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DISTRICT OF TIMISKAMING

Scale 1 inch to 1/4 mile

N.T.S. Reference: 42A/3 west and east, 42A/1 west and east
G.S.C. Aeromagnetic Maps: 2956, 2960

LEGEND

TERRY, LEE, AND MAISONVILLE TOWNSHIPS

CENOZOIC
PLEISTOCENE AND RECENT
Sand, gravel, and clay
UNCONFORMITY

PRECAMBRIAN
PROTEROZOIC
HURONIAN SYSTEM
COBALT GROUP
7 Gowanda Formation
7a Conglomerate
7b Arkose
7c Quartzite and greywacke
7d Argillite
UNCONFORMITY

ARCHEAN
MAFIC INTRUSIVE ROCKS (MATACHENAN)
6 Diabase
INTRUSIVE CONTACT

5 FELSIC INTRUSIVE ROCKS (ALGOMAN)
5a Granite and granodiorite
5b Granite gneiss
5c Syenite, syenite porphyry, and quartz syenite
5d Mafic syenite and lamprophyre
INTRUSIVE CONTACT

MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS
(HALLIBURTON, EARLY ALGOMAN, AND SOME KEEWATIN)
4a Serpentinite and peridotite
4b Gabbro, diorite, and some coarse-grained basalt
INTRUSIVE CONTACT

3 METASEDIMENTS, TIGHTLY FOLDED (TIMISKAMING OR KEEWATIN)
3d Slate and chert
UNCONFORMITY

2 FELSIC VOLCANIC ROCKS (KEEWATIN)
2a Dacite
2b Silicic tuff and agglomerate
2c Dacite porphyry, amygdaloidal dacite, and subvolcanic dacite

1 MAFIC VOLCANIC ROCKS (KEEWATIN)
1a Basalt and andesite (pillowed and massive)
1b Mafic agglomerate and tuff
1c Altered (bleached) mafic volcanic rocks
1d Andesite porphyry, amygdaloidal andesite, and volcanitic andesite

GEOLOGICAL AND MINING SYMBOLS

Glacial striae
Small bedrock outcrop
Area of bedrock outcrop
Bedding, top unknown (inclined, vertical)
Bedding, top indicated by arrow (inclined, vertical, overturned)
Lava flow top (arrow) from pillows shape and packing
Subsistivity (horizontal, inclined, vertical)
Geological boundary, observed
Geological boundary, position interpreted

Fault (observed, assumed)
Lineament
Jointing (horizontal, inclined, vertical)
Drag folds with plunge
Anticline, syncline, and plunging
Drill hole (vertical, inclined)
Vein, vein network
Shaft; depth in feet
Magnetic attraction

MARGINAL NOTES

Location and Access: The southeast corner of Maisonville township adjoins the northwest corner of Teck; the township in which Kirkland Lake is situated. Roads, trails, and waterways provide good access within Maisonville township. Highways No. 11 and 570, the Trans Canada natural gas pipeline, and the main line of the Ontario Northland Railway are in the western part of the township, and a high tension electric power transmission line passes through the northeastern part.

Mineral Exploration: Maisonville township was prospected intensively in search of gold, and production was obtained from three properties. The properties are west of Kapakita Lake (Golden Summit Mines, Limited), east of Wolf Lake (Island Gold Mines, Limited), and about one mile north of Sesekinika village (the Bennett mine). Appreciable amounts of zinc, lead, and copper exist in slate and volcanic rocks near Wolf and Goose Egg Lake south of Wolf Lake. Hoyle Mining Company, Limited, worked on high grade zones of sphalerite, galena, and chalcopryite in carbonaceous silicified slate, dacite, and silicic tuff. Near Goose Egg Lake, Kerr Addison Mines, Limited, drilled six holes in granitic slate and silicic agglomerate containing sphalerite, galena, chalcopryite, pyrite, and pyrrhotite.

