

Figure 21. Ice Thickness - Cambridge Bay, Calculated Weekly (1958-1990) (Canarctic 1993a in Metall, 1993)

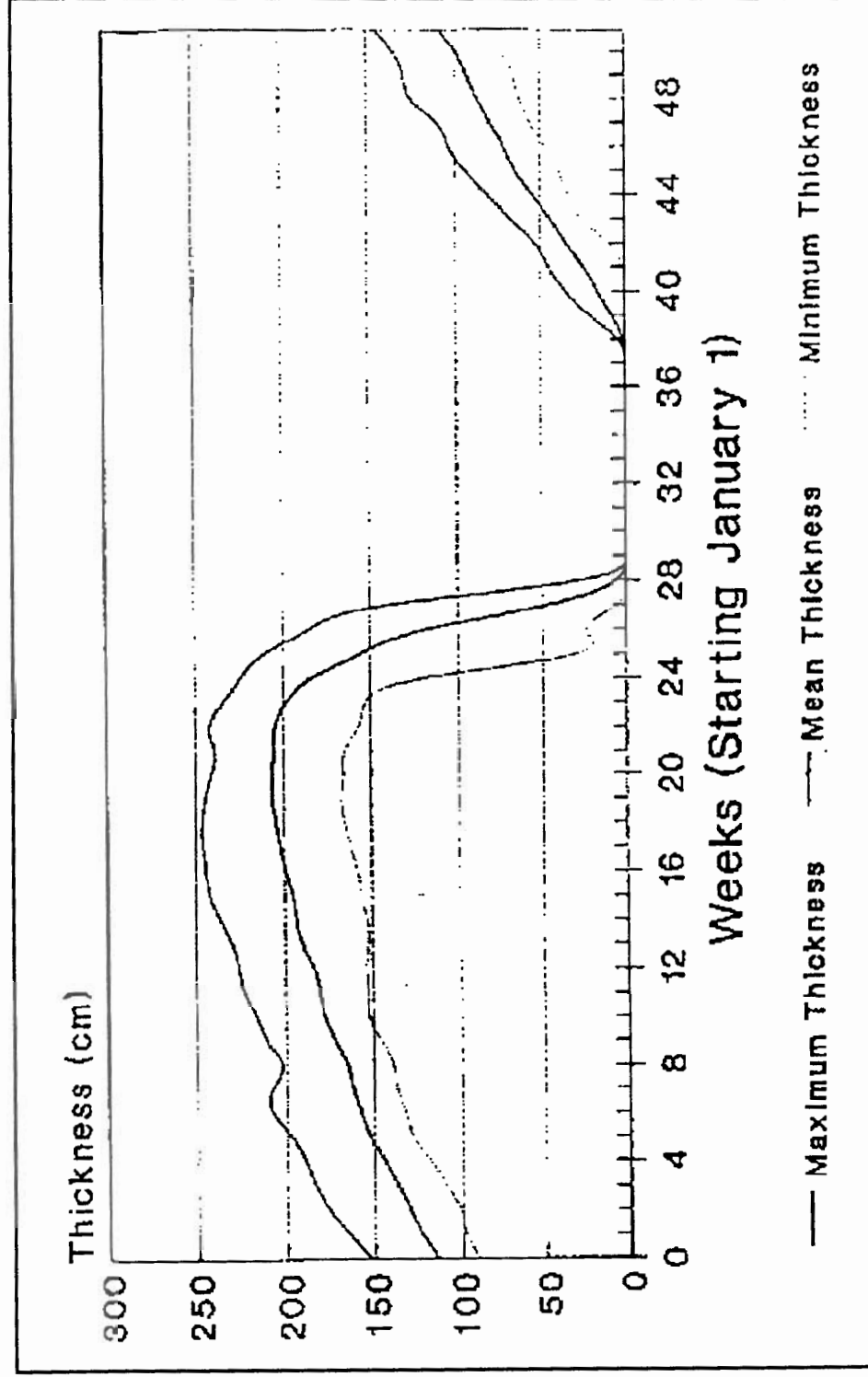


Figure 22. Ice Thickness - Kugluktuk, Calculated Weekly (1958 - 1988) (Canarctic 1993a in Metall Mining Corporation 1993)

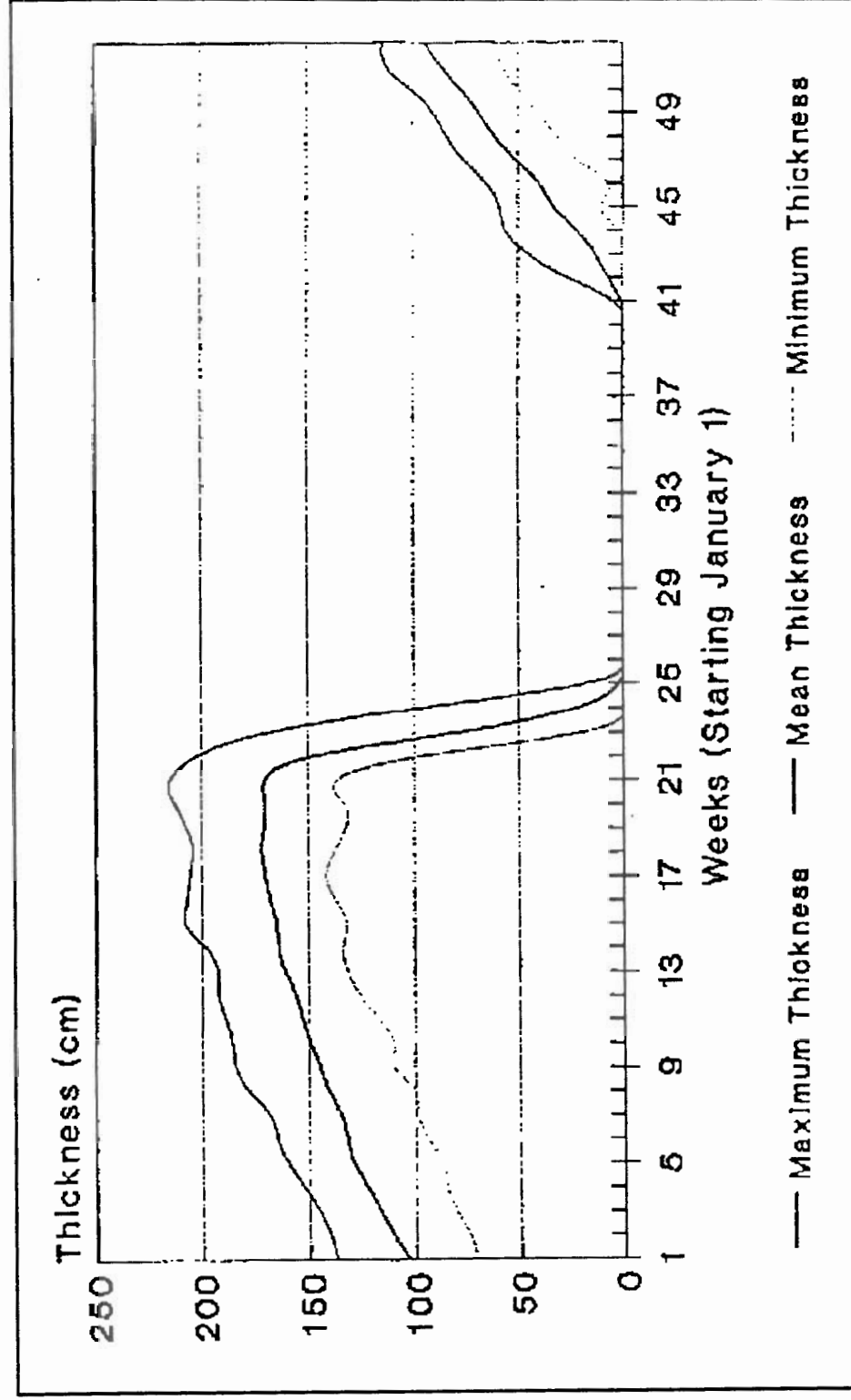


Figure 23. Annual average ice cover at minimum conditions during the mid-September period for the study region (Markham 1981 from Canarctic 1993a in Metall Mining Corporation, 1993

