

GEOLOGICAL MAP OF THE LAHAVE AREA



DESCRIPTIVE NOTES

The Lahave River area in southeastern Lunenburg County, N.S., is underlain by low grade slates and sandstones belonging to the Cambro-Ordovician Reguap Group. Six lithological map units comprise the local Reguap Group successions.

The Long Point sandstone unit is composed of thickly bedded to massive, buff-weathered, quartz-rich sandstones. In places, individual beds are up to 1.2 m thick. They are commonly graded, show incomplete Bouma cycles and probably contain ripple marks.

The Risser Beach sandstone unit comprises fine grained, rhythmically interbedded, green and grey-green sandstones ranging from 5-10 m in thickness.

The West Dublin sandstone unit is characterized by prominent, buff weathered quartz-rich sandstones. They vary from 0.5 to 1 m in thickness, are locally graded, and are similar to sandstones of the Long Point sandstone unit. Thin siltstone interbeds occur throughout the unit. Thin siltstone units with fine grained, rhythmically interbedded, green and grey-green sandstones, in the Lahave Islands, the buff weathered sandstones of this unit split to core discrete nodules. Here, the rhythmically layered green beds separating the sand beds are thicker than elsewhere, show partial Bouma cycles and are tectonically deformed.

The Snug Harbour sandstone unit is made up of rhythmically laminated and later coarsened, grey-green and green, fine grained sandstones. Layering ranges from several millimetres to several centimetres. Shell, mineralogically sound concretions occur in Morich beds which define an excellent marker horizon near the top of the unit.

The Cunard slate unit contains black slate interbedded with pyritic, finely crystalline, rippled and concretionary, fine grained sandstones. The bed thickness of the sandstone is approximately 1-5 cm and the slate sandstone ratio is highly variable. Dark coloration continues up to 35 cm in diameter locally in the unit.

The Feltzen slate unit consists of light grey, dark grey and blue grey slates rhythmically interbedded with laminated to thinly bedded, buff-weathered, grey sandstones. Near the base of the unit quartzitic sandstones are commonly 5-10 m thick, whereas higher in the stratigraphical sequence the quartzitic sandstones are only 1-2 m thick.

Rocks assigned to the Long Point sandstone unit are overlain by the Cambro-Ordovician Reguap Group. The Halifax Formation is represented by the Cunard and Feltzen slate units. The Risser Beach, West Dublin and Snug Harbour sandstone units are gradational. Locally they comprise a third division of the Reguap Group that is sharply bounded at the lithostratigraphical base and top. The colour of the Reguap strata in the Lahave River succession changes with time from green through black to grey.

