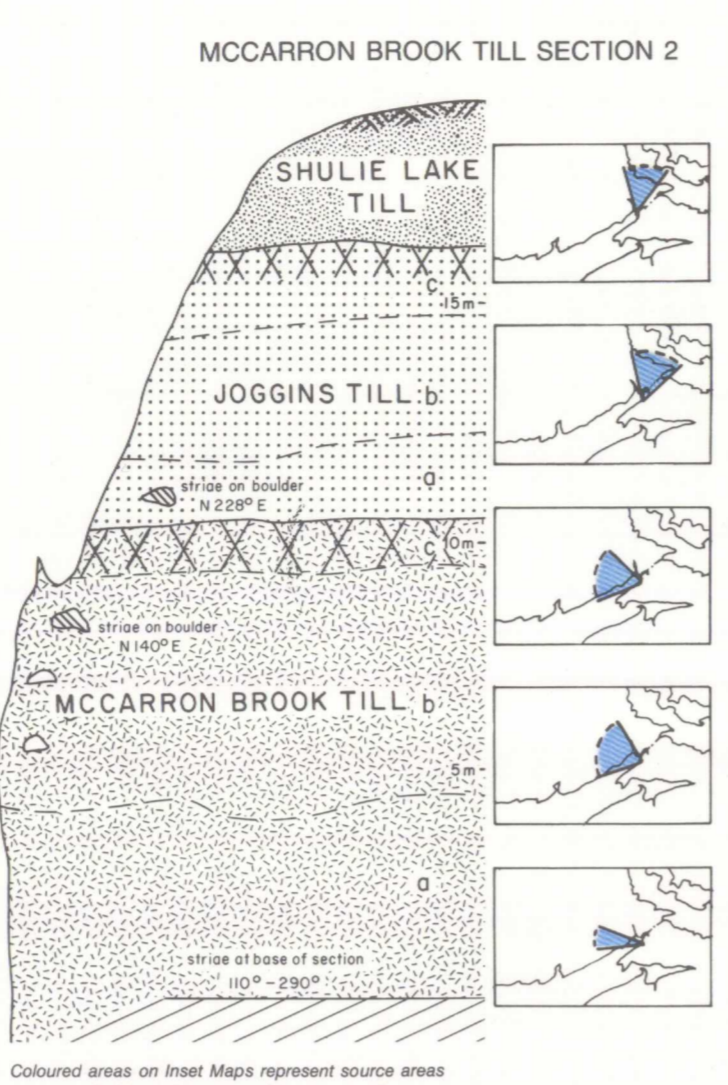
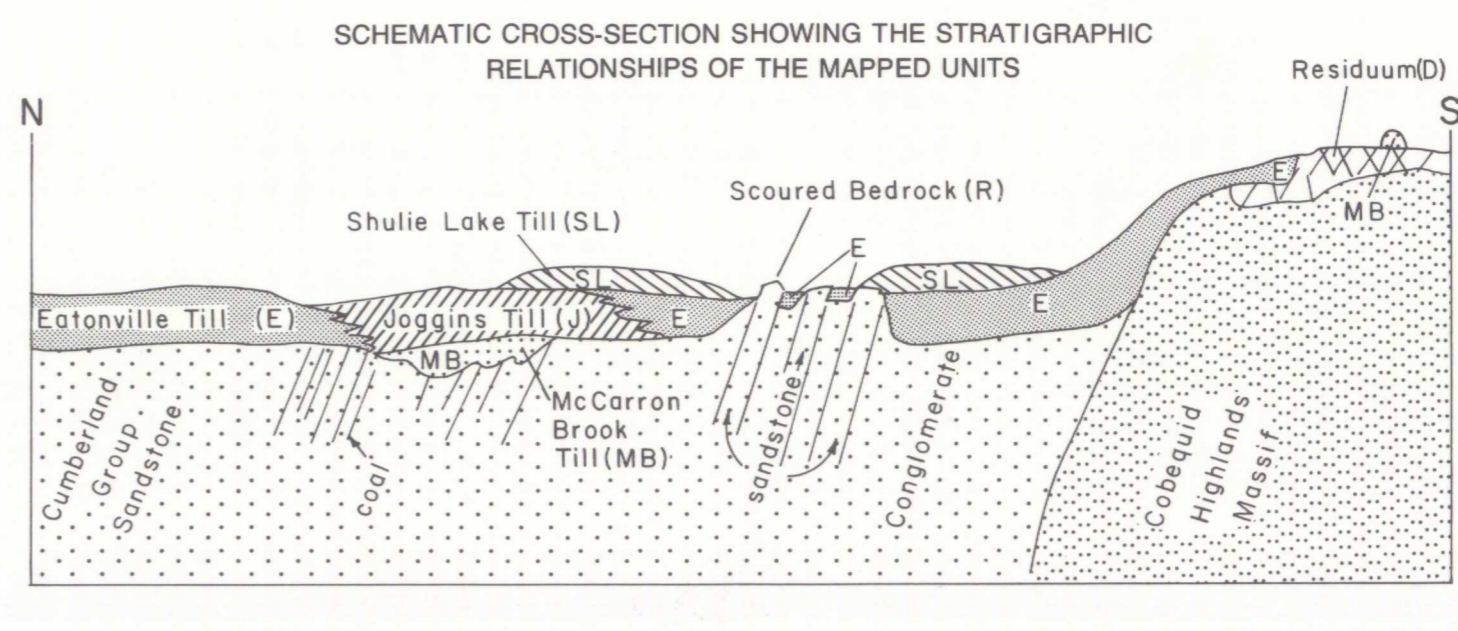
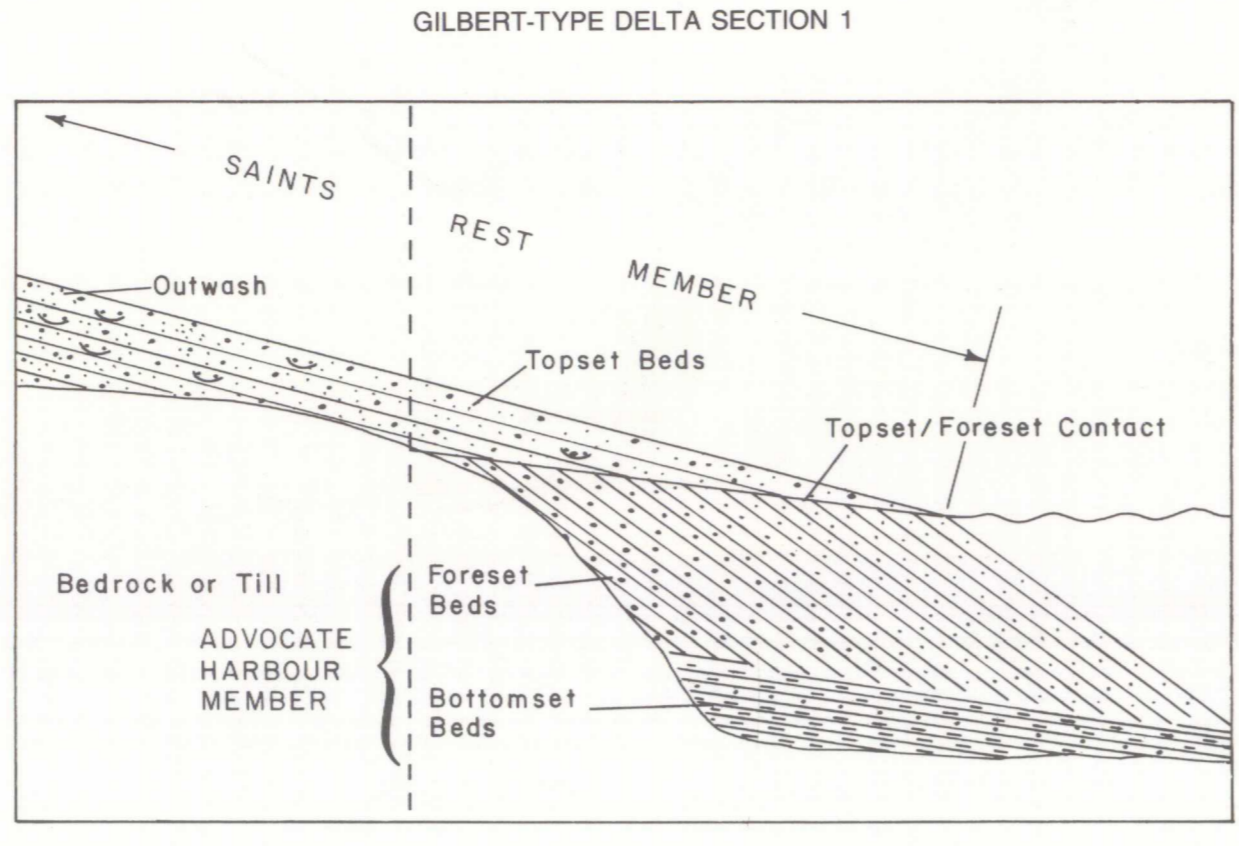


1630A

- LEGEND**
- SURFICIAL DEPOSITS**
- QUATERNARY**
- HOLOCENE**
- O** ORGANIC DEPOSITS: peat, gyttja, silt, clay, underlies bogs, fens and marshes; thickness generally greater than 1 m
  - C** COLLUVIAL DEPOSITS: gravel, sand, boulders, silt, organic lenses and beds; a complex mixture of glacial deposits, weathered and frost shattered rock, formed by periods of downslope creep and/or mass movement along steep valley walls; thickness 1-10 m
  - A** ALLUVIAL DEPOSITS: gravel, sand, silt, minor clay and organic material; forms floodplains, channel and bank deposits; thickness 2-6 m
  - Ma, Mb** MARINE DEPOSITS: Ma, silt, fine sand, clay, locally overlain by peat and organics (salt marsh); intertidal mud flats, greater than 2 m thick; Mb, sand and gravel; horizontally bedded; forms floodplains, channel and delta deposits; thickness 2-8 m
- NONGLACIAL AND GLACIAL ENVIRONMENT**
- LATE WISCONSINAN**
