

ANDERSON BASIN

QUATERNARY
Pleistocene
Q Alluvial and glacial deposits

TERTIARY
MIOCENE-PLIOCENE
Tb BEAUFORT FORMATION (T): unconsolidated gravels and sand

CRETACEOUS
UPPER CRETACEOUS
CAMPANIAN-MASTRICHTIAN
ukm MASON RIVER FORMATION: pale grey shale and mudstone; grey-brown ferruginous shale; minor ironstone concretions

SANTONIAN-CAMPANIAN
ukks SMOKING HILLS FORMATION: black bituminous shale, yellow jarosite; local earthy hematite; local basal conglomerate

LOWER CRETACEOUS
ALBAN
Ikh HORTON RIVER FORMATION: black, soft, plastic shale; ironstone concretionary beds

NEOCOM-APTIAN
IKI LANGTON BAY FORMATION (undivided): Gilmore Lake Member; pale grey, friable sandstone, coal; minor mudstone, cross-bedded Member; argillaceous siltstone, sandstone, mudstone, coquina beds, concretions

DEVONIAN
UPPER DEVONIAN
ud CANOL AND IMPERIAL FORMATIONS

LOWER AND MIDDLE DEVONIAN
ImD BEAR ROCK, HUME, HARE INDIAN AND RAMPARTS FORMATIONS

CAMBRIAN, ORDOVICIAN AND SILURIAN
LOWER CAMBRIAN TO LOWER SILURIAN
COS MOUNT CLARK, OLD FORT ISLAND, MOUNT CAP, GALINE RIVER, FRANKLIN MOUNTAIN AND MOUNT KUDLO FORMATIONS

PROTEROZOIC
HELIKIAN
PC COPPERMINE ARCH, SHALER AND HORNBY BAY GROUPS
MACKENZIE MOUNTAINS; TSETOTENE AND KATHERINE GROUPS

Geological boundary (approximate, assumed)

Limit of thick, continuous unconsolidated cover

Face boundary

Arbitrary boundary between map units

Stratigraphic cross-section through exploratory well and/or measured section (see Figures 4 and 5)

Fault, movement unknown

Fault (solid circle indicates downthrow side)

Fault, thrust or reverse (beeh indicate upthrust side)

