5.2c	Magnetite, muscovite and sericite as cementing material in quartzites, under polarised x10 (Locality: - Shormo)	94
Photo-5.2d	Xenoblastic quartz floating on a sericite matrix in micaceous quartzites, cross polars x10 (Locality: - Thangshalai)	94
Photo 5.3a	Pyrite crystal in phyllites of the Shillong Group, under polarized X40 (Locality- Mawryngkneng)	99
Photo 5.3b	Parallel arrangement of muscovite, sericite chlorite and quartz grains in phyllites of Shillong Group, cross polars X5 (Locality- Ksehpondeng)	99
Photo 5.3c	Crenulation cleavage developed in phyllites of the Shillong Group, under polarized X5 (Locality- Ksehpondeng road)	99
Photo 5.3d	Development of dissecting cleavage S_2 at high angle to dominant foliation in phyllites, cross polars X5 (Locality-Ksehpondeng road)	99
Photo 5.4a	Quartz vein along the foliation in phyllites of the Shillong Group, under polarized X5(Locality- Shormo)	100
Photo5.4b	Schistosity S_1 due to parallel arrangement of muscovite, sericite and quartz in mica schist, cross polars X5(Locality- Thangshalai)	103
Photo 5.4c	Smooth grain boundaries meet in triple point due to recrystallisation of quartz in mica schist, cross polars X10 (Locality- Puriang)	103
Photo5.4d	Alternate layers of quartz and mica in mica schist to form dominant foliation S_1 , cross polars X5 (Locality- Ksehpondeng)	103
Photo 5.5a	Quartz and quartzite pebbles in conglomerate bed of Shillong Group (Locality- Lulung)	109
Photo 5.5b	Polycrystalline quartz pebbles in arenaceous matrix of quartz and small amount of micaceous mineral, cross polars X5 (Locality- Lulung)	110
Photo5.5c	Inclusion of micaceous mineral along the grain boundaries of pebbles, cross polars X10 (Locality- Lulung)	111

Photo5.6a	Smooth grain boundaries of quartz in the pebbles of the conglomerate of Shillong Group, cross polars x10 (Locality-Mawryngkneng)	111
Photo 5.6b	Fracture developed in pebbles of the conglomerates, cross polars X10(Locality- Lulung)	111
Photo 5.6c	Inclusion of muscovite needle into the quartz grain of the pebbles of conglomerate of Shillong Group, cross polars X10 (Locality-Lulung)	111
Photo 5.6d	Siliceous matrix in Lulung conglomerate with minor amount of micaceous mineral, cross polars X10 (Locality- Lulung)	112
Photo 5.7a	Micaceous matrix in Mawryngkneng conglomerate with fragment of quartz, cross polars x10 (Locality-Mawryngkneng)	112
Photo 5.7b	Highly fractured quartz grain in the matrix of the Lulung conglomerate, cross polars X10(Locality- Lulung)	112
Photo.5.7c	Fibrous aggregate of muscovite mineral with fractured quartz grain in the matrix of conglomerate, cross polars X10 (Locality-Mawryngkneng)	113
Photo.5.7d	Strain shadow developed in quartz grain of the matrix of the Lulung conglomerate, cross polars X10 (Locality- Lulung)	113
Photo 6.1a	Amphibolite showing spheroidal weathering. (Locality- Mawryngkneng)	119
Photo 6.1b	An exposure of granite. (Locality- Keshpondeng)	119
Photo 6.1c	Cumulate structure in amphibolite (Locality-Mawryngkneng)	120
Photo 6.1d	Weathered cumulates showing spotty appearance. (Locality- Nongplist)	120
Photo 6.2a	Well developed hornblende crystal occurs as large plate in amphibolite. Under polarized x10. (Locality- Nongplist)	122
Photo 6.2b	Well formed amphibole with zagged ends in amphibolite. Under polarized x10 (Locality- Mawryngkneng)	122
Photo 6.2c	Sieve structure of hornblende in amphibolite. Crossed polarized x10 (Locality- Nongplist)	122
Photo 6.2d	Biotite showing secondary growth in amphibolite. Under polarized x10 (Locality-Shormo)	122
Photo 6.3a	Magnetite makes the skeletal structure of pyroxene cleavage	

	in amphibolite. Crossed polarized x10. (Locality- Ksehpondeng)	123
Photo 6.3b	Hornblende porphyroblast in groundmass of plagioclase quartz and biotite in amphibolite. Crossed polarized x10 (Locality- Mawryngkneng)	125
Photo 6.3c	Penetration twin showing by hornblende in amphibolite. Crossed polarized x10 (Locality- Ksehpondeng)	125
Photo 6.3d	Large hornblende plate in amphibolite poikilitically enclosing plagioclase, exhibiting ophitic texture. crossed polarized x10 (Locality-Shormo)	125
Photo-6.4a	Perthite in potash feldspar. Cross polars x 10 (Locality- Ksehpondeng)	137
Photo-6.4b	Cross-hatched twinning shown by microcline in granite. Cross polars x 10 (Locality- Ksehpondeng)	137
Photo-6.4c	Plagioclase showing perthitic intergrowth with microcline in granite. Cross polars x 10 (Locality- Ksehpondeng)	137
Photo-6.4d	Plagioclase showing polysynthetic twinning in granite. Cross polars x 10 (Locality- Ksehpondeng)	138
Photo-6.5a	Hypersthene showing well developed cleavage in granite. Cross polars x 10 (Locality- Ksehpondeng)	138
Photo-6.5b	Euhedral zircon in granite. Cross polars x 10 (Locality- Ksehpondeng)	139
Photo-6.5c	Granite showing hypidiomorphic granular texture. Cross polars x 10 (Locality- Ksehpondeng)	140
Photo-6.5d	Myrmekitic intergrowth of quartz and plagioclase in granite. Cross polars x 10(Locality- Ksehpondeng)	140