- AHs, AHd** ADVOCATE HARBOUR MEMBER: Marine sediments: AHs, marine gravel, sand, silt and clay; forming a progradational sequence of fluvial and subfluvial deposits; planar bedded gravel and sand beds dipping 10° to 35° and rhythmic of silt, clay, sand forming foreset and bottomset beds of a glaciomarine delta sequence (seen in section only, section 1) AHd, marine sand and gravel, shallow, seaward dipping (2° to 14°) strata, forming forebeach and back-beach deposits
  - NL** NEWVILLE LAKE MEMBER: Lacustrine sediments: silt, clay, and sand; thin veneer of organics, forms a large flat plain; thickness 1-10 m
  - SR** SAINTS REST MEMBER: Glacioluvial gravel, sand, and minor silt; massive to horizontally stratified; channel sequences common; grain size increases from proximal to distal delta and upwards in sequence; forms topset beds which unconformably overlie marine foreset and bottomset beds (Advocate Harbour Member) in a classic Gilbert delta sequence (see section 1); thickness 1-15 m
  - AR** APPLE RIVER MEMBER: Ice contact stratified drift, gravely sand, sand, and boulders; abrupt changes in grain size between beds; minor folding, reverse and normal faulting common; inclusions of till locally; forms hummocky terrain, kettle terrain, kame terraces, and kame deltas along valley sides; thickness 1-15 m