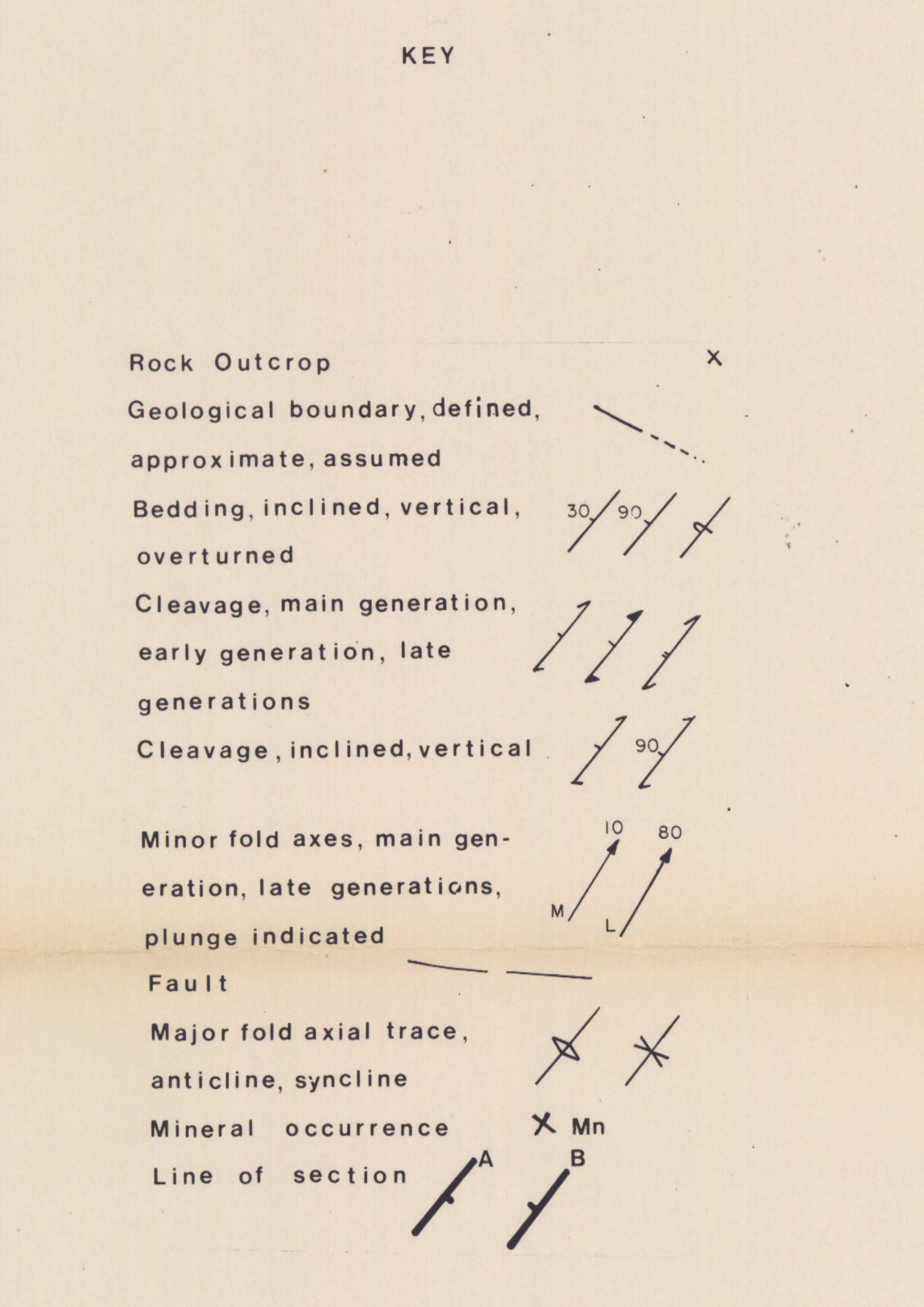
The major structures affecting the Reguap Group are outlined by the traces of the lithostratigraphical units. The major folds generally trend northeast to southwest and plunge gently. Individual folds with wavelengths from 1-5 km can be followed for distances in excess of 30 km along their axial planes. Major folds are asymmetrical or polyaxial and change their shape both parallel and perpendicular to the plunges. In several localities the fold axes change from being gently plunging to being locally steeply plunging along the axial trace. A vertical slaty cleavage is developed in association with all of the major folds. Most faults are subvertical, offset the major folds and have large strike slip displacement. Related minor structures include sink holes, joints and fracture cleavage.

Regional dynamothermal metamorphism is witnessed by the preferred alignment of chlorite and white mica along the slaty cleavage. Garnet is present in concretions in the upper beds of the Snug Harbour sandstone unit. Contact metamorphism is restricted to a narrow zone of recrystallization in the wall rock of a heat dyke found on the Lahave Islands.

Visible gold is present in the Lahave River area in quartz-bearing quartz veins, mostly in the Cunard slate unit. However, it is found in association with auriferous quartz veins near Indian Path. This structure, however, is not within the upper beds of the Snug Harbour sandstone unit.

Faribault, E. W.
 1920. Bridgewater, scale 1 inch = 1 mile
 Geological Survey of Canada, Map Sheet No. 89

Hall, L. H.
 1941. Geology of the Lahave River area, Lunenburg County, Nova Scotia. Unpublished M.Sc. thesis, Acadia University, Wolfville, Nova Scotia, p. 141.



Scale 1:25,000

LEGEND

F.S.	FELTZEN SLATE: grey slate and laminated to thinly bedded sandstones.
C.S.	CUNARD SLATE: black slate and thinly to thickly bedded pyritic sandstones.
U.S.	UNDIVIDED SANDSTONE: undivided, laminated to thinly bedded, grey and grey-green sandstone and siltstone. Thickly bedded to massive, buff-weathered sandstones are shown in part.
S.H.S.	SNUG HARBOUR SANDSTONE: laminated, grey-green and green sandstones.
W.D.S.	WEST DUBLIN SANDSTONE: thinly to thickly bedded, buff-weathered sandstones. Includes thin bedded green and grey-green sandstones on Lahave Islands.
R.B.S.	RISSER BEACH SANDSTONE: thinly bedded, green and grey-green sandstones.
L.Pt.S.	LONG POINT SANDSTONE: thickly bedded to massive buff-weathered sandstones.

RHODES CORNER CORKUMS ISLAND OVENS POINT ROSE BAY ATLANTIC OCEAN CROUSETOWN PETITE RIVIERE GREEN BAY LAHAVE ISLANDS ATLANTIC OCEAN