Syncline

Exploratory well

Measured section in Peel Trough

MEASURED SECTIONS

Hume River (Appendix 1 and Figure 4) A

Mountain River (Figure 4) B

Imperial River (Figure 4) C

Sans Sautil Rapids (Appendix 1 and Figure 4) D

Little Bear River (Appendix 1 and Figure 4) E

East Little Bear River (Appendix 1 and Figure 4) F

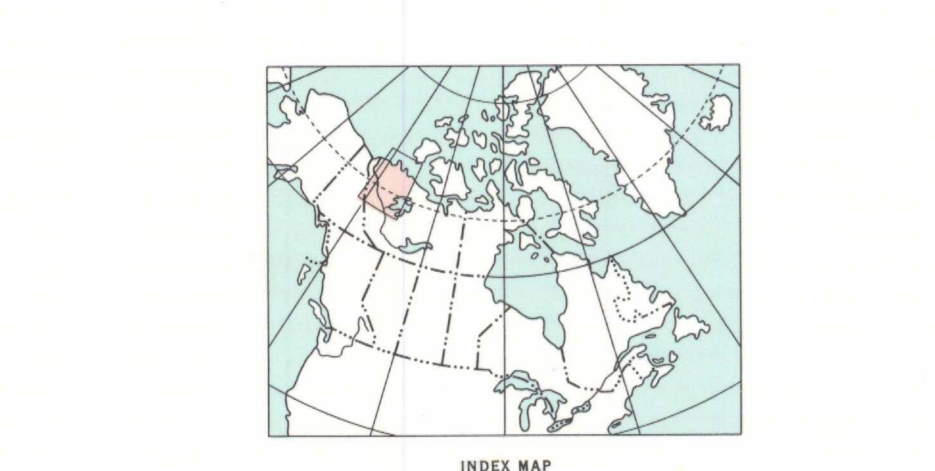
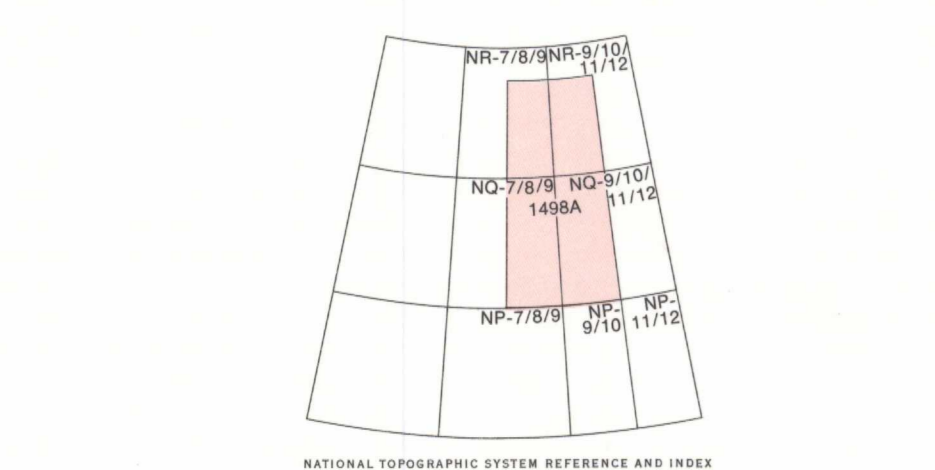
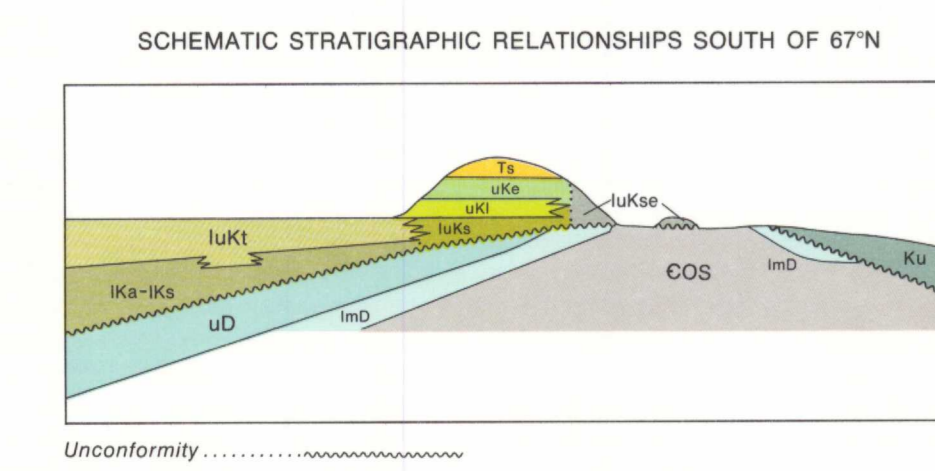
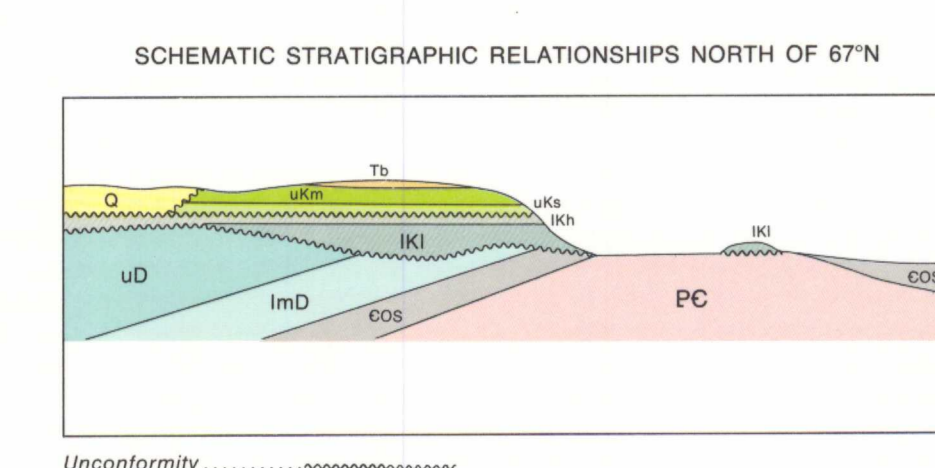
Stewart Lake Area: type section, Summit Creek Formation (Appendix 1 and Figure 4) G

