



Ministry of State

Ministère d'État

Science and
Technology

Sciences et
Technologie

security classification

cote de sécurité

UNCLASSIFIED

INVENTORY
OF
FEDERAL NORTHERN SCIENCE PROJECTS
1975-1976

internal
report
rapport
interne

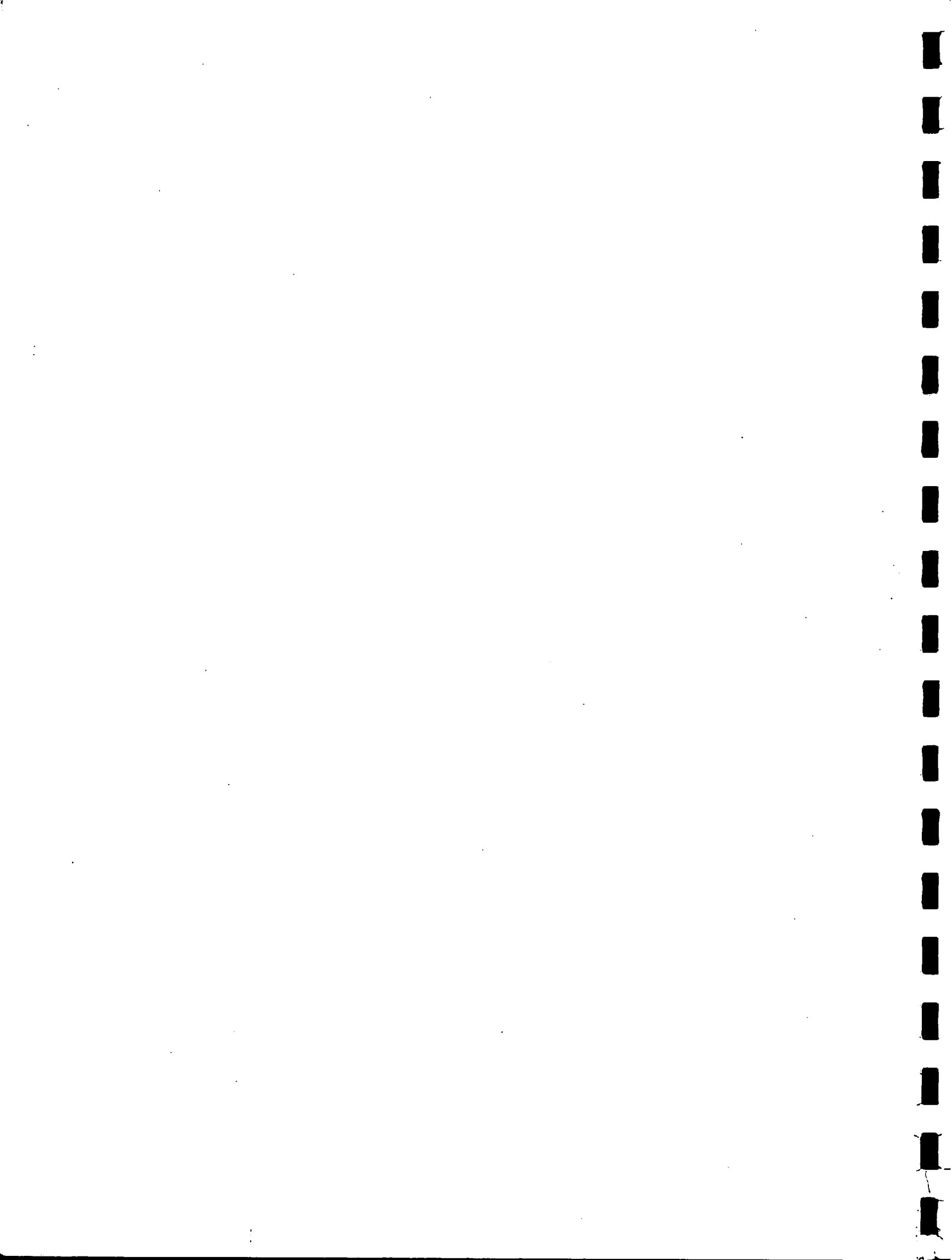
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1977

INVENTORY
OF
FEDERAL NORTHERN SCIENCE PROJECTS
1975-1976

24001

GOVERNMENT BRANCH
MINISTRY OF STATE FOR
SCIENCE AND TECHNOLOGY
1977

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INTRODUCTION

At the request of the Deputy Minister of Indian Affairs and Northern Development and the Advisory Committee on Northern Development, the Ministry of State for Science and Technology began in 1976 to collect the necessary data to produce an inventory of federally funded northern science projects for the fiscal year 1975-76. This inventory is intended to be used as a resource document by all federal agencies and by Indian Affairs and Northern Development for their review of the government's objectives and priorities for the North. In addition, this data base provides the Committee on Science and Technology of the Advisory Committee on Northern Development with the necessary background information to review the government's S&T activities. This is the second such periodic inventory, the first inventory was completed in 1971.

Some forty Government Departments and Agencies as well as the two Territorial Governments were contacted and requested to supply the Ministry with information regarding their northern science projects. A questionnaire format was used. In all, information on over 550 projects was received. (In addition, the Canada Council and the National Research Council provided information on grants awarded for scientific studies in the North. A number of projects have been excluded from the final inventory because they were judged not to fall within the geographic, fiscal, or definitional bounds of the exercise. This document contains 472 projects.)

As an aid to readers, and especially to respondents, the following should be noted:

A) In the main section dealing with resources (Q.9):

- all dollar figures are in thousands, and rounded to the nearest hundred;
- all manpower figures have been converted to man-months.

B) In Question 10, relating to grants and contracts, responses were further categorized and coded as follows;

10	01	contracts
10	02	grants
10	03	transfers between federal departments and agencies.

- C) Because projects were numbered before they were screened and compiled, gaps and other anomalies occur necessarily in the numerical sequences.
- D) Projects have, where possible, been grouped according to the main organizational units within those departments with major northern programs.
- E) To reduce this data base to manageable proportions, only the responses are provided; an abbreviated questionnaire on a "fold out" is provided at both the front and back of this document for easy reference.
- F) Where lengthy responses were provided to some questions, such information has been extracted from the main body of the text and is contained under the appropriate project number, in a Reference File found at the end of the projects for that Department.

All enquiries regarding additional copies of this document should be directed to the ACND Secretariat Division, Department of Indian Affairs and Northern Development.