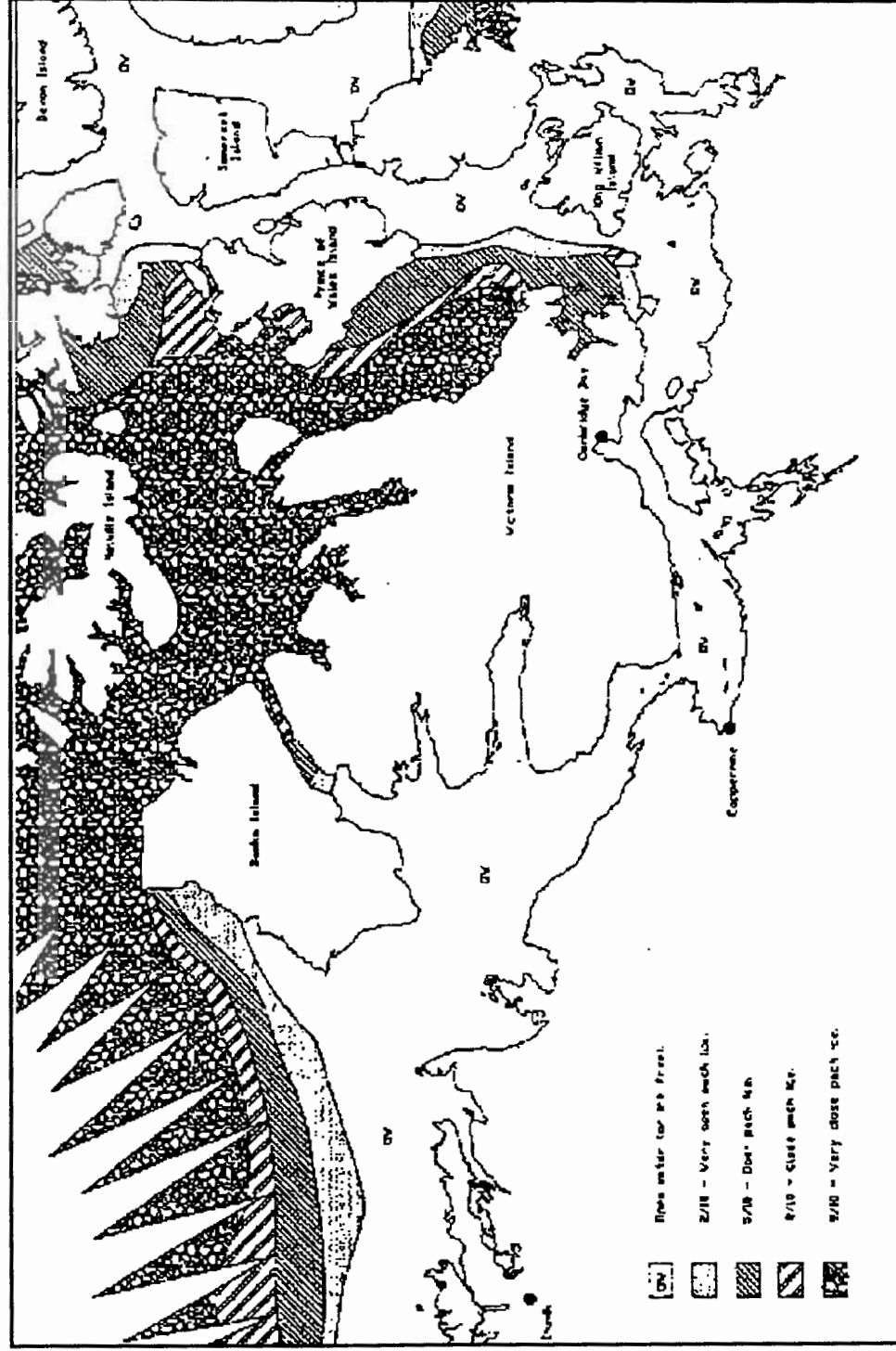


Figure 24. Fracture Sequence for Coronation Gulf Region (Canarctic 1993a in Metall 1993)

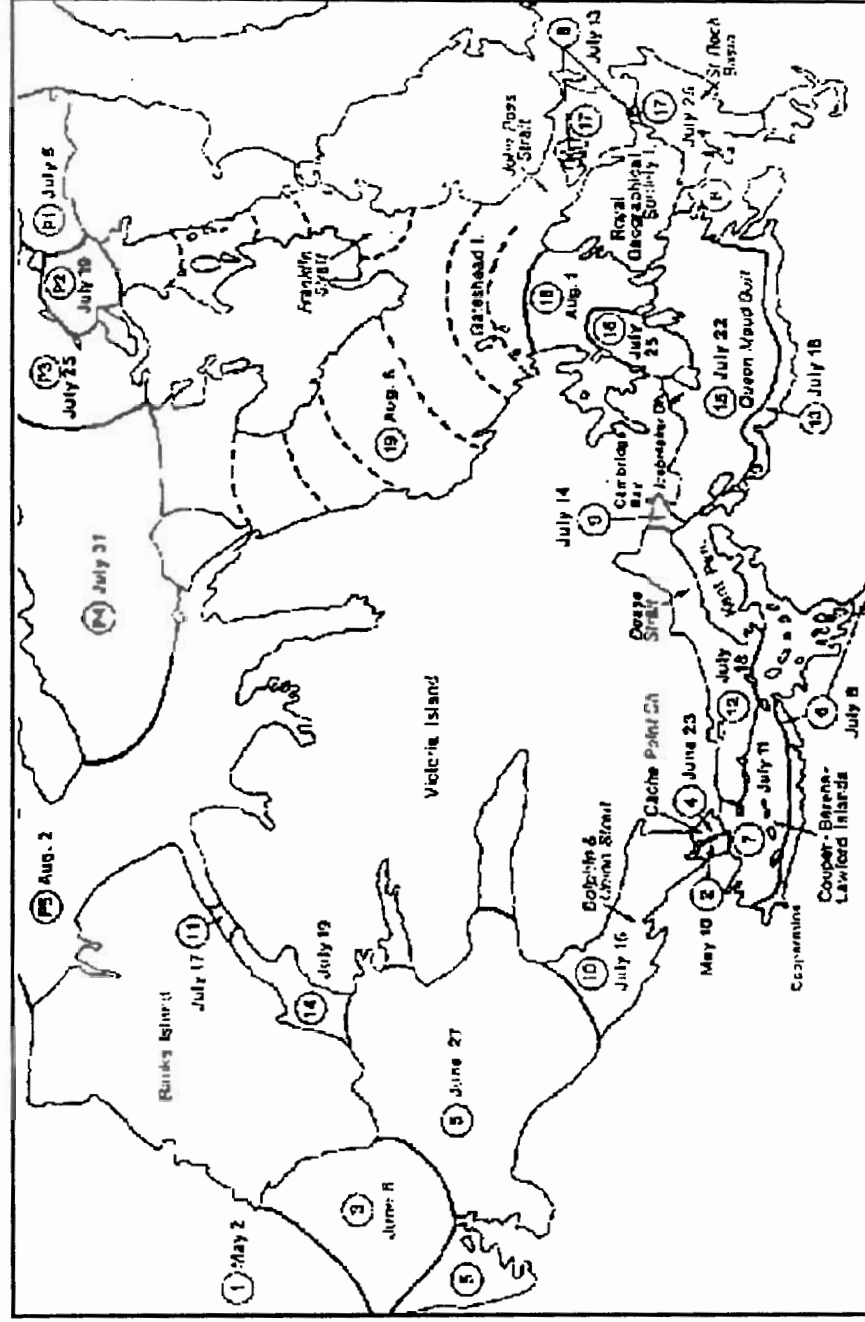


Table 8. Fracture Sequence for the Coronation Gulf Region 1975-1991

EVENT	AVERAGE DATE OF OCCURRENCE	EARLIEST	LATEST
1) Cape Bathurst Polynya	May 2	April 3 (84, 75)	May 25 (80)
2) Lambert Channel Polynya	May 10 ¹	March 24 (91)	May 30 (83)
3) Fracture of Western Amundsen Gulf	June 6 ²	May 4 (77)	June 27 (79)
4) Fracture of Cache Point	June 23 ³	June 10 (89)	July 5 (90)
5) Fracture of Eastern Amundsen Gulf	June 27 ⁴	May 88 (77)	July 15 (79, 82)
6) Shore Lead Southern Coronation Gulf/Bathurst Inlet	July 8	June 27 (84)	August 8 (78)
7) Fracture/Melt of Western Coronation Gulf	July 11	June 30 (84)	August 8 (78)
8) Melt out of Simpson Rae and James Ross Straits	July 13	July 2 (84)	July 30 (86)
9) Fracture of Eastern Dease Strait	July 14	June 27 (75)	August 5 (78)
10) Fracture of Dolphin and Union Strait	July 15	July 2 (88)	August 5 (78)
11) Fracture of Central Prince of Wales Strait	July 17	July 2 (89)	August 4 (86)
12) Fracture of Eastern Coronation Gulf and Dease Strait	July 18	July 1 (84)	August 28 (78)
13) Shore Melt, Southern Queen Maud Gulf	July 18	July 3 (84)	August 5 (78)
14) Fracture of Southern Prince of Wales Strait	July 19	July 5 (84)	August 4 (86)
15) Fracture of Queen Maud Gulf	July 22	July 11 (84)	August 5 (78)
16) Fracture of Victoria Strait	July 25	July 9 (88)	August 22 (78)
17) Fracture of St. Roch and Rasmussen Basins	July 25	July 14 (84)	August 12 (78, 86)
18) Fracture of Northern Victoria Strait	August 1	July 16 (88)	August 28 (78)
19) Fracture of Peel and Larsen Sounds and McClintock Channel	August 5	July 20 (81)	August 28 (78)

¹ Did not consolidate in the winters of 1990/91, 1987/88, 1981/82, and 1980/81

² Did not consolidate in the winters of 1991/92, 1990/91, 1987/88, 1986/87, 1984/85, 1982/1983, 1980/81, and 1977/78.

