

GEORGIAN  
BAY  
Fm

- long c-up sequence grey to dark grey mudstone with low proportion 0-5 cm pinstripe very fine-grained sandstone to siltstone beds, which have sharp erosional bases, burrow fills, few rip ups, all rxl, all bioturbated, small sandstone-filled *Chondrites*-like burrows, very organic rich at base with horizontal lamination - ss:slts=1:30 at base, 1:10 at top.

BLUE  
MOUNTAIN  
Fm

- c-up sequence dark grey mudstone with very thin siltstone to very fine-grained sandstone beds, minor lamination, minor burrowing, ss:slts=1:8 at top, very fine-grained sandstone beds have sharp bases, rxl and horizontal burrows.

- dark grey mudstone, horizontal lamination, minor burrowing, organic rich, few thin silty beds in upper 1 m.

- dark grey mudstone slightly burrowed, general horizontal laminated, uniform, few 0-3 cm very fine-grained sandstone beds near top, organic-rich.

COLLINGWOOD  
Fm

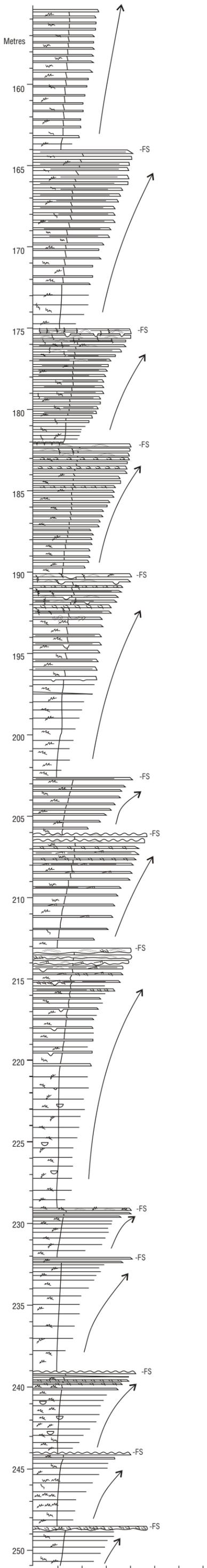
- black mudstone, organic-rich, laminated to massive.

LINDSAY  
Fm

- pale grey fossiliferous fine to medium crystalline limestone, nodular, mottled, f-up with increase of dark grey organic rich shale beds with diffuse bioclastic horizons with fossil fragments floating in mud.

cl slts vfss fss mss css cgl





QUEENSTON  
Fm

- c-up sequence red silty mudstone and very fine- to fine-grained sandstone, burrowing horizontal throughout sandstone beds up to 15 cm with sharp flat bases, horizontal lamination, ss:slts=1:5 at base, 2:1 at top - apparently all diagenetically altered.

- c-up sequence interbedded reddish silty mudstone and very fine- to fine-grained sandstone, no calcarenite, beds up to 10 cm, ss:slts=1:1 at base, 3:1 at top, sharp bases with horizontal lamination and HCS, upper bed has gutter cast base and sharp top and vertical burrows - vertical and horizontal burrows are common throughout.

- c-up sequence thinly interbedded greenish grey silty mudstone and very fine- to fine-grained sandstone and minor bioclastic calcarenite, top of sequence is 5 cm hard massive green mud (ash?), beds up to 10 cm, sharp based, calcarenite increase to top, red staining of sandstone beds at top, ss:slts=1:1 at base, 5:1 at top, horizontal lamination and HCS - few vertical burrows at top.

- c-up sequence thinly interbedded greenish grey silty mudstone and very fine- to fine-grained sandstone and bioclastic calcarenite, ss:slts=1:3 at base, 3:1 at top, beds up to 20 cm with sharp bases and gutter casts, abundant horizontal Planolite/Chondrite burrows and more vertical burrows toward top, upward increase in amalgamated beds and bioclastic lags of large bryozoan/coral/brachiopod fragments up to 2 cm, mostly horizontal lamination and HCS, no rxl - one bed contorted lamination.

- c-up sequence thinly interbedded greenish grey silty mudstone and very fine to fine-grained sandstone with sharp bases and shell lags, beds up to 15 cm, sharp top, abundant horizontal burrows, ss:slts=1:2 at base, 2:1 at top.

- c-up sequence thinly interbedded grey silty mudstone and very fine- to medium-grained sandstone and bioclastic calcarenite beds up to 10 cm, ss:slts=1:5 at base, 1:1 at top, sharp based and f-up with horizontal lamination and rxl and HCS, calcarenites of bryozoan/coral/brachiopod fragments - sharp top with preserved ripples.

GEORGIAN  
BAY  
Fm

- thick c-up sequence interbedded grey mudstone and very fine- to fine-grained sandstone and minor lags of bioclastic calcarenite, ss:slts=1:5 at base, 2:1 at top, sandstone beds up to 20 cm with sharp bases and shell lags and sharp tops and HCS and amalgamation, minor rxl - abundant Planolite/Chondrite burrows, throughout, with vertical burrows near top - sharp top, deep guttercasts.

