

FRCL REPORT

BC. RECON

BRITISH COLUMBIA RECONNAISSANCE

1984 SOUTHERN BOWSER PROGRAM

NTS 93L

Volume 2

SECTION 8.3

R. BERG

~~Bindist~~
Director

8.3 GEOLOGICAL MAPS

part 2
794

SOUTH BOWSER MAP LEGEND

SEDIMENTARY AND VOLCANIC ROCKS

QUATERNARY

Pleistocene and Recent

14	alluvium, sand, gravel, till
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TERTIARY

Miocene

29	basalt
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Endako Group

Oligocene (?) and Lower Miocene

23	China Nose Breccias: coarsely bedded glassy basaltic breccia, rare vesicular basalt, waterlain sediments interbedded near base.
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Eocene and (?) Oligocene

15	Buck Creek Volcanics: massive, vesicular, or amygduloidal aphanitic andesite, dacite flows and breccias; minor basalts and sediments.
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CRETACEOUS AND TERTIARY

Ootsa Lake Group

Maestrichtian to Eocene

5	acidic volcanics undivided; rhyolite and dacite flows, tuffs, breccias, minor andesite; related feldspar and porphyry intrusions.
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Sustut Group (?)

Paleocene and Eocene

26

shale, acid tuff, minor greywacke, coal, conglomerate
26a with sandstone, 26b minor andesite.

CRETACEOUS

SKEENA GROUP

Upper Cretaceous (Albian and/or Younger)

27

Brian Boru Formation: acid to intermediate volcanics, rhyolite flows, breccia, and tuff; biotite and hornblende porphyry flows, breccia, and lahar; tuffaceous siltstone, sandstone, conglomerate, minor basalt.

16

Skeena Breccias: (part of Brian Boru Formation) mainly coarse breccias of andesitic to dacitic composition.

Albian, Cenomanian, and (?) Younger

19

Red Rose Formation: well bedded sandstone, chert pebble conglomerate, red gritty siltstone, and tuff.
19c - micaceous greywacke, black to dark grey shale; minor conglomerate and coal.
19n - black to grey shale, chert pebble conglomerate; minor micaceous greywacke.

Albian

19a

Rocky Ridge Volcanics: alkaline augite porphyry, hornblende feldspar porphyry, tuff, breccia, and agglomerate - lahar, olivine porphyry, basalt, aquagene basalt, tuff, breccia, and flows.

Hauterivian to Albian

20

Kitsun Creek Sediments: sandstone, chert and quartz pebble conglomerate, siltstone, shale, muscovite common; minor coal; detrital, mainly alluvial, interfingers in part with 30.

Hauterivian

30

pyritic, concretionary, black shale, minor interbedded sandstone; minor thin bedded grey limestone.

JURASSIC AND CRETACEOUS

UPPER JURASSIC AND LOWER CRETACEOUS

Bowser Lake Group

11

Bowser Lake Group: (undivided), siltstone, greywacke, sandstone, conglomerate, minor limestone and coal.

Hauterivian (?)

11e

Upper Bowser Lake Subdivision: Lower Floodplain Facies, channel sandstone dominant; overbank sandstone, siltstone, shale and coal; minor conglomerate with dominant carbonaceous and volcanic detritus; biotite, minor chert, rare muscovite.

Kimmeridgian to Hauterivian (?)

11c

Intermediate Bowser Lake Subdivision

11c, undifferentiated, detritus mainly volcanic, minor granite
11cdf, Deltaic Front (intertidal) Facies, interbedded channel and overbank facies, ripple and plane laminated sandstone - siltstone, worm burrows and *Ostrea* - sandstone.

11cl, Lower Floodplain Facies, interfingering channel sandstone - conglomerate and overbank sandstone, siltstone, shale, and marl; minor coal

11cuf, Upper Floodplain Facies, channel sandstone and conglomerate, subordinate overbank sandstone, siltstone, shale and marl; minor coal.

Upper Oxfordian and Kimmeridgian

11d Lower Bowser Lake Subdivision:

11d, undifferential; detritus mainly volcanic, minor granitic, minor grey limestone

11ddf, Deltaic Front (intertidal) Facies, interbedded channel sandstone and conglomerate, ripple and plane laminated sandstone, siltstone, shale, minor coal, thick shelled pelecypod beds, including Ostrea, worm burrows common.

11dd, Deltaic Plain Facies, dune, rippled and plane laminated sandstone, shale, isolated thin-shelled pelecypods, minor Ostrea sandstone members.

11ds, Deltaic Slope Facies, fine grained siltstone, black shale, interbedded sandstone.

LOWER AND/OR UPPER OXFORDIAN

21 Netalzul Volcanics: intermediate hornblende, biotite and augite porphyry flows, breccia, tuff, and agglomerate.

11a Trout Creek Beds: Lower Beach Facies, greywacke, conglomerate, siltstone, conquinoid limey greywacke or siltstone (may be further divided into an) Upper Fan-Channel Facies, conglomerate, sandstone, siltstone, volcanic and granitic detritus; minor coal.

MIDDLE AND UPPER JURASSIC

Callovian and Lower Oxfordian

11b Ashman Formation: dark grey to black marine shale, quartzose sandstone, greywacke, and chert pebble conglomerate.

LOWER AND MIDDLE JURASSIC

Hazelton Group
Bajocian and Bathonian

24 Smithers Formation: feldspathic, volcanic sandstone, greywacke, siltstone, shale, tuff, and tuffaceous sediments, glauconitic sandstone; (second member) minor conglomerate and sharpstone conglomerate; very fossiliferous.

Pliensbachian to Bajocian

25

Nilkitkwa Formation:

(undivided): well bedded tuffaceous greywacke, siltstone, shale, sandstone, sharpstone conglomerate; ash fall tuff, lapilli, tuff, blue-grey tuff, breccia, minor limestone, aquagene, basalt, breccia, ash flow tuff-breccia, diabase sills.

TOARCHIAN AND BAJOCIAN

25r

Nilitkwa Formation
Red Tuff Member:

non-marine red, maroon, green tuff, flow, and breccia, basalt, andasite, dacite, and rhyolite.

SINEMURIAN

18

Telkwa Formation:

Three members; 1) subaerial calc-alkaline volcanics, red tuff, lapilli tuff, and breccia, amygduloidal basalt, andesite flows and breccia, rhyolite-dacite flow breccia and tuff, interbedded volcanic conglomerate, sandstone and mudstone. 2) interbedded acid-intermediate red tuff, lapilli tuff, breccia, red mudstone and sandstone and cobble conglomerate with granitic-volcanic detritus. 3) marine basalt-andesite green laminated tuff and breccia, broken pillow breccia, limestone, volcanic breccia with a limestone matrix, amygduloidal flow and breccia, dacite-rhyolite breccia and tuff, greywacke, argillite and sharpstone conglomerate.

INTRUSIVE ROCKS

TERTIARY AND EOCENE

28

Babine Intrusions:

undifferentiated; biotite - feldspar porphyritic granodiorite or quartz diorite.
28d microdiorite
28r rhyolite - quartz eye porphyry - breccia.

4

Alice Arm Intrusions:

quartz, monzonite porphyry, quartz feldspar porphyry, quartz diorite stocks, plugs and dykes.

4a

Nanika Intrusions:

quartz monzonite, felsite, in part porphyritic.

Eocene and Older

3

Coast Plutonic Complex:

granite rocks; quartz diorite; granodiorite, quartz monzonite, locally foliated and/or gneissic, some granitic migmatite complexes, minor diorite and gabbro.

LATE CRETACEOUS

26

Bulkley Intrusions:

porphyritic granodiorite and quartz monzonite.

Late Cretaceous and Eocene

2a

Undivided:

quartz diorite, quartz monzonite and grandodiorite, in part porphyritic, many small felsite plutons.

JURASSIC

Early Jurassic

1a

Topley Intrusions:

undivided: quartz monzonite, quartz diorite, grandiorite, monzonite.

SOURCES OF INFORMATION

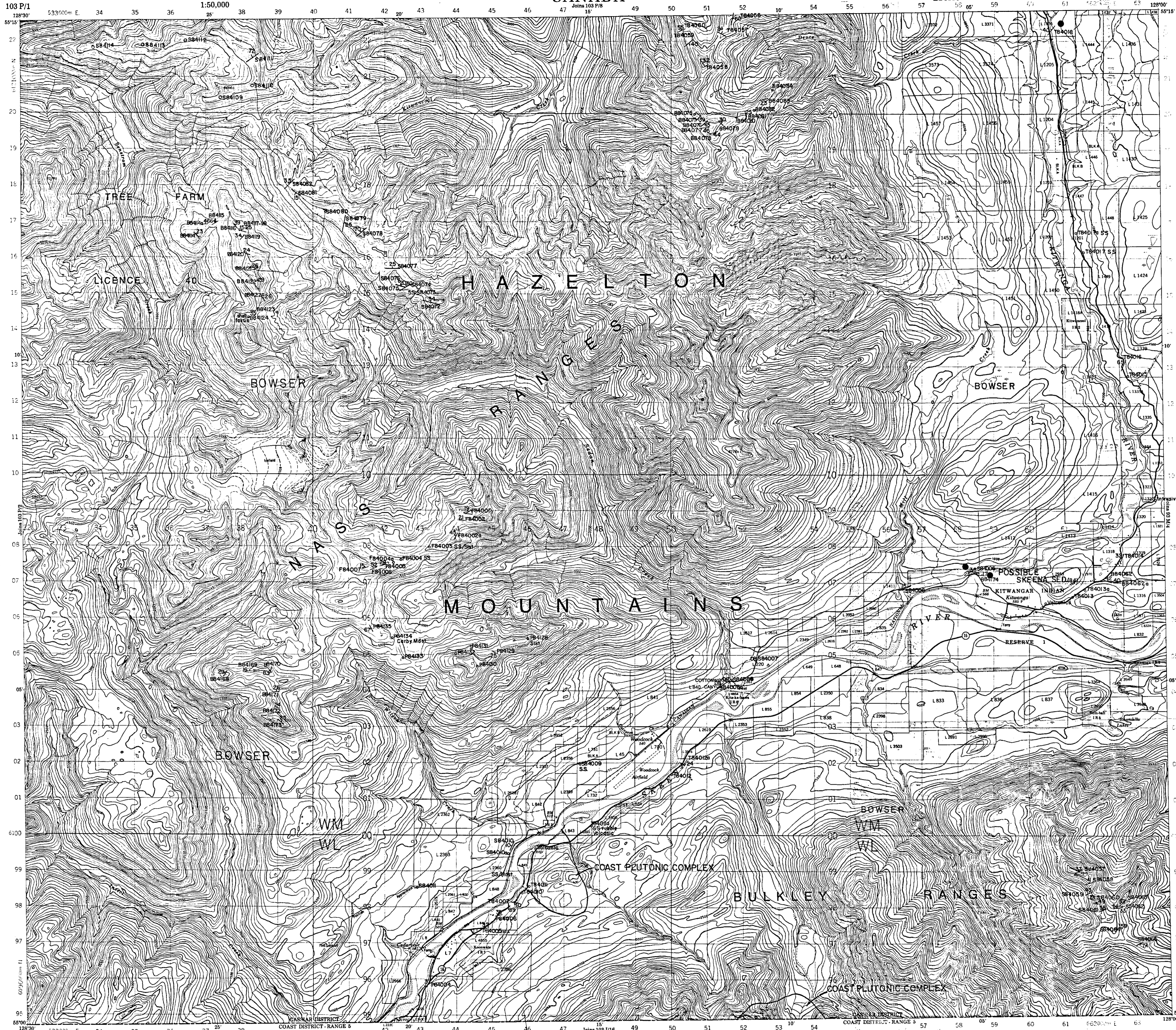
1976 G.S.C. (93L Smithers) Map - (Field work by T.A. Richards 1970-71
and H.W. Tippa 1969-71)

1976 Surveys and Mapping Branch, Department of Energy, Mines and Resources
(93M Hazelton)

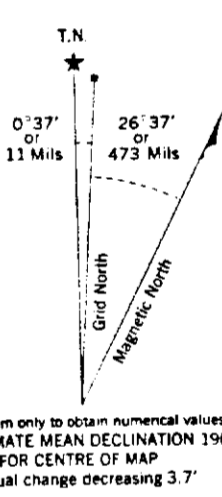
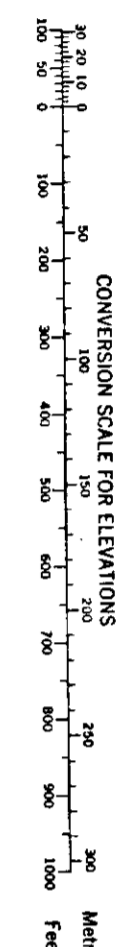
British Columbia Department of Mines and Petroleum Resources Map 69-1
(geological compilation map of the Smithers, Hazelton, and
Terrace areas compiled by N.C. Carter and R.V. Kirkham).

COAL OCCURRENCES ON MAP

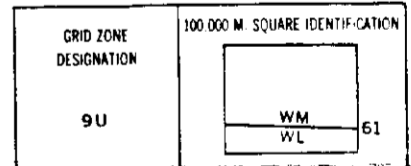
- - Outcrop
- ▲ - Float
- - Bloom



Refer to this map as: 103 P/1 EDITION 1 M.C.E. SERIES A 721



ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 9



EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO NEAREST 100 METRES (THE EASTING DOES NOT REFER TO A POINT ON THIS MAP)

EASTING	Read number or grid line immediately to left of point	97
NORTHING	Read number or grid line immediately below point	01
EXAMPLE	Multiplies grid reference by 100	9701

Nearest square grid reference 100 000 metres (3280 1/2 feet)

00794
 pt 2
 ①

Produced 1967 by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND TECHNICAL SERVICES, from aerial photographs taken in 1956. Partially updated from 1960 reconnaissance photos. Field sheets 151 and 152, Printed 1970

Roads:
 hard surface, all weather:
 hard surface, all weather:
 loose or stabilized surface, all weather:
 loose surface, dry weather and

KITWANGA
 BRITISH COLUMBIA

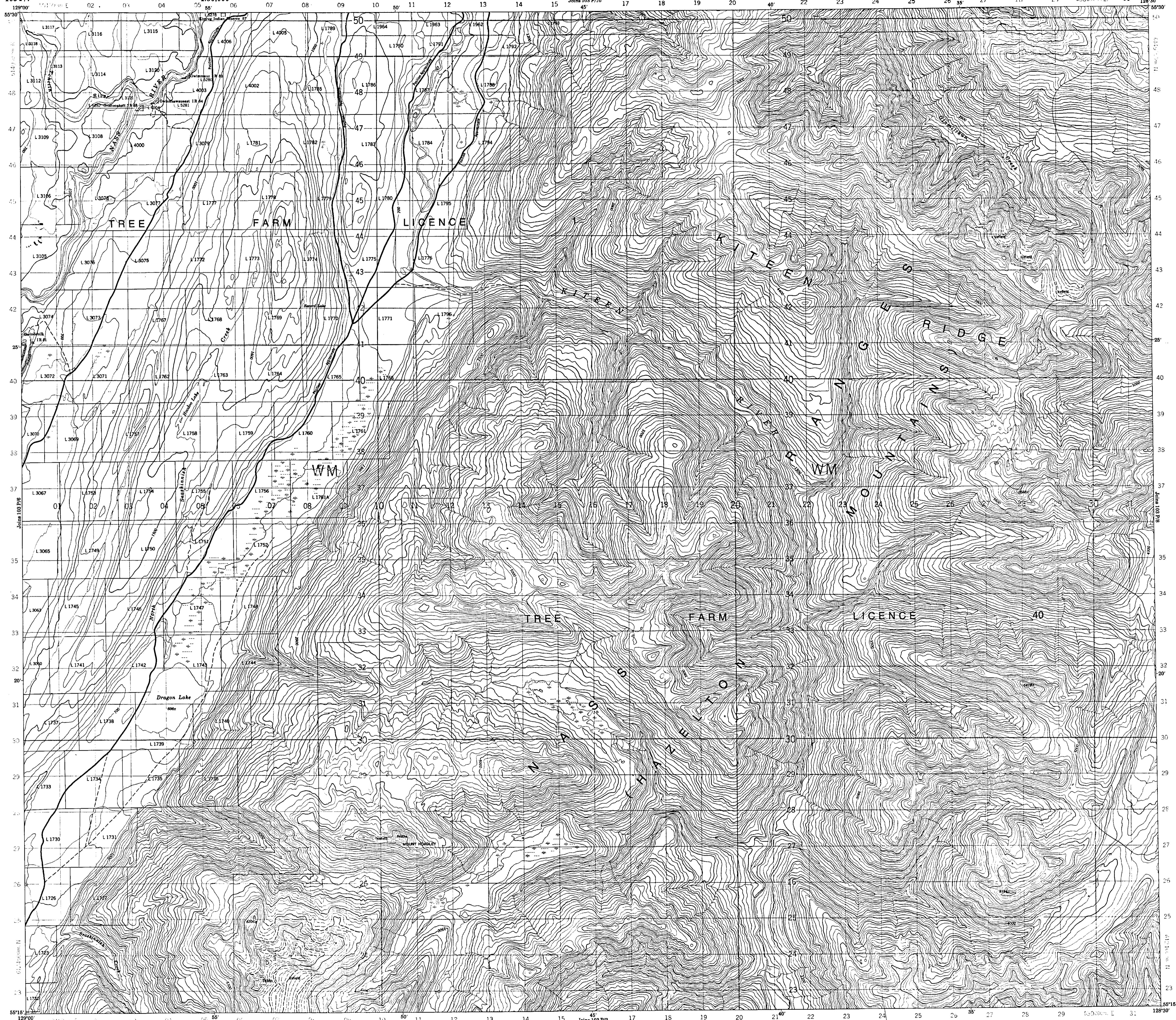
Scale 1:50,000 Échelle

This Provisional Map is equivalent to a standard map accuracy of 1:50,000.

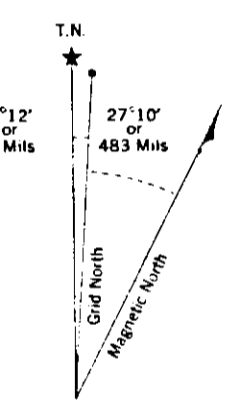
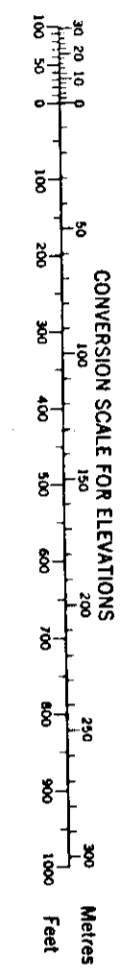
Cette carte provisoire équivaut à une carte d'exactitude normale de 1:50,000.

794

Échelle au 1:50 000
 Ce carte peut être utilisée au Bureau de distribution des cartes, Imprimerie de l'énergie, des mines et des services techniques.