³ Did not consolidate in the winter of 1987/88.

⁴ Did not consolidate in the winters of 1991/92, 1987/88, 1980/81, and 1977/78

Metall Mining Corporation. 1993.

Table 9. Consolidation Sequence for the Coronation Gulf Region 1975-1991

	EVENT	AVERAGE DATE OF OCCURRENCE	EARLIEST	LATEST
1)	Shore-fast ice along Western M'Clintock	October 22	October 10 (76)	November 10 (83)
2)	Consolidation of Peel Sound	October 30	October 10 (80, 76)	November 26 (83)
3)	Consolidation of Central Prince of Wales Strait	November 1	October 12 (91)	November 19 (76)
4)	Consolidation of St. Roch and Rasmussen Basins	November 2	October 12 (79)	November 20 (75)
5)	Consolidation of Dease Strait	November 5	October 18 (78)	December 10 (88)
6)	Consolidation of Bathurst Inlet	November 8	October 22 (86, 78)	November 20 (75)
7)	Consolidation of Coronation Gulf	November 13	November 2 (78)	December 4 (80)
8)	Consolidation of Southern Prince of Wales Strait	November 15	October 19 (79)	December 16 (80)
9)	Consolidation of Western Queen Maud Gulf	November 15	October 22 (78)	December 11 (79)
10)	Consolidation of Eastern Queen Maud Gulf	November 17	October 21 (86, 78)	December 11 (79)
11)	Consolidation of Dolphin and Union Strait	November 29	November 12 (90)	January 12 (84)
12)	Consolidation of Cache Point Channel	December 2 ¹	November 17 (90, 84)	January 12 (84)
13)	Consolidation of Larsen Sound and M'Clintock Channel	December 4	October 23 (78)	January 3 (84)
14)	Consolidation of Lambert Channel	December 13 ²	November 17 (84)	February 1 (89)
15)	Consolidation of Victoria Strait	December 31	November 28 (78)	February 1 (76)
16)	Consolidation of Eastern Amundsen Gulf	February 17 ³	December 2 (79)	April 12 (86)
17)	Consolidation of Western Amundsen Gulf	March 22 ⁴	February 28 (90)	April 30 (77)

¹ Did not consolidate in the winter of 1987/88

² Did not consolidate in the winters of 1990/91, 1987/88, 1981/82, and 1980/81.

³ Did not consolidate in the winters of 1991/92, 1987/88, 1980/81, and 1977/78.

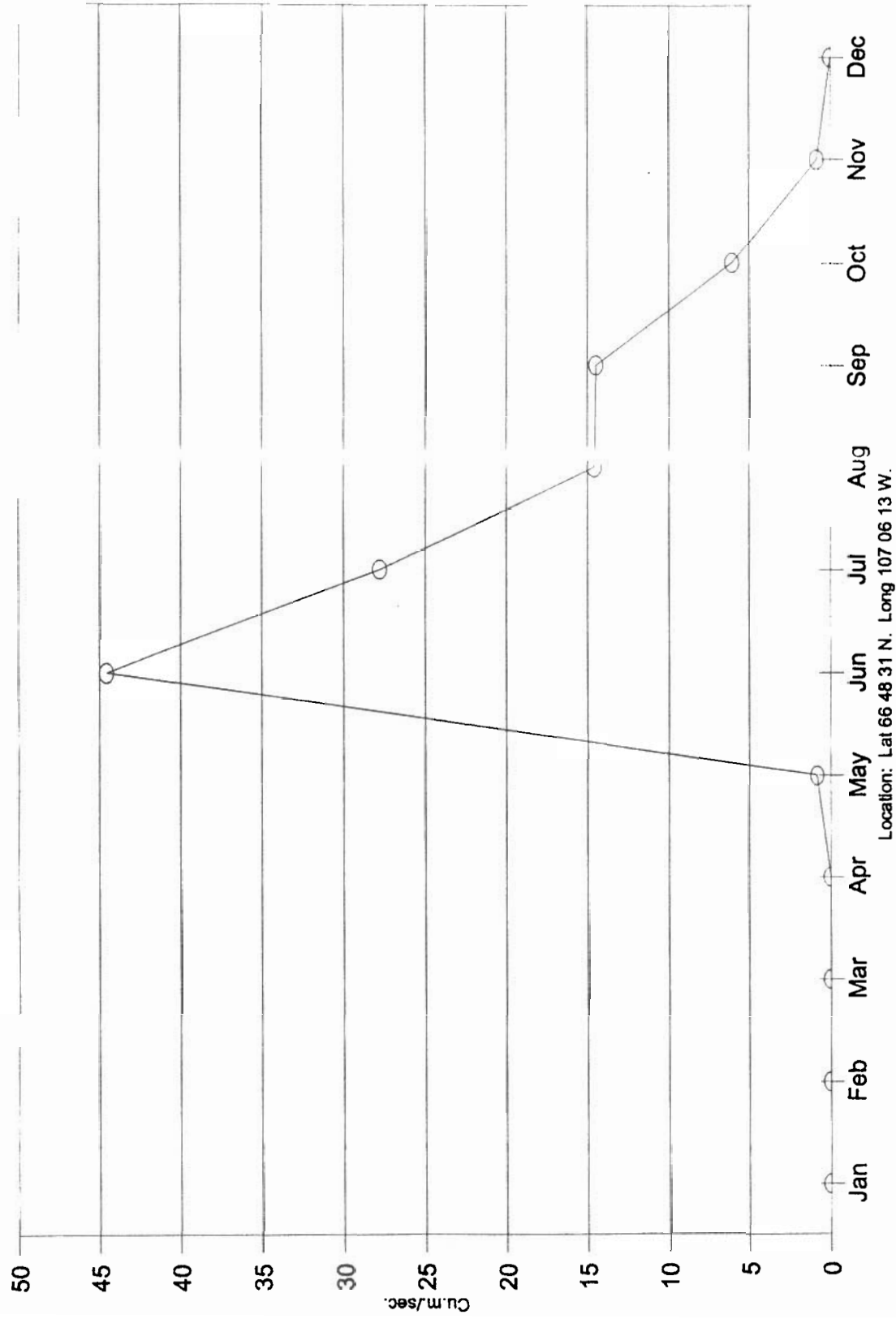
⁴ Did not consolidate in the winters of 1991/92, 1990/92, 1987/88, 1986/87, 1984/85, 1982/83, 1980/81, and 1977/78.

Mettall Mining Corporation. 1993.

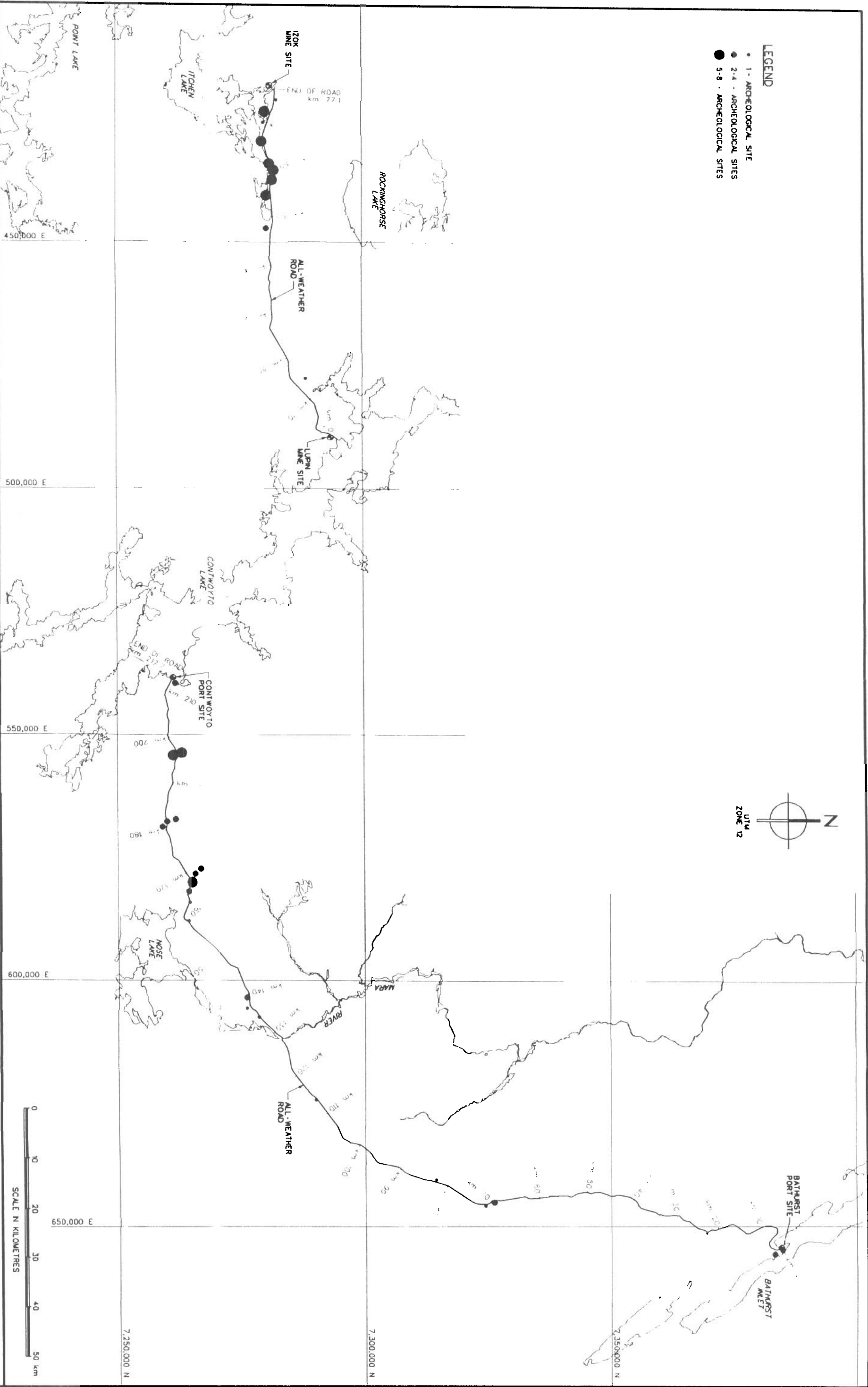
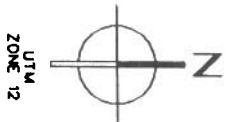
BATHURST INLET PORT AND ROAD

