

GEOLOGICAL SURVEY OF CANADA / COMMISSION GÉOLOGIQUE DU CANADA

OPEN FILE 2965
PRELIMINARY GEOLOGICAL MAP

NORTHERN ANIALIK RIVER VOLCANIC BELT AND THE NORTHEASTERN KANGGUYAK GNEISS BELT

NORTHWEST TERRITORIES

Scale 1:50 000 - Échelle 1:50 000

International Numerical Map Scale Program / Programme international des échelles numériques
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Grays Bay

Tokhokatak Bay

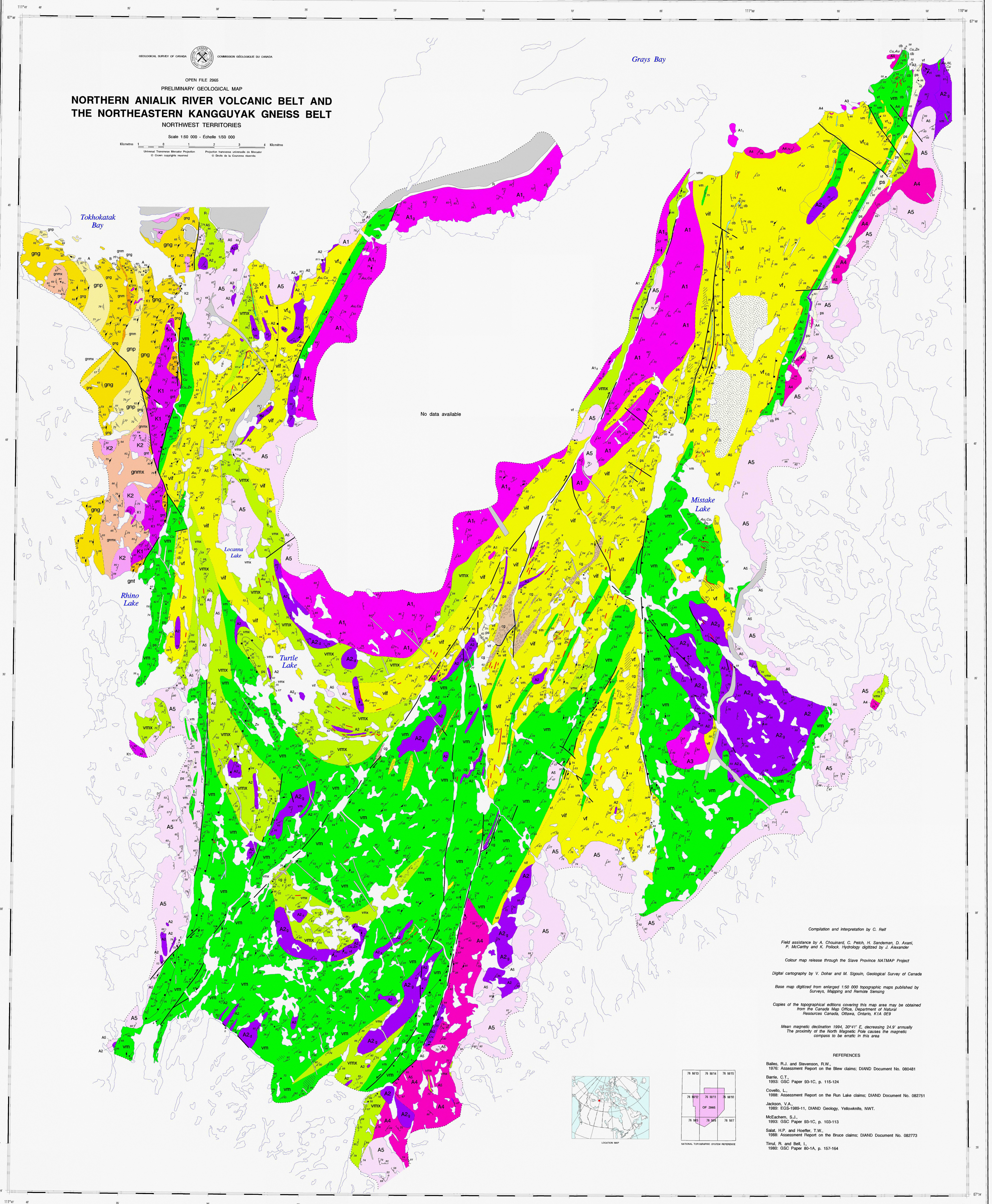
Rhino Lake

Lucanna Lake

Turtle Lake

Mistake Lake

No data available



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Field assistance by A. Chouard, C. Petch, H. Sandeman, D. Anasi, P. McCarthy and K. Pollock. Hydrology digitized by J. Alexander

Colour map release through the Slave Province NATMAP Project

Digital cartography by V. Dohar and M. Sigouin, Geological Survey of Canada

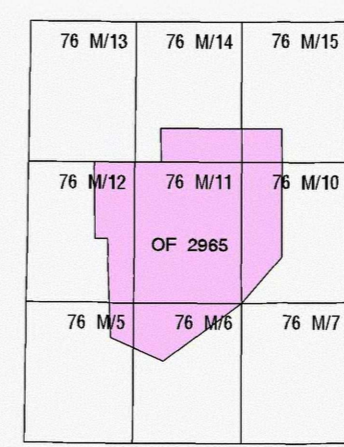
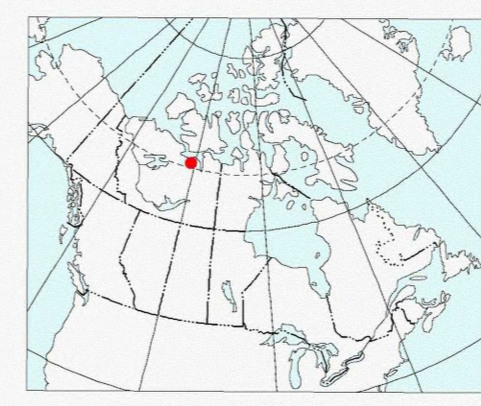
Base map digitized from enlarged 1:50 000 topographic maps published by Surveys, Mapping and Remote Sensing

Copies of the topographical editions covering this map area may be obtained from the Canada Map Office, Department of Natural Resources Canada, Ottawa, Ontario, K1A 0S9