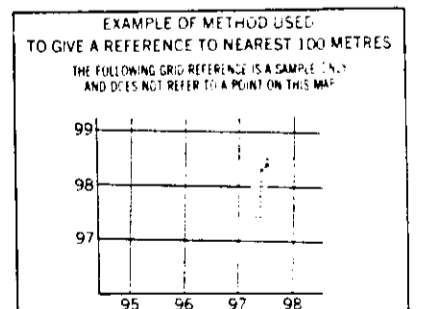
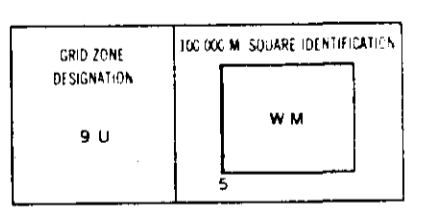


Refer to this map as:
103 P/7
EDITION 1
SERIES A 721



Use diagram only to obtain numerical values.
APPROXIMATE MEAN DECLINATION 1966
FOR CENTRE OF MAP
Annual change decreasing 3.8"

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 9



REFERENCE POINT	CHURCH	TRAYBOURNE
EASTING	97	97
NORTHING	55	55
EXAMPLE MILITARY GRID REFERENCE	97500	55000

00794
Pt 2
②

KITEEN RIVER
CASSIAR DISTRICT
BRITISH COLUMBIA
Scale 1:50,000 Échelle

794

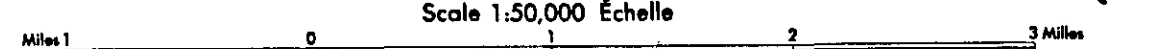
This Provisional Map is equivalent to a standard map in accuracy of content.

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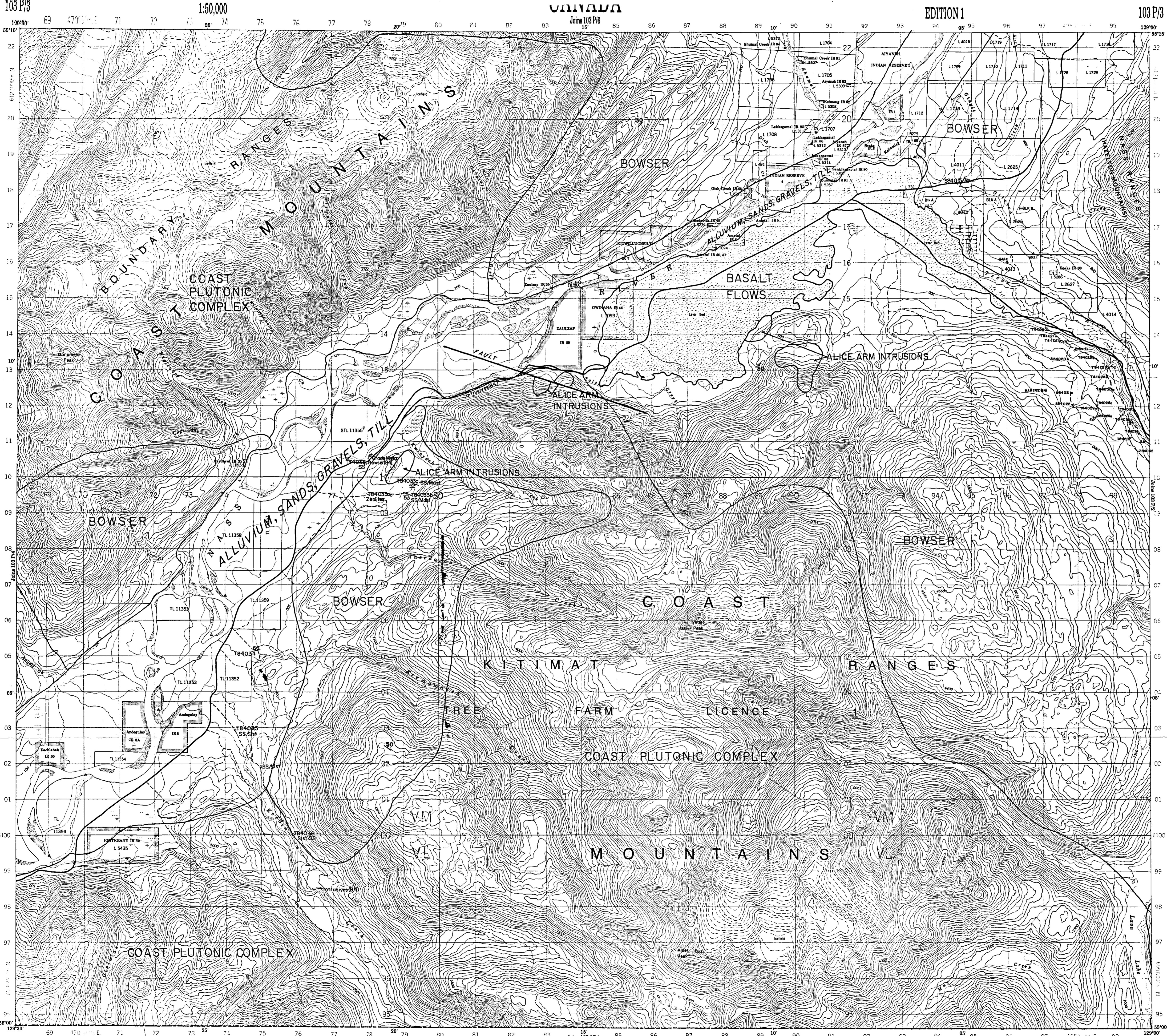
Éditée en 1967 par la DIRECTION DES LÉVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES, d'après les informations géométriques de 1956. Révisé à partir d'informations de données d'information géométriques en 1967. Levés sur le terrain en 1952. Imprimée en 1970.

Produced 1967 by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES. Such aerial photographs taken in 1956. Particular updated from 1967 provisional information. Field surveys 1952. Printed 1970.

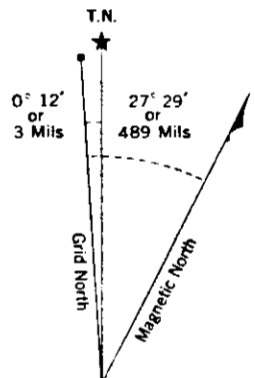
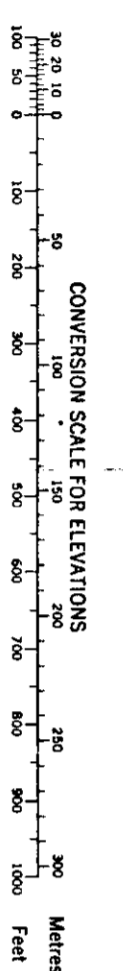
Roads: loose for stabilized surface, all weather...
Rivers: loose surface, dry weather and...
Contours: 2 metres or more...
Scale: 1:50,000 Échelle



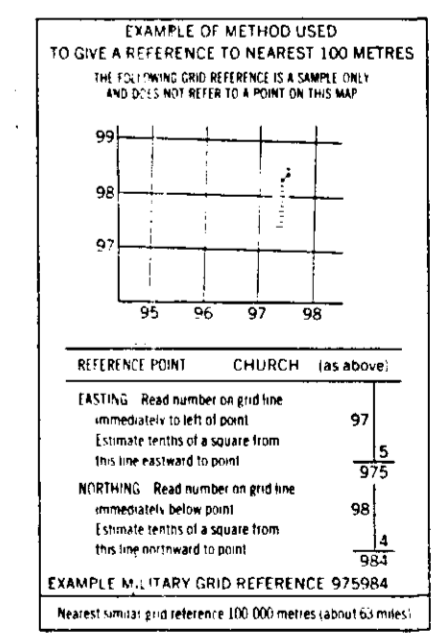
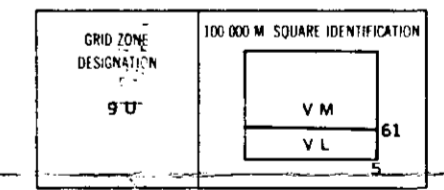
CONTINUED INTERVAL 100 FEET
ÉQUIDISTANCE DES COURBES 100 PIEDS



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ONE THOUSAND METRE
 UNIVERSAL TRANSVERSE MERCATOR GRID
 ZONE 9

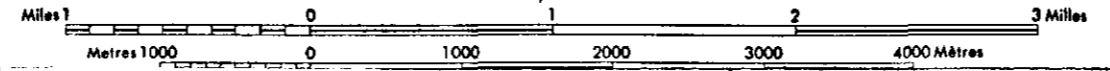


00794
 pt 2
 ③

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Roads: loose or stabilized surface, all weather; loose surface, dry weather and unclassified streets; cart track.
 Routes: loose or stabilized surface, all weather; loose surface, dry weather and unclassified streets; cart track.

TSEAX RIVER
 CASSIAR DISTRICT
 BRITISH COLUMBIA
 Scale 1:50,000 Échelle



This Provisional Map is equivalent to a standard map in accuracy of content.
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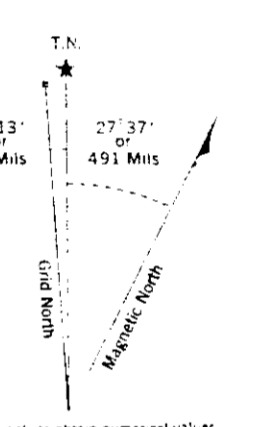
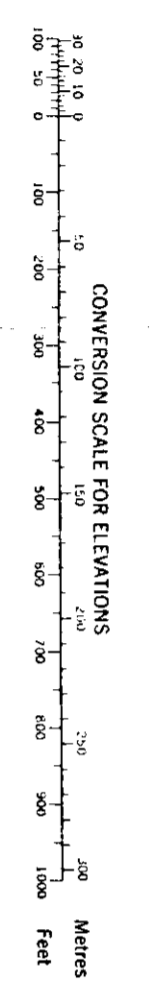
794

Échelle en 1967, par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. À partir de photographies aériennes prises en 1956. Partiellement basée sur des informations photogrammétriques prises en 1967. Première édition en 1962. Réimpression en 1970.

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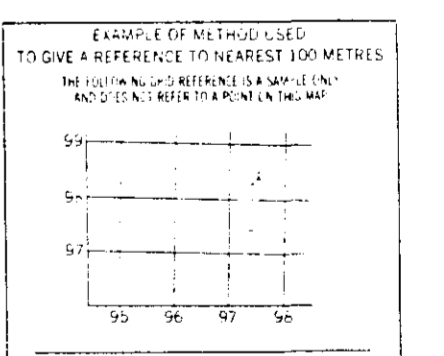
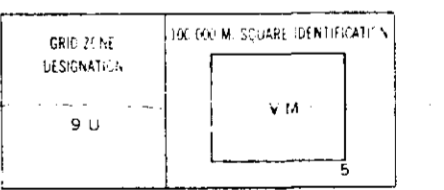


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USE MAGNETIC DATA TO CORRECT NUMERICAL VALUES. APPROXIMATE MEAN DECLINATION 1956 FOR CENTRE OF MAP. ANNUAL CHANGE DECREASING 3.7'

ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 9



REFERENCES: 1. S.T. Chart of the area. 2. EASTING: PLACEMENT OF THE GRID LINE IS TO THE NEAREST 100 METRES. 3. NORTHING: PLACEMENT OF THE GRID LINE IS TO THE NEAREST 100 METRES. 4. BOUNDARY: PLACEMENT OF THE GRID LINE IS TO THE NEAREST 100 METRES. 5. COASTLINE: PLACEMENT OF THE GRID LINE IS TO THE NEAREST 100 METRES. 6. PLACEMENT OF THE GRID LINE IS TO THE NEAREST 100 METRES. 7. PLACEMENT OF THE GRID LINE IS TO THE NEAREST 100 METRES. 8. PLACEMENT OF THE GRID LINE IS TO THE NEAREST 100 METRES. 9. PLACEMENT OF THE GRID LINE IS TO THE NEAREST 100 METRES. 10. PLACEMENT OF THE GRID LINE IS TO THE NEAREST 100 METRES.

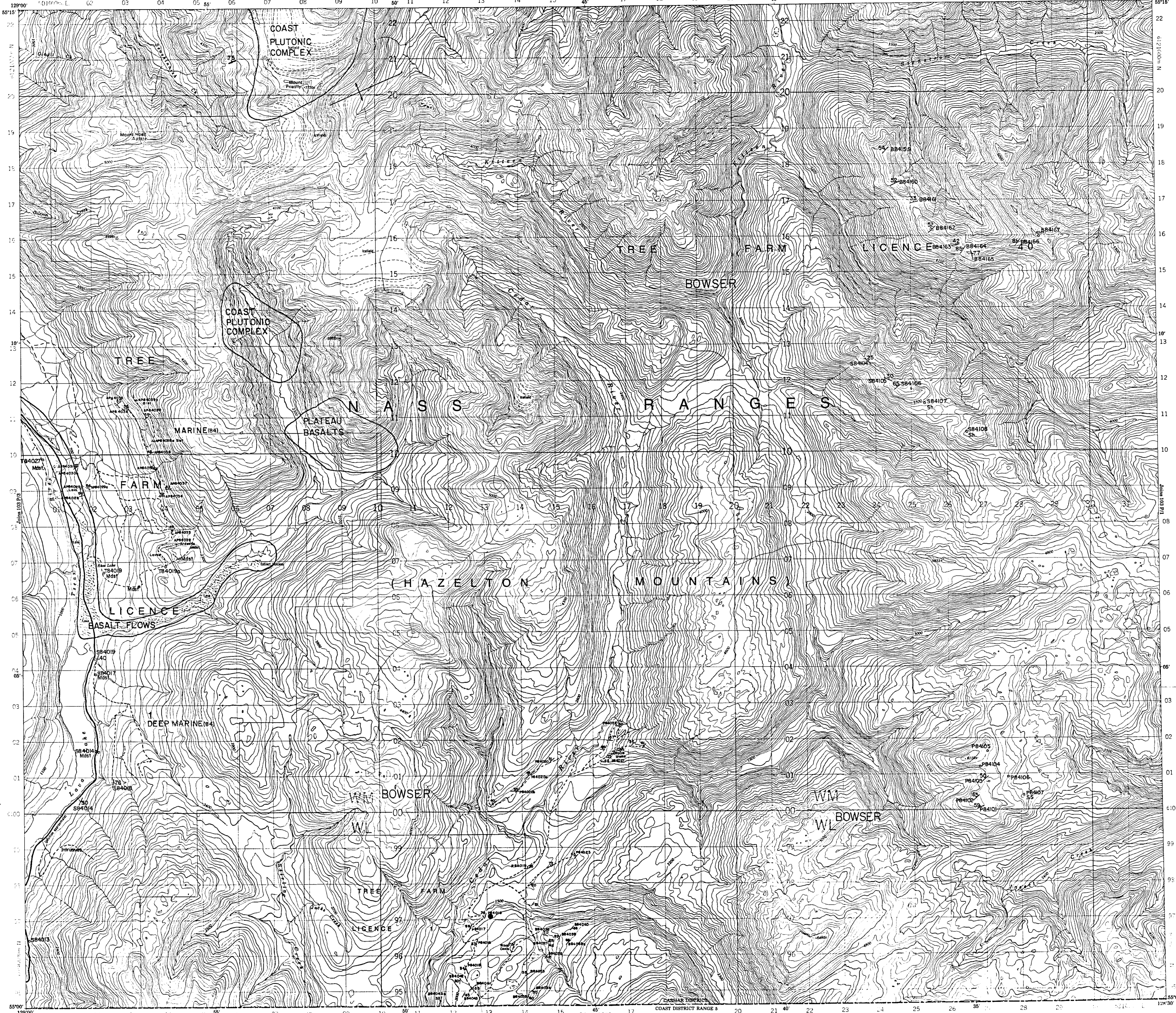
ALICE ARM INTRUSION—4

00794 Pt 2

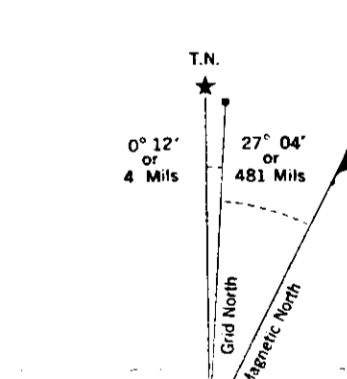
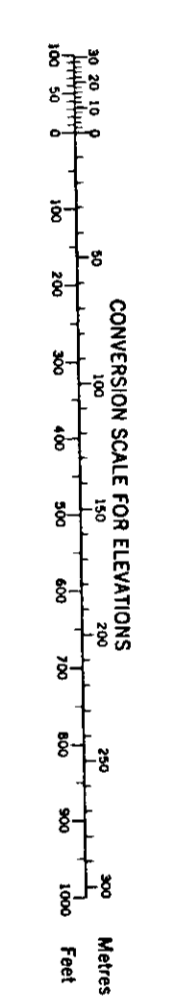
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AIYANSH CASSIAR DISTRICT BRITISH COLUMBIA Scale 1:50,000 Échelle

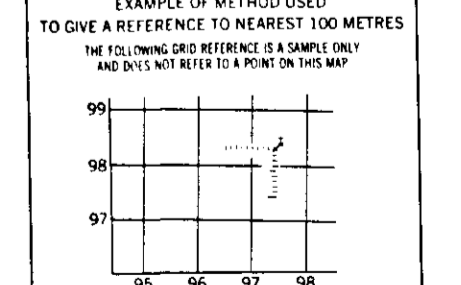
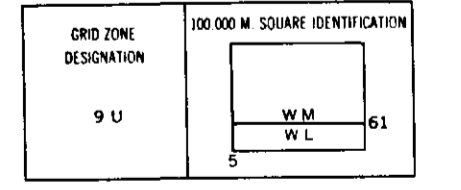


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Use diagram only to obtain numerical values. APPROXIMATE MEAN DECLINATION 1966 FOR CENTRE OF MAP Annual change decreasing 3.7'

ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 9



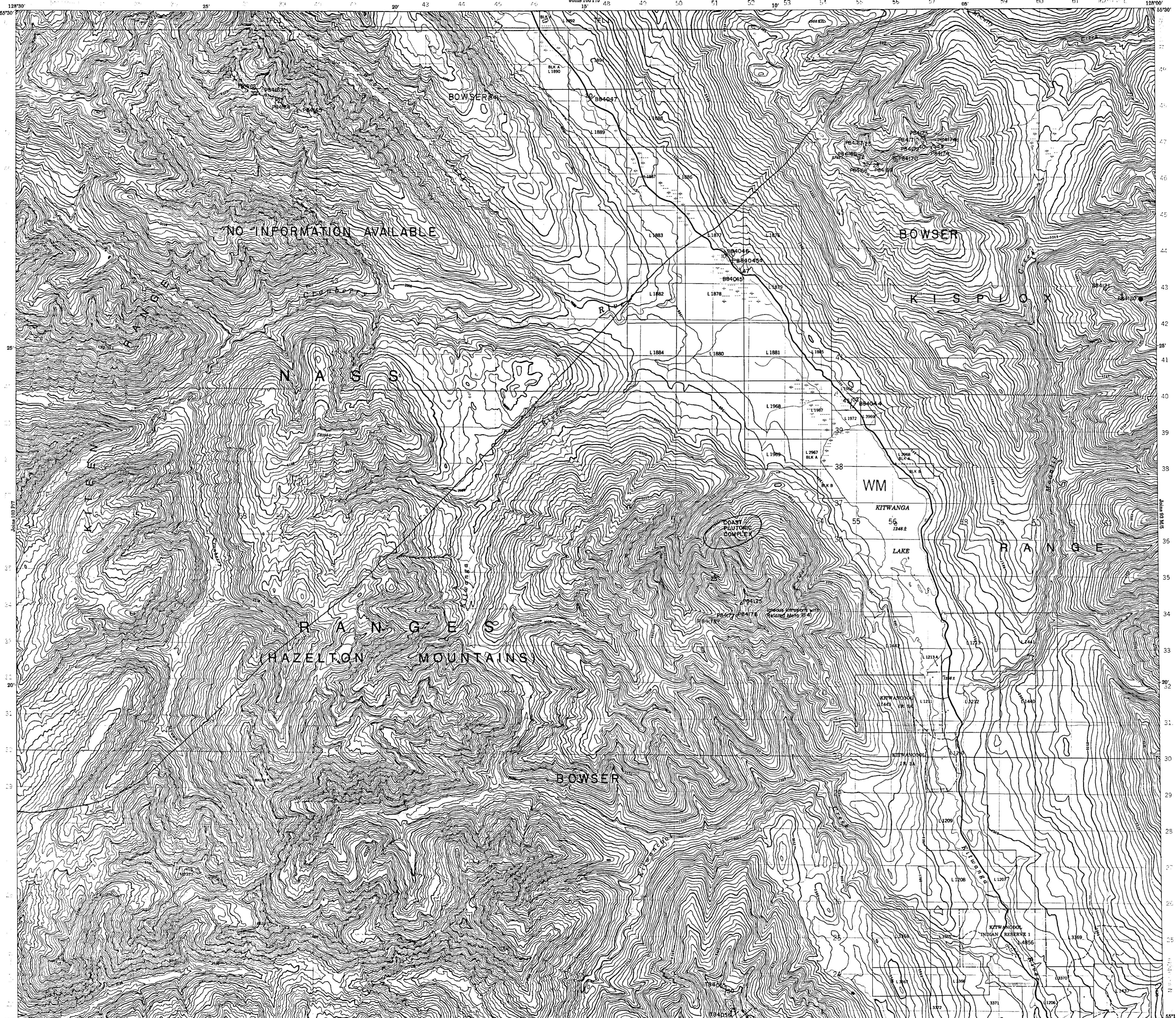
REFERENCE POINT	CHURCH (see above)
EASTING: Read number on grid line immediately to left of point	97
Estimate tenths of a square from this line and north to point	97.5
WESTING: Read number on grid line immediately below point	98
Estimate tenths of a square from this line and west to point	98.2
EXAMPLE MILITARY GRID REFERENCE	975884