PRELIMINARY PROJECT DESCRIPTION

Figure 26. Mean Discharges (cu.m./sec) or the Gordon River, Nunavut (1977-1992)



- LEGEND**
- 1 - ARCHEOLOGICAL SITE
 - 2-4 - ARCHEOLOGICAL SITES
 - 5-8 - ARCHEOLOGICAL SITES



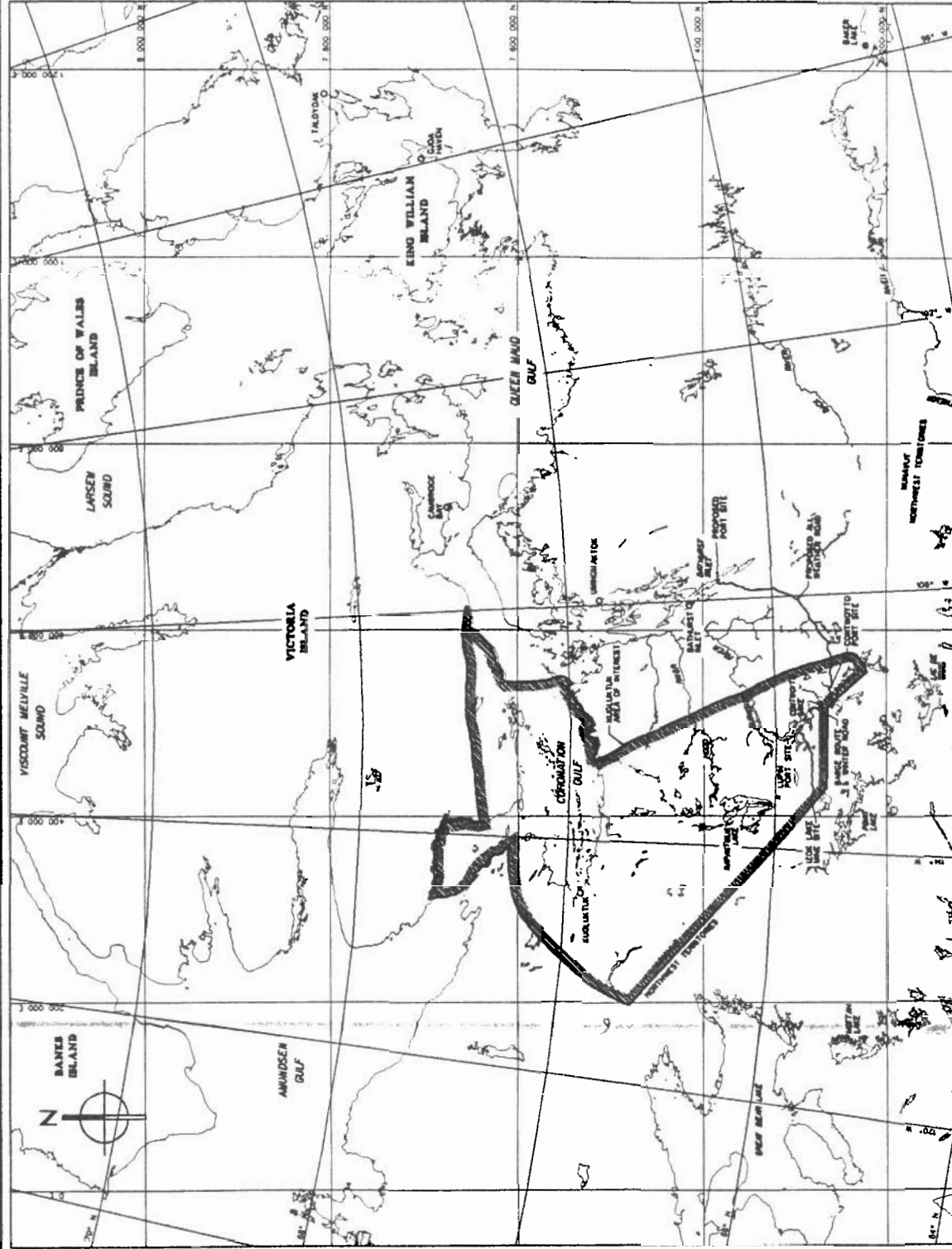
**BATHURST INLET
PORT & ROAD PROJECT**

**HERITAGE SITE LOCATIONS
ALONG ROAD ALIGNMENT**

FIGURE 27



NOTES:
 1. SHIPWRECK REMAINS (FOR INFORMATION PROVIDED BY
 THE CANADIAN NAVY)
 2. GRID SHOWN IS ZONE 18 UTM MAG 83.



KUGLUKTUK AREA OF INTEREST
 (COURTESY NUNAVUT PLANNING COMMISSION)

BATHURST INLET
 PORT & ROAD PROJECT

FIGURE 28

IN BATHURST INLET
 PROJECT AREA
 PROJECT

2. CNO SHOWN IN ZONE 12 UTM MAG 83.

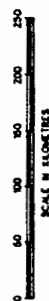
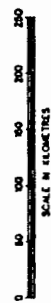


FIGURE 28

BATHURST INLET AREA OF INTEREST
(COURTESY OF NUNAVUT PLANNING COMMISSION)