General Geology: All bedrock in the map-area is Precambrian. From oldest to youngest, the rocks are Kewatin-type mafic and silicic flows, tuffs, and agglomerate slates of Kewatin or Timiskaming age; Halliburton-type mafic to ultramafic stocks and bosses; Algonman-type silicic stocks and cupolas; Matachewan-type mafic intrusive dikes; and Cobalt sedimentary rocks. Much of the area formerly mapped as "greenstone" is gabbro and diorite.

Structural Geology: The volcanic rocks in the four southern concessions of Maisonville township form part of a synclinorium in which the axial plane strikes south. Many strata on the eastern limb of the synclinorium are obliterated by the granitic stock exposed southeast of the Wendworth Creek shear zone. In the adjacent part of Bennett, the township north of Maisonville, the volcanic rocks form the southern limb of a younger east-plunging syncline. As indicated by their attitudes, the volcanic and steeply dipping sedimentary strata of the two northern concessions of Maisonville township are in the transition zone between the two synclines. Most of the faults and shear zones strike north-south, parallel to the strata, as do most diabase dikes. A noteworthy exception is the Wendworth Creek shear zone, which strikes northeast approximately parallel to the contact of the Winnie Lake granitic stock.

Economic Geology: Base metals, gold, and silver are present in economically interesting concentrations. Zinc, lead, and copper occur in quartz-carbonate veins and alteration zones in granitic slate and tuff or chert. Copper occurs also in quartz veins associated with gabbro and diorite. Molybdenite is in quartz veins associated with granite and quartz syenite. Gold is in quartz veins in shear zones, and is associated with syenite intrusions. Silver is associated with gold and lead. Geophysical work, for example airborne electromagnetic surveys, must take into account the fact that in the southern part of the township the Archean formations strike south, not east as in most townships of the Kirkland Lake area.

LIST OF PROPERTIES
(as of Dec. 31, 1966)

7. Barber, George
8. Beattie, Phyllis M.
9. Church, Miss Jean S. (part of claim 1, 11157)
10. Coullis, A.
11. Day, Trevor and Irene
12. Delaire, R. E. (part of claim 1, 11157)
13. Erickson, Henry (part of claim 1, 2956/3)
14. Forgie, F. G. (claim 1, 4575)
15. Hagerty, E. W. (claims 1, 4536 & 1, 6515)
16. Houghton, A.
17. Lange, John G., Trustee
18. Lee, Mrs. D. M.
19. Lockhart, Charles B. (part of claims 1, 47798 - 99)
20. McDonald, W. W.
21. McGregor, Forbes
22. Miron, Mrs. Jean I.
23. Neredith, I. K.
24. Messinger, Mrs. H. C.
25. Murray, John E.
26. Pain, Sidney A.
27. Rogers, W. C. Estate
28. Russell, J. C.
29. Scales, Denby
30. Simpson, W. J.
31. Skjonsby, A. J. (claim 1, 23950 & part of claim 1, 2956/3)
32. Smith, William Thomas
33. Van Cleef, W. L.
34. Ventures Claims Limited

MINERAL REFERENCE

Au	..... Gold	Ni	..... Nickel
carb	..... Carbonate	Pb	..... Lead
Cu	..... Copper	py	..... Pyrrhotite
cp	..... Chalcopryite	qtz	..... Quartz vein
ep	..... Epidote	qcv	..... Quartz-carbonate vein
gn	..... Garnet	gv	..... Gabbro
gt	..... Garnet	sp	..... Sphalerite
hem	..... Hematite	te	..... Telluride
mt	..... Magnetite	Zn	..... Zinc
Mo	..... Molybdenum		

NOTES

Geological mapping was carried out by pace-and-compass traverses on foot, and other landmarks recognizable on air photographs.

The geology is not tied to surveyed lines.

Claim maps may be obtained from the Mining Recorder, Kirkland Lake or Publications Office, Ontario Department of Mines Parliament Buildings, Toronto 2.

SOURCES OF INFORMATION

Geology by H. L. Lovell and assistants, 1966.

Geological and geophysical maps and reports of mining companies.

Base map derived from maps of the Forest Resources Inventory, Ontario Department of Lands and Forests, with revisions by H. L. Lovell.

Magnetic declination is approximately 9°30'W, 1966.

Issued 1967.