Government Branch
Ministry of State for
Science and Technology
1977

SUMMARY OF DOLLAR AND MANPOWER EXPENDITURES
(Inventory of Federal Northern Science Projects 1975-76)

Government Branch
Ministry of State for
Science and Technology

July 1977

TABLE 1.

DEPARTMENTAL BREAKDOWN OF DOLLAR EXPENDITURES BY FIELD OF SCIENCE (a)

1975-76

		LIFE	PHYSICAL	ENGINEERING	ENVIRONMENTAL	HUMAN	MATHEMATICAL	TOTAL COST
DEPT. OR AGENCY	Agri	-	88.0	-	38.3	-	-	118.3
	CMHC	-	-	16.7	0.3	177.2	-	194.3
	DND	553.6	553.6	553.6	553.6	553.6	187.0	2,955.0
	DOC	24.2	324.3	3,981.4	-	27.7	14.0	4,371.6
	DPW	-	9.3	49.3	0.8	-	-	59.4
	EMR	-	5,607.8	1,081.3	6,086.5	8.0	42.5	12,825.9
	FE	2,084.0	1,365.9	641.3	10,790.2	84.3	0.8	14,966.5
	HWC	92.5	-	-	-	-	-	92.5
	IAND	532.5	330.0	171.1	1,875.3	734.8	-	3,643.7
	M&I	-	-	-	-	41.0	-	41.0
	NMC	42.2	-	-	67.9	232.4	-	342.5
	NRC	-	59.0	140.0	35.0	-	-	234.0
	REE	-	-	5.4	63.0	5.4	-	73.8
	SC	-	-	-	-	132.0	-	132.0
	ScC	-	-	-	-	35.9	-	35.9
TC	-	84.0	1,398.4	7.5	206.2	-	1,696.1	
TOTAL EXP.		3,329.0	8,413.9	8,038.5	19,518.4	2,238.5	244.3	41,781.8
PERCENTAGE		8.0	20.1	19.2	46.7	5.4	0.6	100.0
TERRITORIES	NWT	-	-	5.0	-	518.0	1.5	524.5
	YT	-	-	-	40.0	31.5	-	71.5
	TOTAL EXP.	-	-	5.0	40.0	549.5	1.5	596.0
TOTAL	GRAND TOTAL	3,329.0	8,413.9	8,043.5	19,558.4	2,788.0	245.8	42,377.8
	PERCENTAGE	7.9	20.0	19.0	46.2	6.6	0.6	100.0

SOURCE: Inventory of Federal Northern Science Projects, 1975-76.

(a) In instances where projects were attributed to more than one field of science; the total costs were equally divided by the number of fields indicated.

BREAKDOWN BY FIELD OF SCIENCE

(-\$ '000)

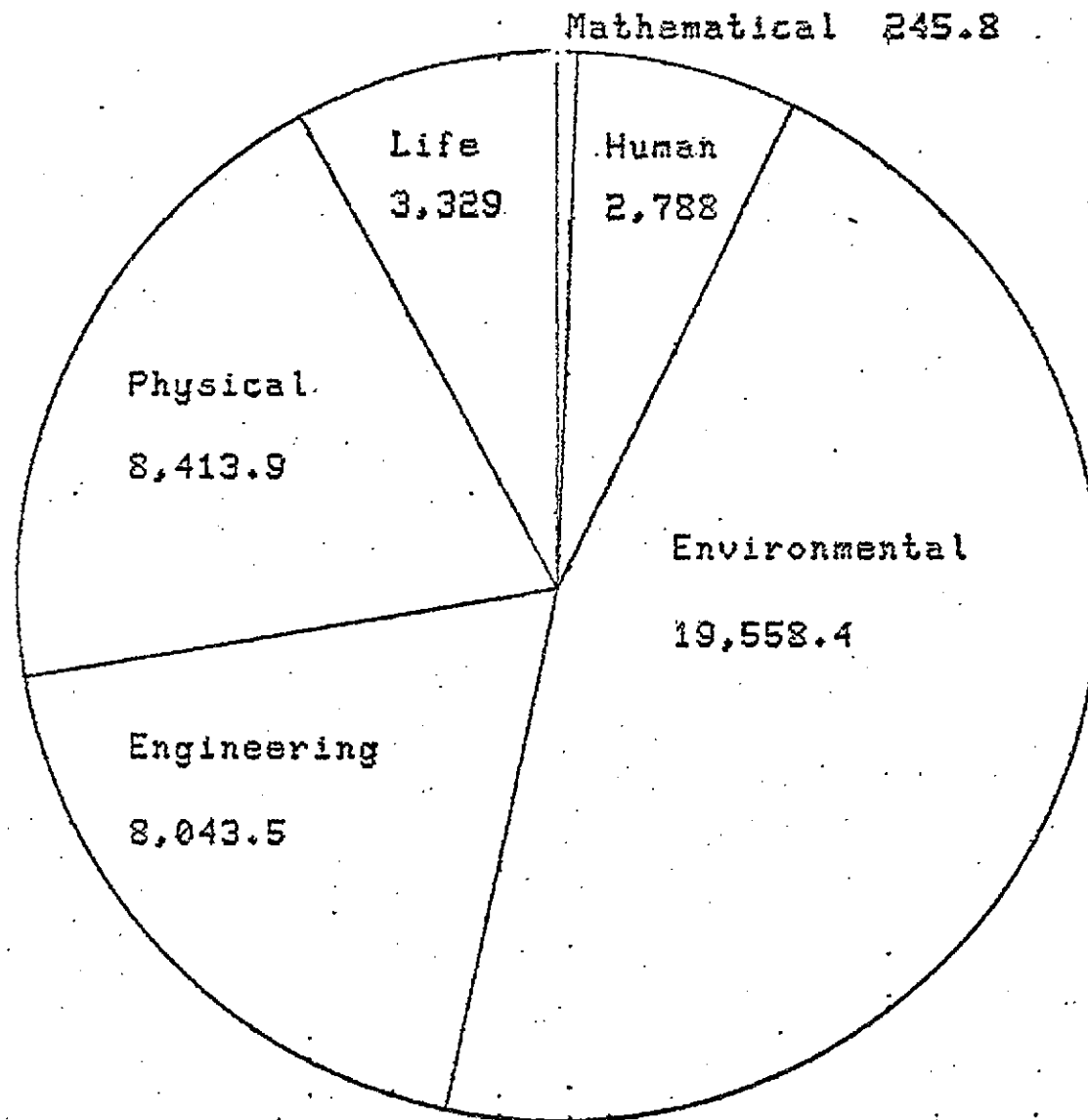


CHART 1
Ref. Table 1

TABLE 2.

