

**WEATHERED EOCENE BASALT (MAZUREK POINT FORMATION) OVERLAIN BY
EARLY OLIGOCENE GLACIGENIC DIAMICTITES (KRAKOWIAK GLACIER MEMBER,
POLONEZ COVE FORMATION) RECORD OF CHANGE FROM
MILD TO GLACIAL CONDITIONS IN W ANTARCTICA**

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Recession of the Wyspianski glacier margin (Wesele Cove, King George Island) of more than 60 m, since 1993, exposed a thick (over 60 m), tilted (25° to SE) terrestrial succession of well preserved more than 13 lava flows of the Mazurek Point Formation (Eocene), and an extense outcrop (> 150,000 m²) of diamictites and sandstones from the Krakowiak Glacier Member. Each flow (2-7m thick) is made up of a lower, fresh, compact basalt zone (1-6 m thick), that grades to an upper weathered, massive, clay-rich interval (1-1.5 m thick), bearing relict basalt clasts. At one point the diamictites rest erosively on top of basalt.

Features of the diamictites point to subglacial deposition in glacial-marine and possibly also in terrestrial settings.

Thin sections and geochemical analyses indicate that zoning of the predominantly tholeiitic basalt flows may be assigned to weathering processes under mild climatic conditions that preceded the onset of the Oligocene glaciation.

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