

LEGEND

FORMATIONS OF THE ST. ELIAS MOUNTAINS

- TERTIARY**  
PALEOCENE AND LATER  
23 23a, porphyritic latite, trachyte, rhyolite;  
23b, gabbro
- ST. CLARE GROUP**  
21, 22 21, Red-brown basalt and andesite, massive or vesicular  
agglomerate, breccia, tuff  
22, Volcanic-boulder gravel and volcanic conglomerate,  
minor tuff, sandstone, shale, lava
- PALEOCENE OR EOCENE**  
20 AMPHITHEATRE FORMATION: sandstone, sand,  
conglomerate, gravel, shale, coal
- CRETACEOUS AND (?) TERTIARY**  
19 Icefield Ranges intrusions: alaskite, granite, granodiorite,  
porphyritic rhyolite; intimately mixed with 17
- CRETACEOUS AND (?) EARLIER**  
18 Klauane Ranges intrusions: hornblende-biotite granodiorite,  
quartz diorite, diorite
- 17 Migmatized volcanic rock, hornfels, quartz-mica schist,  
sagen gneiss, marble; minor granitic rock. May be in  
part Paleozoic
- JURASSIC AND CRETACEOUS**  
UPPER JURASSIC AND LOWER CRETACEOUS  
DEZADASHI GROUP  
16 Argillite, greywacke and conglomerate with graded  
bedding, thin limestone bands; banded hornfels near  
intrusions
- TRIASSIC**  
UPPER TRIASSIC  
MUSH LAKE GROUP  
15 Thin bedded shaly limestone, calcareous and silty shale
- 14 Limestone, commonly brecciated; gypsum
- 13 Basalt and andesite, mainly amygdaloidal, purple and  
green; minor interbedded shale, argillite, greywacke,  
silty limestone, chert, conglomerate. May be in part  
pre-Upper Triassic
- PERMIAN AND/OR TRIASSIC**  
12 Peridotite, gabbro; minor banded chert
- PERMIAN AND (?) EARLIER**  
LOWER PERMIAN AND (?) EARLIER  
CACHE CREEK GROUP  
11 Argillite, sandstone, grit conglomerate, limestone, chert;  
11a, limestone
- 10 Prophyritic basic lava, banded cherty tuff, volcanic  
breccia, chlorite schist; minor greywacke, argillite,  
limestone. May include some 9 and 13
- DEVONIAN AND/OR MISSISSIPPIAN**  
9 Greenstone, schistose greywacke, quartzite, slate,  
phyllite; minor sheared conglomerate, marble. May  
include some of 16
- DEVONIAN**  
MIDDLE AND UPPER DEVONIAN  
KASKAWULSH GROUP  
8 Marble, argillite; minor phyllite, greenstone

FORMATIONS OF YUKON PLATEAU

- MESOZOIC AND (?) EARLY TERTIARY**  
7 Nisling Range alaskite (includes Rockside Creek Stock);  
alaskite, granite, quartz monzonite; minor rhyolite;  
7a, rhyolite, fine-grained granite
- 6 Nisling Range granodiorite; biotite-hornblende  
granodiorite; granogabbro, quartz monzonite;  
6a, includes many rhyolite dykes
- 5 Ruby Range batholith (includes granitic rocks in southeast  
corner); biotite-hornblende granodiorite, quartz monzonite,  
quartz diorite; minor granodiorite-gneiss
- TRIASSIC AND (?) LATER**  
4 Porphyritic basalt, andesite, latite, rhyolite; related  
tuff and breccia
- YUKON COMPLEX**  
3 3a Quartz-chlorite-sericite schist, epidote-actinolite  
greenschist, quartzite, slate, quartz-mica schist,  
limestone; 3a, recrystallized limestone; 3b, dunite
- 2 Quartz-sericite-chlorite schist; minor quartzite
- 1 Quartz-biotite schist, in places carrying garnet; quartz-  
feldspar-biotite gneiss, amphibolite; minor recrystallized  
limestone; 1a, contains many rhyolite dykes and sills

- Drift-covered area
- Bedding (horizontal, inclined, vertical)
- Schistosity, gneissosity (horizontal, inclined, vertical)
- Fault (assumed)
- Thrust fault (teeth in direction of dip; assumed)
- Anticline (normal, overturned)
- Syncline
- Fossil locality
- Former placer operation (gold)
- Mineral occurrence
- Mining property adit (1, Carabask Nickel Mines;  
2, Hudson Bay Mining and Smelting Co.)