DEPARTMENTAL BREAKDOWN OF DOLLAR EXPENDITURES
(\$ '000)

1975-76

		SALARIES & WAGES	CAPITAL	OTHER COSTS	TOTAL COSTS	% OF TOTAL EXPENDITURES	CONTRACTS	GRANTS	TRANSFERS
DEPT. OR AGENCY	Agr	108.9	0.4	9.0	118.3	0.3	83.0	-	-
	CHMC	11.4	-	182.9	194.3	0.5	33.3	45.7	103.9
	DND	1,517.0	288.0	880.0	2,955.0	7.0	-	-	-
	DOC	597.1	2,612.7	1,156.5	4,371.3	10.3	918.4	-	-
	DPW	13.5	3.0	43.0	59.5	0.1	42.0	-	-
	EMR	3,992.4	999.6	5,833.8	12,825.8	30.3	2,638.5	-	145.0
	FE	7,306.8	1,076.2	5,277.0	14,967.0	35.3	525.0	5.7	-
	HWC	19.0	8.0	65.5	92.5	0.2	65.2	-	-
	IAND	384.4	-	2,835.6	3,643.5	8.6	1,107.2	594.5	1,049.3
	M&I	18.3	-	22.7	41.0	0.1	14.7	-	-
	NMC	75.3	14.6	252.6	342.5	0.8	145.2	-	-
	NRC	165.0	-	69.0	234.0	0.6	-	-	-
	REE	-	-	73.8	73.8	0.2	73.8	-	-
	SC	115.0	-	17.0	132.0	0.3	-	-	-
ScC	-	-	35.9	35.9	0.1	35.9	-	-	
TC	247.5	21.0	1,427.5	1,696.0	4.0	1,423.3	-	20.0	
	TOTAL	14,571.6	5,023.5	18,181.8	41,781.7	-	7,099.2	645.9	1,318.2
TERRITORIES	NWT	186.4	-	333.1	524.5	1.2	92.2	-	-
	YT	28.8	-	42.7	71.5	0.2	7.0	-	-
	TOTAL	215.2	-	375.8	596.0	1.4	99.2	-	-
TOTAL	TOTAL EXP.	14,786.8	5,023.5	18,557.6	42,377.7	-	7,198.4	645.9	1,318.7
	PERCENTAGE(a)	34.9	11.9	43.8	100.0	-	17.0	1.5	3.1

SOURCE: Inventory of Federal Northern Science Projects, 1975-76.

(a) The breakdown does not add up to 100% because of instances where only total dollar expenditures were reported. In cases where total cost figures were not available, incomplete cost figures were considered as total costs.

TOTAL EXPENDITURE BREAKDOWN BY DEPARTMENT AND AGENCY

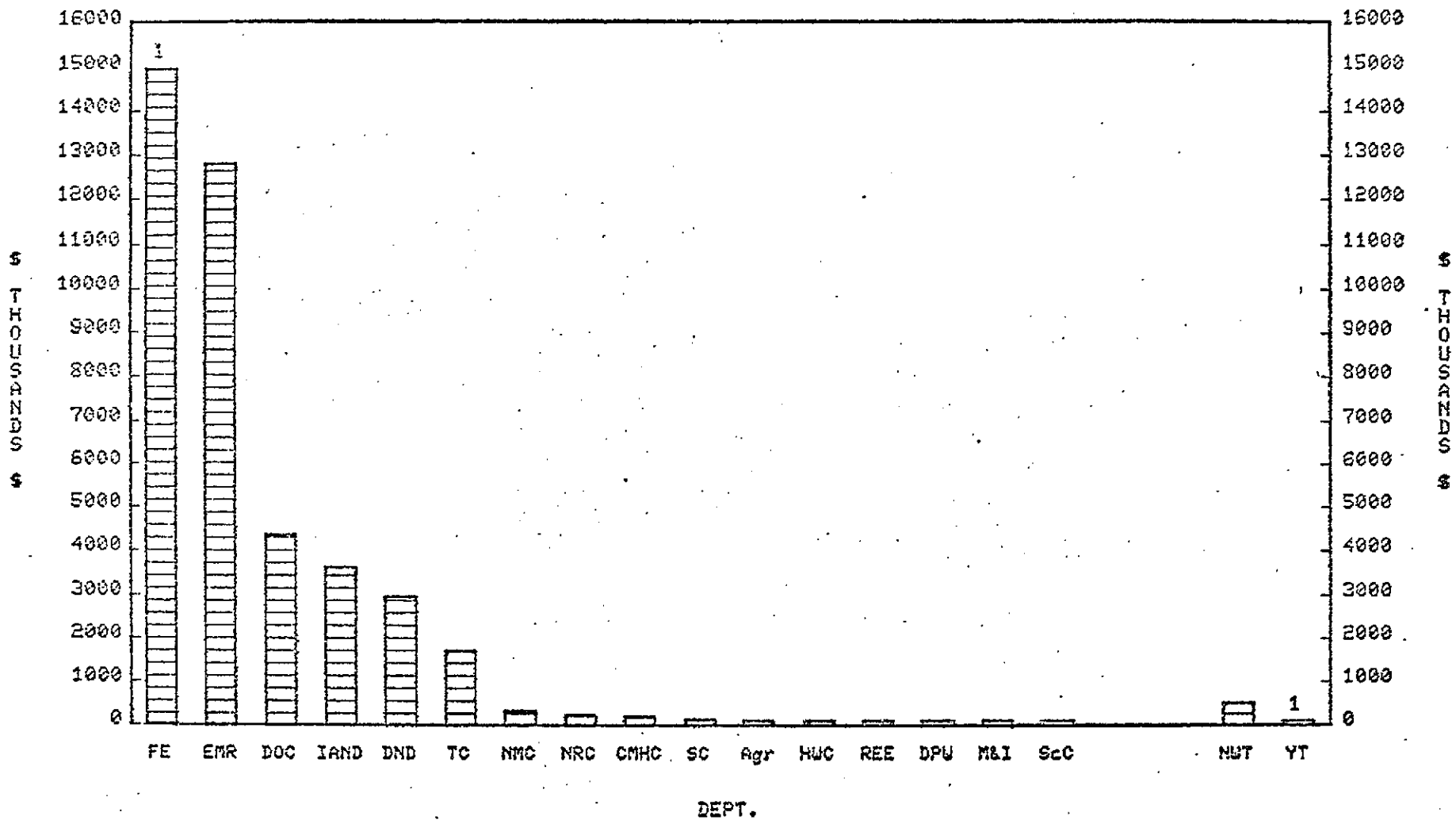


CHART 2
Ref. Table 2

TOTAL GOVERNMENT RESOURCES
(\$ '000)