Mackay Range (Appendix 1 and Figure 4) H

For location locations in Anderson Basin see Yorath and Bailiwick, 1965, 1970, and Yorath et al., 1975

Geology compiled by C.J. Yorath in 1978 based on published and Open File maps of the Geological Survey of Canada

To accompany GSC Memoir 398 by C.J. Yorath and D.G. Cook



This map has been produced from a scanned version of the original map
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PEEL TROUGH

CRETACEOUS AND TERTIARY
UPPER CRETACEOUS AND LOWER TERTIARY
MASTRICHTIAN-PALEOCENE
Ts SUMMIT CREEK FORMATION: unconsolidated to moderately consolidated gravel-conglomerate, friable sandstone, silt, coal

CRETACEOUS
UPPER CRETACEOUS
CAMPANIAN-MASTRICHTIAN
ukm MASON RIVER FORMATION: pale grey shale and mudstone; grey-brown ferruginous shale; minor ironstone concretions

SANTONIAN-CAMPANIAN
ukks SMOKING HILLS FORMATION: black bituminous shale, yellow jarosite; local earthy hematite; local basal conglomerate

LOWER AND UPPER CRETACEOUS
UPPER ALBAN-TURNONIAN
Ikh, Iku, Iks TRAVOR FORMATION: fine grained sandstone and mudstone; local SLATER RIVER FORMATION: black, plastic, concretionary shale

LOWER CRETACEOUS
APTIAN-MIDDLE ALBAN
Ika, IKs ARCTIC RED FORMATION: concretionary mudstone, siltstone; basal sandstone Creek Delta

Iks SANS SAUL FORMATION: fine grained sandstone, mudstone

GREAT BEAR BASIN

CRETACEOUS AND TERTIARY
LOWER ALBAN-PALEOCENE
Ku (unamed) sandstone, siltstone, mudstone, shale

