REFERENCE COLLECTION-ANVIL DISTRICT 017024

NOTES TC ACCCMPANY CORE BOXES AT GRUM CAMP ILLLSTRATING VARIOUS MAJCR LITHOLOGIES CF THE DISTRICT.

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UNIT: 580

DEPOSIT:GRUM
SECTION: 86W
DDH: FAGA-111
FROM: 144.3 M
TO: 151.5 M

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HANC SPECIMEN DESCRIPTION:

CUT SURFACE COLOR , WET: N4 -> 5GY
CUT SURFACE COLOR , DRY: N7 -> N6
S2 FOLIA COLOR , DRY: N4
DESCRIPTION:
MEDIUM GREY PHYLLITE WITH WELL DEVELOPED LITHCN STRUCTURE, MODERATELY SOFT TO MODERATELY HARC. MINOR DISSEMINATED PYRRHOTITE PORPHROBLASTS TO 1 CM. ACROSS. WELL BANCED PARALLEL S1 WITH BANDING ON A 1MM. TO 10MM. SCALE. CALCITE IS IN THE LIGHTER GRANULAR LAYERS RATHER THAN IN THE PHYLLITIC BANDS. THE CORE HAS A SLIGHT GREENISH CAST ON THE CUT SURFACE WHICH IS NOT OBVIOUS EXCEPT WHEN WET.

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THIN/POLISHED SECTICN DESCRIPTION:

DEPTH: 143.5 M
ESTIMATED MODE:

NOTES	MINERAL	AMOUNT(%)
BIOTITE PLEOCHROISM	CARBONATE	40 / -
CLEAR / PALE BROWN	CHLORITE	15 / 5
	MUSCOVITE	TR / 54
CHLCRITE PLECCHRCISM	BIOTITE	TR / TR
CLEAR	QUARTZ	44 / 40
	OPAQUES	1 / 1
	TOURMALINE	- / TR
CHLCRITE INTERFERENCE	ZIRCON	- / TR
GREYISH OLIVE GREEN		

DESCRIPTION:

THIS SECTION CONTAINS TWO INTERBANDED COMPOSITIONAL/MODAL END-MEMBERS WITH INTERMEDIATE CCMPOSITICNS ALSC BEING PRESENT. PELITIC BANDS CONSIST OF FINE GRAINED, MUSCOVITIC BANDS WHICH CONTAIN LESSER AMOUNTS OF QUARTZ, CHLORITE, BICTITE, AND OPAQUES. QUARTZOSE BANDS ARE SLIGHTLY COARSER GRAINED AND CONTAIN QUARTZ, CALCITE, CHLORITE, AND MINOR BIOTITE AND MUSCOVITE.

MUSCCVITE IN THE PELITIC BANDS DISPLAYS A VERY WELL DEVELCPED D2 CRENULATION CLEAVAGE. MUSCCVITE IS SUBPARALLEL TO BCTH THE S1 AND S2 SURFACES. S1 MUSCOVITE IS BCTH RECRYSTALLIZED TC FORM POLYGONAL ARCS AND SLIGHTLY DISTORTED AROUNC FCLD HINGES.

CHLORITE OCCURS AS ISOLATED FLAKES GENERALLY IN THE D1 LITHONS (D2 FOLD HINGES). BIOTITE IS INCIPIENTLY AND LOCALLY DEVELOPED AS SMALL FLAKES PARALLEL TO BOTH S1 AND S2. BIOTITE IS TYPICALLY ASSOCIATED WITH CHLORITE.

QUARTZOSE BANDS CONTAIN IRREGULAR CARBONATE (CALCITE?) GRAINS. QUARTZ COMMONLY IS EQUANT AND HAS TRIPLE POINT JUNCTIONS. QUARTZ GRAINS HAVE ONLY MINOR UNDULATORY EXTINCTION. CHLORITE IS MUCH MORE COMMON IN THESE BANDS IN COMPARISON TO THE PELITIC BANDS.

OPAQUES ARE SUBPARALLEL TO BOTH THE S1 AND S2 SURFACES. LARGE PORPHYROBLASTS ARE ORIENTED PARALLEL TO S2. SMALL GRAINS ARE PARALLEL TO S1 AND HAVE BEEN OBVIOUSLY DISTORTED BY THE D2 DEFORMATION.

A COARSE GRAINED CARBONATE VEIN RUNS OBLIQUELY ACROSS THE SECTION. THE VEIN OBVIOUSLY CROSSCUTS THE S1 SURFACES. IT IS LOCALLY SLIGHTLY FOLDED BY THE D2 DEFORMATON AND S2 PRESSURE SOLUTION STRIPES RUN PARTLY THROUGH IT.

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DISTINGUISHING CHARACTERISTICS:

THE CALCITE CONTENT, MEDIUM GREY COLOR, WELL DEVELOPED BANDING AND CONSEQUENTLY THE LITHON STRUCTURE

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COMMENTS/SPECIAL FEATURES:

THIS IS AN EXCELLENT EXAMPLE OF WHAT IS REFERRED TO AS CS2 FOLIATED.

THE SLIGHTLY DARKER COLOR ON THE S2 FOLIA IS DUE TO CONCENTRATION OF CARBONACEOUS MATERIAL INTO THE MM. SCALE S2 PALALLEL PRESSURE SOLUTION STRIPES SPACED UP TO 10MM. (MOSTLY APPROX. 2MM.) APART.

NOTE THAT THE S2 PARALLEL VEINS (AND THE POST S2 VEINS) ARE CALCITE RICH HERE (I.E.=100#), THIS IS GENERALLY THE CASE FOR VANGORDA FORMATION PHYLLITES HOWEVER MT. MYE FORMATION PHYLLITES COMMONLY CONTAIN NON-CALCAREOUS VEINS.

AT 146M IS MINOR BIOTITE THAT IS ONLY OBVIOUS WHEN THE CORE IS WET.

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YEAR ENTERED INTO COLLECTION: 1982
ENTERED BY: GAJ/DSJ
HAND SPECIMEN DESCRIPTION BY: GAJ/LCP
THIN/POLISHED SECTION DESCRIPTION BY: LCP