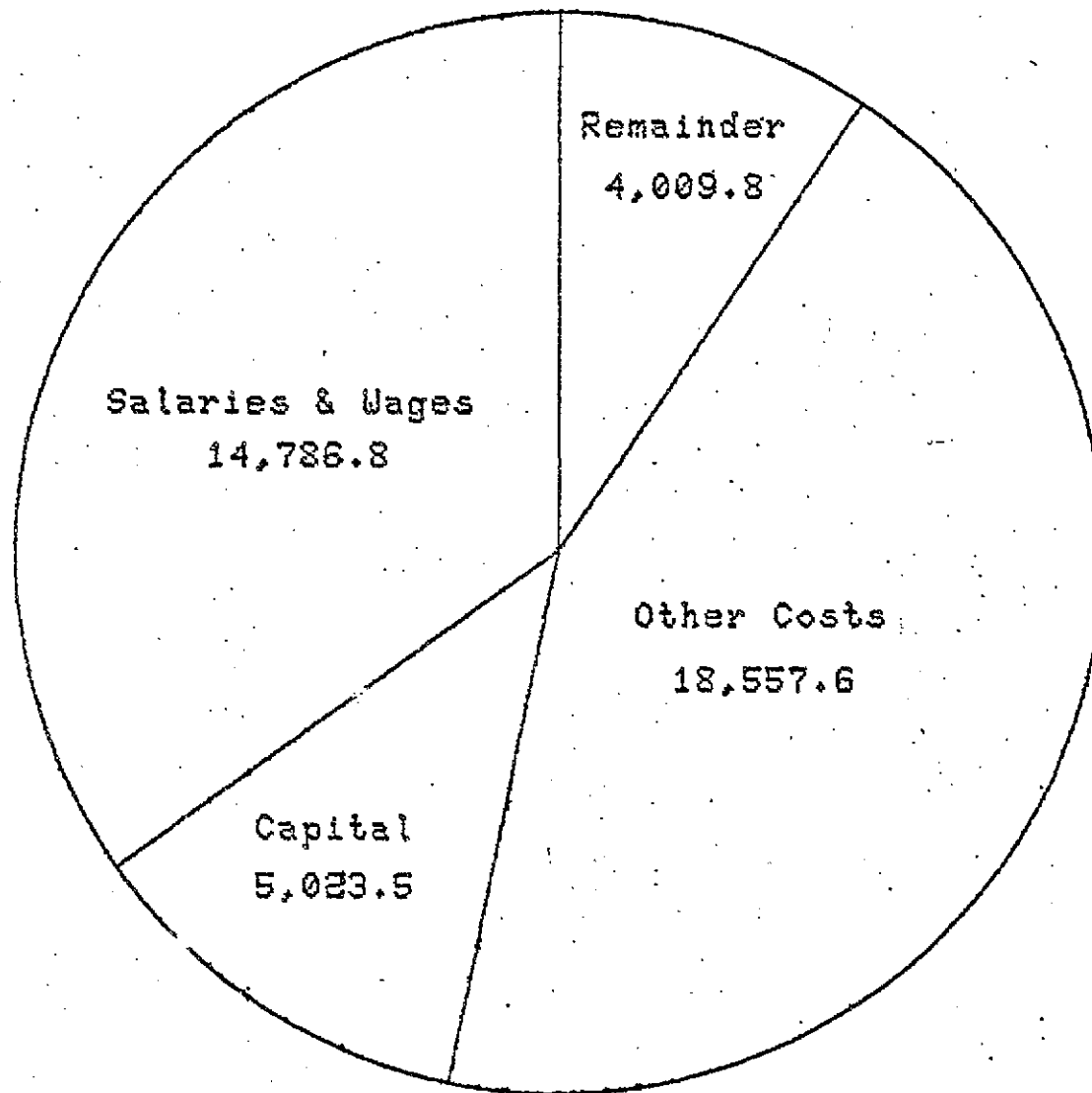
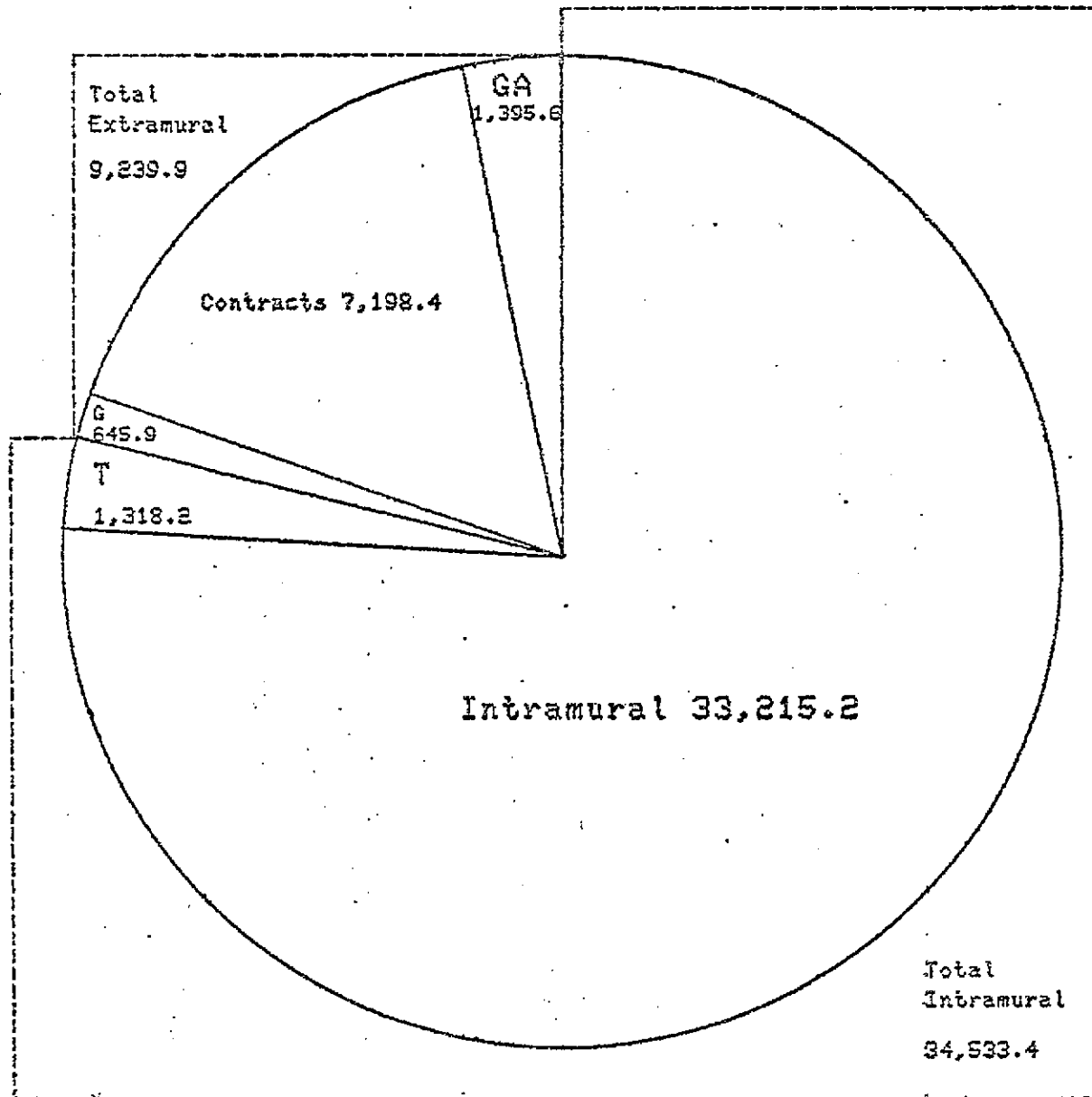