Nearest similar grid reference 100,000 metres (about 6.3 miles)
00794
Pt. 2
5

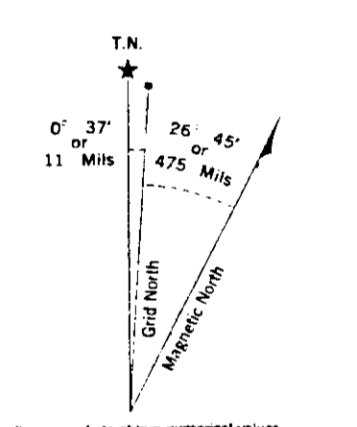
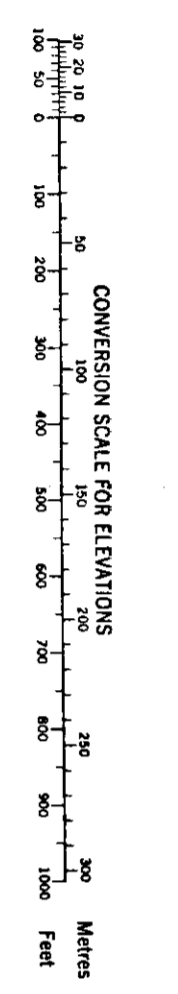
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103 P/8
EDITION 1 MCE
SERIES A 71



The diagram only to obtain numerical values.
APPROXIMATE MEAN DECLINATION 1966
FOR CENTRE OF MAP
Annual change decreasing 38'

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 9

GRID ZONE DESIGNATION	100 000 M SQUARE IDENTIFICATION
9U	WM

EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO NEAREST 100 METRES

The following grid reference is given: 97 96 97 96

INDICATES REFERENCE TO A POINT 100 METRES

REFERENCE POINT	CHURCH	100 000 M
EASTING	Read number on grid line immediately to left of point	97
	Estimate tenths of a square 100 m	96
	This line extended to point	97
NORTHING	Read number on grid line immediately below point	96
	Estimate tenths of a square 100 m	97
	This line extended to point	96

EXAMPLE MILITARY GRID REFERENCE 975034

Nearest 100 m grid reference 100 000 metres (about 62 miles)

00794
Pt. 2
⑥

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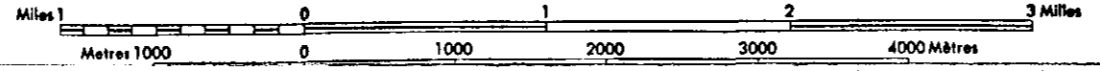
Roads:
loose or stabilized surface, all weather...
loose surface, dry weather and unclassified streets...
cart track.

Routes:
gravel aggloméré, toute saison...
de gravier, temps sec et de terre.

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KITWANGA LAKE
CASSIAR DISTRICT
BRITISH COLUMBIA

Scale 1:50,000 Échelle

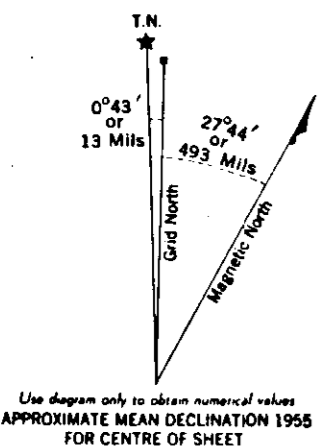
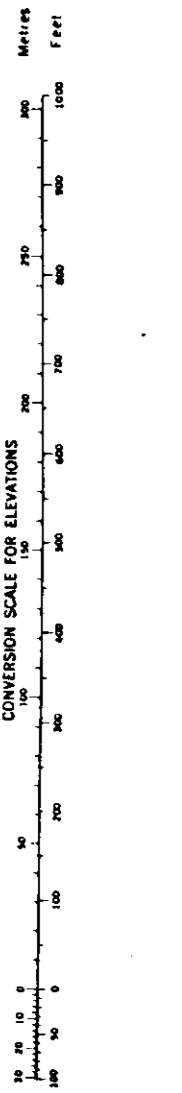
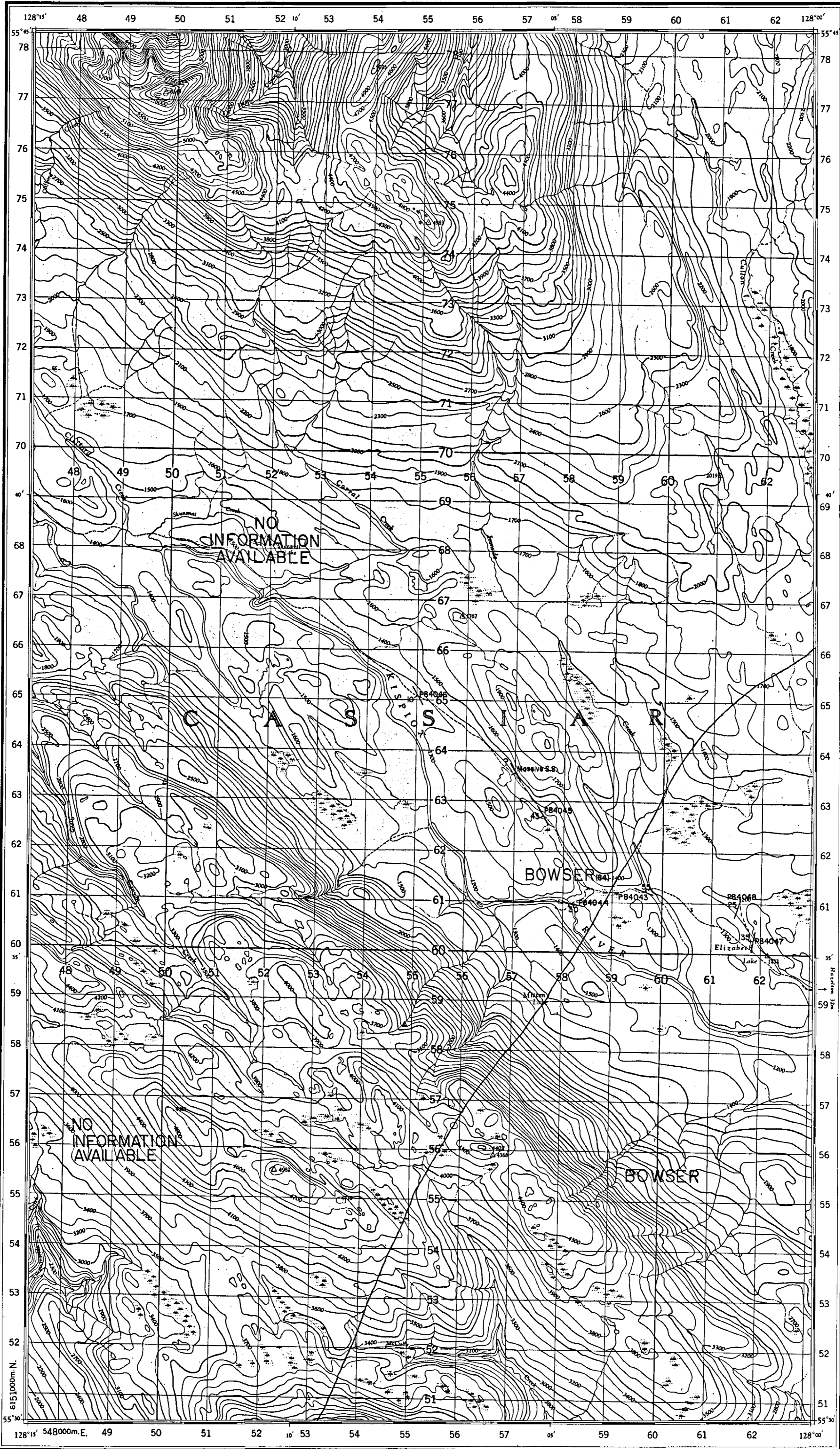


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Établie en 1967 par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES, à partir des photographies aériennes prises en 1956. Levés sur le terrain en 1962. Mise à jour partielle d'après des renseignements provinciaux en 1967. Imprimée en 1968.

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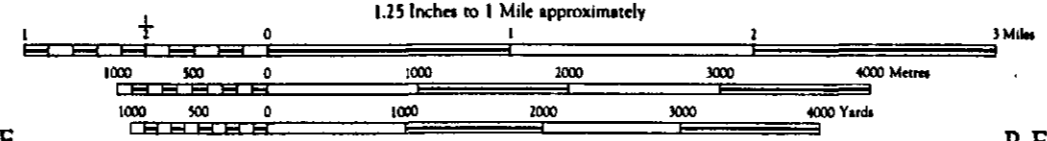
Surveyed and compiled by the Survey and Mapping Branch, Department of Lands and Forests, British Columbia, 1949-53. Aerial photography by the R.C.A.F., 1949. Cartography and reproduction by the Army Survey Est. R.C.E., Department of National Defence, 1953-55.

KISPIOX RIVER

BRITISH COLUMBIA

MAGNETIC DECLINATION 28° 37' EAST AT CENTRE OF MAP, 1955. Annual magnetic change 4' westerly.

Scale 1:50,000
1.25 Inches to 1 Mile approximately



TO GIVE GRID REFERENCE ON THIS SHEET FIGURES, IGNORE THE SMALLER FIGURES PRINTED AROUND THE MARGIN OF THE MAP. THESE ARE FOR FINDING THE FULL CO-ORDINATES. USE ONLY THE LARGER FIGURES PRINTED IN THE MARGIN OR ON THE FACE OF THE MAP. (VI. 54B)

POINT HORIZONTAL CONTROL POINT FOR STANDARD MILITARY GRID REFERENCE	
East	North
55	66
9	7
553	667
STANDARD MILITARY GRID REFERENCE 559667 (to nearest 100 Metres)	
Nearest similar grid reference 100 000 Metres (Approximately 63 Miles)	

REFERENCE

Roads: hard surface, all weather	more than 2 lanes
hard surface, all weather	2 lanes, any use
hard surface, all weather	less than 2 lanes
low surface, all weather	all weather
low surface, all weather	not all weather
Cart Track, Trail	Cart Track, Trail
Railways: normal gauge, multiple track	Section
normal gauge, single track	Spot
abandoned, or under construction	Siding
narrow gauge, single track	Siding
Bridge, underpass or overpass	Spot
Tunnel	Spot
Boundaries, International	Spot
County or District	Spot
Township or Parish	Spot
City or Town	Spot
Reservation, Indian, Military, etc	Spot
Power Transmission Line	Spot
Telephone or Telegraph, trunk route	Spot
Horizontal Control Point	Spot
Boundary Marker	Spot
Bench Mark	Spot
Spot Elevation, (in feet)	Spot
Mine or Pit	Spot

Contour Interval 100 Feet
Elevations in Feet above Mean Sea Level.
Universal Transverse Mercator Projection
North American Datum 1927

REFERENCE

House, Building	Lighthouse
School	Wharf or Pier
Church	Foreshore Flats
Post Office	Swamp or Marsh
Tower, Radio Mast, Lookout, etc	Lake or Pond, permanent
Cemetery	Clacier or Snowfield
Quarry	Stream, intermittent, indefinite
Sand or Gravel Pit	Irrigation Canal, Ditch
Cliff	Inundated Land, seasonal
Cutting	Contours, elevation
Embankment	depression
Dry River Bed	approximate
	Forest, unclassified

INDEX TO ADJOINING SHEETS

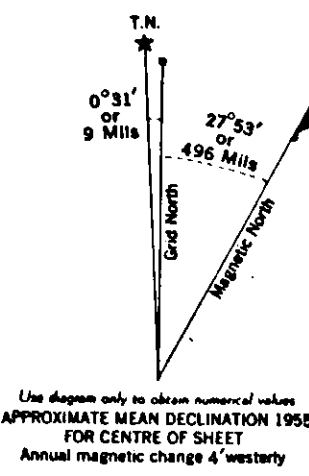
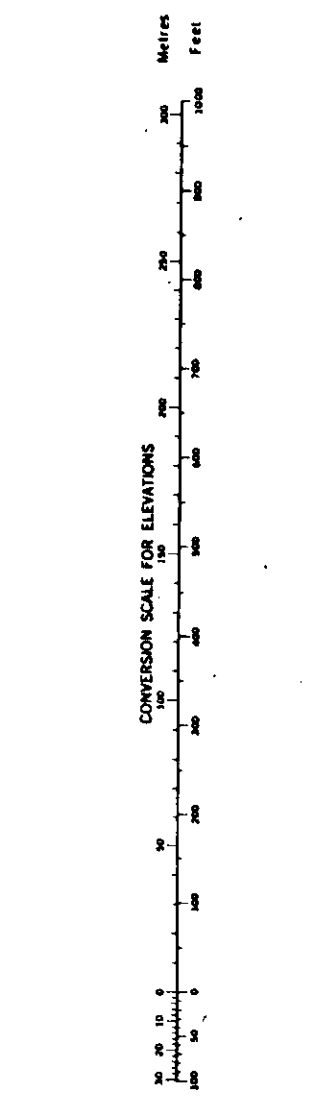
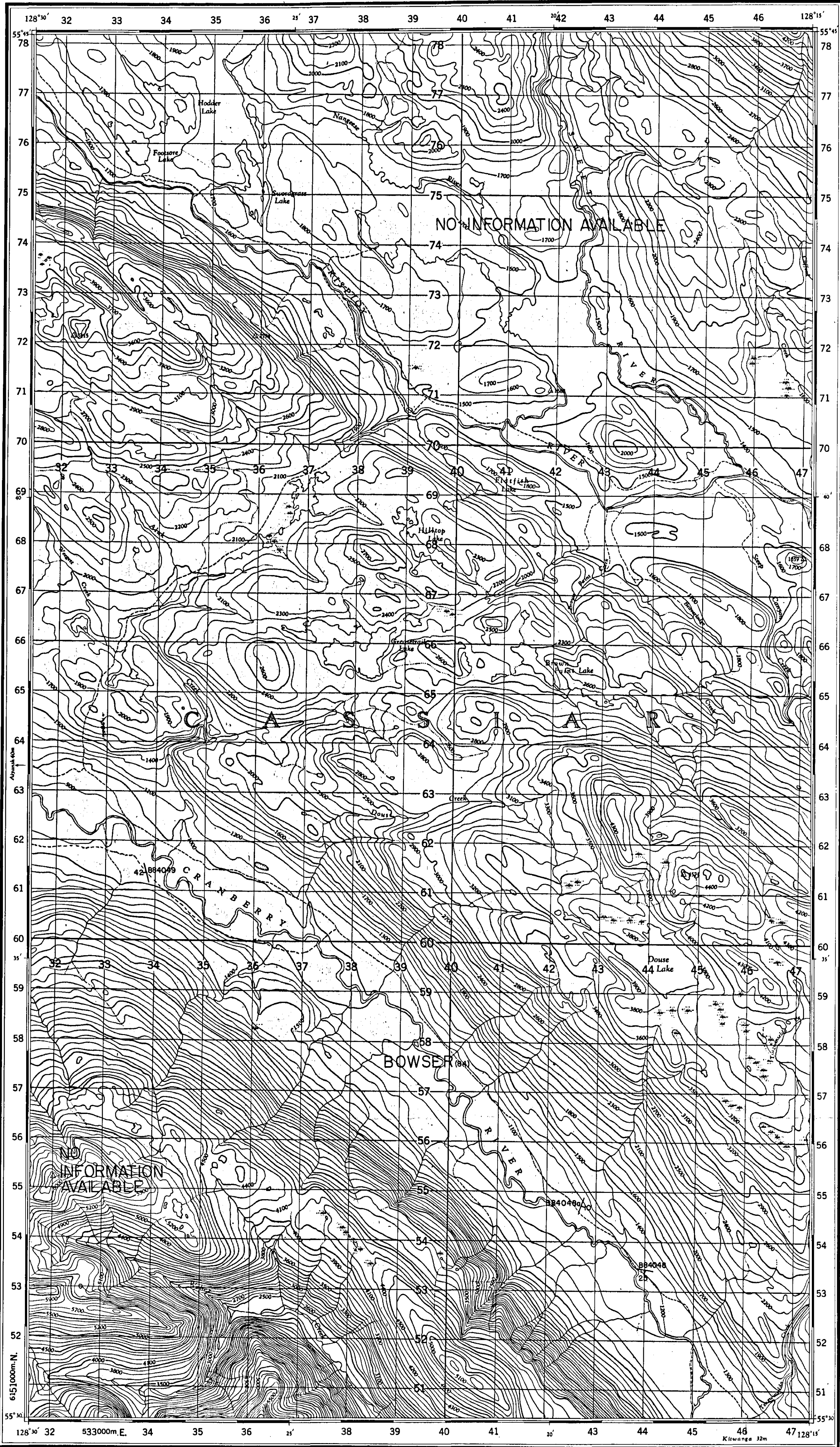
103 P/14	103 P/16	93 W/10
BROWN BEAR LAKE		
103 P/12	103 P/18	93 W/12
CANABERRY RIVER	KISPIOX RIVER	KISSEGAS
103 P/7	103 P/11	93 W/7
BITNINSA LAKE	HAZELTON	

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 9

794

00794
P 2
7

Refer to 103 P/9 West Half
this Map as: EDITION 1 ASE
SERIES A 721



Use figures only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1955
FOR CENTRE OF SHEET
Annual magnetic change 4' westerly

Surveyed and compiled by the Survey and Mapping Branch,
Department of Lands and Forests, British Columbia, 1949-53
Aerial photography by the R.C.A.F. 1949
Cartography and reproduction by the Army Survey Est. R.C.E.
Department of National Defence, 1953-55

KISPIOX RIVER

BRITISH COLUMBIA

MAGNETIC DECLINATION 27° 53' EAST
AT CENTRE OF MAP, 1955
Annual magnetic change 4' westerly

00794
Pt. 2
②

TO GIVE GRID REFERENCE ON THIS SHEET
FIGURES. IGNORE THE SMALLER FIGURES PRINTED AROUND THE MARGIN
of the map. These are for finding the full coordinates.
USE ONLY THE LARGER FIGURES PRINTED IN THE MARGIN OR
ON THE FACE OF THE MAP. Viz. 533

POINT HORIZONTAL CONTROL POINT FOR STANDARD MILITARY GRID REFERENCE	
East	North
41	71
9	1
41911	7111
STANDARD MILITARY GRID REFERENCE 419111 (to nearest 100 Metres) Nearest similar grid reference 100,000 Metres (Approximately 63 Miles)	

Scale 1:50,000
1.25 Inches to 1 Mile approximately

REFERENCE		REFERENCE	
Roads: hard surface, all weather hard surface, all weather loose surface, all weather Cart Track, Trail	Boundary, International Province County or District Township or Parish City or Town Reservation, Indian, Military, etc	House, Building School Church Post Office Tower, Radio Mast, Lookout, etc Cemetery Quarry Sand or Gravel Pit Cutting Embankment Dry River Bed	Lighthouse Wharf or Pier Foreside Flats Swamp or Marsh Lake or Pond, permanent Glacier or Snowfield Stream, intermittent, midwinter Irrigation Canals, Ditches Inundated Land, seasonal Contours, elevation approximate Forest, unclassified

Contour Interval 100 Feet
Elevations in Feet above Mean Sea Level.