**BATHURST INLET
PORT & ROAD PROJECT**

1. BASE MAPPING DERIVED FROM INFORMATION PROVIDED BY TERRACONTO GEODESICS LTD.
2. DPO SHOWN AS ZONE B UTM MAG 83.



**BATHURST INLET
PORT & ROAD PROJECT**

NOTES:
 1. BATHURST INLET, PORT & ROAD PROJECT
 2. DMS 1983 UTM ZONE 18 JTM 480 81

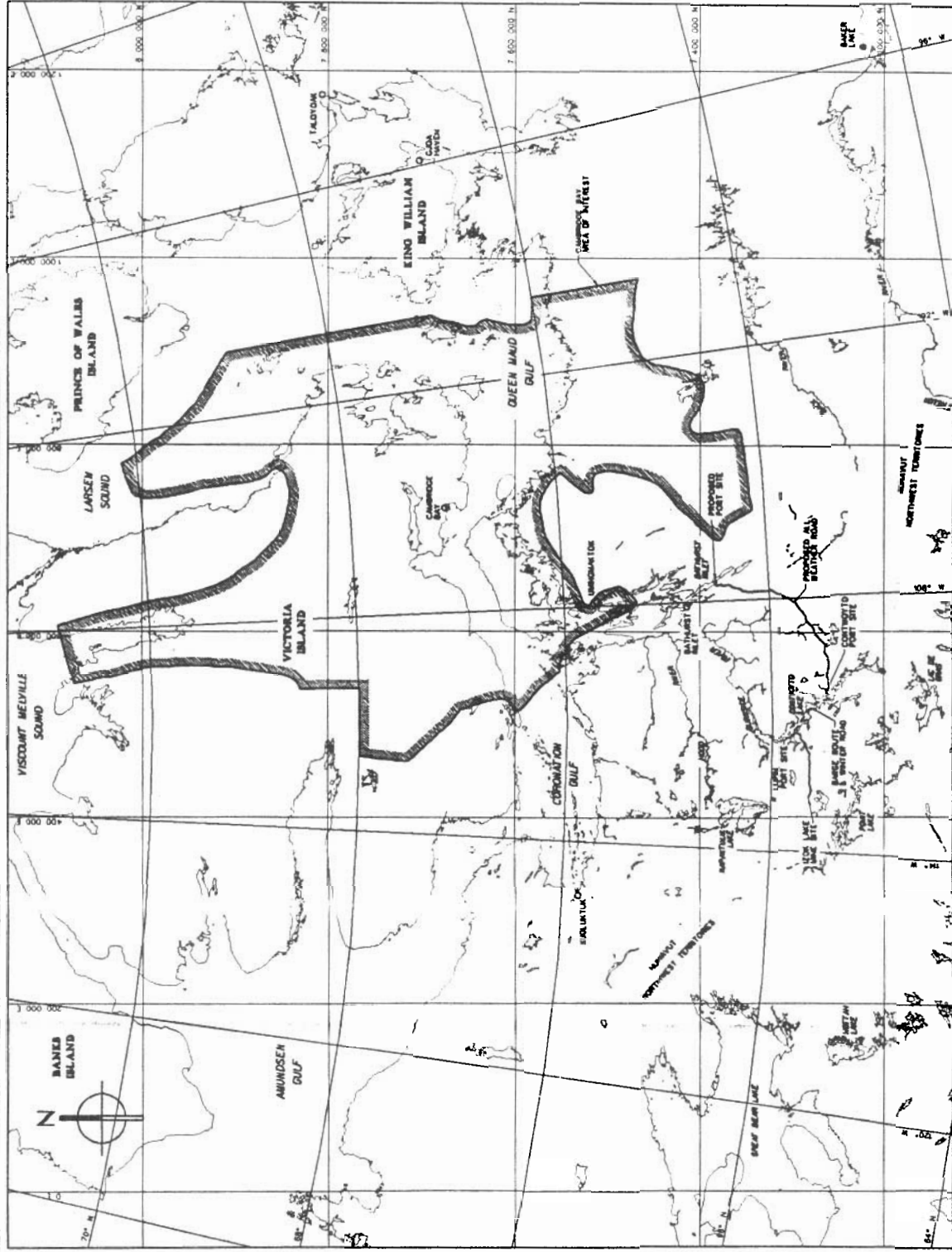
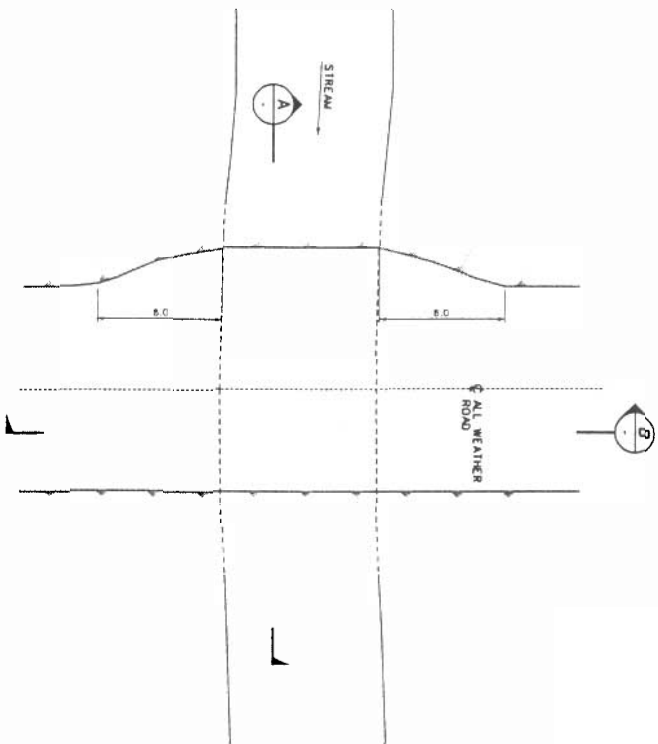