CHART 3
Ref. Table 2

TOTAL DOLLAR BREAKDOWN

Total \$43 Million



G.A. - Grants awarded by Councils
G. - Grants
T. - Transfers between Departments

Chart 4
Ref. Table 2

TABLE 3.

DEPARTMENTAL BREAKDOWN OF MANPOWER UTILIZATION IN MAN-MONTHS

1975-76

		GOVERNMENT:			% OF TOTAL UTILIZATION	NON-GOVERNMENT: (b)		
		SCIENTIFIC	OTHER	TOTAL		SCIENTIFIC	OTHER	TOTAL
DEPT. OR AGENCY	Agri	48.4	24.4	72.8	0.6	-	48.0	48.0
	CMHC	6.0	-	6.0	0.1	-	-	-
	DND	84.0	12.0	1,224.0	10.2	-	-	-
	DOC	213.4	141.0	377.0	3.1	52.0	37.0	89.0
	DPW	4.8	2.2	7.0	0.1	8.0	-	8.0
	EMR	2,898.7	890.0	3,788.7	31.4	82.8	306.0	388.8
	FE	4,480.4	1,300.0	5,780.4	47.9	105.6	104.7	210.3
	HWC	3.0	17.0	20.0	0.2	11.0	27.5	38.5
	IAND	188.2	42.7	230.9	1.9	56.5	42.0	98.5
	M&I	4.0	21.0	25.0	0.2	8.0	1.0	9.0
	NMC	44.0	-	44.0	0.4	157.0	42.0	199.0
	NERC	49.8	58.2	108.0	0.9	-	-	-
	REE	-	-	-	-	-	-	-
	SC	36.0	36.0	72.0	0.6	-	-	-
	ScC	-	-	-	-	12.0	-	12.0
	TC	77.0	72.0	149.0	1.2	82.0	12.0	94.0
	TOTAL	8,137.7	2,616.5	11,905.6	-	574.9	620.2	1,195.1
TERRITORIES	NWT	21.0	112.0	133.0	1.1	15.0	12.0	27.0
	YT	19.0	-	19.0	0.2	1.0	4.0	5.0
	TOTAL	40.0	112.0	152.0	-	16.0	16.0	32.0
TOTAL	GRAND TOTAL	8,177.7	2,728.5	12,057.6	-	590.9	636.2	1,227.1
	PERCENTAGE (a)	67.9	22.6	100.0	-	48.2	51.8	100.0

SOURCE: Inventory of Federal Northern Science Projects, 1975-76.

(a) The breakdown does not add up to 100% because of instances where only total manpower figures were reported.

(b) Non-government manpower figures are in many cases incomplete because of contracting out (where manpower utilization is often unknown).

TABLE 4.

AMOUNT AWARDED BY GRANTING COUNCILS

1975-76

GRANTING COUNCILS	NUMBER OF AWARDS	DOLLARS (\$ '000)
CANADA COUNCIL	14	356.1
MEDICAL RESEARCH COUNCIL	0	0.0
NATIONAL RESEARCH COUNCIL	96	1,039.5
TOTALS	110	1,395.6

SOURCE: Inventory of Federal Northern Science Projects, 1975-76.

TABLE 5.