- GLACIAL ENVIRONMENT**
- SLs, SLd** SHULIE LAKE TILL: S, olive-brown (FY 587), sandy silt; moderately compact; inclusions of reddish brown till locally; clay lithology; greater than 80% sandstone clasts (Cumberland Group); subangular and angular cobble-sized clasts; forms ribbon moraine and ground moraine topography; thickness 1-6 m. SLd (sandy facies), olive-brown (FY 58), sandy silt; loose and coarsely fissile with horizontal sand inclusions; forms knob and kettle topography; thickness 1-6 m
  - E** EATONVILLE TILL: E, reddish brown (TOR 446) silty sand till; compact, fissile, massive, and jointed; manganese oxide staining on fissile planes; clay lithology; conglomerate, sandstone, and crystalline depending on the lithology of underlying rock; forms relatively mature, rolling terrain south of Shulie Lake; thickness 2-10 m. Es (sandy facies), reddish brown (TOR 446) silty sand till; moderately compact, coarsely fissile, clay skins around clasts; thickness 1-10 m
  - J** JOGGINS TILL: J, dark yellowish brown (TOYR 472), sandy silt till; compact; clay lithology; predominantly grey sandstones, shales, and mudstones, less than 10% red sandstones and shales, minor limestone and coal; forms a poorly drained, undulating terrain; thickness 1-6 m
