GEOLOGICAL SURVEY BRANCH
DEPARTMENT OF MINES AND ENERGY
GOVERNMENT OF NEWFOUNDLAND AND LABRADOR

GEOLOGY OF THE LA POILE BAY – COUTEAU BAY REGION (PARTS OF 11 O/9 AND 11 O/16) SOUTHWEST NEWFOUNDLAND

Scale 1:50,000

BRIAN H. O'BRIEN

1990

LEGEND

EARLY DEVONIAN

34	pink, fine- to medium-grained, equigranular biotite granite; minor porphyritic to subporphyritic granite; unseparated, microspherulitic, quartz-feldspar porphyry dykes

EARLY-LATE SILURIAN

LA POILE INTRUSIVE SUITE (Units 28 to 33)

BARASWAY POINT GABBRO

33	dark green to black, medium- to coarse-grained, locally foliated, hornblende gabbro (containing pink feldspars in places); minor diorite and intrusion breccia; unseparated diabase dykes

LA POILE GRANITE

32	pink, coarse grained, K-feldspar porphyritic, locally foliated, biotite-bearing megacrystic granite (flow-layered in places); minor granite pegmatite and aplite

OTTER POINT GRANITE

31	pale pink to buff, coarse grained, K-feldspar porphyritic, locally foliated, biotite-bearing megacrystic granite; minor granite pegmatite

HAWKS NEST POND PORPHYRY

30	pink to red, fine grained, locally foliated, biotite-bearing quartz-feldspar porphyry containing pale green, sausseritized plagioclase

ROTI POINT FELSITE

29	buff to light pink, aphanitic to microporphyritic felsite; brecciated (tuffisitic) texture; marginal stockworks of quartz veins

WESTERN HEAD GRANITE

28	buff to black and white, medium grained, equigranular, locally foliated, biotite hornblende granodiorite containing cognate xenoliths of diorite; unseparated septae of 'Old Roti' granite and Cinq Cerf gneiss

LA POILE GROUP (Units 7 to 27)

CROSS GULCH TUFF

27	lithic tuff composed of multicoloured, polylithic, felsic volcanic fragments; minor argillite and tuffaceous sandstone

GALLYBOY HARBOUR TUFF

26	pink, medium- to coarse-grained, locally layered and stratified, quartz-feldspar crystal tuff; rare blocks of felsic volcanic and siliciclastic sedimentary rocks

FLINT CLIFF POND TUFF

25	buff, medium grained lithic tuff; coarse agglomerate composed of pink, massive rhyolite blocks; minor thin-bedded quartz sandstone; rare lava flows of limited extent

EASTERN POINT RHYOLITE

24	pink, massive aphanitic lava; locally welded

FRENCH COVE TUFF

23	well-bedded lithic tuff; breccia containing siliciclastic sedimentary and felsic volcanic fragments; minor lithic-crystal tuff

GUIDERS POND GRIT

22	grey-brown, poorly sorted, locally stratified, quartz-feldspar grit and tuffaceous wacke; minor boulder conglomerate and olistostrome; rare grey slate

BLACK DUCK BROOK CONGLOMERATE

21	polylithic, cobble and boulder conglomerate; thin-bedded quartz sandstone interstratified with laminated argillite; minor grey slate

OLD MAN HILL TUFF

20	fine grained lithic tuff composed of pink rhyolite fragments

WITHY GULCH HILL AGGLOMERATE

19	agglomerate and breccia composed of massive, flow-banded and flow-folded rhyolite; minor pink and cream rhyolite

OLD MAN POND SLATE

18	grey slate and laminated argillite; rare, interstratified, thin-bedded quartz sandstone

LITTLE ROTI BAY AGGLOMERATE

17	crudely stratified, coarse agglomerate and breccia containing polylithic, felsic volcanic blocks; purple lithic tuff

BUTTERFLY POND GRIT

16	grey-brown, poorly sorted, quartz-feldspar grit and tuffaceous wacke; grey slate

GEORGES POND SLATE

15	grey slate and laminated argillite

PHILLIPS BROOK RHYOLITE

14	cream and pink, massive to finely laminated lava; **14a:** uppermost breccia unit composed of flow-banded rhyolite fragments

OUTSIDE GULL POND SLATE

13	grey slate and laminated argillite; minor, interstratified, thin-bedded quartz sandstone

TWIN POND ARGILLITE

12	laminated argillite; minor cobble and boulder, polymictic conglomerate; minor tuffaceous sandstone and wacke

INSIDE GULL POND TUFF

11	buff, fine grained lithic tuff; local breccia composed of pink rhyolite fragments; welded lithic-crystal tuff

DINNER BOX HILL RHYOLITE

10	pink, flow-banded and massive, locally phenocrystic lava; rare rhyolite breccia

NORTHWEST POND BROOK GRIT

9	grey-brown, poorly sorted, massive and stratified, locally graded and cross-bedded, quartz-feldspar grit and tuffaceous wacke; rip-up clasts and large blocks of laminated argillite; clasts of quartzofeldspathic schist, foliated granitoid and diabase