Universal Transverse Mercator Projection
North American Datum 1927

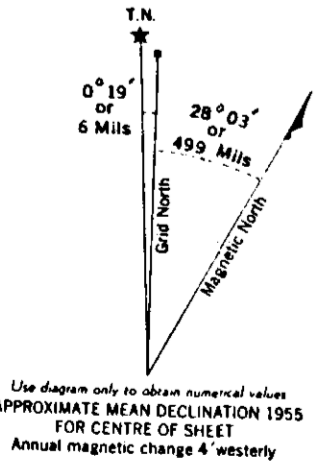
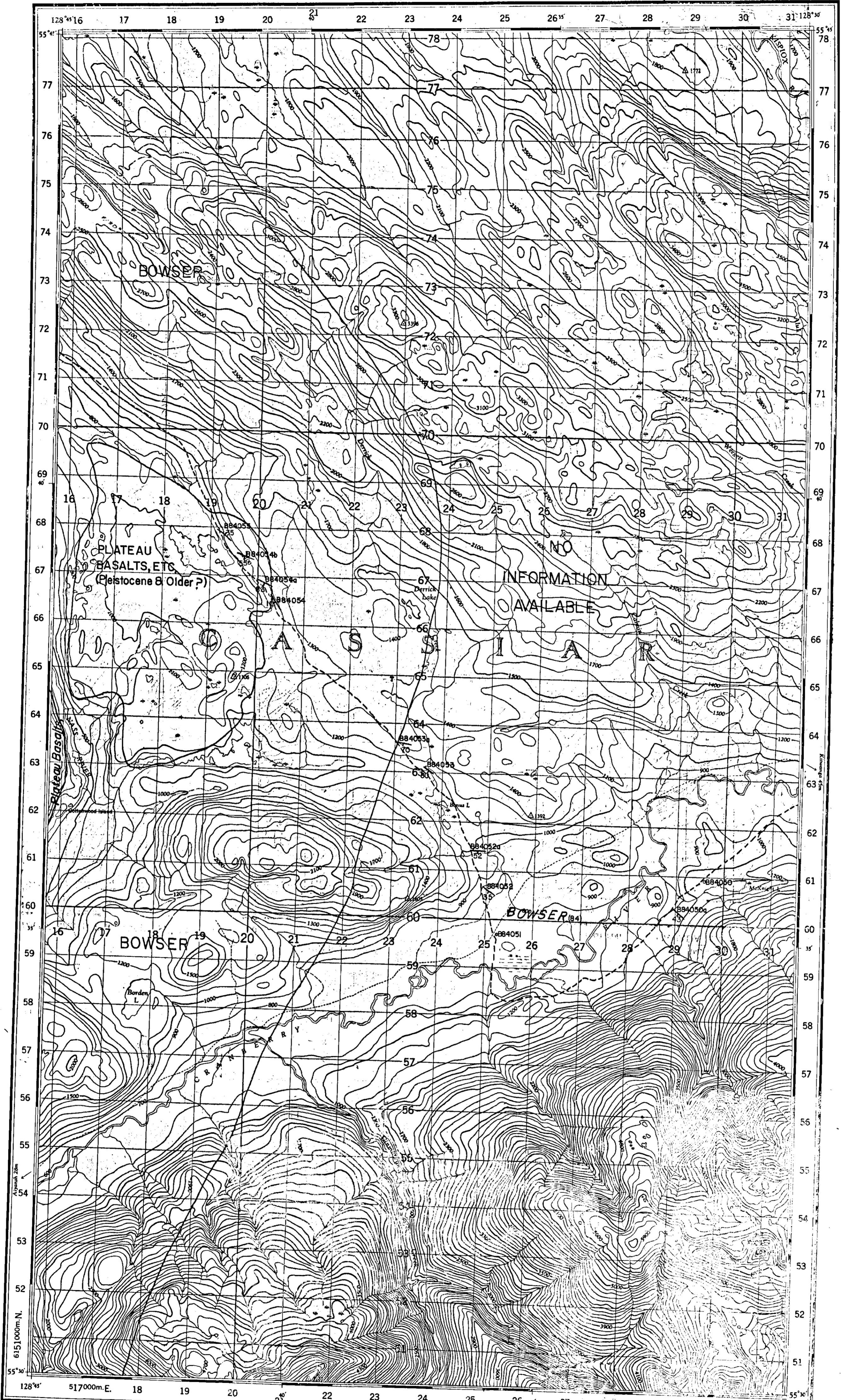
INDEX TO ADJOINING SHEETS

103 P/14	103 P/15	103 W/10
BROWN BEAR LAKE	KISPIOX RIVER	RUSSELECK
103 P/13	103 P/16	103 W/11
CANBERRY RIVER	KISPIOX RIVER	HUSSELECK
103 P/12	103 P/17	103 W/12
103 P/11	KISPIOX RIVER	HAZELTON
103 P/10	103 P/18	
BROWN BEAR LAKE		

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 9

KISPIOX RIVER
103 P/9 WEST HALF
EDITION 1 ASE

794

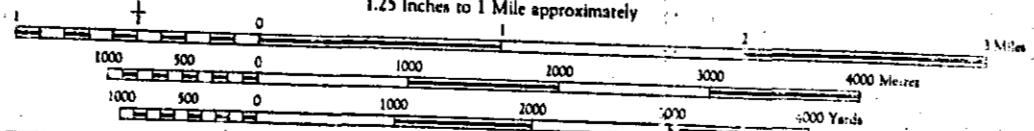


TO GIVE GRID REFERENCE ON THIS SHEET
FIGURES, IGNORE THE SMALLER FIGURES PRINTED AROUND THE MARGIN OF THE MAP. THESE ARE FOR FINDING THE FULL CO-ORDINATES. USE ONLY THE LARGER FIGURES PRINTED IN THE MARGIN OR ON THE FACE OF THE MAP. Vol. 517

POINT HORIZONTAL CONTROL POINT FOR STANDARD MILITARY GRID REFERENCE	
East	North
Take West edge of square in which point lies, and add the figure printed opposite this line on East or West margin on the face of the map (to nearest 100 metres).	Take South edge of square in which point lies, and add the figure printed opposite this line on East or West margin on the face of the map (to nearest 100 metres).
259	622
STANDARD MILITARY GRID REFERENCE 259622 (To nearest 100 Metres)	
Nearest similar grid reference, 100,000 Metres (Approximately 63 Miles)	

CRANBERRY RIVER
BRITISH COLUMBIA

Scale 1:50,000
125 inches to 1 Mile approximately



REFERENCE

Roads: hard surface, all weather hard surface, all weather loose surface, all weather less than 2 lanes Carr Track, Trail	more than 2 lanes less than 2 lanes all weather all weather Carr Track, Trail	Boundary, International Province County or District Township or Parish City or Town Railway, Indian, Military, etc Power Transmission Line Telephone or Telegraph, main route Horizontal Control Point Boundary Marker Bench Mark Spot Elevation, (in feet) Mine or Pit	more than 2 lanes less than 2 lanes all weather all weather Carr Track, Trail
--	---	---	---

Contour Interval 100 Feet
Elevations in Feet above Mean Sea Level
North American Datum 1927
Universal Transverse Mercator Projection

REFERENCE

House, Building School Church Post Office Tower, Radio Mast, Lookout, etc Quarry Sand or Gravel Pit Cliff Cutting Embankment Dry River bed	Lighthouse Wind or Pier Wharve Flat Swamp or Marsh Lake or Pond, intermittent Stream, intermittent, multiple Artificial Canal, Ditch Reclaimed Land, seasonal Cliff, elevation Depression Zoning, unclassified
--	--

INDEX TO ADJOINING SHEETS

103 P/10 EAST HALF	103 P/10 WEST HALF
103 P/11 EAST HALF	103 P/11 WEST HALF
103 P/9 EAST HALF	103 P/9 WEST HALF
103 P/12 EAST HALF	103 P/12 WEST HALF

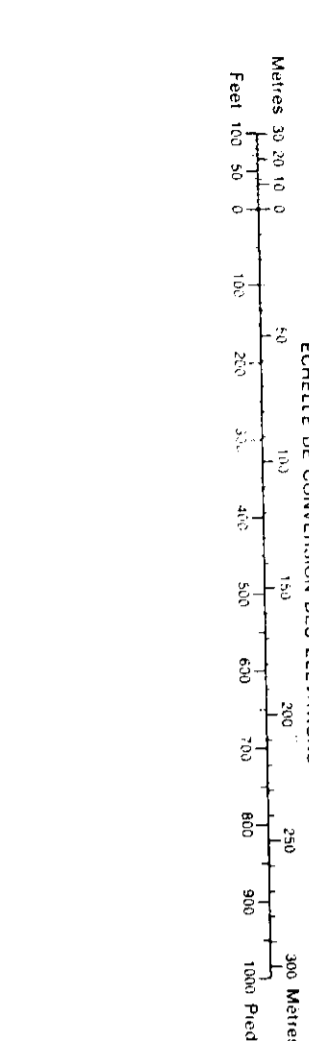
00794
Pt 2
9

794

93 L/11

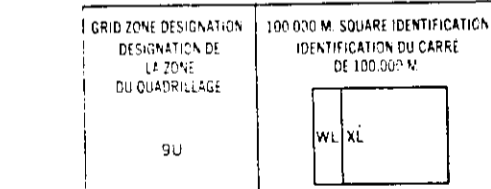
1:50,000

Military users refer to this map as Reference to this map as pour usage militaire. SERIES A 721 SERIE MAP 93 L/11 CARTE EDITION 2 MCE EDITION



Use diagram only to obtain numerical values APPROXIMATE MEAN DECLINATION 1972 ETC. CENTRE OF MAP Annual change decreasing 3.7

ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 9 QUADRILLAGE DE MILLE METRES TRANSVERSE UNIVERSEL DE MERCATOR



EXAMPLE OF METHOD USED TO OBTAIN A REFERENCE TO METRES 100 METRES... REFERENCE POINT... POINT DE REPÈRE... ÉCHELLE 1:50 000

LEGEND

- 1a - Topley Intrusions
1b - Late Cretaceous & Eocene Intrusions
2a - Bulky Intrusions
2b - Nanika Intrusions
4a - Bowser Lake Gp. Ashman Fm.
14 - Alluvium, Sand, Gravel, Till
19c - Skeena Gp. Red Rose Fm. (Coal Bearing)
18 - Telkwa Fm.
19a - Skeena Gp. Rocky Ridge Volcanics
24 - Hazelton Gp. Smithers Fm.
25 - N'itikitwa Fm. Red Tuff Member

First edition map issued by the SURVEYORS AND MAPPING BRANCH DEPARTMENT OF ENERGY, MINES AND RESOURCES...

Roads: hard surface, all weather; paved, toute saison; loose or stabilized surface, all weather; loose surface, dry weather and incalculable streets; cart track.

TELKWA COAST LAND DISTRICT RANGE 5 BRITISH COLUMBIA Scale 1:50,000 Échelle

This Provisional Map is equivalent to a standard map in accuracy of content.

Cette carte provisoire équivaut à une carte régulière en ce qui concerne la précision de l'information.

700

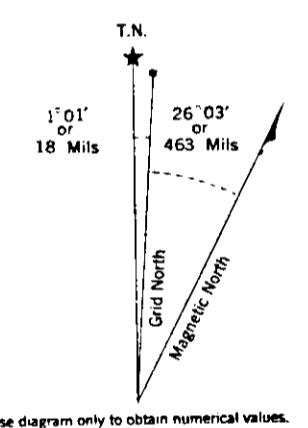
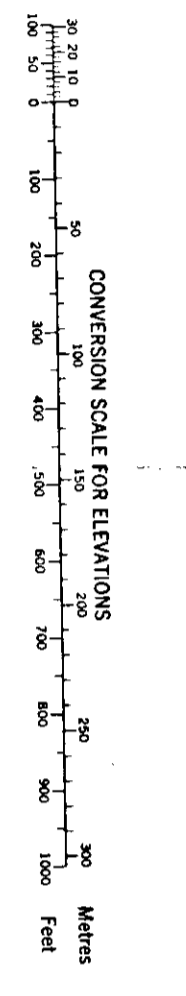
First edition map as per the DIRECTION DES LIGNES ET DE LA CARTOGRAPHIE... ÉDITION 2 MCE EDITION

00794 pt. 2 10

93 L/11 EDITION 2

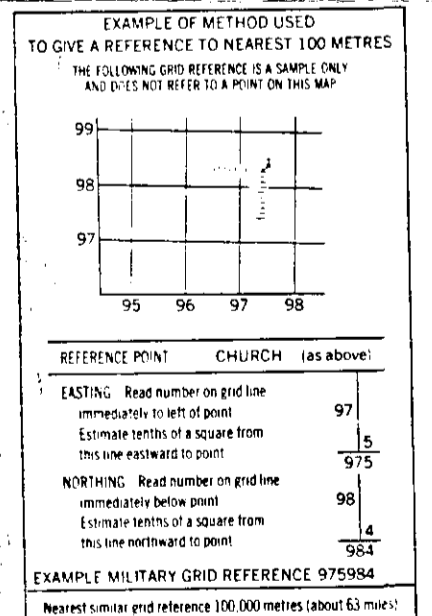
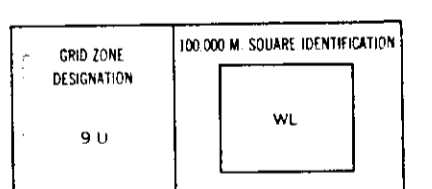


Refer to this map as: 93 L/13 EDITION 1 MCE SERIES A 721



Use diagram only to obtain numerical values. APPROXIMATE MEAN DECLINATION 1972 FOR CENTRE OF MAP. Annual change decreasing 3.2"

ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 9



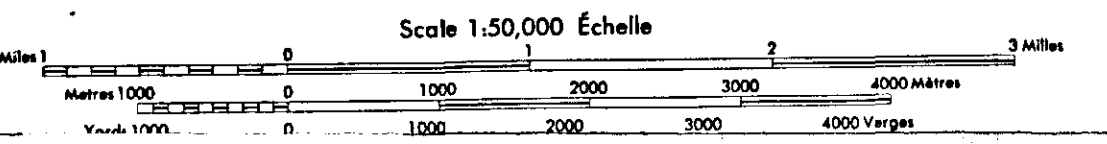
LEGEND

- 2a - Late Cretaceous & Eocene Intrusions
- 2b - Bulkley Intrusions
- 14 - Alluvium, Sand, Gravel, Till
- 18 - Telkwa Fm.
- 19 - Skeena Gp. Red Rose Fm. (Non-Coal Bearing)
- 19a - Skeena Gp. Rocky Ridge Volcanics
- 20 - Skeena Gp. Kitsum Creek Sediments
- 21 - Bowser Gp. Netalzal Volcanics
- 24 - Hazelton Gp. Smithers Fm.
- 25r - Niihkwia Fm. Red Tuff Member
- * - GSC Information
- !b - Bowser Lake Gp. Ashman Fm.

McDONNELL LAKE
BRITISH COLUMBIA

Produced 1970 by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES, from aerial photographs taken in 1968. First survey 1958.
Copies may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, or your nearest map dealer.
© Canada Copyright Reserved 1974.

Roads: roads or stabilized surface, all-weather... gravel aggloméré, toute saison... loose surface, dry weather and undisturbed ground... cart track...
Routes: routes aggloméré, toute saison... de gravel, temps sec et routes classées... de terre... chemin ou portage...



