



GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

LEGEND

QUATERNARY POSTGLACIAL DEPOSITS AND LANDFORMS

- 14 Organic deposits (on poorly drained flats): peat and muck over silt and clay
- 13 Undifferentiated deposits (includes deposits on steep slopes and along valley walls and bottoms): drift, shale; commonly mantled with colluvium, alluvium, and dump debris; 13a, valley walls devoid of major slump scars
- 12 Alluvium (modern stream deposits): sand, silt, gravel; in places local patches over till or bedrock
- 11 Wind deposits (dunes separated by blowouts): sand

LATE GLACIAL AND EARLY POSTGLACIAL DEPOSITS AND LANDFORMS

- 10 Glaciolacustrine deposits: clay, silt, sand, gravel; 10a, silt and clay; 10b, sand and gravel mainly in beach complexes
- 9 Valley terrace deposits: gravel and sand; 9a, 3 to 15 m (10 to 50 ft) thick; 9b, local patches over till or bedrock
- 8 Alluvium and outwash (stream deposits in and along abandoned channels): gravel, sand

GLACIAL DEPOSITS AND LANDFORMS

- 7 Kames and eskers: silt, sand, gravel, minor till; 7a, kames; 7b, kame moraines consisting of kames, eskers, and minor ridges
- 6 Outwash-glaciolacustrine complexes: gravel, sand, silt; 6a, pitted or hummocky, mainly gravel and sand; 6b, flat to gently irregular, mainly sand and silt; 6c, flat to gently irregular, mainly gravel and sand; 6d, deltaic, mainly gravel and sand; 6e, gently irregular to hummocky, glaciolacustrine, mainly silt and sand
- 5 Moraine plateaus (glaciolacustrine): clay, silt; minor sand and gravel
- 4 Hummocky moraine (knob and kettle topography): till, local silt, sand, and gravel; 4a, belts with linear elements forming distinctive end moraines; 4b, transitional zone of discontinuous hummocky moraine along upland margins; 4c, broad areas with general relief between 3 and 8 m (10 to 25 ft); 4d, broad areas with general relief greater than 8 m (25 ft)
- 3 Corrugated moraine (gently irregular to irregular with marked reticulate pattern dominated by subarcuate trend of ridges and knobs): till; 3a, modified by water erosion, local silt, sand and gravel patches; 3b, average relief less than 3 m (10 ft); 3c, average relief 3 to 8 m (10 to 25 ft)
- 2 Till plain (flat to gently irregular): till; 2a, modified by water erosion with local silt, sand and gravel; 2b, average relief less than 3 m (10 ft); 2c, average relief 3 to 8 m (10 to 25 ft)

QUATERNARY AND CRETACEOUS

- 1 Bedrock plains (flat to broadly rolling bedrock, locally veneered with till and commonly marked by drumlins and drumloids); 1a, modified by water erosion: local organic, silt, sand and gravel patches; 1b, flat or nearly flat plains; 1c, broadly rolling plains; 1d, drumlin or drumloid

- Bedrock outcrop
- Geological boundary (defined, approximate)
- Striae and grooves on boulder pavement (dominant direction of ice flow)
- Moraine ridges or ridges of unknown origin: till, gravel, sand
- Ice flow feature: drumlins, drumlin-like ridges
- Esker ridge: gravel, sand, silt and till (direction of flow defined, not defined)
- Buried or partly filled channel
- Meltwater channel
- Slump topography
- Subglacial stream valley: valley cut through ridge by subglacial stream that elsewhere built esker ridge