FIGURE 31

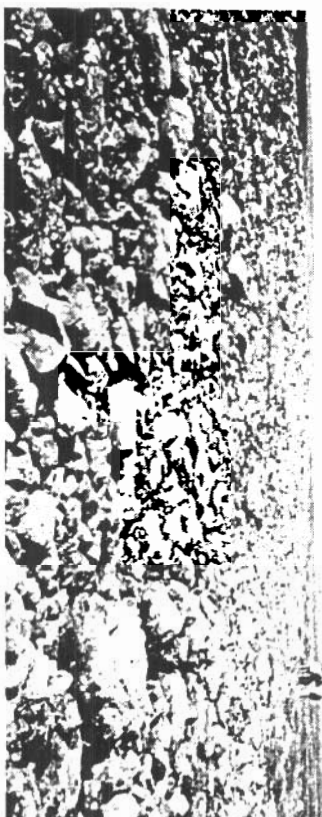
CAMBRIDGE BAY
 AREA OF INTEREST

BATHURST INLET
 PORT & ROAD PROJECT

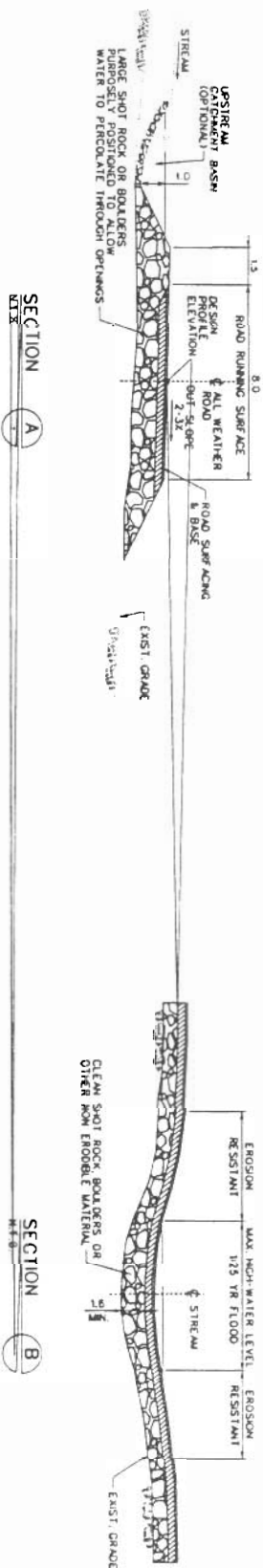


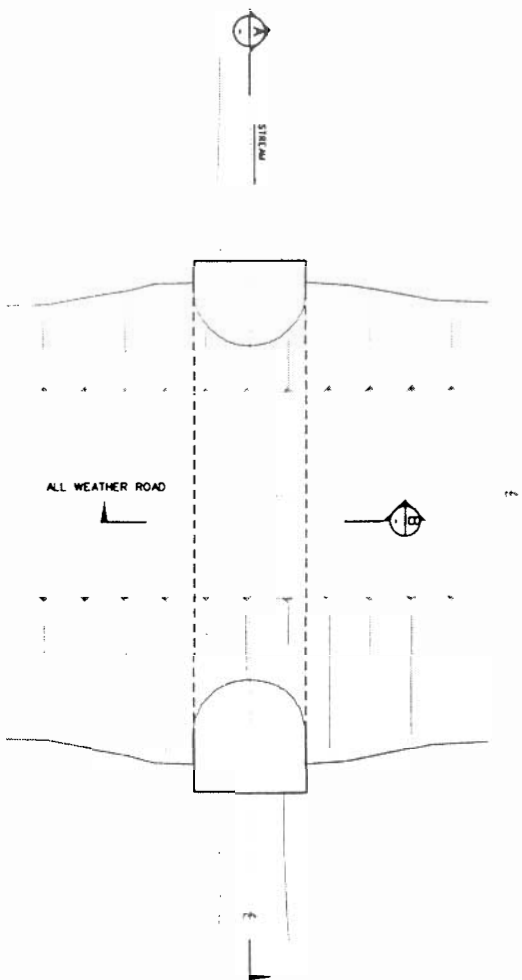
TYPICAL MINOR STREAM FORD CROSSING

CATCHMENT AREA > 5 km²

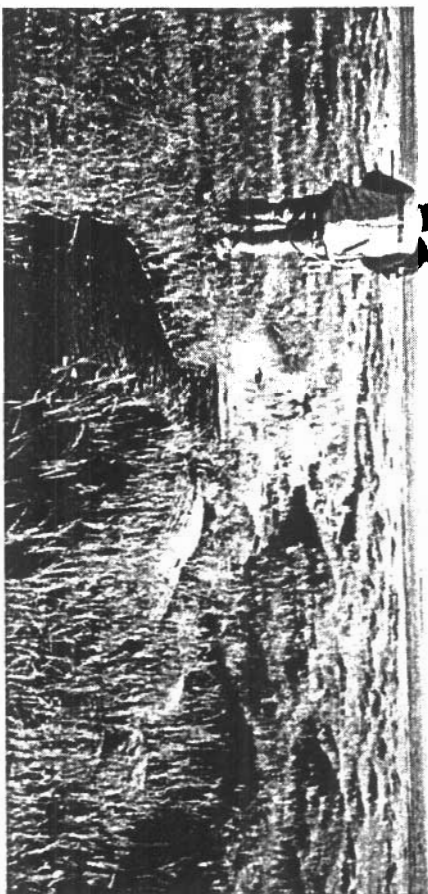


TYPICAL LOCATION FOR A MINOR STREAM FORD CROSSING

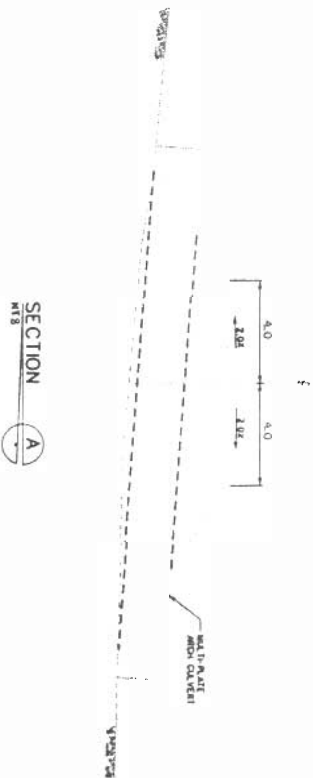




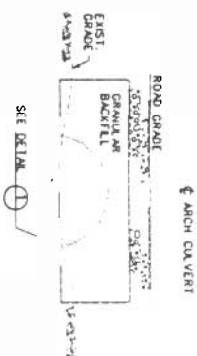
PLAN



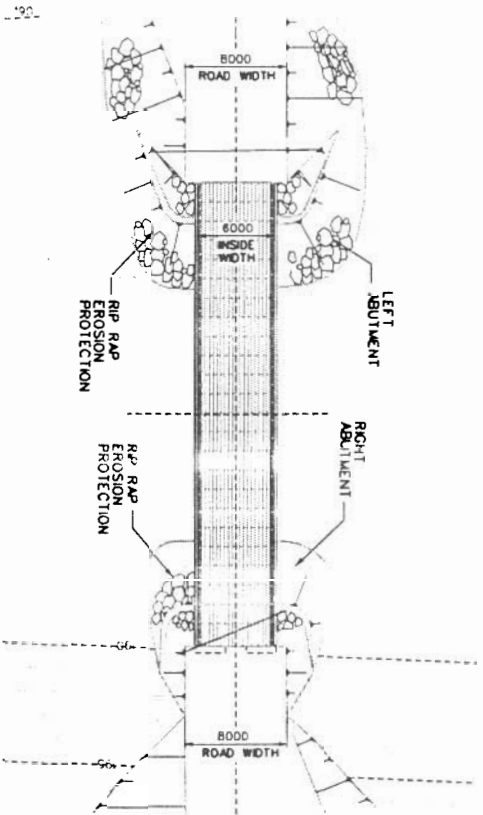
TYPICAL STREAM FOR ARCHED CULVERT CROSSING



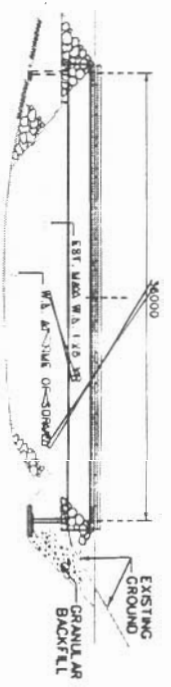
SECTION A



SECTION B

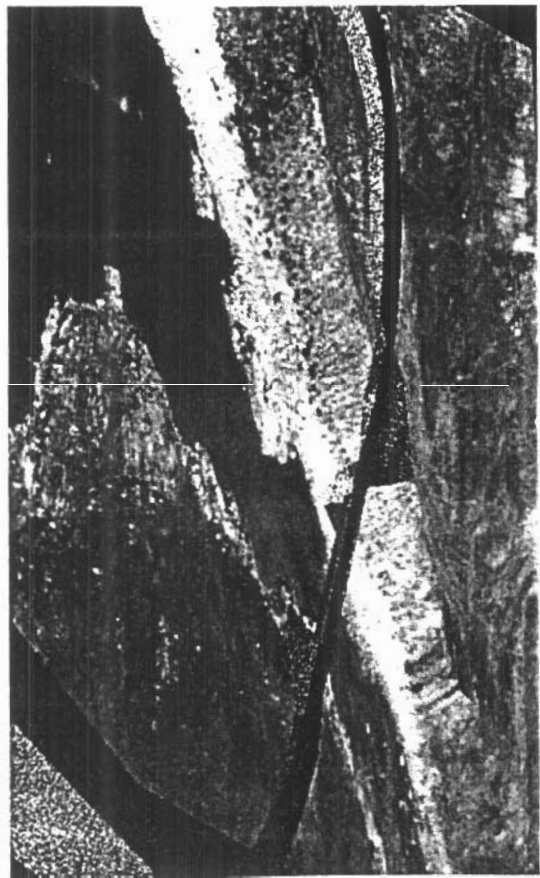


PLAN

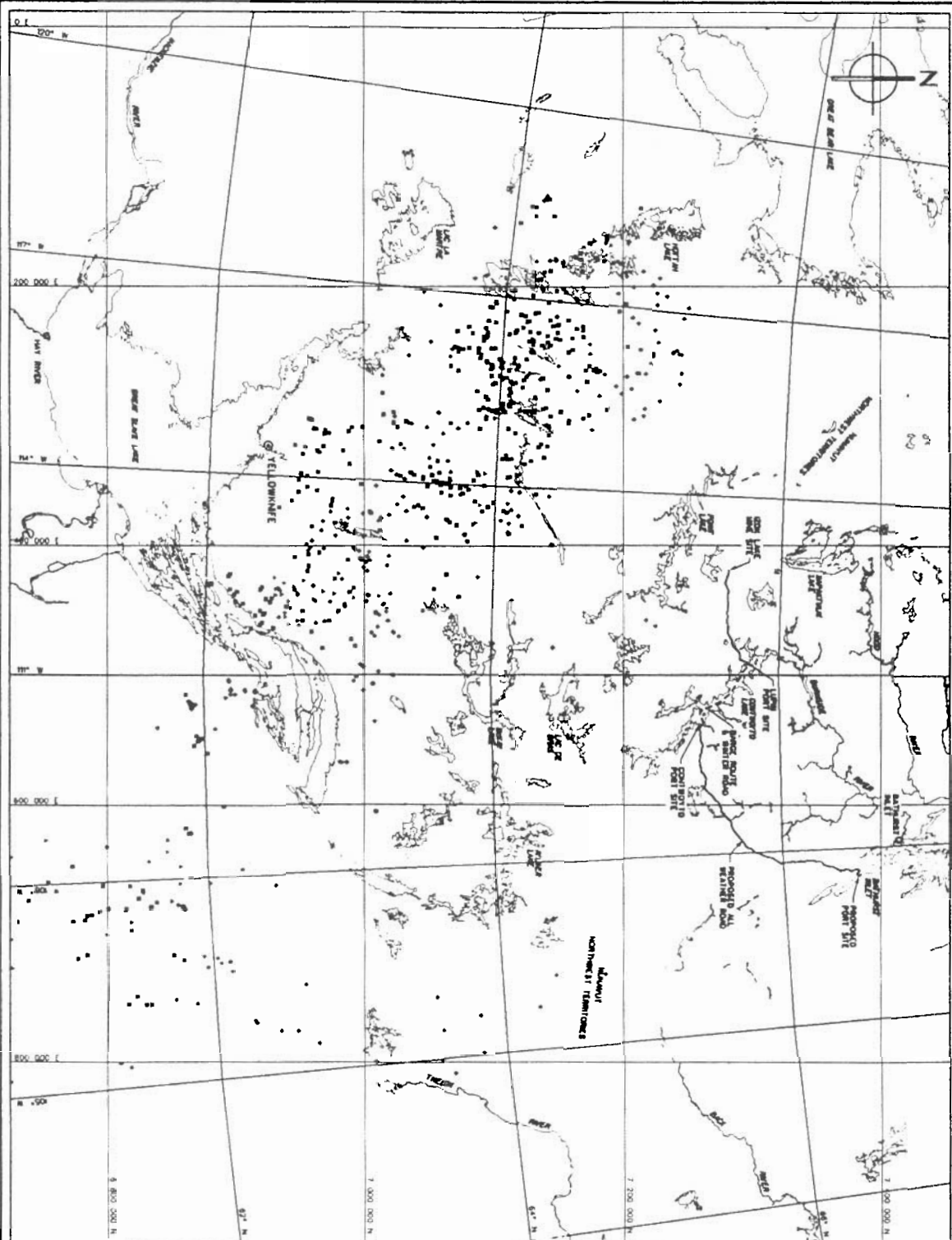


ELEVATION

SINGLE SPAN BRIDGE WATER CROSSING
TYPICAL DETAILS

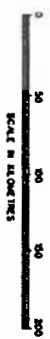


SINGLE SPAN BRIDGE WATER CROSSING
TYPICAL LOCATION



NOTES:
 1. INFORMATION PROVIDED BY
 2. ONE SHOWN IN ZONE 12 WITH TWO 13.