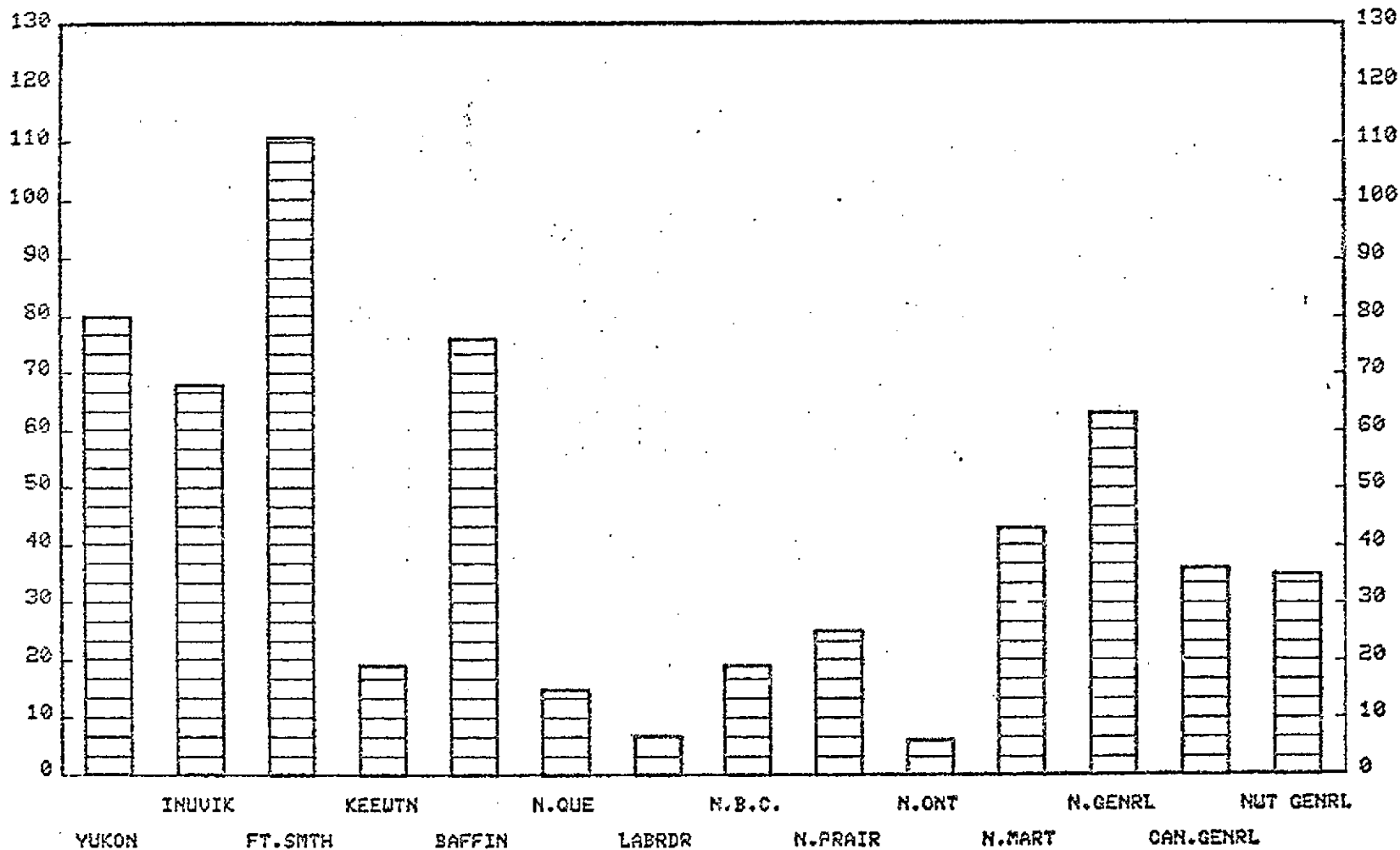
FREQUENCY OF GEOGRAPHIC DISTRIBUTION (a)

	YUKON TERRI- TORY	INUVIK REGION	FORT SMITH REGION	KEEWATIN DISTRICT REGION	BAFFIN REGION	NORTHERN QUEBEC	LABRADOR & COASTAL WATERS	NORTHERN B.C.	NORTHERN PRAIRIE PROVINCES	NORTHERN ONTARIO	NORTH MARITIME	NORTH GENERAL	CANADA GENERAL	N.W.T. GENERAL	TOTAL
Agr	1.	1.	3.	-	1.	-	-	-	-	-	-	-	-	-	6.
CMHC	1.	-	-	-	-	-	-	-	-	-	-	2.	2.	1.	6.
DND	1.	-	-	-	-	-	-	-	-	-	-	2.	-	-	3.
DOC	-	-	-	-	1.	1.	1.	-	-	3.	-	4.	3.	-	13.
DPW	1.	1.	1.	-	1.	-	-	1.	-	-	-	1.	-	-	6.
EMR	31.	26.	38.	14.	40.	2.	1.	11.	10.	1.	16.	22.	8.	11.	231.
FE	8.	7.	20.	2.	10.	2.	2.	-	1.	1.	25.	11.	6.	3.	98.
HWC	-	1.	1.	-	-	-	-	-	1.	-	-	-	-	2.	5.
IAND	27.	20.	37.	1.	14.	3.	2.	1.	6.	-	1.	10.	7.	10.	139.
M&I	-	-	2.	-	-	-	-	-	-	-	-	-	1.	-	3.
NMC	5.	4.	7.	2.	6.	7.	1.	6.	5.	1.	1.	6.	-	1.	52.
NRC	-	1.	1.	-	3.	-	-	-	-	-	-	-	2.	-	7.
REE	-	-	-	-	-	-	-	-	2.	-	-	-	-	-	2.
SC	-	-	-	-	-	-	-	-	-	-	-	-	1.	-	1.
ScC	-	-	-	-	-	-	-	-	-	-	-	2.	-	-	2.
TC	1.	4.	1.	-	-	-	-	-	-	-	-	3.	6.	1.	16.
NWT	-	3.	-	-	-	-	-	-	-	-	-	-	-	6.	9.
YT	4.	-	-	-	-	-	-	-	-	-	-	-	-	-	4.
TOT.	80.	68.	111.	19.	76.	15.	7.	19.	25.	6.	43.	63.	36.	35.	603.

SOURCE: Inventory of Federal Northern Science Projects, 1975-76.

(a) This information gives a general picture of the regional distribution of the 472 northern projects of federal departments and the two Territorial governments. Since boundaries of this nature are arbitrary, a measure of arbitrary judgement has had to be used in assigning projects to regions. Where more than one region was clearly involved, the project was listed in two or more geographic areas. The attached map shows the geographic boundaries used for the Northwest Territories.

FREQUENCY OF GEOGRAPHIC DISTRIBUTION



SOURCE : Inventory of Federal Northern Science Projects, 1975-76.