This Provincial Map is equivalent to a standard map in accuracy of content. Some names on this map are not yet official. Corrections or additions are invited by the Survey and Mapping Branch.
CONTOUR INTERVAL: 100 FEET
Elevations in feet above Mean Sea Level
North American Datum 1927

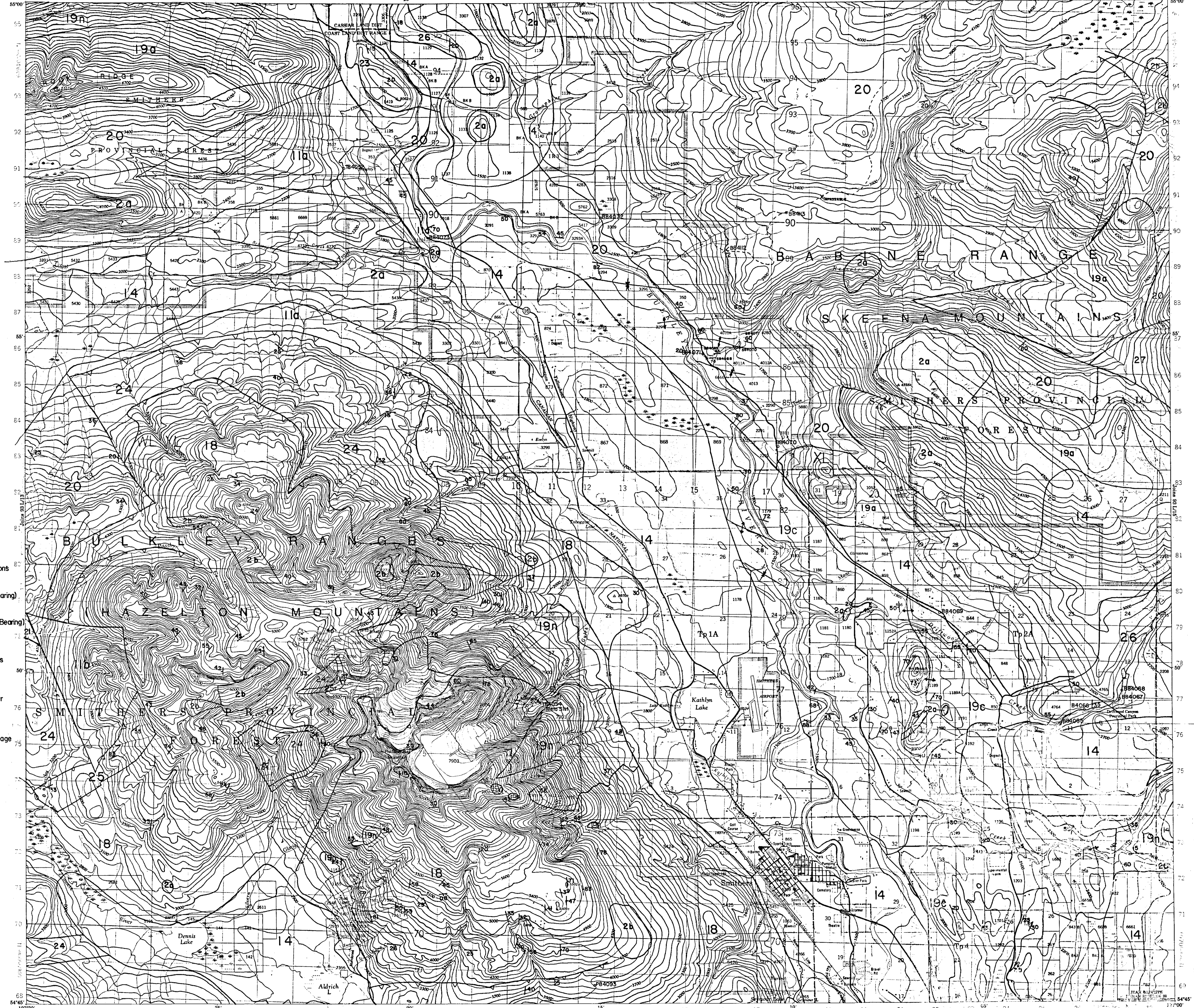
Cette carte provinciale équivaut à une carte régulière au point de vue de son contenu. Certains noms inscrits sur cette carte ne sont pas encore officiels. La Direction des levés et de la cartographie a plaisir de recevoir les suggestions correctives et additions.
ÉLOIGNEMENT DES COURBES: 100 PIEDS
Élevations en pieds au-dessus du Niveau Moyen de la mer
Système de référence géodésique nord américain, 1927
Projections: Lambert et de Mercator

Éditée en 1970, par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES, à partir de photographies aériennes prises en 1968. Les levés ont été effectués en 1958.
Ces cartes sont en vente au Bureau des Cartes du Canada, ministère de l'Énergie, des Mines et des Ressources, Ottawa, ou chez le marchand le plus proche.
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93 L/13 EDITION 1

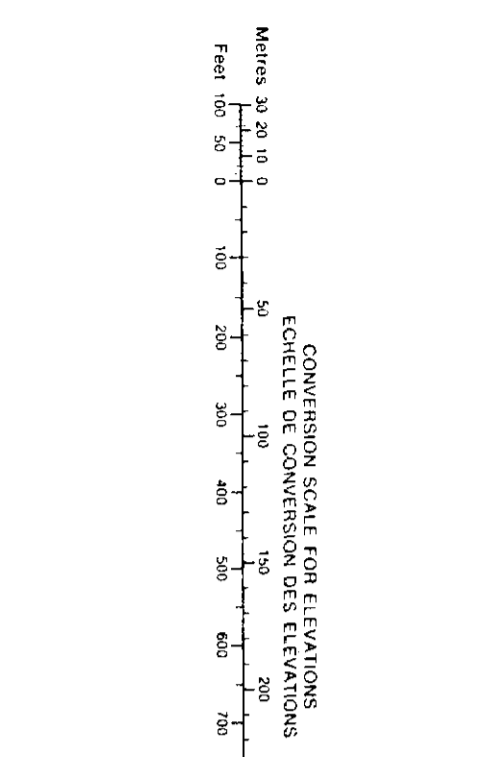
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pt 2
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Military users refer to this map as: MAP 93 L/14 CARTE pour usage militaire: EDITION 2 MILE 1:50,000



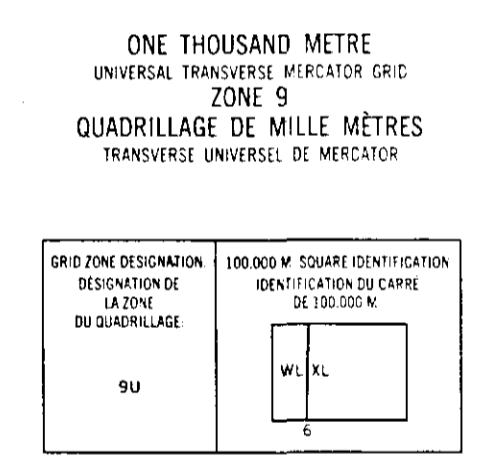
LEGEND

- 2a - Late Cretaceous & Eocene Intrusions
- 2b - Bulkley Intrusions
- 19c - Skeena Gp. Red Rose Fm. (Coal Bearing)
- 18 - Telkwa Fm.
- 19n - Skeena Gp. Red Rose Fm. (Non-Coal Bearing)
- 20 - Skeena Gp. Kitsun Cr. Sediments
- 19a - Skeena Gp. Rocky Ridge Volcanics
- 21 - Bowser Lake Gp. Netalzul Volcanics
- 23 - China Nose Breccias
- 24 - Hazelton Gp. Smithers Fm.
- 25r - Nilkitwa Fm. Red Tuff Member
- 26 - Sustut Gp. (Coal Bearing)
- 27 - Brian Boru Formation
- 11a - Bowser Lake Gp. Trout Cr. Assemblage
- 11b - Bowser Lake Gp. Ashman Fm.
- 14 - Alluvium, Sand, Gravel, Till



Use diagram only to obtain numerical values APPROXIMATE MEAN REFRACTION INDEX FOR CENTRE OF MAP
Avec diagramme seulement pour obtenir les valeurs numériques DÉGRADATION MOYENNE APPROXIMATIVE AU CENTRE DE LA CARTE EN 1972
Variation annuelle décroissante: 0.2

ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 9
QUADRILLAGE DE MILLE MÈTRES TRANSVERSE UNIVERSEL DE MERCATOR



EXAMPLE OF METHOD USE
EXEMPLE DE LA MÉTHODE EMPLOYÉE POUR LIRE LES REPERES A 100 MÈTRES POSES

REFERENCE POINT CHURCH - EG. 1554
POINT DE REPERE ÉGLISE - EG. 1554
EASTING: Read number on grid line immediately to the right
LONGITUDE EST: Note le chiffre de la ligne de quadrillage immédiatement à droite du repère
Estimate number of a square from this number to the right
Estimer le nombre de carrés de la ligne de quadrillage à droite du repère
NORTHING: Read number on grid line immediately above point
LATITUDE NORD: Note le chiffre de la ligne de quadrillage immédiatement au-dessus du repère
Estimate number of a square from this number to the point
Estimer le nombre de carrés de la ligne de quadrillage au-dessus du repère
GRID REFERENCE 18Q UJ 6651
REPERE AU QUADRILLAGE 18Q UJ 6651

00794
pt 2
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Produced by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES, Ottawa, Ontario, Canada, 1983. (Scale 1:50,000)
Cadastré par le BRANCH DES SURVEILLANCES ET DE LA CARTOGRAPHIE, DÉPARTEMENT DE L'ÉNERGIE, DES MINES ET DES RESSOURCES, Ottawa, Ontario, Canada, 1983. (Échelle 1:50,000)
© Canada Geographical Names 1975.

Roads: hard surface, all weather; hard surface, all weather; loose surface, all weather and unclassified streets; cart track.

Routes: paved, four-lane; gravel, aggregate, four-lane; dirt, hors classe; gravel.

Scale 1:50,000 Échelle 1:50,000

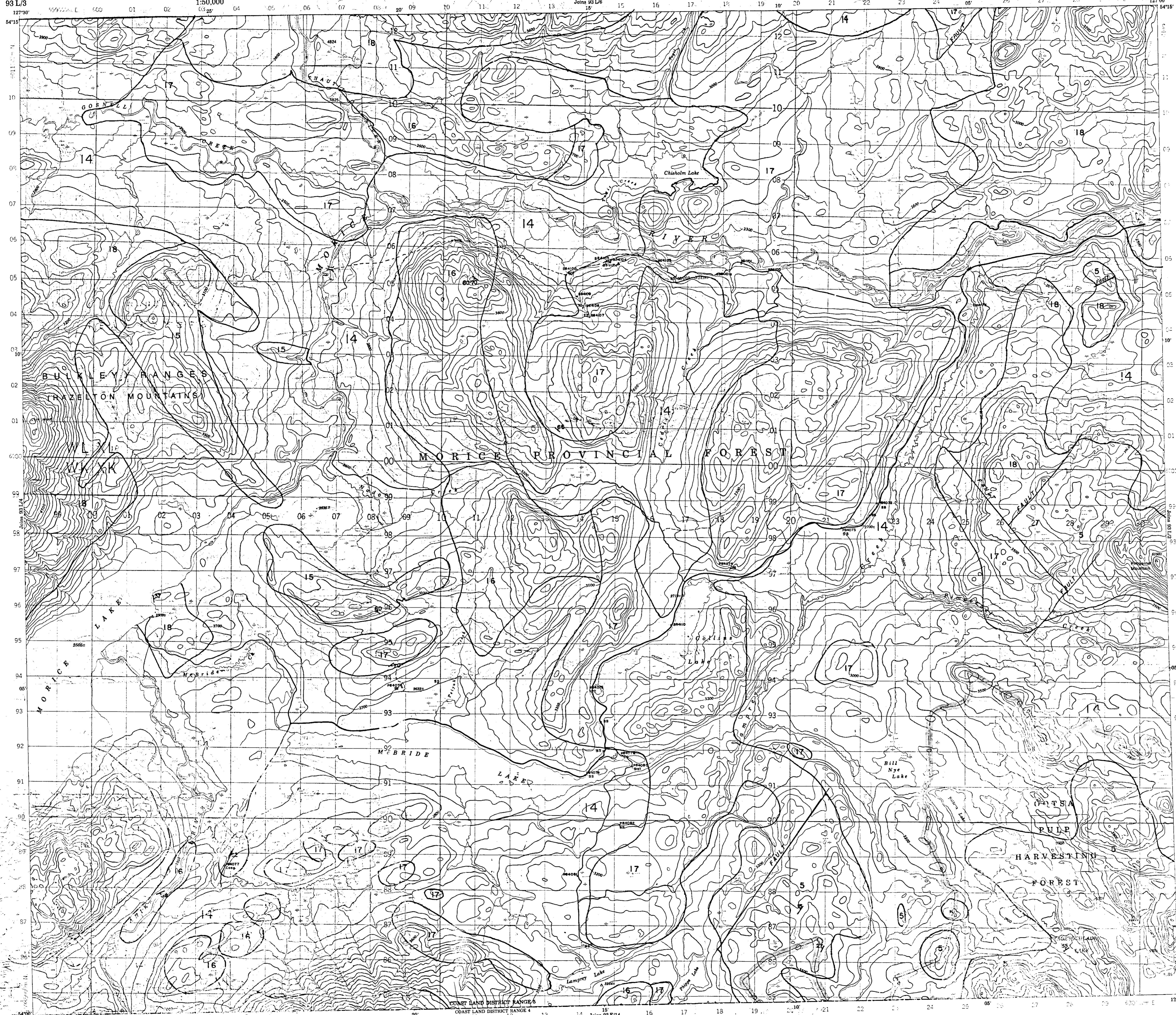
SMITHERS BRITISH COLUMBIA

This Provisional Map is equivalent to a standard map in accuracy of content.
Some names on this map are not yet official. Corrections or additions are invited by the Survey and Mapping Branch.

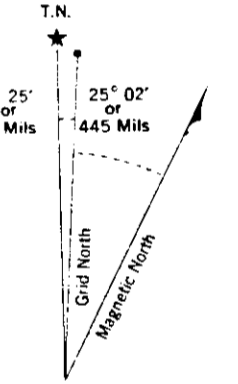
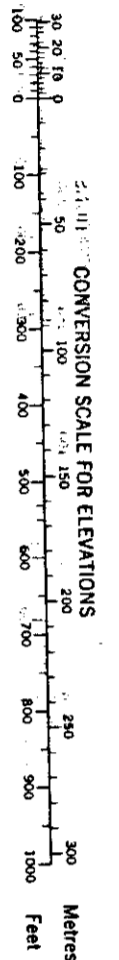
Cette carte provisoire équivaut à une carte standard en ce qui concerne la précision de son contenu.
Certains noms mentionnés sur cette carte ne sont pas encore officiels. La Direction des Surveys et Mapping Branch invite les corrections et les ajouts.

Carte qui n'a pas subi de révisions de la Direction des Surveys et Mapping Branch.
Carte qui n'a pas subi de révisions de la Direction des Surveys et Mapping Branch.

794

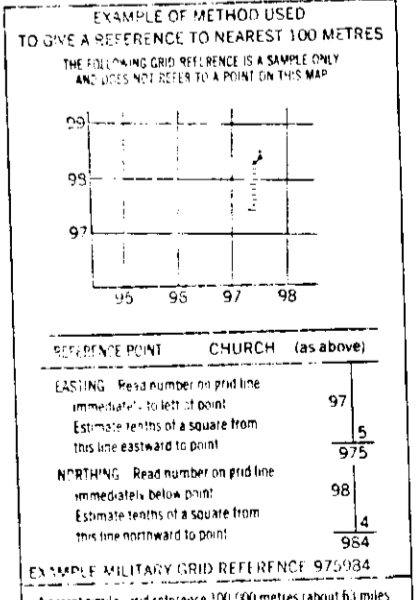
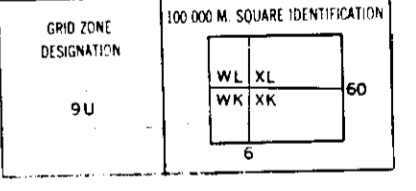


Refer to this map as:
 93 L/3
 EDITION 1
 SERIES A 721



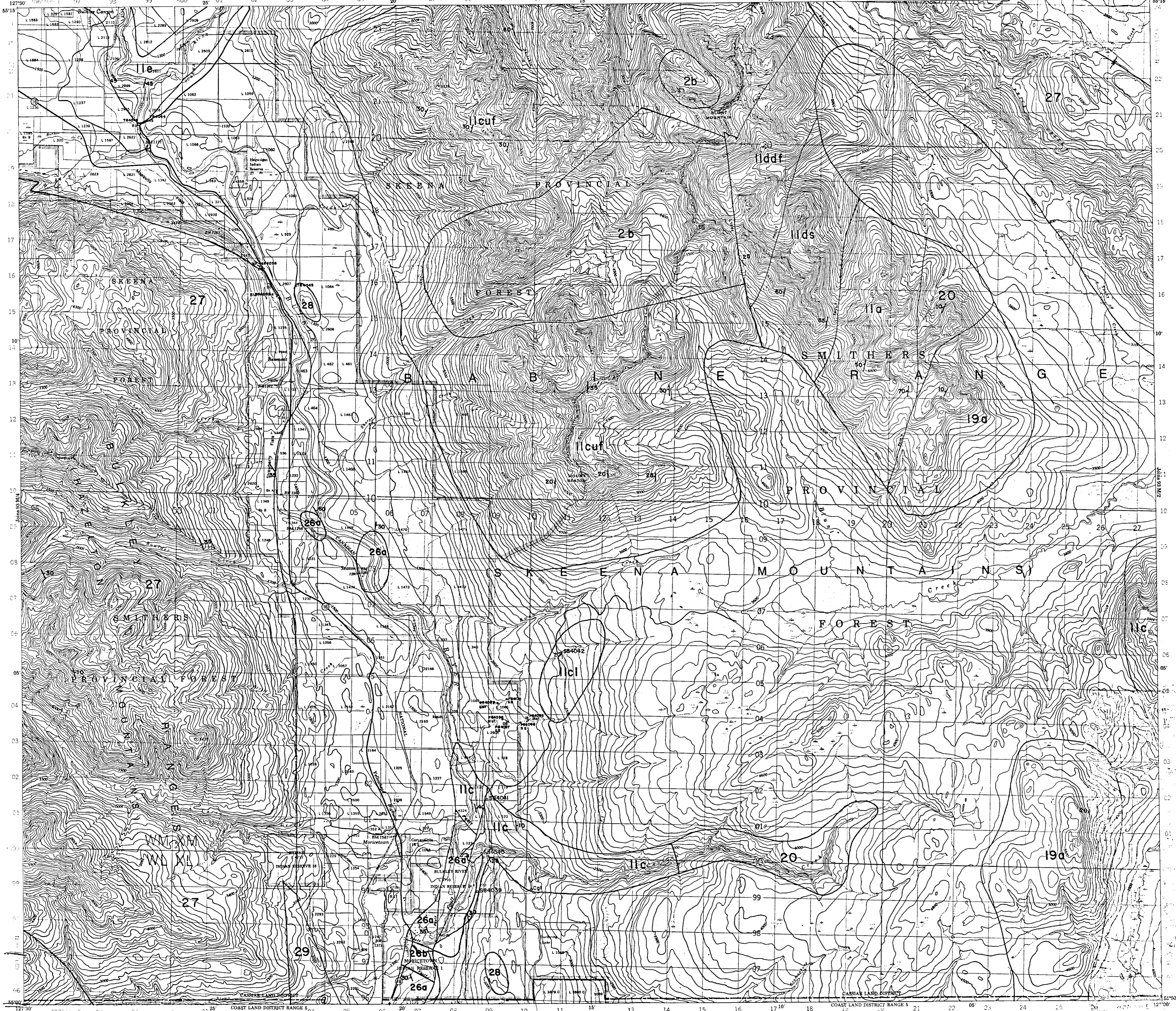
Use diagram only to obtain numerical values.
 APPROXIMATE MEAN DECLINATION 1972
 FOR CENTRE OF MAP
 Annual change decreasing 3.3'

ONE THOUSAND METRE
 UNIVERSAL TRANSVERSE MERCATOR GRID
 ZONE 9

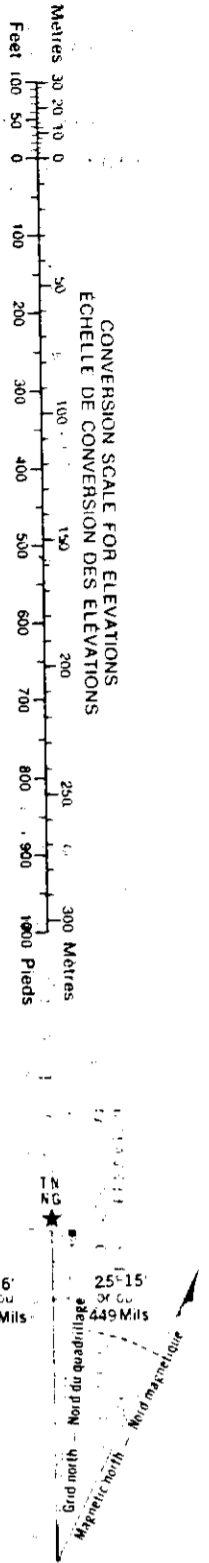


- 5- ACIDIC VOLCANICS
- 14- ALLUVIUM, SAND, GRAVEL, TILL
- 15- BUCK CREEK VOLCANICS
- 16- SKEENA BRECCIAS
- 17- SKEENA COAL BEARING
- 18- TELKWA FM
- 2- ACCEPT. OF MINES

00794
 pt 2
 (13)



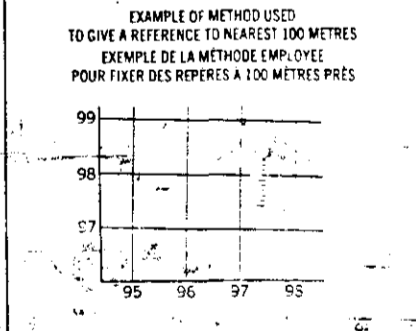
Military users refer to this map as: **SERIES - A721 SÉRIE**
 Réference de cette carte pour usage militaire: **MAP 93 M/3 CARTE**
 ÉDITION 2 MCE 1010M



Use diagram only to obtain numerical values
 APPROXIMATE MEAN ELEVATION 1972
 FOR CENTRE OF MAP
 Annual change decreasing 3.8'
 Utiliser le diagramme pour obtenir les valeurs numériques
 ÉLEVATION MOYENNE APPROXIMATIVE
 AU CENTRE DE LA CARTE EN 1972
 Variation annuelle décroissante 3.8'

ONE THOUSAND METRE
 UNIVERSAL TRANSVERSE MERCATOR GRID
 ZONE 9
 QUADRILLAGE DE MILLE MÈTRES
 TRANSVERSE UNIVERSEL DE MERCATOR

GRID ZONE DESIGNATION DESIGNATION DE LA ZONE DU QUADRILLAGE	100 000 M SQUARE IDENTIFICATION IDENTIFICATION DU CARRÉ DE 100 000 M ²
9 U	W 12 E



EXAMPLE OF METHOD USED
 TO OBTAIN REFERENCE TO NEAREST 100 METRES
 EXEMPLE DE LA MÉTHODE EMPLOYÉE
 POUR FAIRE DES REFFÉRENCES À 100 MÈTRES PRÈS

POINT OF INTEREST: CHURCH - EGLISE
 POINT DE INTÉRÊT: ÉGLISE
 EAST: 50' contour line
 EST: 50' ligne de contour
 ESTIMATE THE NUMBER OF SQUARES OF THE GRID FROM THE POINT TO THE CONTOUR LINE AND THE CONTOUR ELEVATION.
 ESTIMEZ LE NOMBRE DE CARRÉS DU GRILLE À PARTIR DU POINT D'INTÉRÊT JUSQU'À LA LIGNE DE CONTOUR ET L'ÉLEVATION DE LA LIGNE DE CONTOUR.