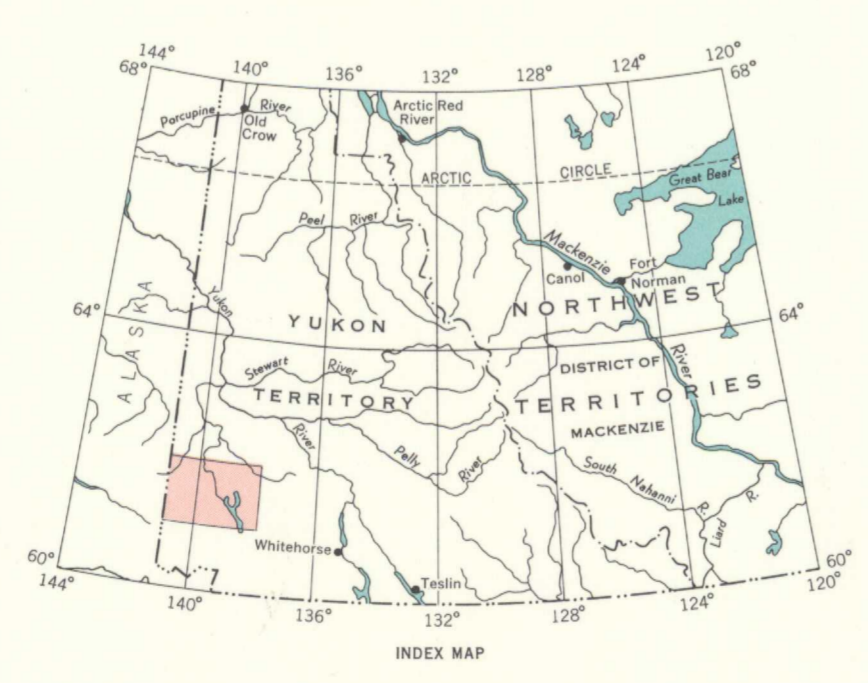
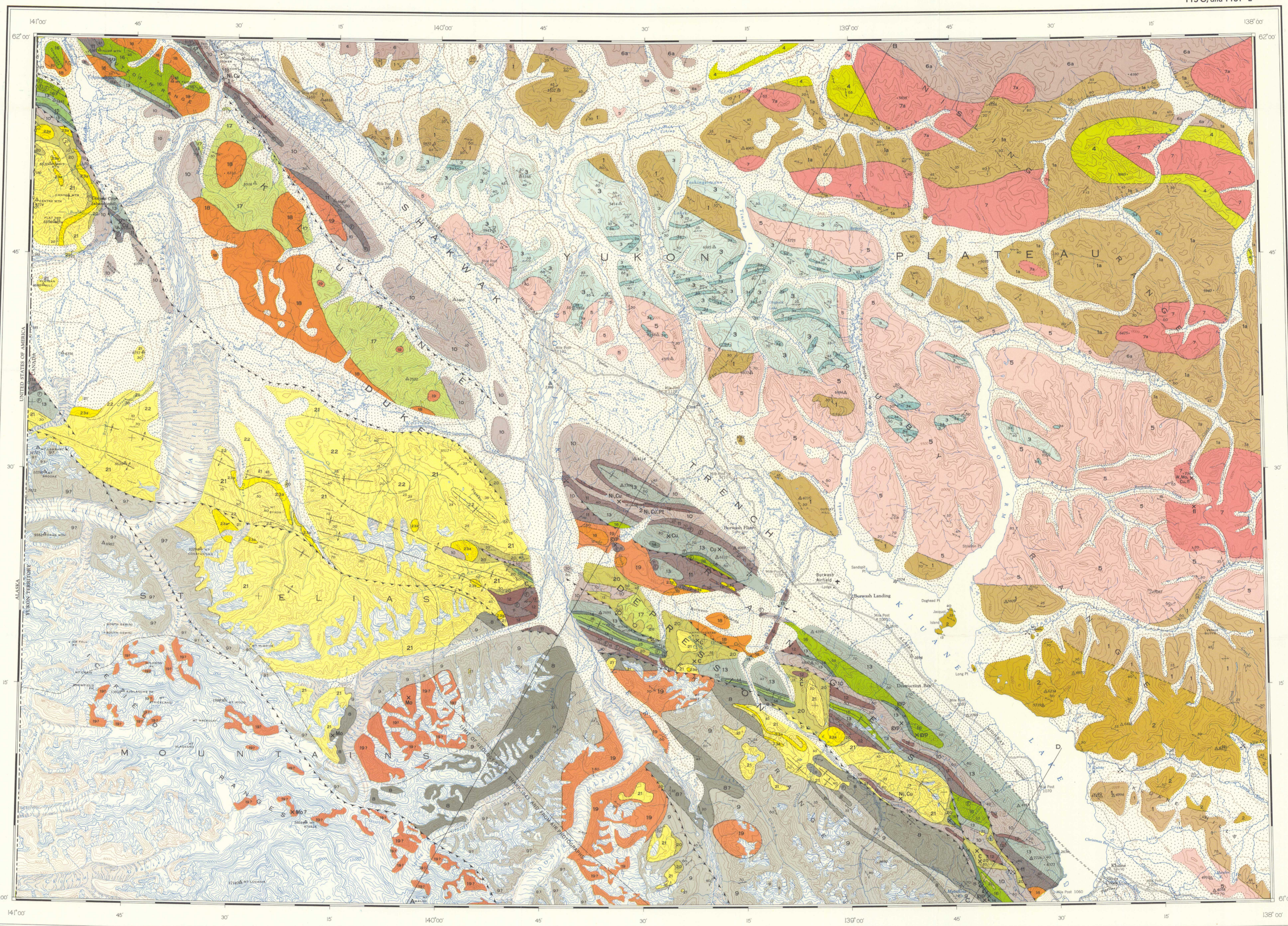
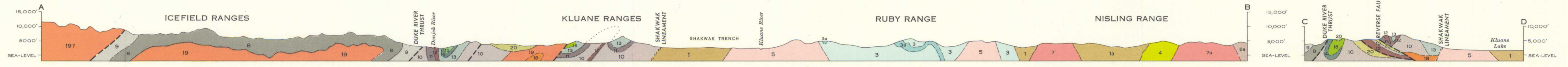
- MINERAL OCCURRENCES**
- Coal ..... C      Molybdenum ..... Mo  
Copper ..... Cu      Nickel ..... Ni  
Fluorite ..... fl      Platinum ..... Pt  
Gypsum ..... gyp      Tungsten ..... W

Geology by J. E. Muller, 1950-53, 1956-57;  
R. L. Christie, 1953

To accompany GSC Memoir 340 by J. E. Muller

Geological cartography by the Geological Survey of Canada, 1965

Mean magnetic declination, 29°42' E, decreasing 3.5'  
annually. Readings vary from 26°50' E in the SW  
corner to 30°42' E in the NE corner of the map-area



MAP 1177A  
GEOLOGY  
**KLUANE LAKE**  
YUKON TERRITORY

Scale 1:253,440  
(1 inch to 4 miles)

Miles 4 0 4 8 12 Miles  
Kilometres 6 0 6 12 18 Kilometres

**LEGEND**

Road all weather

Road, dry weather

Cart track

Trail or portage

International boundary

Boundary monument

Horizontal control point

Post Office

Glacier

Intermittent stream

Marsh

Dry river bed

Sand or mud

Debris-covered ice

Contours (interval 500 feet)

Height in feet above mean sea-level

7150

DEPT. OF ENERGY, MINES & TECHNICAL SURVEYS  
GEOGRAPHICAL  
MAY 19 1967  
BRANCH 4  
MAP 1177A

Base-map compiled and drawn by the Surveys and Mapping Branch, 1961

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