Mean magnetic declination 1994, 30°41' E, decreasing 24.9' annually. The proximity of the North Magnetic Pole causes the magnetic compass to be erratic in this area.

REFERENCES

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- Jackson, V.A., 1989. EGS-989-11, DIAND Geology, Yellowknife, NWT.
- McEachern, S.J., 1993. GSC Paper 93-1C, p. 103-113
- Selby, H.P. and Hoeller, T.W., 1988. Assessment Report on the Bruce clams; DIAND Document No. 082773
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QUATERNARY

- Unconsolidated sand and gravel

PROTEROZOIC

- Gabbro and dike, including ca. 720 Ma Franklin silt and ca. 1207 Ma Muskrat silt
- R: Argillite and sandstone of the Rase Group
- PROTEROZOIC?
- Hornblende syenite, locally Kapor megacrystic

ARCHAEAN

- Kangguyak Gneiss Belt**
- gnmx: Mixed gneiss, may include tonalite, granitoid, mafic and amphibole, but only identified to be subdivided of the present map scale
- gpn: Late gneiss, characterized by limited hornblende megacrysts
- grt: Gabbro to hornblende tonalite, orthogneiss, locally out by abundant mafic to syenogabbro veins
- gnp: Gabbro to hornblende tonalite, orthogneiss, locally out by abundant mafic to syenogabbro veins that are locally Kapor-gabbroic