Geology by R.W. Klassen, 1961-64

To accompany Memoir 396 by R.W. Klassen

Geological cartography by V. Foster
Geological Survey of Canada

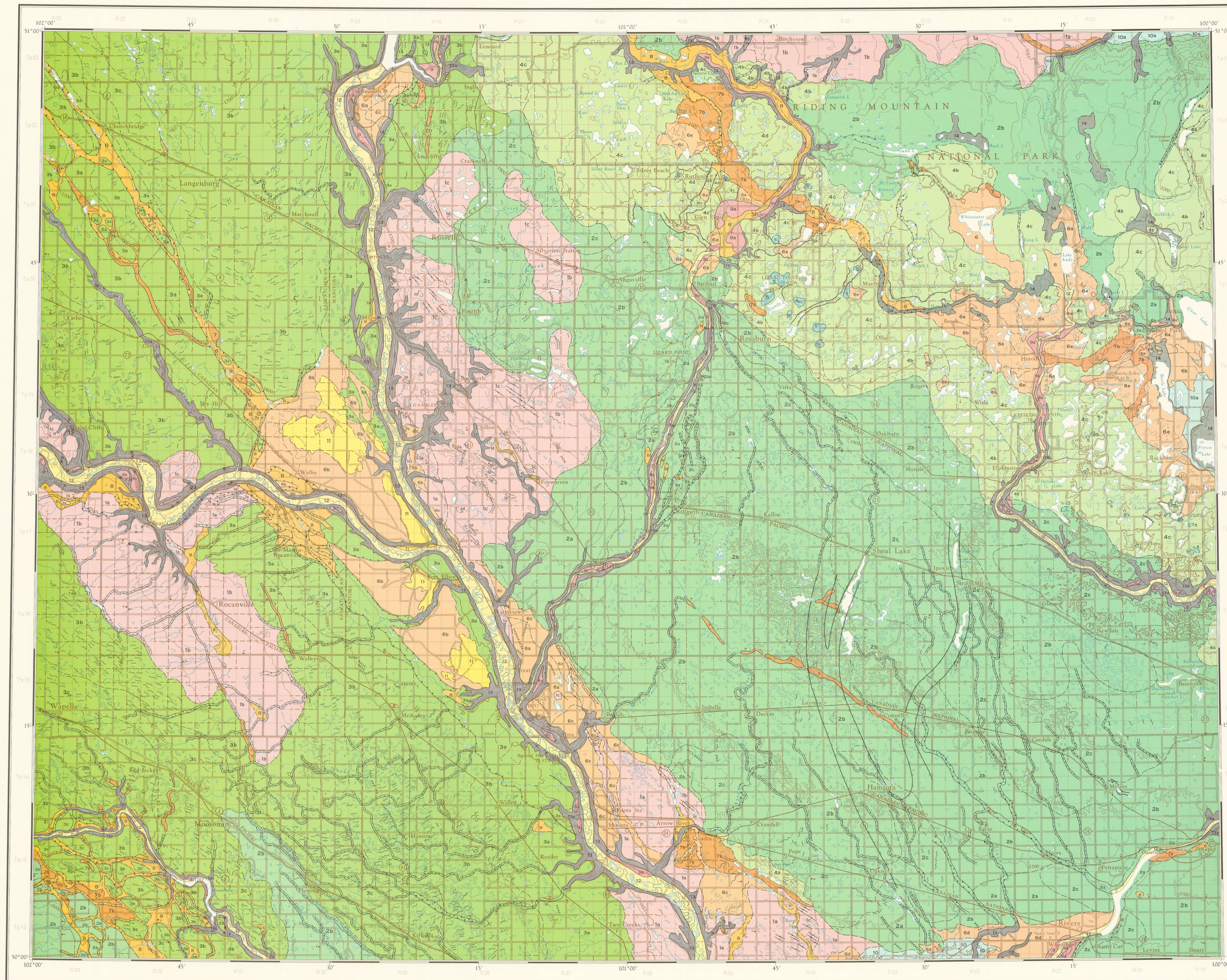
Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Base-map at the same scale published by the Surveys and Mapping Branch in 1964.

Copies of the topographical edition of this map may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa

Mean magnetic declination 1978, 12°22' East, decreasing 5.6' annually. Readings vary from 11°23' in the SE corner to 13°25' in the NW corner of the map-area

Elevations in feet above mean sea-level

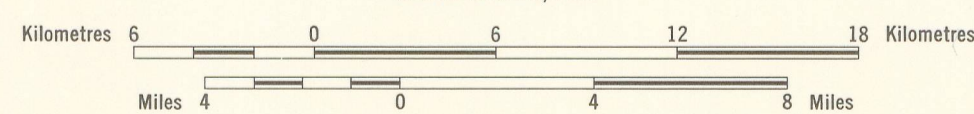


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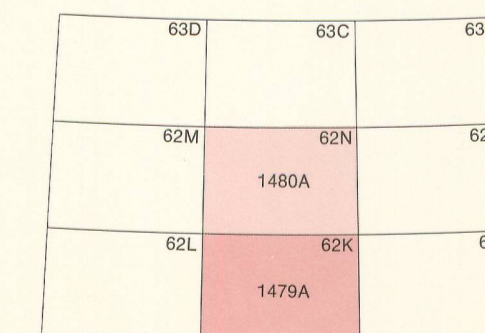
MAP 1479A
SURFICIAL GEOLOGY
RIDING MOUNTAIN
WEST OF PRINCIPAL MERIDIAN
MANITOBA - SASKATCHEWAN

Scale 1:250,000



Universal Transverse Mercator Projection

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RIDING MOUNTAIN
MANITOBA - SASKATCHEWAN

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