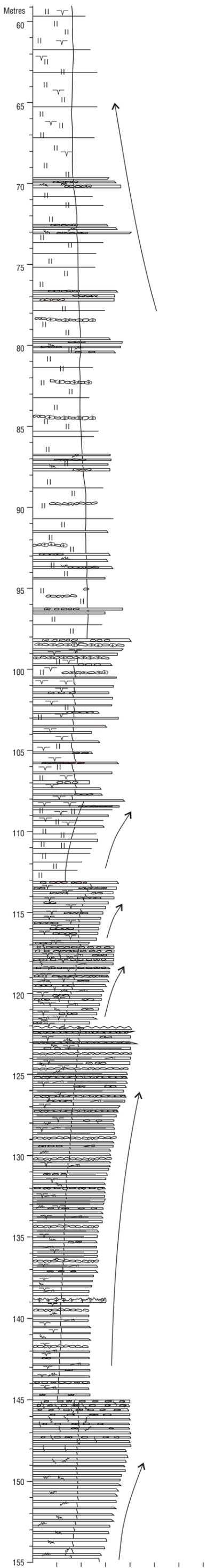
- c-up sequence thinly interbedded greenish grey mudstone and very fine- to fine-grained sandstone beds, sharp bases with gutter casts, HCS, upper bed has sharp top with large horizontal burrows, 3-5 cm.

- c-up sequence thinly interbedded greenish grey mudstone and very fine- to fine-grained sandstone beds, sharp bases and tops, horizontal lamination, burrowing, up to 3 cm.

- c-up sequence thinly interbedded grey mudstone and very fine-grained sandstone to siltstone with few bioclastic calcarenites - ss:slts=1:2, several small steep sided scours with lags of shale rip-ups, abundant tiny horizontal Chondrites, sharp top with preserved ripples.

- c-up sequence thinly interbedded grey mudstone and very fine-grained sandstone to siltstone, up to 13 cm, very thin, thoroughly bioturbated, many coarser beds just horizons of sandstone filled Planolites/Chondrites, ss:slts=1:3 - sharp top with preserved ripples.

- thinly interbedded greenish grey mudstone and very fine-grained sandstone to siltstone c-up to 8 cm fine- to medium calcarenite, ss:slts=1:2, beds up to 1 cm, abundant Planolite/Chondrite - upper bed has scoured base, large brachiopod fossil fragments and sharp top, burrows.



- thick red silty mudstone with few thin very fine-grained sandstone, massive, uniform, blocky, abundant slickensides, pedogenic, abundant desiccation cracks, abundant tiny green oxidation points and green mudstone horizons with diffuse boundaries, slightly higher sandstone content at top.

- thick red and green muddy to sandy siltstone with thin to thick greenish grey very fine- to fine-grained sandstone beds up to 20 cm, ss:silts > 1:10, sandstone tend to occur in bundles, siltstone are massive, blocky, uniform, pedogenic - common thin horizons of nodular gypsum - sandstone have sharp bases and f-up with rip-ups and minor tiny Chondrites like burrows.

- thinly interbedded red muddy siltstone and greenish very fine- to fine-grained sandstone, very calcareous, ss:silts > 1:3, - siltstones are massive, uniform, with slickensides - sandstones have sharp bases, rip-ups and gradational tops - desiccation cracks, horizons of gypsum nodules near top.

QUEENSTON  
Fm

- slightly c-up sequence of red massive blocky, pedogenic silty mudstone, sandier upward, with thin greenish very fine- to fine-grained sandstone beds - no burrowing, abundant red shale rip-ups - no desiccation cracks until upper 2 m.

- slightly c-up sequence thinly interbedded red muddy siltstone to sandy siltstone and greenish very fine-grained sandstone up to 30 cm thick - desiccation cracks and red shale rip-ups throughout.

- slightly c-up sequence interbedded red muddy siltstone to silty mudstone and greenish grey very fine-grained sandstone up to 15 cm, ss:silts > 2:1, sandstone have sharp bases, gradational tops, horizontal lamination and LAD and minor rxl - horizontal burrows and few large vertical burrows - desiccation cracks throughout - abundant red shale rip up lags and flat pebble rip-up conglomerate beds.

- slightly c-up sequence interbedded red silty mudstone and greenish grey very fine- to fine-grained sandstone, small horizontal burrows throughout, apparent desiccation cracks throughout - abundant red shale rip-ups and some beds are rip-up flat pebble cgl - sandstones have horizontal and LAD lamination and some rxl - one 15 cm bed gypsum with sharp irregular top - upper bed has sharp rippled top.

- slightly c-up interbedded red silty mudstone and greenish grey very fine- to fine-grained sandstone, pervasive diagenetic alteration, sandstone beds 2-5 cm near base and 5-10 cm at top, fairly sharp bases, fining upward, gradational tops, abundant horizontal *Planolites/Chondrites* burrows throughout - near top are rip-up lags and large vertical burrows - ss:silts = 1:3 at base, 2:1 at top.

UPPER ORDOVICIAN - SOUTHERN ONTARIO  
 LINDSAY/BLUE MOUNTAIN/GEORGIAN BAY/QUEENSTON/WHIRLPOOL/MANITOULIN/CABOT HEAD/REYNALES FMS  
 OGS 83-1 Milton, lot 9, conc VII, Town of Milton, Halton Co. (top of Escarpment W of Milton)(1983)  
 30M/12 Brampton 838212  
 Lat. 41°32' N Long. 79°58' W  
 General strike 335°, dip 1° SW