NORTHING: Road number on grid line immediately below point
 LATITUDE: Route le chiffre de la ligne de contour immédiatement en dessous du point
 EASTING: Number of squares of grid from the point to the contour line
 LONGITUDE: Nombre de carrés du grille à partir du point d'intérêt jusqu'à la ligne de contour

- 2b - Bulkley intrusions
- 11a - Bowser Lake Co. Trout Cr. Beds
- 11c - Bowser differentiated
- 11d - Upper Floodplain Facies
- 11e - Lower Floodplain Facies
- 11f - Deltaic Front Facies
- 11g - Lower Bowser (undifferentiated)
- 11h - Deltaic Front Facies
- 11i - Deltaic Stone Facies
- 11j - Skeena Co. Rocky Ridge Vel.
- 11k - Skeena Co. Kimsun Cr. Sad.
- 11l - Sisseton Cr.
- 11m - Sisseton Cr. Minor Andesite
- 11n - Sisseton Cr. Bord. Frn.
- 11o - Sisseton Cr. Intrusions
- 11p - Sisseton Cr. Basalt
- 11q - Upper Bowser Lake Co.
- 11r - Late, middle Bowser Lake Co.

Roads:	Routes:	Other:
hard surface, all weather	pavée, toute saison	single highway
hard surface, all weather	pavée, toute saison	major road 2 lanes
hard surface, all weather	pavée, toute saison	major road 2 lanes
hard surface, all weather	pavée, toute saison	major road 2 lanes

MORICETOWN
 BRITISH COLUMBIA

Scale 1:50,000 Échelle

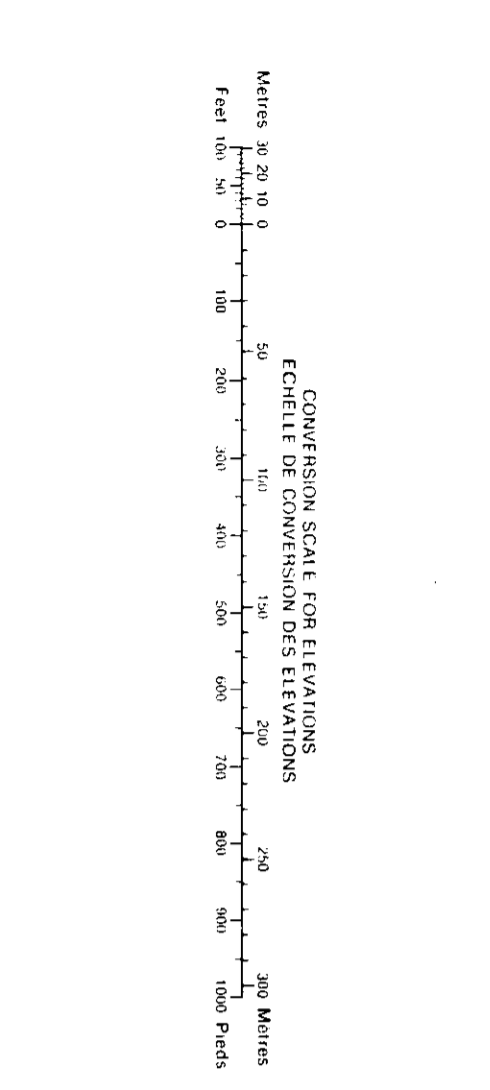
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Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE,
 MINISTÈRE DE L'ÉNERGIE, DES RESSOURCES MINÉRIELLES ET DE LA GÉOLOGIE. Cette carte a été vérifiée par la Direction des levés et de la cartographie en 1971. Vérification des données en 1971. Imprimé en 1973.
 Ces cartes sont en vente au Bureau des Cartes de Canada,
 Ministère de l'Énergie, des Ressources Minérales et de la Géologie,
 au chef de service le plus près.

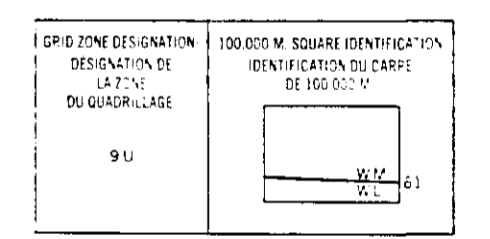
00794 pt 2 (14)

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 93 M/3



Use diagram to obtain numerical values
 APPROXIMATE MEAN DECLINATION 1972
 FOR CENTER OF MAP
 Annual change decrease 1.8
 Utiliser le diagramme pour obtenir les valeurs numériques
 DÉCLINAISON MOYENNE APPROXIMATIVE
 AU CENTRE DE LA CARTE EN 1972
 Variation annuelle décroissante 1.8

ONE THOUSAND METRE
 UNIVERSAL TRANSVERSE MERCATOR GRID
 ZONE 9
 QUADRILLAGE DE MILLE MÈTRES
 TRANSVERSE UNIVERSEL DE MERCATOR



EXAMPLE OF METHOD USED
 TO GIVE A REFERENCE TO NEAREST 100 METRES
 EXEMPLE DE LA METHODE EMPLOYÉE
 POUR FAIRE DES RÉFÉRENCES À 100 MÈTRES PRES

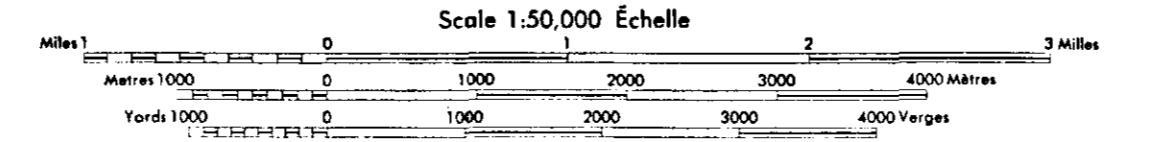
REFERENCE POINT
 POINT DE RÉFÉRENCE CHURCH - ÉGLISE 100 000 000
 EASTING 8400 number on profile
 coordonnées à l'est de 8400
 LONGITUDE Note the number of the line
 of the quadrangle immediately to the right
 du chiffre
 Estimate points of a square foot
 l'estime le nombre de carrés du côté
 entre cette ligne et la ligne en direction est
 NORTHING Read number on grid line
 immediately below point
 LATITUDE NORTH Note the number of the line
 du quadrangle immédiatement en dessous
 du chiffre
 Estimate points of a square foot
 l'estime le nombre de carrés du côté
 entre cette ligne et la ligne en direction nord
 DÉCL. RÉFÉRENCE 9700000
 Note the number of the line immediately
 below the point

- LEGEND**
- 2b - Bulkley Intrusions
 - 1lc - Intermediate Bowser Lk. Gp. Undifferentiated
 - 1lcl - " Lower Floodplain Facies
 - 1ld - Lower Bowser Lk. Gp. Undifferentiated
 - 1ldf - " Deltaic Front Facies
 - 1le - Upper Bowser Lk. Gp.
 - 19 - Skeena Gp. Red Rose Formation
 - 19a - Skeena Gp. Rocky Ridge Volcanics
 - 20 - Skeena Gp. Kitsu Cr. Sed.
 - 27 - Brian Boru Formation
 - 28 - Babine Intrusions
 - 28d - Babine Intrusions, Microdiorite
 - 30 - Pyritic, Concretionary, Blackshale
 - Major Fault

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 Updated from aerial photographs taken in 1968. Culture check
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 Copies may be obtained from the Canada Map Office,
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Roads	Routes	Great highway	Grande route
hard surface, all weather	route pavée, toute saison	route à 2 voies	route à 2 voies
hard surface, all weather	pavée, toute saison	à 1 voie	à 1 voie
loose or stabilized surface, all weather	gravier aggloméré, toute saison	à 2 voies	à 2 voies
loose surface, dry weather and unclassified streets	de gravier, temps sec et routes hors classe	à 1 voie	à 1 voie
capitax	capitax	à 2 voies	à 2 voies
trailer portage	sentier ou portage	à 1 voie	à 1 voie

SKEENA CROSSING
 BRITISH COLUMBIA



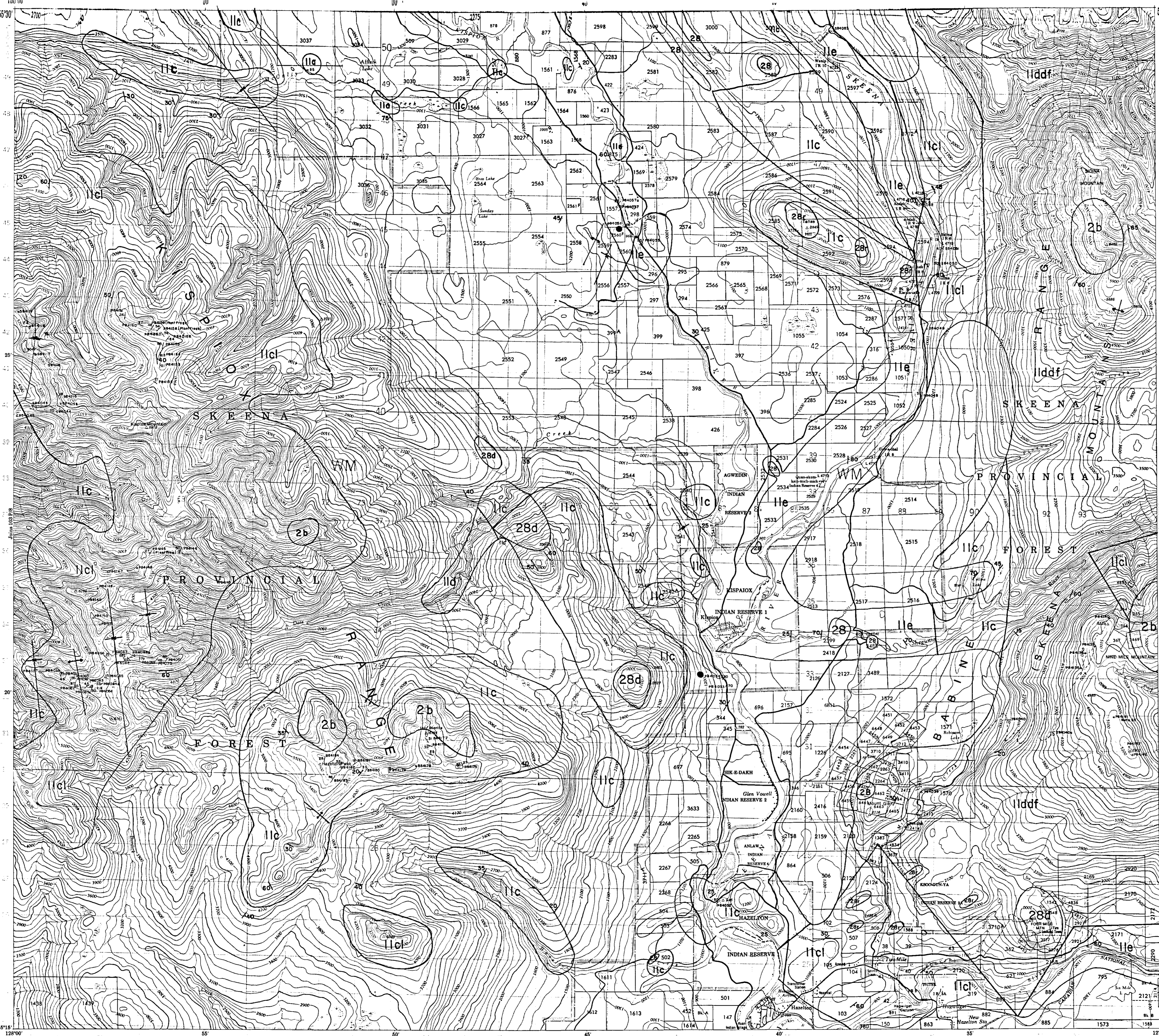
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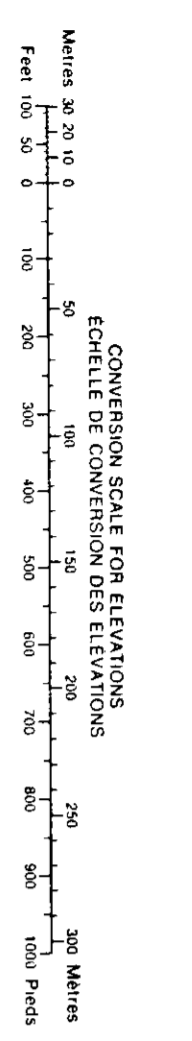
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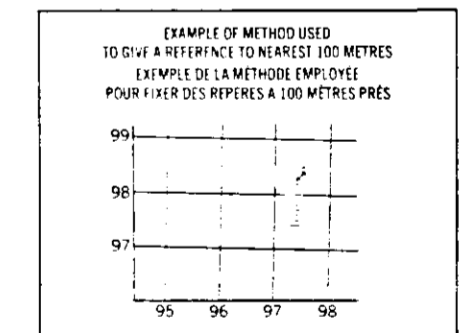
Military users: SERIES A 7221 SERIE
 refer to this map as: REFERENCE DE CETTE CARTE
 pour usage militaire: EDITION 2 MCE EDITION



Use of barium salts to obtain numerical values
 APPROXIMATE MEAN DECLINATION 1972
 FOR CENTRE OF MAP
 Annual change: decreasing 3.8
 Utilisation de sels de baryum pour obtenir les valeurs numériques
 DÉCLINAISON MOYENNE APPROXIMATIVE
 AU CENTRE DE LA CARTE EN 1972
 Variation annuelle: décroissante 3.8

ONE THOUSAND METRE
 UNIVERSAL TRANSVERSE MERCATOR GRID
 ZONE 9
 QUADRILLAGE DE MILLE MÈTRES
 TRANSVERSE UNIVERSEL DE MERCATOR

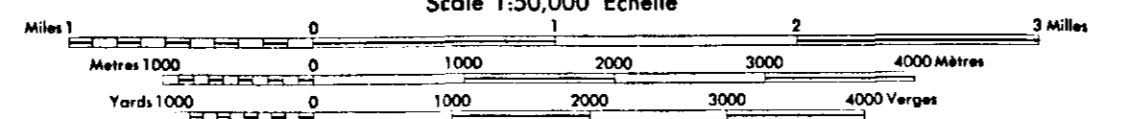
GRID ZONE DESIGNATION DESIGNATION DE LA ZONE DU QUADRILLAGE	100,000 M SQUARE IDENTIFICATION IDENTIFICATION DU CARRÉ DE 100,000 M
9U	WM



REFERENCE POINTS: CHURCH - EGLISE (see above)
EASTING: 40 is number on grid line
 immediately to left of point
LONGITUDE EST: North is centre of the page
 du quadrillage immédiatement à gauche
 du repère
Estimate length of a square from this line northward to point:
 Estimer le nombre de carrés de cette
 estimer: centre en haut et direction nord
GRID REFERENCE: 975600
REFERENCE AU QUADRILLAGE: 975600

- LEGEND**
- 2b - Bulky Intrusions
 - 11c - Intermediate Bowser Lk.Gp. Undifferentiated
 - 11cl - Lower Floodplain Facies
 - 11d - Lower Bowser Lk.Gp. Undifferentiated
 - 11dd - Deltaic Front Facies
 - 11e - Upper Bowser Lk.Gp., Lower Floodplain Facies
 - 2B - Basalt Intrusions, Undifferentiated
 - 2Bd - Microdiorite
 - 2Bf - Rhyolite-quartz eye porphyry-breccia
 - Major Fault

HAZELTON
 CASSIAR LAND DISTRICT
 BRITISH COLUMBIA
 Scale 1:50,000 Échelle



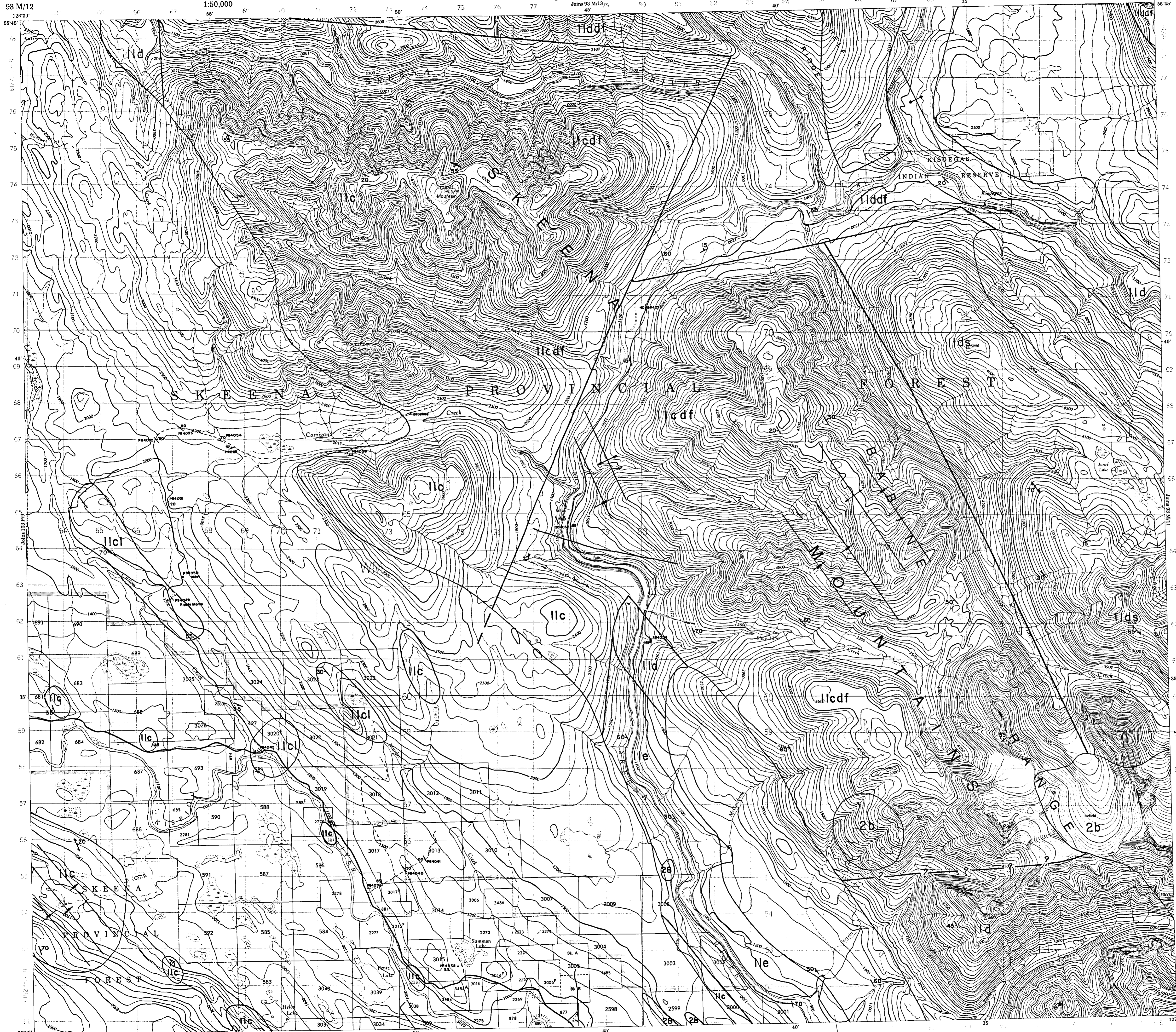
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00799 pt 2
 16