CINQ CERF BROOK CONGLOMERATE

8	thick-bedded, polymictic, boulder and cobble conglomerate interstratified with thin-bedded tuffaceous sandstone and tuff; clasts of blue-quartz-bearing granodiorite (containing pre-incorporation foliation), diabase, quartz pebble conglomerate, amphibolitic gneiss, jasper, vein quartz and felsic tuff

GRAND BRUIT GULL POND TUFF

7	light green, fine grained, felsic lithic tuff; red and purple lithic tuff, tuffaceous sandstone and slate; quartz pebble conglomerate

LATE CAMBRIAN-EARLY ORDOVICIAN

ERNIE POND GABBRO

6	dark green, medium grained, variably foliated, hornblende gabbro and fine grained diorite; minor coarse grained pyroxenite; unseparated diabase dykes

'YOUNG ROTI' GRANITE

5	medium- to fine-grained, equigranular, variably foliated, blue-quartz-bearing tonalite; fine grained granite porphyry

LATE PRECAMBRIAN-EARLY CAMBRIAN

'OLD ROTI' GRANITE

4	coarse grained, equigranular, variably foliated, blue-quartz-bearing granodiorite; rare cognate xenoliths of diorite

THIRD POND TUFF

3	dark green lithic tuff and minor mafic agglomerate; rare beds of laminated argillite, rare felsic volcanic fragments

WHITTLE HILL SANDSTONE

2	grey and green-grey, thick- to thin-bedded, locally cross stratified, quartz-rich sandstone; green and grey, laminated argillite and thin-bedded siltstone; quartz pebble conglomerate, polymictic cobble conglomerate containing foliated granitoid clasts

LATE PRECAMBRIAN OR EARLIER

CINQ CERF GNEISS

1	banded amphibolitic gneiss, lit-par-lit migmatite, hornblendite and platey schist; subordinate hornblende porphyry, metagabbro, granite porphyry and fine grained equigranular granitoid; **1a:** amphibolitic gneiss, schist and agmatite screens; fine grained, nebulitic granite sheets

KEY

Geological boundary (defined, approximate, assumed).......... ╱ ╌ ┈

Bedding (inclined, vertical, overturned)..........

Thrust fault (teeth in direction of dip) or vertical dip-slip fault (teeth on upthrown side)..........

Normal fault (solid circle in direction of dip) or vertical dip-slip fault (solid circle on downthrown side)..........

Anticline (upright, overturned)..........

Syncline (upright, overturned)..........

Antiform..........

Synform..........

Sideways-closing fold..........

F1 fold axial trace (plunge direction indicated)..........

F2 fold axial trace (plunge direction indicated)..........

F3 fold axial trace (plunge direction indicated)..........

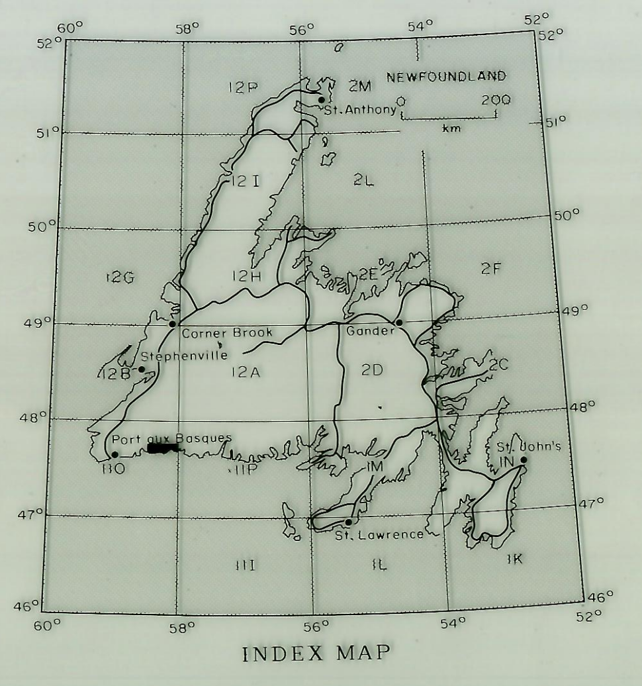
Mine.......... ⚒

Alteration zone.......... ⊗

NOTES

(1) For the sake of simplicity, foliation symbols are purposefully omitted from the La Poile Group, the Whittle Hill sandstone, the Third Pond tuff and all pre-Early Devonian plutonic rocks.

(2) The assignment of fold axial traces to a F1 or F2 origin denotes their relative age within a specific thrust sheet. The absolute ages of F1 and F2 folds may differ from one thrust sheet to another. Folds and thrusts affecting the Whittle Hill sandstone, the Third Pond tuff, and the 'Young Roti' and 'Old Roti' granites may be, in part, older than folds and thrusts affecting the La Poile Group and the La Poile intrusive suite.



INDEX MAP

This preliminary open file map is subject to revision and correction.

Copies of this map are available from Publications and Information Section, Geological Survey Branch, Department of Mines and Energy, P.O. Box 8700, St. John's, Newfoundland, Canada A1B 4J6.

Base maps at same scale published by Surveys and Mapping Branch, Department of Energy, Mines and Resources, Ottawa.

Elevations in feet above mean sea level; contour interval 50 feet.

Approximate mean declination (1990) for centre of map 22° 53' west.

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