

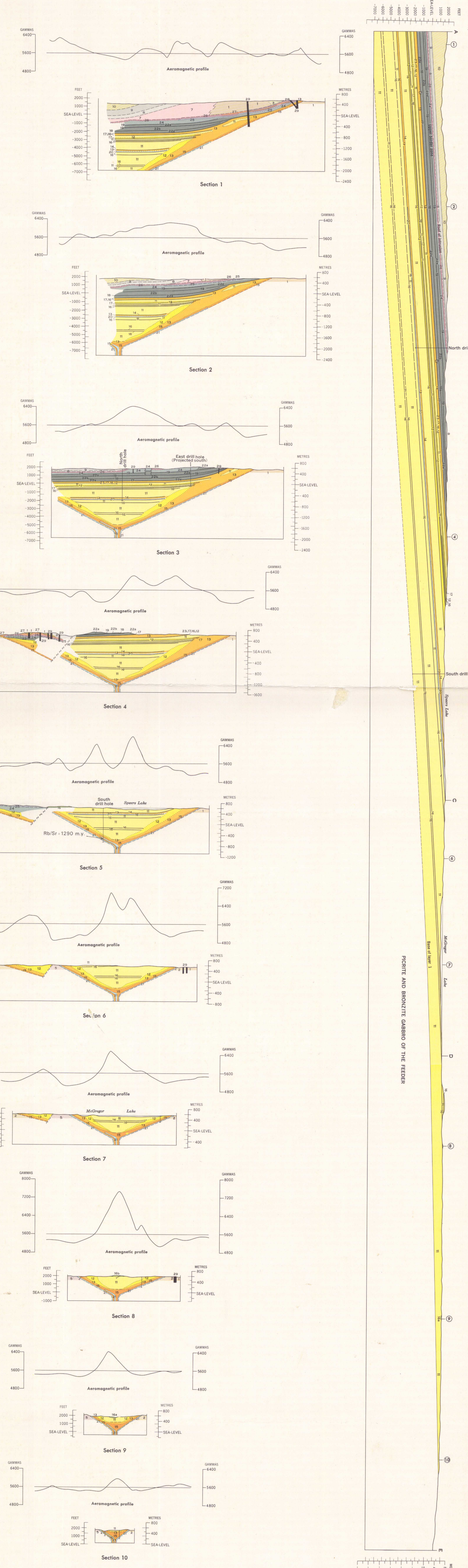
- LEGEND**
- 23 Diabase dykes, generally quartz diabase, in places granophyre. Interpreted from aeromagnetic survey.
 - GRANOPHYRE UNITS**
 - 28 Contact breccia (fragments of 8, 7 and 1 included in granophyre)
 - 27 Granophyre
 - 26 Mafic granophyre
 - GABBRO UNITS**
 - 25 Granophyre gabbro
 - 24 Granophyre-bearing gabbro. In places contains up to 10% Fe-Ti oxides
 - 23 Anorthositic gabbro (olivine-bearing)
 - 22a Gabbro; 22b gabbro and melanogabbro (interlayered)
 - 21 Olivine gabbro (in feeder and marginal zones)
 - 20 Olivine gabbro
 - PYROXENITIC UNITS**
 - 19 Olivine websterite
 - 18a Olivine websterite (olivine-bearing); Olivine websterite and melanogabbro (interlayered or unconformably equal amounts)
 - 17 Olivine websterite or pyroxenite gabbro. Olivine gabbro (interlayered or unconformably equal amounts); Olivine websterite (interlayered)
 - 16a Olivine clinopyroxenite (olivine content 25-50%)
 - 16b Olivine clinopyroxenite (olivine content 0-25%)
 - OLIVINE-RICH UNITS**
 - 15 Olivine (in feeder and marginal zones)
 - 14 Trachytic peridotite (interlocking, thin olivine-rich layers and feldspathic layers with variable pyroxene content)
 - 13 Feldspathic peridotite (separimented)
 - 12 Peridotite, separimented
 - 11 Olivine, separimented
 - COPPERMINE RIVER SERIES (C)**
 - 10 Basalt
 - HONEYBAY GROUP (H)**
 - 9 Diabase
 - 8 Sandstone, minor conglomerate
 - GRANITIC ROCKS**
 - 7 Granite
 - 6 Granodiorite
 - 5 Quartz-biotite-plagioclase gneiss with paragneiss bands
 - METAVOLCANIC ROCKS**
 - 4 Silicic volcanic rock
 - 3 Greenactinolite amphibolite
 - METASEDIMENTARY ROCKS**
 - 2 Phengite with granitic bands
 - 1 Quartz-mica schist, quartzite, minor graphitic slate; 1a, 1b, 1c, 1d
- Drift-covered area
Geological boundary (defined, approximate, assumed)
Geological boundary (inferred from aeromagnetic data)
Location of feeder
Bedding (top known (inclined), vertical)
Bedding (top unknown (inclined, vertical, dip unknown))
Schistosity, gneissosity (inclined, vertical, dip unknown)
Lineation (trace of minor fold)
Structural trends (inferred from air photos)
Primary faulting in Muskox intrusion (horizontal, inclined, vertical)
Fault (defined, assumed)
Chromite layer (1/4 inch thick with disseminated copper-nickel sulphides; defined, assumed)
Sill (defined, vertical)
Syncline (defined, arrow indicates plunge)
Glacial sense (direction of ice-movement known)
Pleistocene age age determination in millions of years K/Ar-1155 m.y. @
Rubidium-Strontium age determination in millions of years Rb/Sr-1300 m.y. @
Suphite occurrence (copper, lead, nickel, etc., see P. 10)
Chromite occurrence (chromite) 1 inch thick
Diamond drill-hole (vertical, inclined)
- Important datum
Rapid
Contours (interval 500 feet)
Height in feet above mean sea level
- Base-map cartography by the Geological Survey of Canada, 1969 from unpublished maps by the Army Survey Establishment, N.C.E.
- Geographical names subject to revision
- Geology by C. H. Smith, 1959, 1960
Revised by C. H. Smith, T. N. Irvine, D. C. Fenley, 1963
Geological cartography by the Geological Survey of Canada, 1966
- Approximate magnetic declination 37° 25' East, decreasing 8' annually
Aeromagnetic flight elevation 500 feet above ground level