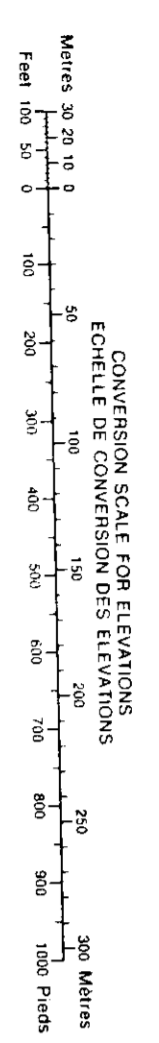
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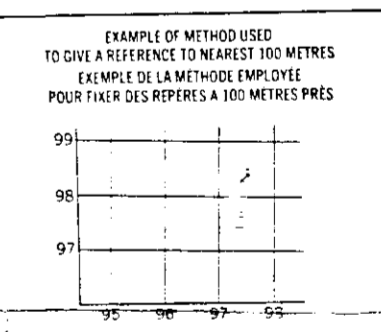
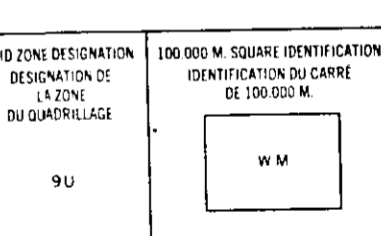
Military users refer to this map as Reference de cette carte pour usage militaire

SERIES A 721 SERIA MAP 93M/12 CARTI EDITION 2 MCE EDITION



Use diagram only to obtain numerical values APPROXIMATE MEAN DEPRESSION 1972 FOR CENTRE OF MAP Annual change decreasing 3.8

Utilisez le diagramme que pour obtenir les valeurs numériques DECLINISON MOYENNE APPROXIMATIVE AU CENTRE DE LA CARTE EN 1972 Variation annuelle décroissante 3.9



REFERENCE POINT CHURCH, EGLISE (see above) POINT DE REPÈRE... EASTING: 492 number on grid line... NORTHING: 975 number on grid line... LEGEND

- 2b - Bulkley Intrusions
11c - Intermediate Bowser Lk Gp., Undifferentiated
11cl - Lower Floodplain Facies
11cdf - Deltic Front Facies
11d - Lower Bowser Lk Gp., Undifferentiated
11ddf - Deltic Front Facies
11ds - Deltic Slope Facies
11e - Upper Bowser Lk Gp., Lower Floodplain Facies
28 - Babine Intrusions, Undifferentiated
Major Fault

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KISGEGAS CASBARI LAND DISTRICT BRITISH COLUMBIA

Scale 1:50,000 Echelle 1:50,000

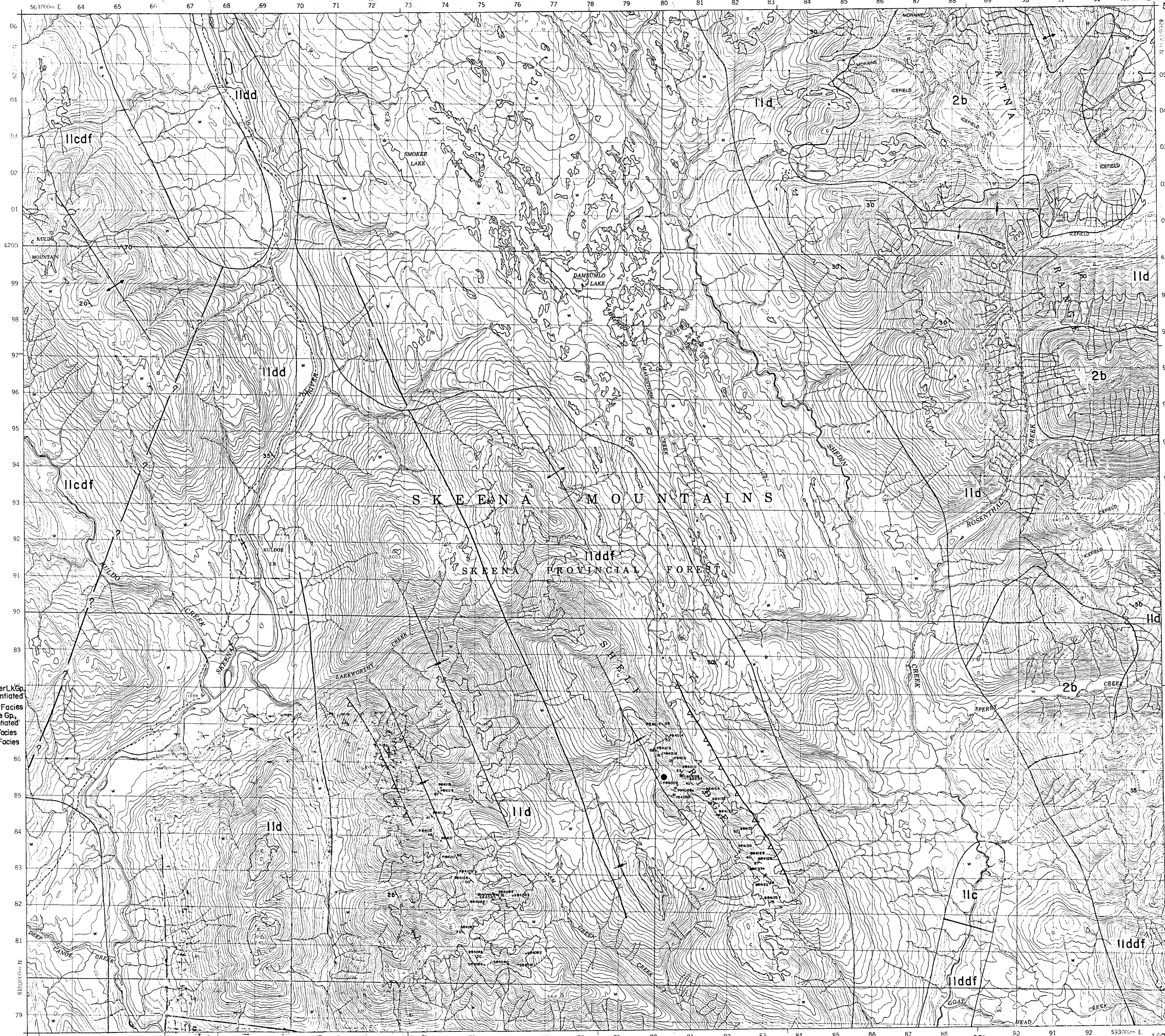
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LEGEND - LÉGENDE

ROADS AND RELATED FEATURES	ROUTES ET OUVRAGES CONNEXES
ROAD SURFACE, ALL WEATHER	SURFACE PAVÉE, TOUTES SAISONS
LOOSE SURFACE	GRAVIER
CART TRACK, WATER ROAD	CHÉMIN DE TERRE, D'HIVER
TRAIL, CUT LINE, PORTAGE	SENTIER, PERÇE, PORTAGE
BUILT-UP AREA	AGGLOMÉRATION
RAILWAY, SIGNAL, STATION, STOP	CHÉMIN DE FER, VOIE D'ÉVÈNEMENT, GARE, ARRÊT
BRIDGE	PONT
SEAPLANE BASE, ANCHORAGE	HYDROAÉRODROME, MOULAGE
LANDMARK FEATURES	POINTS DE RÉFÈRE
HOUSE, BARN	MAISON, GRANGE
CHURCH, SCHOOL	ÉGLISE, ÉCOLE
POST OFFICE	BUREAU DE POSTE
HISTORICAL SITE	LIEU HISTORIQUE
TOWERS, FIRE, RADIO	TOURS, FEU, RADIO
WELL, OIL, GAS	Puits, PÉTROLE, GAZ
TANK, OIL, GASOLINE, WATER	RÉSERVOIR, PÉTROLE, ESSENCE, EAU
TELEPHONE LINE	LIGNE TÉLÉPHONIQUE
POWER TRANSMISSION LINE	LIGNE DE TRANSPORT D'ÉNERGIE
MINE	MINE
CUTTING, EMPLOYMENT	DEBRI, TREMBLAI
GRAVELY	GRAVIER
BOUNDARIES AND SURVEY CONTROL	FRONTIÈRES ET POINTS DE RÉFÈRENCES
INTERNATIONAL, PROVINCIAL, BOUNDARY MONUMENT	INTERNATIONALE, PROVINCIALE, BORNE FRONTIÈRE
COUNTY, DISTRICT	COMTÉ, DISTRICT
TOWNSHIP, PARISH, SURVEYED	CANTON, PAROISSE, AFFRÉTÉE
TOWNSHIP, D.L.S. - SURVEYED, UNSURVEYED	TOWNSHIP, ATC - AFFRÉTÉE, NON AFFRÉTÉE
	- CONDS DE SECTION
MUNICIPALITY	MUNICIPALITÉ
INDIAN RESERVE, PARK, ETC.	RÉSERVE INDIENNE, PARC, ETC.
HORIZONTAL SURVEY POINT	RÉFÈRE DE NIVELLEMENT AVEC COTE
BENCH MARK WITH ELEVATION	RÉFÈRE DE NIVELLEMENT AVEC COTE
SPOT ELEVATION, PRECISE, LAKE, WATER	POINT CÔTÉ, PRÉCIS, SUR TERRE, SUR L'EAU
DRAINAGE AND RELATED FEATURES	DRAINAGE ET OUVRAGES CONNEXES
STREAM, SHORELINE, INDEFINITE	COURS D'EAU, RIVE, IMPRÉCISE
DIRECTION OF FLOW	DIRECTION DU COURANT
LAKE, INTERMITTENT	LAC, LAC INTERMITTENT
FLOODED LAND	TERRAIN INONDÉ
MARSH, SWAMP, (WOODED)	MARAIS, MARÉCAGE (BOISÉ)
DRY RIVER BED WITH CHANNELS	LIT DE COURS D'EAU TARI AVEC CHENAUX
SAND, ABOVE, IN WATER	SABLE AU DESSUS, DANS L'EAU
STRING BOG	MARÉCAGE EN VERTICALE
TUNDRA, PONDS, POLYGONS	TOURNA, ETANGS, SOLS POLYGLONIAUX
RAPIDS, FALLS, RAMP, POND	RAPIDES, CHUTES, RAPIDES
WETSHORE FLATS	ESTRANS
ROCK	ROCHE
DAM	BARRAGE
WHARF	QUAI
DITCH	FOSSÉ
RELIEF FEATURES	RELIEF
CONTOURS	COURBES DE NIVEAU
APPROXIMATE CONTOURS	COURBES DE NIVEAU APPROXIMATIVES
DEPRESSION CONTOUR	COURBE DE CUVETTE
SPOT ELEVATION, APPROXIMATE, LAND, WATER	POINT CÔTÉ APPROXIMATIF, SUR TERRE, SUR L'EAU
ESKER	ESKER
PINGO	PINGO
SAND, SAND DUNES	SABLE, DUNES
PALSA BOG	PALSE
WOODED AREA	RÉGION BOISÉE
CLEARED AREA	RÉGION DÉBOISÉE

LEGEND

2b - Bulkley Intrusions
 Ildc - Intermediate Bowsler Lake Group
 Undifferentiated
 Ildcf - " Deltic Front Facies
 Ild - Lower Bowsler Lake Group
 Undifferentiated
 Ildd - " Deltic Plain Facies
 Ilddf - " Deltic Front Facies
 Major Fault

PHOTOGRAPHY PHOTOGRAPHIE

COMPILATION RESTITUTION

GRID ZONE DESIGNATION 100 000 M SQUARE IDENTIFICATION

DESIGNATION DE LA ZONE DU QUADRILLAGE IDENTIFICATION DU CARRÉ DE 100 000 M

9U WM 62

EXAMPLE OF METHOD USED TO OBTAIN A REFERENCE TO NORTH 100 METRES

EXEMPLE DE LA MÉTHODE EMPLOYÉE POUR OBTENIR DES RÉFÈRES À 100 MÈTRES

REFERENCE POINT CHURCH - EGLISE 148 ABOVE 100 ABOVE

POINT DE RÉFÈRE CHURCH - EGLISE 148 AU-DESSUS 100 AU-DESSUS

REVISION

REVISION

40 A-23557 8/74 44

96 A-23557 8/74 100

44 A-23556 8/74 48

97 A-23557 8/74 83

ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 9

QUADRILLAGE DE MILLE MÈTRES UNIVERSAL TRANSVERSE DE MERCATOR

104 A/1 94 D/4 94 D/3

103 P/16 93 M/13 93 M/14

103 P/9 93 M/12 93 M/11

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 Pt. 2
 (18)

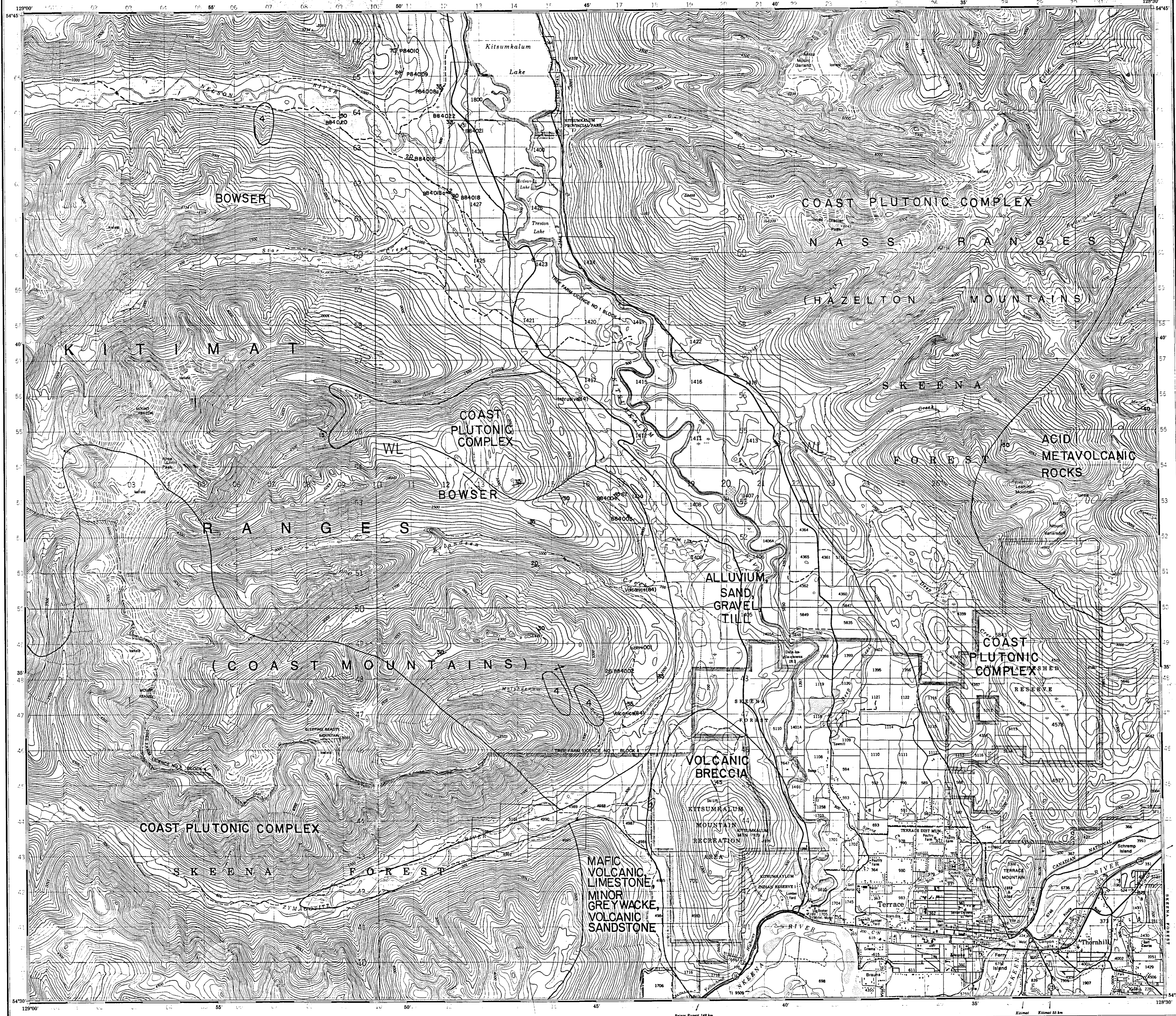
CONVERSION SCALE FOR ELEVATIONS

ÉCHELLE DE CONVERSION DES ÉLEVATIONS

Feet 100 200 300 400 500 600 700 800 900 1000

Mètres 30 60 90 120 150 180 210 240 270 300

Military users, refer to this map as: **SERIES A 721 SERIE**
 Reference of this map: **MAP 103/110 CARTE**
 pour usage militaire: **EDITION 4 MCE EDITION**

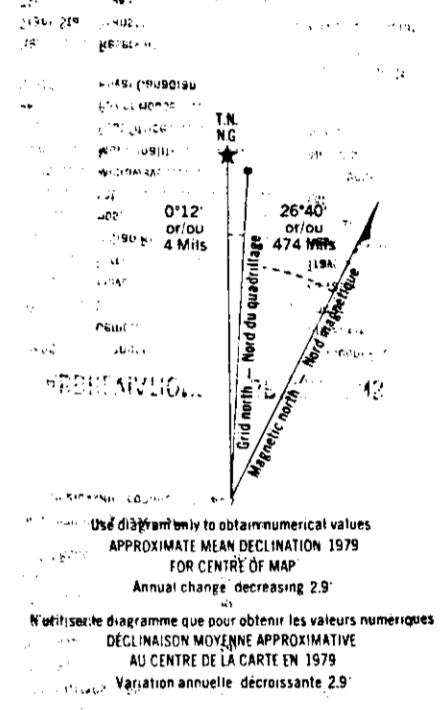


GLOSSARY GLOSSAIRE

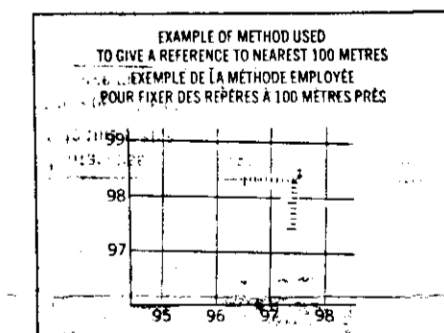
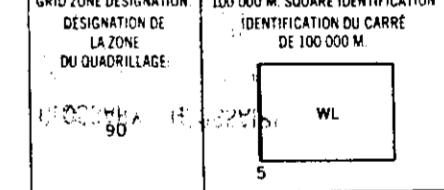
Amphibole	Amphibole
Area	Parcelle
City Limits	Limites de ville
Crest	Crest
Ditch	Fossé
Dugout	Abreuvoir
Dunlop	Abreuvoir
Electric Plant	Usine de filtration
Gas	Gar
Gate	Porte de barrage
Levee	Levee
Mill	Moulin
Obelisk	Obélisque
Old Well	Forage abandonné
Par	Parcelle
Pass	Passage
Peak	Sommaire
Point	Point
Post Office	Bureau de poste
Power House	Centrale électrique
Rail	Rail
Road	Road
Water Road	Chemin d'eau
Water Tower	Tour d'eau

ABBREVIATIONS ABRÉVIATIONS

Aband.	Abandonné
C.	Cimetière
Co.	Comté
E.	Élevateur
Fr.	Ferme
H.	Hôtel
H.S.	Haut School
H.S.	Haut School
M.	Municipalité
P.	Post Office
P.H.	Power House
R.C.M.P.	Royal Canadian Mounted Police
Res.	Reservoir
Tr.	Transformer Station
T.L.	Tree Farm Licence



ONE THOUSAND METRE
 UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 9
QUADRILLAGE DE MILLE MÈTRES
 TRANSVERSE UNIVERSEL DE MERCATOR



REFERENCE POINT CHURCH - EGLISE (as shown on map)
 POINT DE RÉFÉRENCE ÉGLISE (sur la carte)

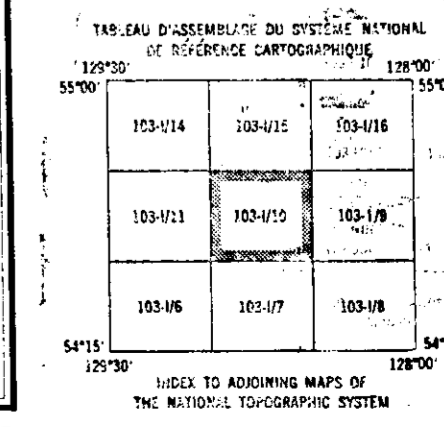
EASTING Read number on the line immediately to left of spot height.
NORTHING Read number on the line immediately to above of spot height.