CHART 5
Ref. Table 5

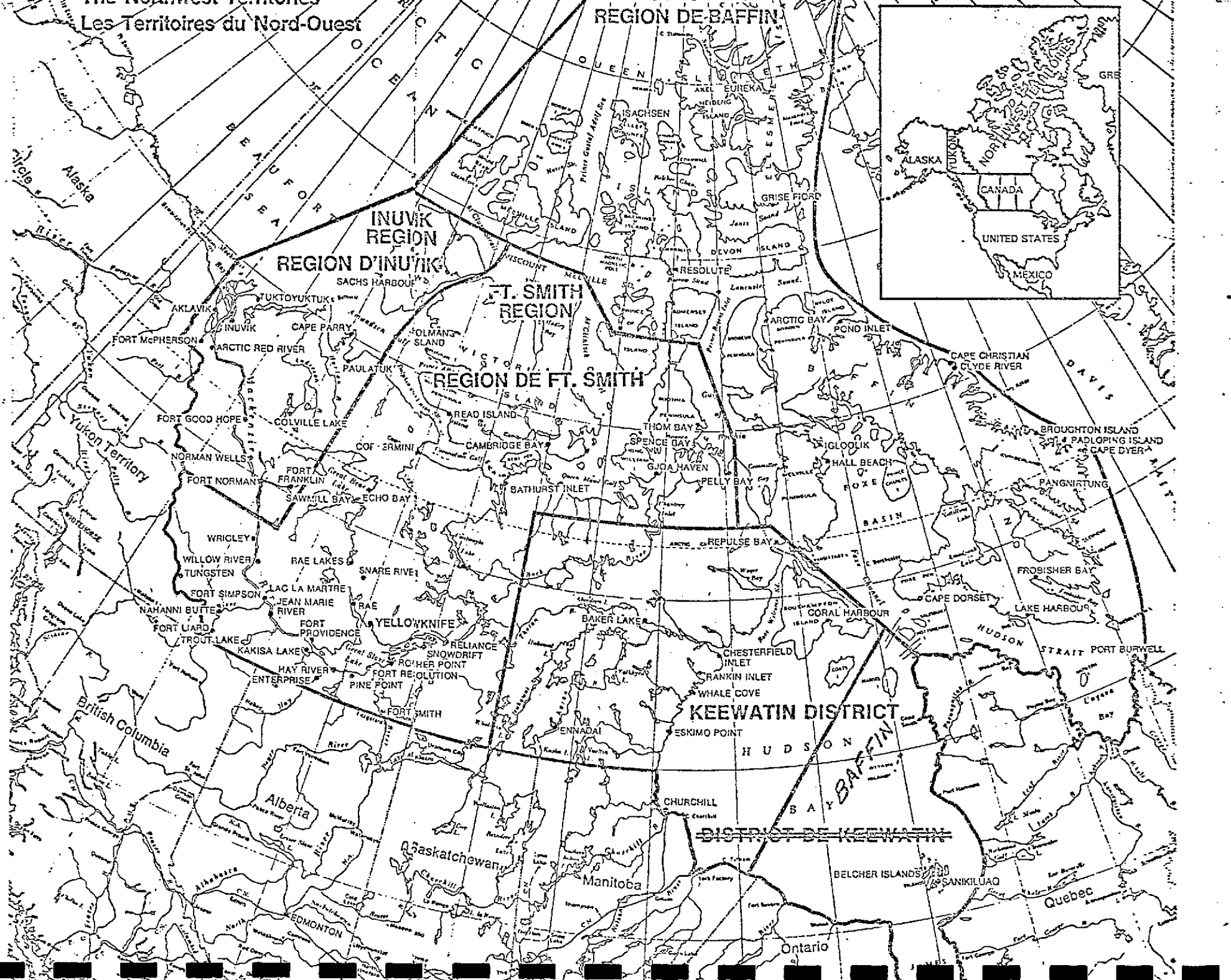
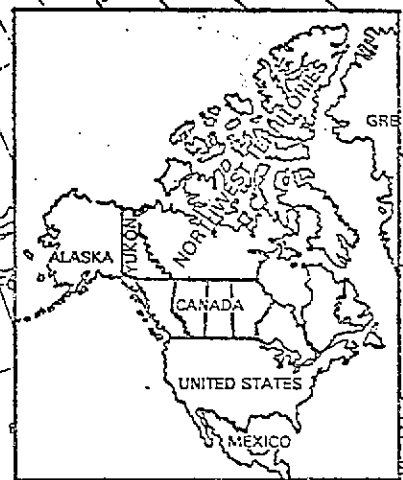
The Northwest Territories
Les Territoires du Nord-Ouest

BAFFIN REGION
REGION DE BAFFIN

INUVIK REGION
REGION D'INUVIK

FT. SMITH REGION
REGION DE FT. SMITH

KEEWATIN DISTRICT
DISTRICT DE KEEWATIN



FEDERAL NORTHERN SCIENCE PROJECTS 1975-1976

- 01 * Department or Agency.
02 Program or Branch.
03 Name or short description of this N.S.P.
04 List briefly the scientific objectives of this N.S.P., and describe the way in which these objectives relate to, or support, departmental programs or tasks in and for the north.
05 Science - Field(s) Discipline(s)
06 01 Location - area or region being studied.
02 Location - where study is being carried out.
07 01 Sponsor(s) of this N.S.P. (if other than your Department)
02 Financial support from sponsor(s) to your Department.
03 Any other support from sponsor(s).
08 Starting date of N.S.P. Completion date of N.S.P.
09 Dollar Costs in 1975-76
01 Salaries and wages
02 Capital
03 Other costs
04 Total cost
Manpower
05 Scientific man-months - Government
06 Other man-months - Government
07 Total man-months - Government
08 Scientific man-months - Non-Government
09 Other man-months - Non-Government
10 Total man-months - Non-Government
10 Contracts (01), Grants (02), Transfers (03)
11 International component of N.S.P.
12 Local involvement in N.S.P.
13 Reports, data and publications.
14 Other comments.
15 Enquiries to be directed to:

* Location of project number.

SECTION I

FEDERAL GOVERNMENT DEPARTMENTS AND AGENCIES

AGRICULTURE

01 390 Agriculture

02 Research, Soil Research Institute

03 Soil Resource Inventory project 01.001.017

04 To describe and map the distribution of soils, and to recommend appropriate measures for mitigating damage to the soils under different uses.

05 02 Physical Sciences Soil Science/Pedology

06 01 Liard River Valley; Eastern Arctic pipeline project in Prince of Wales, Somerset, Bathurst, Cornwallis Islands

06 02 Saskatchewan Institute of Pedology; Manitoba Department of Soil Science

07 01 Indian and Northern Affairs; Geological Survey

07 02 \$66,000; \$17,000

07 03 helicopter transport; logistical support

08 1975 - April 1 1976 - March 31

09 01 73 Salaries and wages

09 03 7 Other costs

09 04 80 Total costs

09 05 36 Scientific man-months - Government

09 06 12 Other man-months - Government

09 07 48 Total man-months - Government

09 09 48 Other man-months - Non-government

09 10 48 Total man-months - Non-government

10 01 DSS 02SW.01525-4-0673 University of Saskatchewan \$66,000

 DSS 05SW.01525-5-0141 University of Manitoba \$17,000

11 Nil

12 Nil

13 Liard River Valley contract report and maps will be confidential until INA have released ministerial report on agricultural policy. Ensuing soil survey report will be public and available in usual format.

 Arctic pipeline project contract report will be available as an internal departmental report, for limited distribution. Ensuing soil report will be public and available.