- gnp: Gabbro to hornblende tonalite, orthogneiss, locally out by abundant mafic to syenogabbro veins
- K2: Weakly to moderately foliated mafic to ultramafic orthogneiss, locally out by abundant mafic to syenogabbro veins
- K1: Weakly to strongly foliated hornblende gabbro to quartz diorite, locally out by abundant mafic to syenogabbro veins
- g: Supracrustal rocks of the Aniak River Volcanic Belt
- gq: Polycrystalline orthogneiss with flat-lying mafic to ultramafic dykes and rounded to flattened granitic dykes
- ps: Ultrahornblende mafic orthogneiss, locally out by mafic to ultramafic dykes, and including amphibole and mafic
- f: Iron formation, including carbonate host (magnesian + carbonaceous), locally out by abundant mafic to ultramafic dykes
- ch: Chert, locally laminated (bedded?)
- cb: Carbonate (siliceous) dolomite/dolostone, including chert. Locally out by abundant mafic to ultramafic dykes
- gpx: Gabbro to hornblende tonalite, orthogneiss, locally out by abundant mafic to ultramafic dykes

- vmx: Mixed metamorphic rocks for which metamorphic grade is not determined, but which may include mafic to ultramafic rocks and mafic to ultramafic rocks
- vt: Metavolcanic and related intrusive rocks, including mafic to ultramafic dykes, locally out by abundant mafic to ultramafic dykes
- vfl: Metavolcanic rocks, including mafic to ultramafic dykes, locally out by abundant mafic to ultramafic dykes
- vm: Metavolcanic rocks, including mafic to ultramafic dykes, locally out by abundant mafic to ultramafic dykes
- A5: Metavolcanic to strongly foliated granitoid, locally out by abundant mafic to ultramafic dykes
- A4: Weakly to strongly foliated mafic to ultramafic orthogneiss, locally out by abundant mafic to ultramafic dykes
- A3: Metavolcanic to moderately foliated mafic to ultramafic orthogneiss, locally out by abundant mafic to ultramafic dykes
- A2: Metavolcanic to moderately foliated mafic to ultramafic orthogneiss, locally out by abundant mafic to ultramafic dykes
- A1: Moderately to strongly foliated mafic to ultramafic orthogneiss, locally out by abundant mafic to ultramafic dykes

LEGEND

PROTEROZOIC FAULTS

- DS fault: Deposition unimpeded
- Doveral: Divergent
- Shearal: Shear
- Nominal: Nominal, oriented on hanging wall
- D4 fault: Oblique dextral thrust, oriented on hanging wall
- Kinematic indicator (D2 foliation, shear bands, asymmetric folds, upright monoclines associated with fault or any generation): Divergent, Reverse, Shearal rock, displacement unknown, Normal

STRUCTURAL ELEMENTS OF UNSPECIFIED GENERATION (DOMINANT STRUCTURE IN OUTCROP)

- Divergent foliation (generally D2 transposed into D3)
- Fold axial plane: Fold axial plane, Z-symmetric, F2 fold axial plane, F3 fold axial plane, Z-symmetric, Intersection sheathen (bedding S1 or E2/S2)
- D3: D3 foliation, F2 fold axial plane, F3 fold axial plane, D1: D1 foliation
- JMK: JMK

ARCHAEAN STRUCTURES IN THE KANGGUYAK GNEISS BELT

- D3: D3 foliation
- F2: F2 axial plane, Z-symmetric
- D1: D1 foliation

ARCHAEAN STRUCTURES IN THE ANIALIK RIVER VOLCANIC BELT AND ASSOCIATED INTRUSIVE ROCKS

- D3: D3 foliation
- F2: F2 axial plane, Z-symmetric
- D1: D1 foliation

PRIMARY STRUCTURES

- Bedding: Bedding, Type unknown, Pliwax, Pliwax, Pliwax
- ISOGRADES: Pliwax (orientation of hornblende in mafic rocks), Fragmentaric rock
- ALTERATION: Silicification, Calcification
- GEOLOGICAL CONTACTS: Cleared, Inferred, Approximate, Limit of mapping
- ASSAY RESULTS: Gold > 300 ppm, Copper > 1000 ppm, Zinc > 1000 ppm

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