COMPOSITION OF MAP-UNITS IN MUSKOX INTRUSION

The rocks of the Muskox Intrusion formed by crystallization differentiation of essentially one magma and therefore have the same general age. Their order of crystallization is almost exactly their sequence of occurrence from bottom to top in the intrusion. The table below gives the typical mineral constitution of the map-units shown in the legend. It does not include extreme variations that may occur locally in each unit.

Map Unit	Rock Name	PRIMARY MINERALS										SECONDARY MINERALS (from other)				
		Olivine	Orthopyroxene	Orthopyroxene	Orthopyroxene	Orthopyroxene	Orthopyroxene	Orthopyroxene	Orthopyroxene	Orthopyroxene	Orthopyroxene	Orthopyroxene	Orthopyroxene	Orthopyroxene	Orthopyroxene	Orthopyroxene
27	Granophyre ^a	-	-	2.5	0.2	5.16	30.60	26.35	-	0.10	0.10	0.10	-	-	-	-
26	Mafic granophyre	-	-	5.16	1.2	30.60	18.40	10.35	-	2.4	0.10	0.10	-	-	-	-
25	Granophyre-bearing gabbro	-	0.87	5.20	0.20	18.30	20.40	10.16	-	2.4	0.10	0.10	-	-	-	-
24	Granophyre-bearing gabbro	-	5.16 ^b	18.30	0.20	1.30	40.80	1.00	0.10	-	2.16	0.10	0.10	-	-	-
23a	Anorthositic gabbro (olivine-bearing)	6.16	-	1.20	18.30	0.4	45.75	-	-	-	0.01	-	-	-	-	-
23b	Gabbro	6.20	-	20.25	0.10	0.2	45.55	-	-	-	0.10	0.10	0.10	-	-	-
21	Olivine gabbro	0.10	-	10.20	20.20	1.8	-	30.40	0.3	0.5	-	0.520	0.02	0.1	0.6	0.05
20	Olivine gabbro	6.16	-	0.8	40.80	-	-	38.80	-	-	-	-	-	-	0.6	0.05
19	Pyroxenite	6.20	-	30.20	30.20	0.2	-	45.55	-	-	-	0.10	0.10	0.10	0.6	0.10
18a	Feldspathic websterite	-	-	10.25	55.75	0.10	-	12.25	0.10	0.20	-	0.10	0.01	0.02	-	-
18b	Websterite	-	-	10.20	40.16	0.10	-	23.25	0.10	0.20	-	0.10	0.01	0.02	-	-
17a	Websterite	-	-	10.20	40.16	0.10	-	12.25	0.10	0.2	-	0.10	0.01	0.01	-	-
17b	Orthopyroxenite	-	-	70.80	6.16	0.10	-	0.15	0.10	0.2	-	0.10	0.01	0.01	-	-
16a	Olivine clinopyroxenite	6.50	-	0.8	50.80	-	-	0.5	0.1	-	0.02	0.04	0.01	0.10	1.40	0.20
16b	Pyroxite	38.80	-	10.20	3.8	-	-	18.30	-	-	-	-	-	9.20	1.6	-
14	Trachytic peridotite	40.80	1.16	1.2	0.01	-	30.60	-	-	-	-	-	-	36.76	0.2	-
13	Feldspathic peridotite	30.70	0.10	10.25	0.10	-	10.20	-	-	-	1.5	0.02	-	0.1	38.50	3.0
12	Peridotite	60.80	0.10	10.20	0.10	-	6.16	-	-	-	5.5	0.02	-	0.1	50.70	3.8
11	Diorite	88.95	1.8	5.16	0.02	-	2.10	-	-	-	1.3	0.02	-	0.02	80.90	3.0

NOTES: a. Generally contains 8-10% olivine.
b. Includes some pyroxene and inverted pyroxene.



NOTE: In the above sections where units were too narrow to contain colour they have been illustrated by a continuous black line.

1213A
N.W.T. Muskox Intrusion (North Sheet)
1:63,360
2.7 Map 1213A
1967

MAP 1213A
GEOLOGY
MUSKOX INTRUSION
NORTH SHEET
DISTRICT OF MACKENZIE
Scale 1:63,360
1 inch = 1 mile
Kilometres 0 1 2 3 4 5

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K. T. REFERENCE