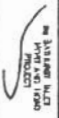
LEGEND
 CARIBOU DISTRIBUTION BY YEAR
 • 1986
 • 1987
 • 1988
 • 1989
 • 2000

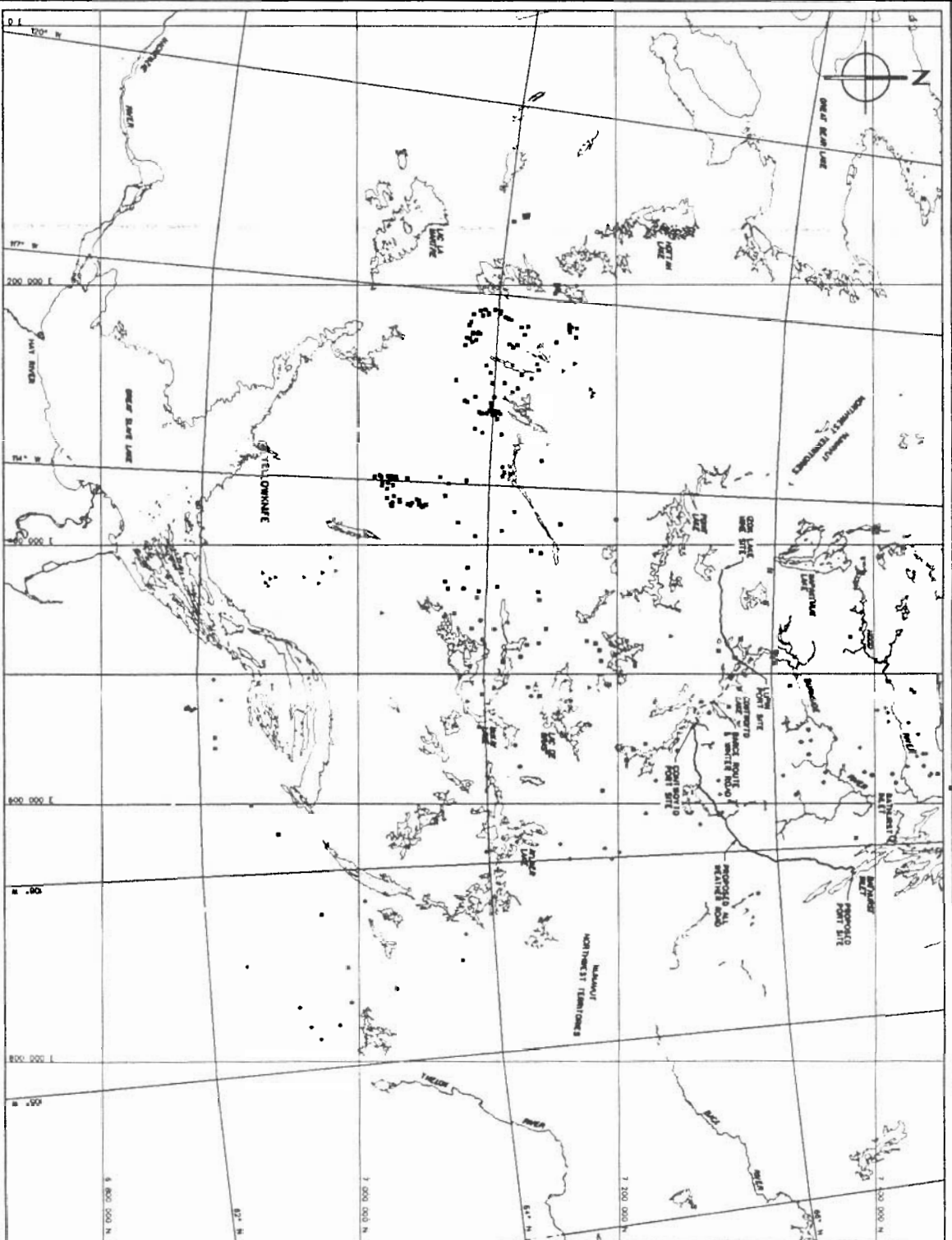


BATHURST INLET
 PORT & ROAD PROJECT

BATHURST CARIBOU HERD
 WINTER DISTRIBUTION 1986 - 2000

FIGURE 36A





NOTES:
 1. BATHURST CARIBOU HERD INFORMATION PROVIDED BY
 2. GRID BROWN 8 ZONE 12 UTM AND 83.