LIST OF WELLS

66 CanDel et al. Texaco Arctic Red F-47	65°38'25"N, 130°53'53"W
67 Amco PCP A-1 Cranwick A-22	65°31'01"N, 131°49'55"W
68 ARCO Lost Hill Lake F-62	65°41'52"N, 129°12'30"W
69 Hesse Murphy CDA Hema River J-05	65°44'30"N, 129°12'30"W
70 Imperial Sans Sautil No. 1	65°43'19"N, 128°49'08"W
71 ARCO Clarke et al. Mountain River H-47	65°48'23"N, 129°07'50"W
72 CanDel et al. SOCB Mountain R. A-23	65°42'14"N, 129°19'12"W
73 BP et al. Loth Lake O-22	65°51'20"N, 129°19'35"W
74 Atlantic et al. Kenne K-62	65°55'25"N, 128°34'25"W
75 Atlantic et al. Shoals C-31	65°50'07"N, 128°51'45"W
76 ARCO Clarke et al. Hume River D-53	65°52'03"N, 129°11'00"W
77 Triad BP Arco CC Hume R. O-62	65°51'46"N, 129°12'04"W
78 Triad BP Arco CC Hume R. A-63	65°52'12"N, 129°09'46"W
79 Mobil INC NCO Sun Ontario L. N-39	66°18'45"N, 128°21'38"W
80 Glacier et al. Hare Indian No. 1	66°17'23"N, 128°37'30"W
81 Glacier et al. Ramparts No. 1	66°14'48"N, 128°39'48"W
82 Atlantic et al. Manitow Lake L-61	66°20'40"N, 128°58'30"W
83 Decalta Texas Ocean CGCA Ontario L-38	66°17'40"N, 131°51'00"W
84 Union Decalta Good Hope A-40	66°29'10"N, 124°35'52"W
85 Glacier et al. Loon River No. 1	66°28'26"N, 128°56'24"W
86 Atlantic S.W. Airport Creek No. 1	66°21'10"N, 129°14'44"W
87 Atlantic N. Circle River No. 1	66°26'58"N, 130°28'52"W
88 Atlantic Circle River No. 1	66°26'38"N, 130°08'50"W
89 CanDel et al. Mobil Grandview L-26	66°35'32"N, 130°20'21"W
90 Atlantic et al. Ontario K-04	66°33'37"N, 130°46'10"W
91 Union IOL E. Manitow Lake L-61	66°57'54"N, 124°24'00"W
92 Mobil Bato Hills M-63	67°02'45"N, 128°27'43"W
93 Decalta et al. Rond Lake No. 3	67°07'00"N, 128°22'36"W
94 Decalta et al. Rond Lake No. 4	67°06'30"N, 128°24'00"W
95 Decalta et al. Rond Lake No. 5	67°06'00"N, 128°24'50"W
96 Decalta et al. Rond Lake No. 2	67°05'27"N, 128°25'42"W
97 Decalta et al. Rond Lake No. 1	67°04'47"N, 128°28'15"W
98 Richfield Oil Corp. et al. Grandview Hills No. 1	67°06'12"N, 130°52'30"W
99 Union Mobil Colville D-45	67°14'08"N, 125°20'38"W
100 Mobil Colville E-15	67°14'18"N, 126°19'25"W
101 Mobil Inexo NCO Sun Manuel Lake J-42	67°11'40"N, 129°23'15"W
102 Atlantic Little Chicago N-32	67°11'48"N, 129°06'55"W
103 Mobil Inexo NCO Sun Inouquo D-40	67°29'08"N, 129°32'30"W
104 Union Imp Stosover K-44	67°33'37"N, 129°31'16"W
105 Mobil INC NCO Sun Thunder River D-60	67°38'10"N, 129°12'00"W
106 Ashland et al. Tedi Lake F-24	67°43'25"N, 128°49'46"W
107 Canada Southern Carmanah River No. 1	67°44'40"N, 128°47'50"W
108 CanDel Mobil et al. Inouquo 111	67°40'40"N, 129°32'00"W
109 CDR Tania A-73	67°52'07"N, 130°43'1.56"W
110 CPOG Crossley Lk. S K-60	68°29'39"N, 129°29'14"W
111 Union Wolverine H-34	68°23'19"N, 130°38'00"W
112 CPOG Kugukuk N-92	68°31'58"N, 131°31'19"W
113 ARCO Smoking Hills A-23	68°22'06"N, 128°30'30"W
114 Eil et al. Kilguski F-29	68°28'38"N, 131°20'16"W
115 Eil et al. Imperial Amaguk H-16	68°35'24"N, 131°02'52"W
116 OIE Nalgnaik K-23	68°42'31"N, 131°36'44"W
117 OIE Nalgnaik H-50	68°49'27"N, 130°29'47"W
118 Imp CIGOL Nalgnaik K-53	68°42'39"N, 131°43'55"W
119 OIE Wilkinson H-25	68°44'20"N, 131°50'06"W
120 OIE Atkinson M-33	68°42'48"N, 131°54'43"W
121 Imp CIGOL Atkinson A-55	68°44'09"N, 131°57'54"W
122 Imp Horton River G-62	68°51'22"N, 127°16'56.25"W
123 Texaco C & E Nicholson N-45	68°59'50"N, 128°59'50"W
124 Texaco C & E Nicholson G-56	68°55'10"N, 129°00'10"W
125 OIE Nuvoona O-08	68°58'55"N, 129°30'58"W
126 Imp CIGOL Amaguk H-44	68°57'42"N, 128°12'23"W
127 OIE Kanguk H-24	68°53'40"N, 131°05'12"W
128 Imp CIGOL Kanguk F-42	68°51'26"N, 131°11'21"W
129 Imp Dome Louth K-45	68°54'32"N, 131°26'47"W

Geological cartography by D.J. Walter, 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

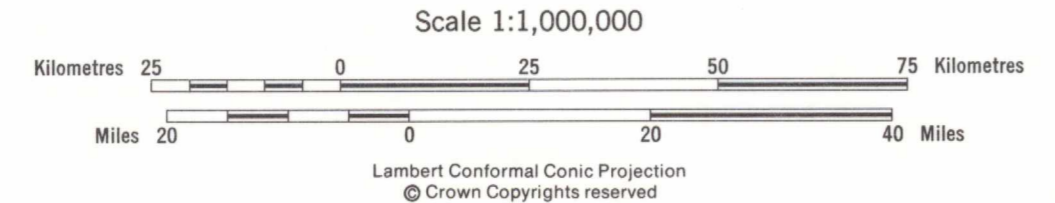
Base maps published at 1:1,000,000 scale (parts of Great Bear River, Horton River, Peel River and Frith River) by the Surveys and Mapping Branch, 1976

