

LEGEND

CENOZOIC	QUATERNARY HOLOCENE	Qf	Fluvialite silt, sand and gravel, in part with cover of organic deposits; undivided
	CRETACEOUS	KAR	ARCTIC RED FORMATION: shale and siltstone; marine
MESOZOIC	LOWER CRETACEOUS	KHR	HORTON RIVER FORMATION: shale, silty; marine; may include Langton Bay Formation at base
	DEVONIAN	Di	IMPERIAL FORMATION: shale and siltstone; marine; includes patches of Laurentide moraine and glaciofluvial deposits
		Dca	CANOL FORMATION: shale, black, bituminous, siliceous; marine (in structure section 3 only)
	MIDDLE DEVONIAN	Dhi	HARE INDIAN FORMATION: shale, siltstone and limestone; marine (in structure section 3 only)
		Dhu	HUME FORMATION: limestone and shale; marine (in structure section 3 only)
PALEOZOIC	LOWER AND MIDDLE DEVONIAN	Dg	GOSSAGE FORMATION: limestone and dolomite; marine (in structure section 3 only)
	CAMBRIAN TO DEVONIAN	Cdb	Dolomite, limestone, evaporite and shale; marine; undivided (in structure section 3 only)
	LOWER CAMBRIAN TO LOWER DEVONIAN		
PROTEROZOIC	?HELIKIAN	Pu	Dolomite, argillite and quartzite; marine; undivided (in structure section 3 only)

* Location of unconformity between Upper Devonian and Lower Cretaceous formations is uncontrolled

- Outcrop or felsenmeer examined (bedding not measurable)
- Geological boundary (defined, approximate)
- Bedding, tops known (horizontal, inclined)
- Bedding, estimated from aircraft (horizontal)
- Syncline
- Drumlins, drumlinoid ridges (direction of ice movement not inferred)
- Fossil locality (GSC catalogue numbers; Calgary, Ottawa)
- Stratigraphic section
- Borehole (dry and abandoned, shallow)
- Gas seep reported
- Paleontological age on fossil locality; for explanation of geological time symbols, see Geotectonic Correlation Chart, 1532A
- Tentative formational assignment
- Line of section

Geology by D.K. Norris, 1974

SCHEDULE OF WELLS

1. IOE Clare F-79; T.D. 2526 m
2. IOE Swan Lake K-28; T.D. 1838 m
3. IOE Tree River H-38; T.D. 1279 m
4. Inc. N. Cdn. Oil Mobil Attoe Lk. I-06; T.D. 2257 m
5. Shell Tree River F-57; T.D. 1980 m
6. Shell Tree River East H-57; T.D. 1980 m