- EARLY WISCONSINAN(?)**
- MB** MCCARRON BROOK TILL: Greyish red (TOR 42), sandy silt till; very compact, massive; clay lithology; dominantly grey and red sandstones, siltstones, and shales, less than 10% crystalline, minor limestone (seen in section only, section 2); may be present as unmappped lenses on the Cobequid Highlands (see schematic)
- ROCK PRE-QUATERNARY**
- D** RESIDUUM: Fragmented, mechanically and chemically weathered bedrock; clay lithology; dominantly plutonic, volcanic, and metamorphic debris; reflects the underlying bedrock; overlain by a discontinuous, thin veneer of silt; thickness 1-4 m
  - R** BEDROCK: glacially scoured bedrock; small and large scale features of glacier erosion, discontinuous, thin veneer of silt, forms strike-slides

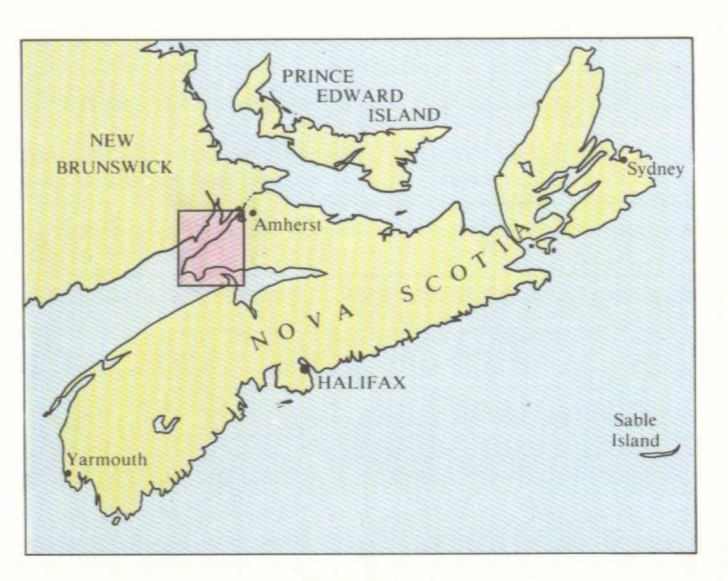
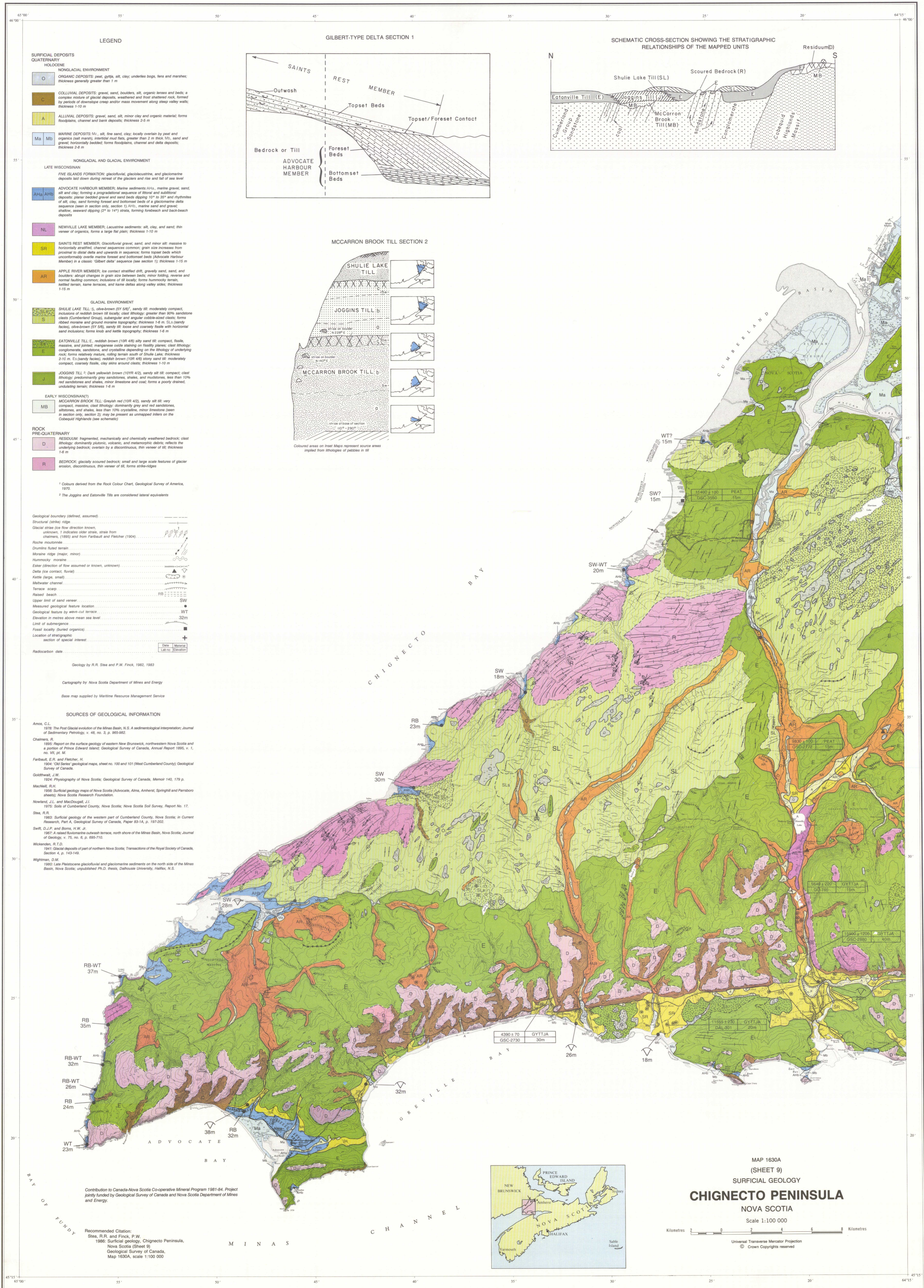


- 1 Colours derived from the Rock Colour Chart, Geological Survey of America, 1970.
- 2 The Jogjins and Eatonville Tills are considered lateral equivalents.
- Geological boundary (defined, assumed)**
- Structural (strike) ridge