EXAMPLE OF METHOD USED TO DETERMINE SPOT HEIGHTS

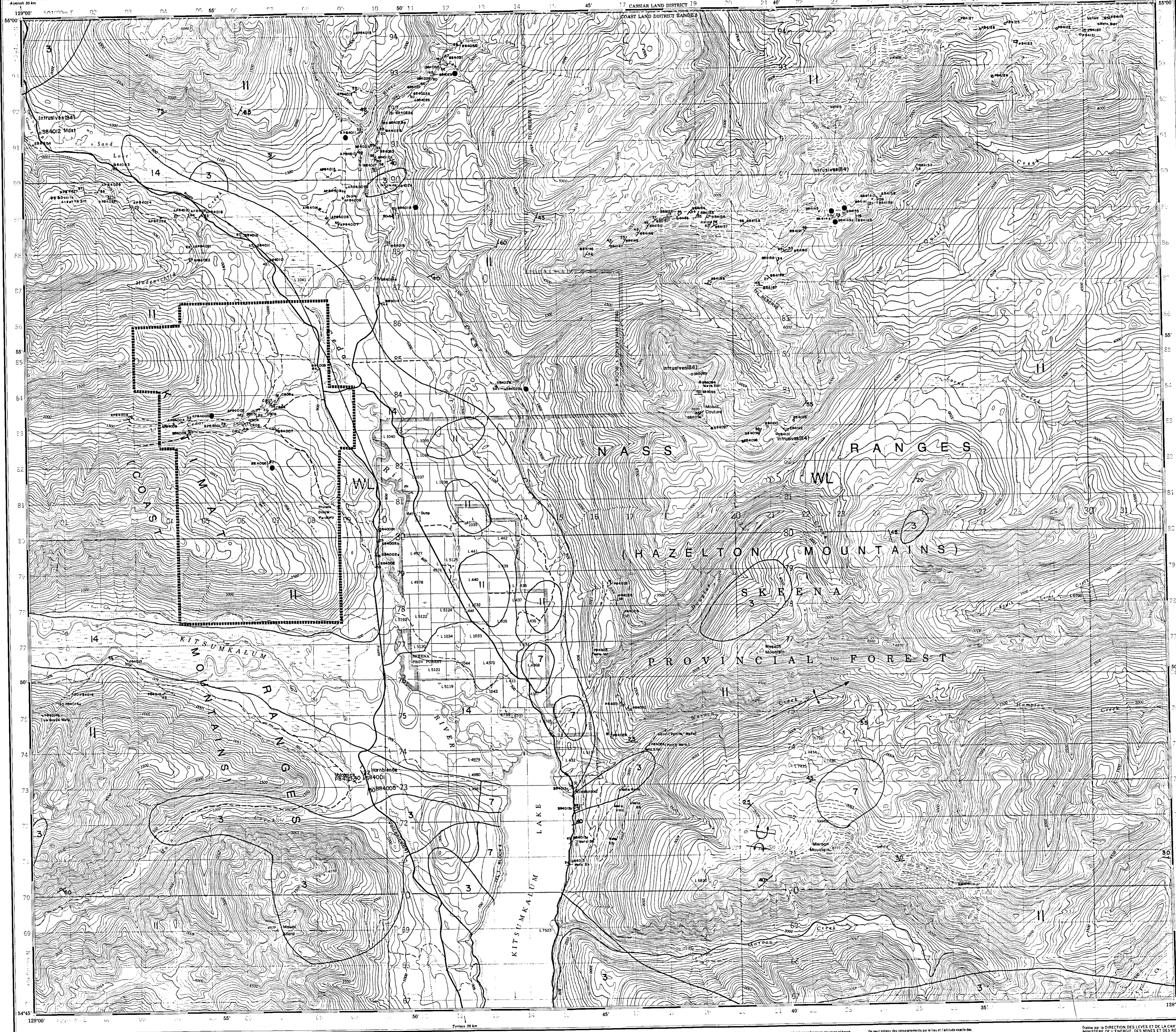
REFERENCE POINT CHURCH - EGLISE (as shown on map)
 POINT DE RÉFÉRENCE ÉGLISE (sur la carte)

4-Alice Arm Intrusions
 /- B.C. DEPT. OF MINES

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 pt. 2
 (P)



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GLOSSARY GLOSSAIRE

Arroyo	Arroyo
Area	Zone
City Limits	Limites de ville
Customs	Douane
Ditch	Fosse
Dugout	Abri
Dune	Dune
Filtration Plant	Usine de filtration
Gas	Station de gaz
Soil Course	Terrain de golf
Jump Yard	Ferraille
Mar	Mar
Lookout	Belvédère
Motor Vehicle	Véhicule à moteur
Post Office	Bureau de poste
Park	Parc
Park	Park
Pass	Passage
Senior Citizens Home	Foyer de jour d'adultes âgés
Sk. Area	Station de ski
Stone Wall	Mur en pierres sèches
Surveyed Line	Ligne arpentée
Tank	Reservoir
Trail	Sentier
Winter Road	Chemin d'hiver

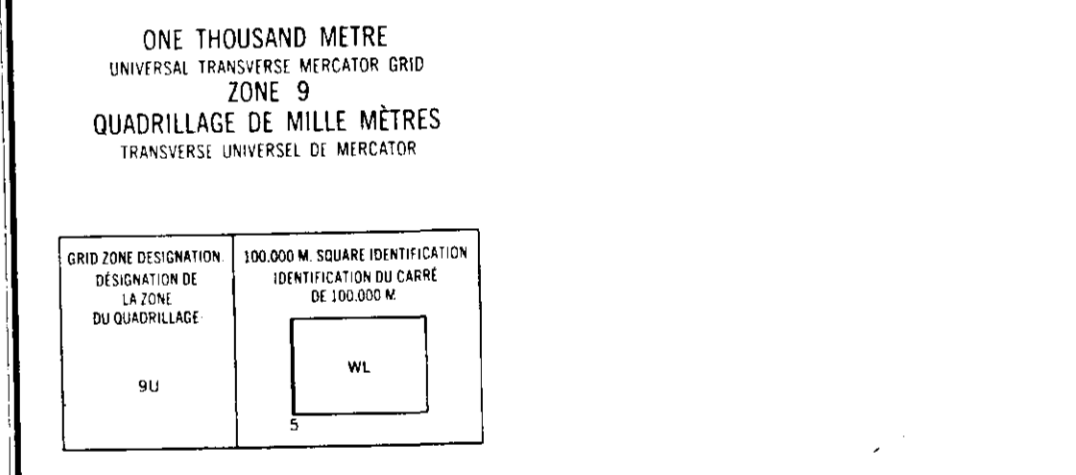
ABBREVIATIONS ABRÉVIATIONS

Atand	Administration
C	Comté
CD	Comté
E	Élevateur
Fy	Ferry
H	Hôtel
H	Indian Reserve
H	Hospital
L	Lot
M	Municipality
M	Municipality
P	Post Office
P	Power House
RCPM	Royal Canadian Mounted Police
R	Reservoir
Trans Sta	Transformer Station
Tr	Trunk Line

Use diagram only to obtain numerical values
APPRECIATION MOYENNE OCCUPATION 1979
FOR CENTRE OF MAP
Annual change decreasing 2.9

Utilisez le diagramme pour obtenir des valeurs numériques
OCCUPATION MOYENNE APPROXIMATIVE
AU CENTRE DE LA CARTE EN 1979
Variation annuelle décroissante 2.9

**ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 9
QUADRILLAGE DE MILLE MÈTRES
TRANSVERSAL UNIVERSAL DE MERICATOR**



**EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO METERS
EXEMPLE DE LA METHODE EMPLOYEE POUR FIXER LES METRES A 100 METRES PRES**

REFERENCE POINT CHURCH/ÉGLISE

EASTING Read number on grid line immediately to left of point.
LONGITUDE EST Note the number of the line to which the point is immediately to the right of the point.
Estimate tenths of a square from this line to the point.
Estimer le nombre de la ligne de laquelle le point est immédiatement à gauche du point.
Estimer les dixièmes de la square from this line to the point.
Estimer le nombre de la ligne de laquelle le point est immédiatement à droite du point.
GRID REFERENCE 975004

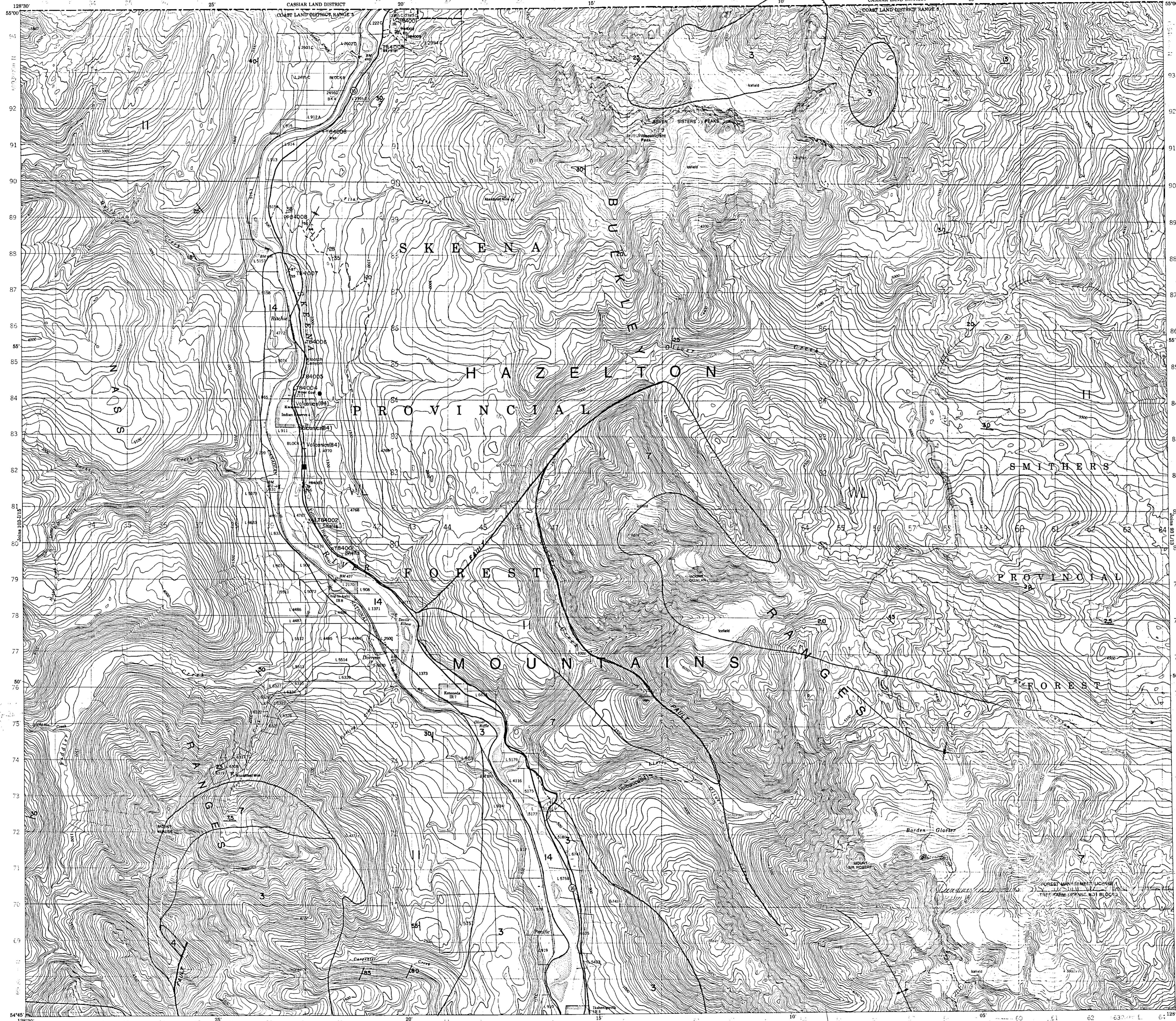
- 3- CNR COAL APPLICATION (B4)
- 3- COAST PLUTONIC COMPLEX
- 7- VOLCANIC BRECCIA
- 11- BOWSER
- 14- ALLUVIUM, SAND, GRAVEL, TILL
- 1- B.C. DEPT. OF MINES

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Pt. 2 (20)

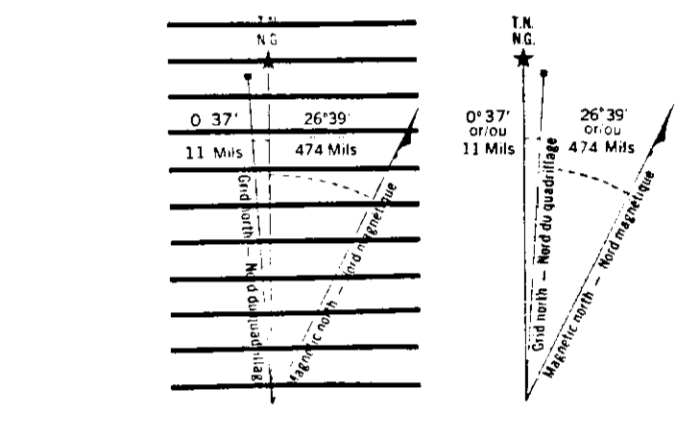
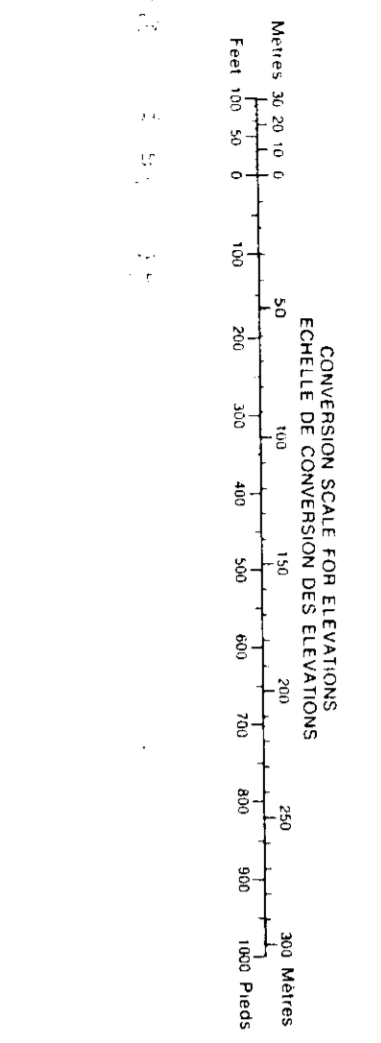
TABLEAU D'ACCROISSANCE DU SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE

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103 N4	103 N5	103 N6
103 V3	103 V5	103 V9

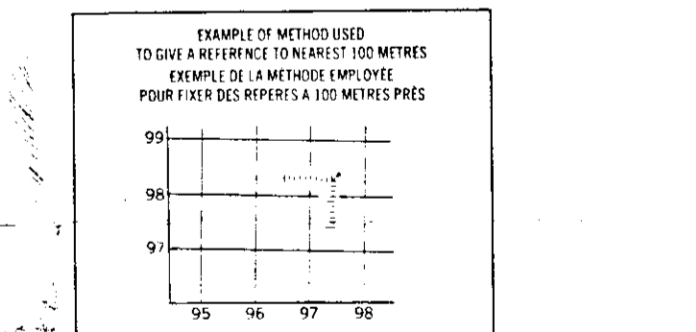
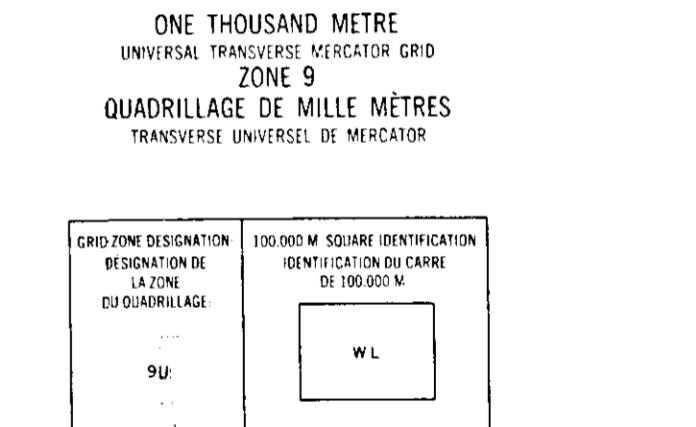
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Military users refer to this map as: MAP 103-1/16 CARTE pour usage militaire: EDITION 2 MCE EDITION



ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 5 QUADRILLAGE DE MILLE METRES TRANSVERSE UNIVERSEL DE MERCATOR



REFERENCE POINT	CHURCH - EGLISE	100 000 M
EASTING	Grid number on grid line immediately left of point	97
NORTHING	Grid number on grid line immediately above point	98
GRID REFERENCE		97 98

- 3- COAST PLUTONIC COMPLEX
- 4- ALICE ARM INTRUSIONS
- 7- VOLCANIC BRECCIA
- 11- BOWSER
- 14- ALLUVIUM, SAND, GRAVEL, TILL
- 7- B.C. DEPT. OF MINES

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 Pt 2
 (21)

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DORREEN
 BRITISH COLUMBIA

Scale 1:50,000 Échelle

This Provisional Map is equivalent to a standard map as shown on the cover.

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