LEGEND

CARIBOU DESTINATION BY YEAR

- 1996
- 1997
- 1998
- 1999
- 2000

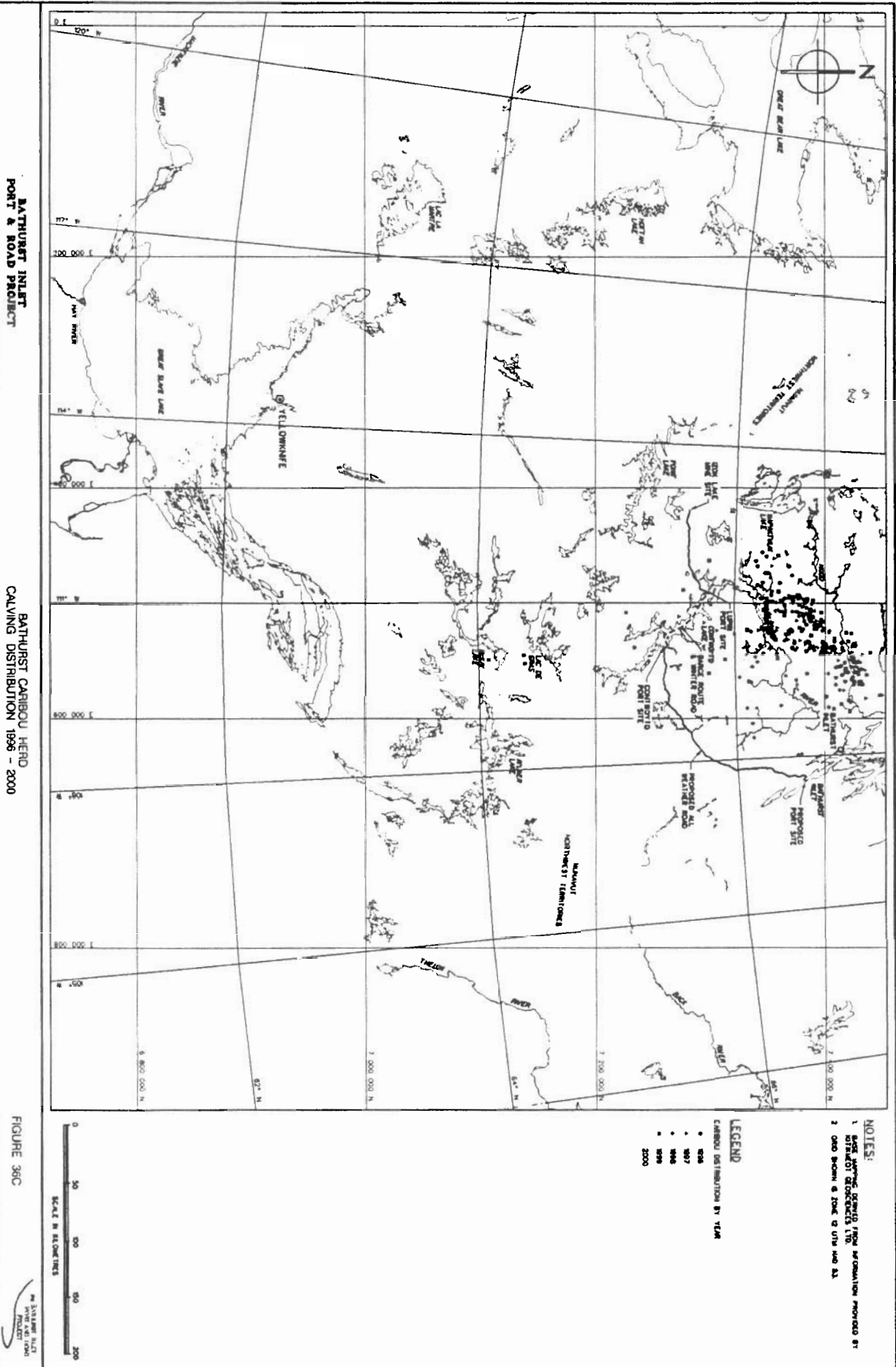


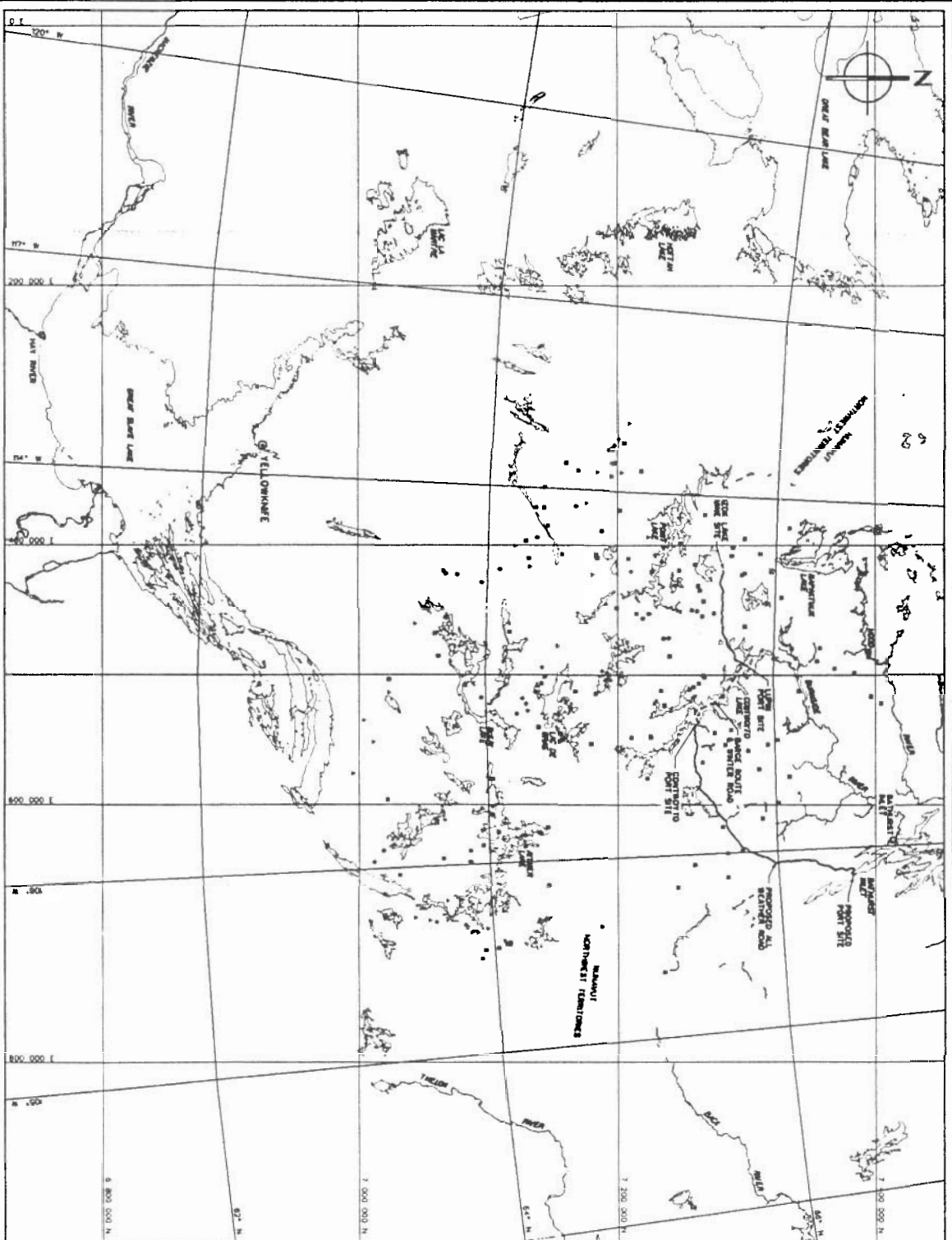
BATHURST INLET
 PORT & ROAD PROJECT

BATHURST CARIBOU HERD
 SPRING MIGRATION 1996 - 2000

FIGURE 36B







NOTES:
 1. DISTANCE FROM INFORMATION PROVIDED BY
 2. DISTANCE FROM INFORMATION PROVIDED BY
 3. DISTANCE FROM INFORMATION PROVIDED BY

LEGEND
 CARIBOU DISTRIBUTION BY YEAR
 • 1996
 • 1997
 • 1998
 • 1999
 • 2000



BATHURST INLET
 PORT & ROAD PROJECT

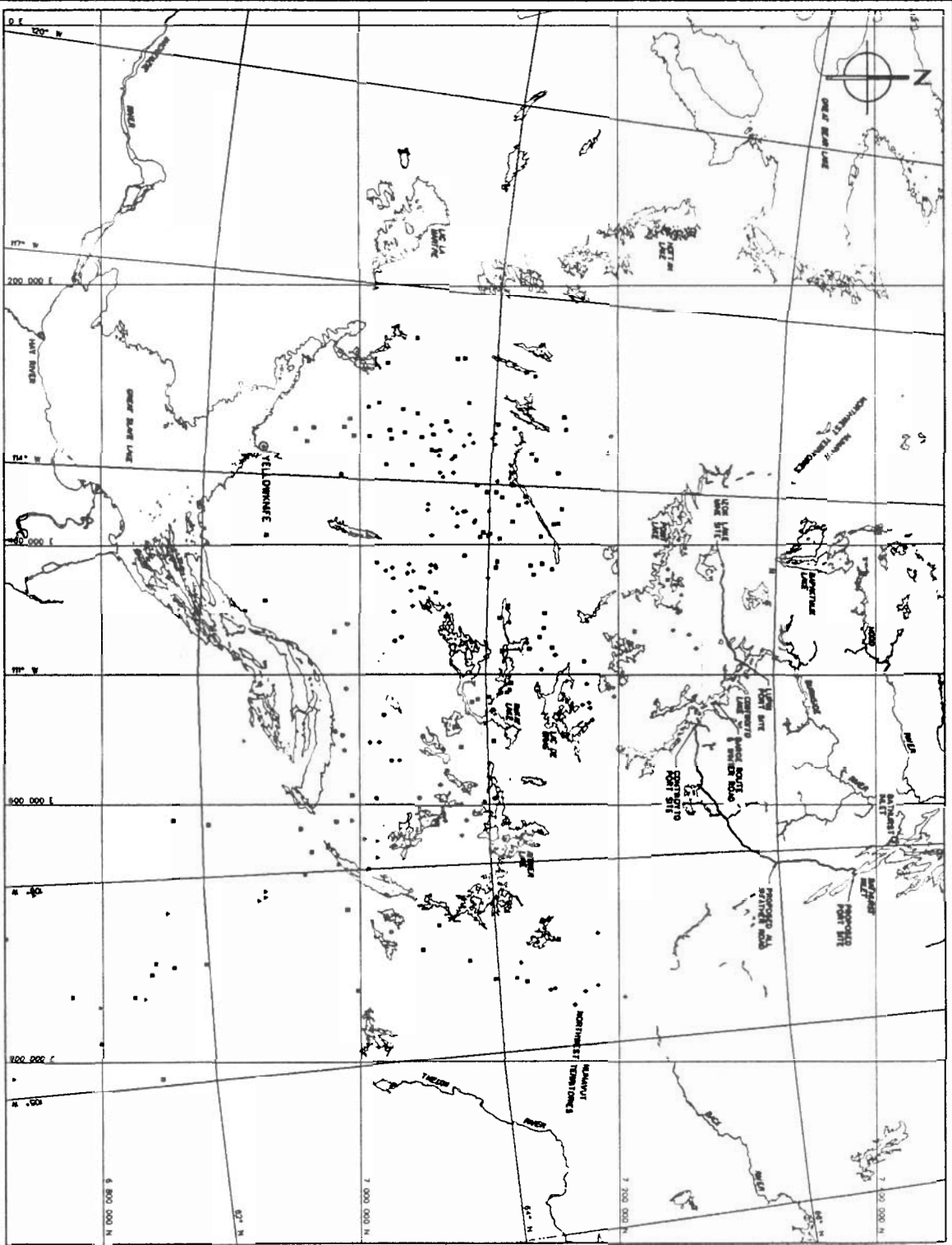
BATHURST CARIBOU HERD
 LATE SUMMER DISTRIBUTION 1996 - 2000

FIGURE 36E



BATHURST INLET
PORT & ROAD PROJECT

BATHURST CARIBOU HERD
FALL MIGRATION AND RUT DISTRIBUTION 1993 - 2000



LEGEND
CARIBOU DISTRIBUTION BY YEAR
• 1993
• 1997
• 1998
• 1999
• 2000

NOTES:
1. SOURCE: BATHURST CARIBOU HERD INFORMATION PROVIDED BY
BATHURST CARIBOU HERD
2. ONLY SHOWS 3 ZONE 12 UTM AND 13

FIGURE 36F