  - Glacial strike (ice flow direction known, unknown; 1 indicates older strike, strike from Chalmers, (1955) and from Fairbairn and Fletcher (1904))
  - Roche moutonnée
  - Drumlin fluted terrain
  - Moraine ridge (major, minor)
  - Hummocky moraine
  - Esler (direction of flow assumed or known, unknown)
  - Delta (ice contact, fluvial)
  - Kettle (large, small)
  - Meltwater channel
  - Terrace scarp
  - Raised beach
  - Upper limit of sand veneer
  - Marginal geological feature location
  - Geological feature by eras-cut terrace
  - Elevation in metres above mean sea level
  - Limit of submergence
  - Fossil locality (buried, organic)
  - Location of stratigraphic section of special interest
  - Radiocarbon date
- Geology by R.R. Shea and P.W. Frick, 1982, 1983
- Cartography by Nova Scotia Department of Mines and Energy
- Base map supplied by Maritime Resource Management Service

- SOURCES OF GEOLOGICAL INFORMATION**
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MAP 1630A  
 (SHEET 9)  
 SURFICIAL GEOLOGY  
**CHIGNECTO PENINSULA**  
 NOVA SCOTIA  
 Scale 1:100 000

Kilometres 2 4 6 8 Kilometres

Universal Transverse Mercator Projection  
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