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

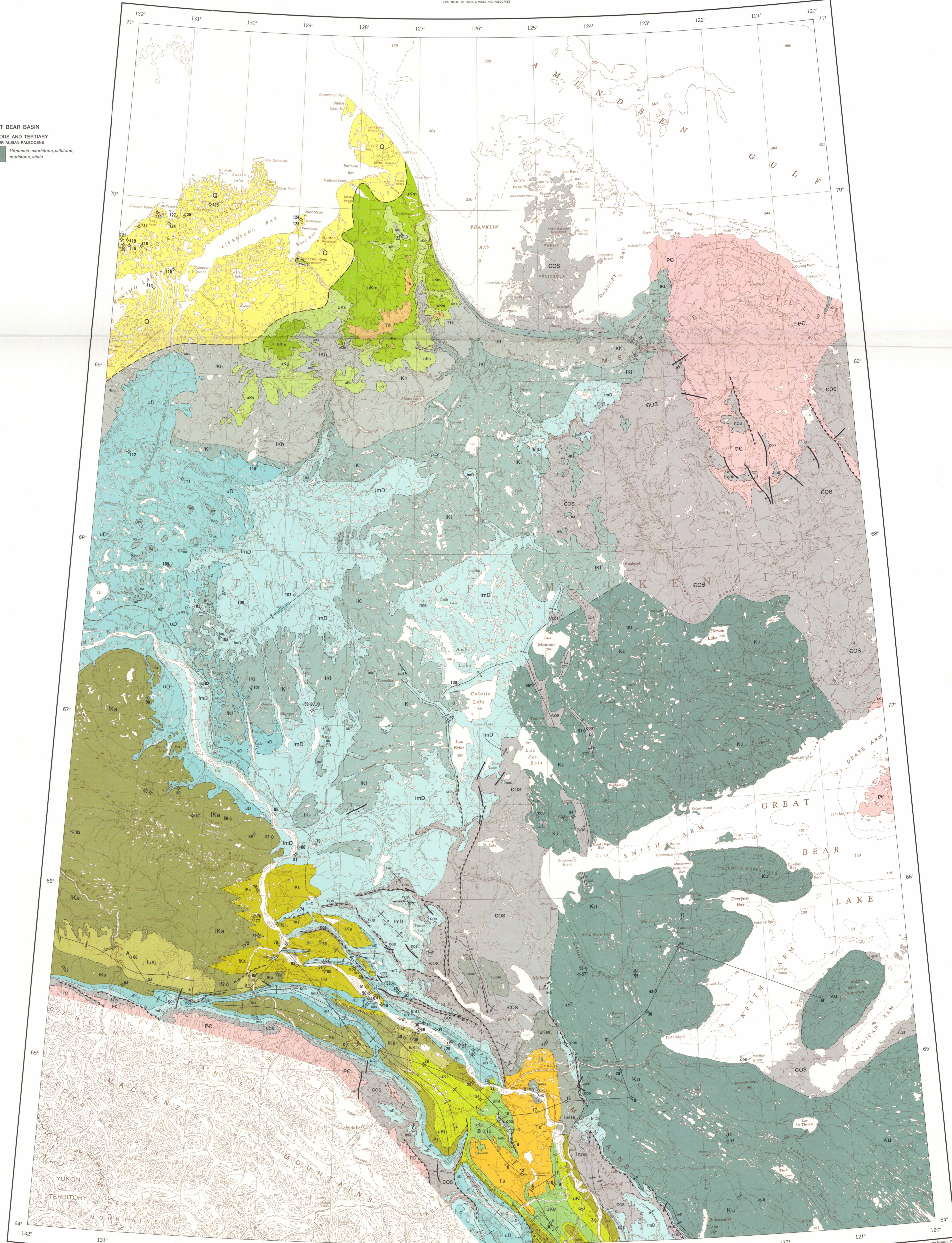
Magnetic declination 1980 varies from 38°25' E' easterly at centre of west edge to 39°13' E' easterly at centre of east edge. Mean annual change 12.2' westerly

Elevations in feet above mean sea level

MAP 1498A
GEOLOGY
GEOLOGICAL MAP OF THE NORTHERN INTERIOR PLAINS, NORTHWESTERN DISTRICT OF MACKENZIE



Scale 1:1,000,000
Lambert Conformal Conic Projection
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