Note: Well listing is chronological in order of spudding date

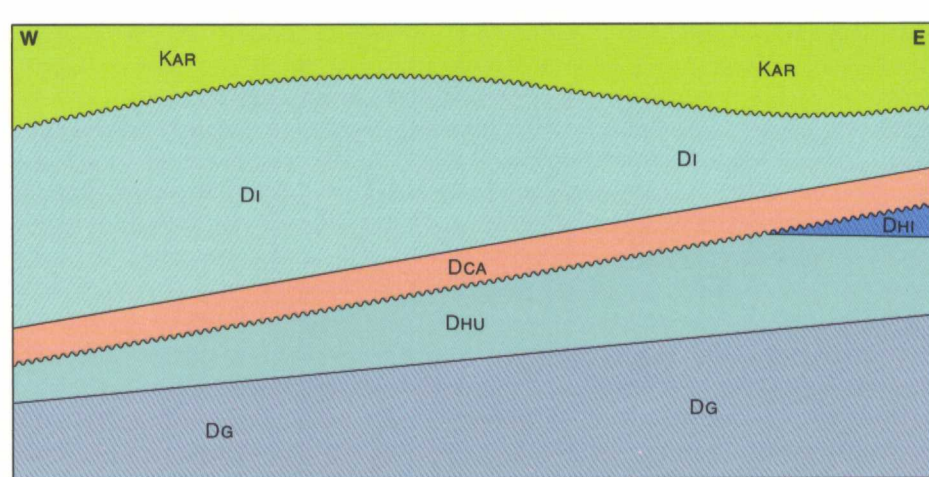
SHALLOW BOREHOLE SAMPLES

Chevron Standard Ltd. - seismic shot points

ACKNOWLEDGMENTS

Geological synthesis based on field observations and/or paleontological determinations by the following geologists of the Geological Survey of Canada, listed alphabetically, with corresponding years of field activity where applicable: W.S. Hopkins Jr.; D.C. McGregor; D.K. Norris, 1962, 1973; G.R. Turnquist, 1962.

SCHEMATIC STRATIGRAPHIC RELATIONSHIPS



Geological cartography by J.H. Waddell, Institute of Sedimentary and Petroleum Geology, 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 1959

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

Magnetic declination 1980 varies from 38° 28.5' easterly at centre of west edge to 38° 25.8' easterly at centre of east edge. Mean annual change 8.1' westerly

Elevations in feet above mean sea level



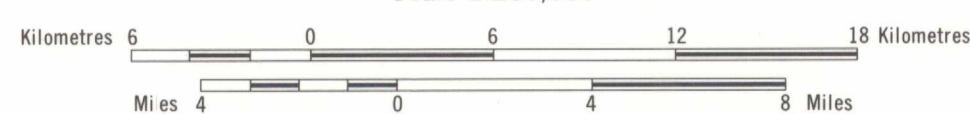
Copies of this map may be obtained from the Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8 3303 - 33rd Street N.W., Calgary, Alberta T2L 2A7



INDEX MAP

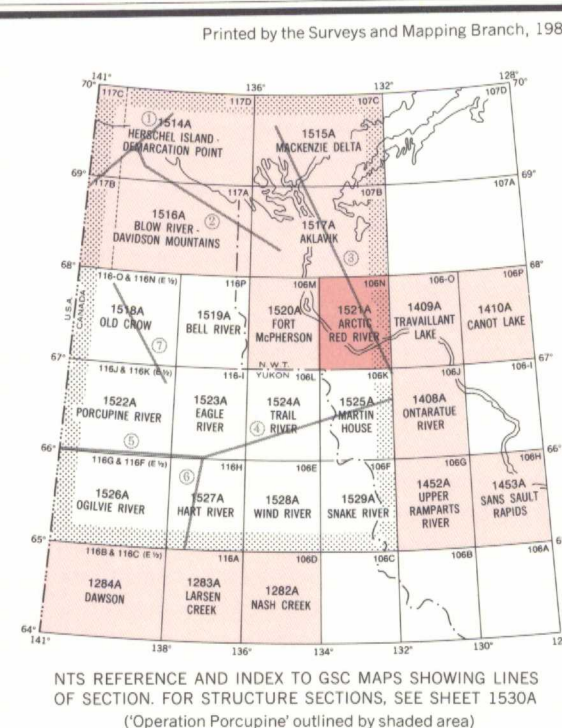
MAP 1521A
 GEOLOGY
ARCTIC RED RIVER
 DISTRICT OF MACKENZIE

Scale 1:250,000



Transverse Mercator Projection
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THE STRUCTURE SECTION DIAGRAM AND GEOTECTONIC CORRELATION CHART FOR THE AREA COVERED BY MAPS 1514A TO 1529A ARE AVAILABLE SEPARATELY AS SHEETS 1530A AND 1532A



NTS REFERENCE AND INDEX TO GSC MAPS SHOWING LINES OF SECTION. FOR STRUCTURE SECTIONS, SEE SHEET 1530A (Operation Porcupine) outlined by shaded area.

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MAP 1521A
 ARCTIC RED RIVER
 DISTRICT OF MACKENZIE

1521A