14 Nil

15 Dr. J.S. Clark,
994-9657
Soil Research Institute

01 391 Agriculture

02 Research Branch, Biosystematics Research Institute

03 Government of Canada Environmental-Social Program, Northern Pipeline,
Task Force on Northern Oil Development - "NWT Limnology-Mackenzie
Pipeline project".

04 The identification of aquatic invertebrates (by Biosystematis Res.
Inst.) collected by the Freshwater Inst. in their study of the
impact of northern development on freshwater ecosystems of the
Mackenzie and Porcupine River Watersheds. This activity supports
Branch Objective 12, Goal 2 to provide an identification service
and related research.

05 04 Environmental Sciences Entomology/Arachnology/Nematology/
Biosystematics/Zoogeography

06 01 Mackenzie and Porcupine River Watersheds
06 02 field - Mackenzie and Porcupine River Watersheds; laboratory -
Biosystematics Research Institute, Ottawa

07 01 Freshwater Institute, Environment Canada, Winnipeg
07 02 \$19,000
07 03 Nil

08 1972 1976 (Publications over next five years.)

09 01 35 Salaries and wages
09 03 2 Other costs
09 04 37 Total costs
09 05 12 Scientific man-months - Government
09 06 12 Other man-months - Government
09 07 24 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Results have been published, and will be published, in scientific
journals and in the Technical Report, Fisheries and Marine Service,
Environment Canada. None of the results obtained by the BRI are
confidential.

14 Nil

15 D.R. Oliver,
994-9531
Room 1003,
K.W. Neatby Building,
Biosystematics Res. Inst.,
Agriculture Canada,
Ottawa, Ontario,
K1A 0C6

01 192 Agriculture

02 Research Branch

03 Analysis of the utilization of meadows for bison range and agriculture in the Mackenzie District, N.W.T. Model of crop production, and livestock production on present bison habitat.

04 a) suitability of soils;
b) suitability of climate;
c) need and effects of cultivation;
d) need and effects of flood control;
e) markets for farm products

05 04 Environmental Sciences Soil Science/Plant Science/Climatology/
Ecology

06 01 The lowlands of the Slave River, N.W.T.
06 02 Hook Lake area. Lat. 60° 40'. Long. 112° 45'.

07 01 This N.S.P. is cooperative between Game Management Division, N.W.T., Canadian Wildlife Service, Department of Environment, and Canada Agriculture. Project Leader - Dr. D.G. Peden, Department of Environment, Canadian Wildlife Service, Saskatoon.

07 02 Nil
07 03 Nil

08 1975 - February 1978

09 01 .9 Salaries and wages
09 02 .4 Capital
09 04 1.3 Total costs
09 05 .4 Scientific man-months - Government
09 06 .4 Other man-months - Government
09 07 .8 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 A report of the whole project is expected in 1977.

14 Nil

15 Dr. L.P.S. Spangelo,
(403) 354-2212
Director, Research Station,
Box 29,
Beaverlodge, Alberta,
T0H 0C0

CENTRAL MORTGAGE AND HOUSING CORPORATION

01 508 Central Mortgage and Housing Corporation

02 Policy and Research Co-ordination.

03 Northwest Territories Housing Needs Studies (File No. 116-4-2-226).

04 To determine total housing requirements of NWT through need & demand studies at each settlement, hamlet, village & municipality. Information provided to include population figures, housing programs being supplied, new unit requirements over 5 years, housing unit conditions (facilities, state of repair), requirements for renovations & utilities. Info. will provide info not otherwise available & will complement 1974 S.H.U. (Survey of Housing Units) in rest of Canada.

05 05 Human Sciences Economics

06 01 Northwest Territories

06 02 Northwest Territories

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - May 1975 - December

09 01 4 Salaries and wages

09 03 104 Other costs

09 04 108 Total costs

09 05 2 Scientific man-months - Government

09 07 2 Total man-months - Government

10 03 Transfer of \$103,866 to N.W.T. Housing Corporation (75% Cost of Study - Balance Assumed by N.W.T.H.C. - total cost \$138,000).

11 Nil

12 Study Done by Northwest Territories Housing Corporation

13 Housing Need and Demand Study:
Volumes 1 and 2 plus 6 volumes of data (In manuscript form. Intention is to computerize data after further review.)

14 Difficult to assess number of C.M.H.C. man/years required to develop, approve and monitor research project as these are part of a much larger portfolio. Manpower utilization by N.W.T.H.C. unknown.

15 Northwest Territories
Housing Corporation
Yellowknife, N.W.T.

01 509 Central Mortgage and Housing Corporation

02 Rural and Native Housing

03 "Inuit Tapirisat of Canada Pilot Housing Project"
 (File No. 164-8-11-3). To allow I.T.C. to plan & organize a 10 house pilot project to meet immediate staff housing needs; to provide an experience base for a larger housing program; to involve Inuit in planning & delivery process.

04 To determine most suitable forms of construction, location of houses, house designs which reflect Inuit lifestyle & most economical method of delivering housing materials. Research objectives aimed at solving specific problems facing delivery of housing in the North plus provide the experience & expertise necessary for extension of R.N.H/ Program in N.W.T.

05 03 Engineering Sciences
 05 05 Human Sciences

06 01 Arctic
 06 02 (Houses built in Frobisher Bay, Rankin Inlet, Cambridge Bay, Inuvik)

07 01 Nil
 07 02 Nil
 07 03 Nil

08 1975 - May 1975 - December

09 01 3.4 Salaries and wages
 09 03 29.4 Other costs
 09 04 32.8 Total costs
 09 05 2 Scientific man-months - Government
 09 07 2 Total man-months - Government

10 02 17,908 Part V sustaining and project grant.
 11,500 supplementary grant.

11 Nil

12 Inuit Tapirisat of Canada conducted this research project.

13 Nil

14 Supplementary funding of \$11,500 provided December 1975 to allow I.T.C. to assess quality and design of houses, and to prepare report discussing problems to be faced in the establishment of the Inuit Housing Program (e.g. with house design, insulation, delivery of housing materials).

15 A.J. Cormier,
 Rural and Native Housing Div.
 746-4611
 C.M.H.C. National Office,
 Montreal Road,
 Ottawa, Ontario
 K1A 0P7

01 510 Central Mortgage and Housing Corporation

02 Rural and Native Housing Division

03 Survey of Rural Housing Needs in the Yukon (File No. 164-8-12-1). To enable Yukon Association of Non-Status Indians to establish housing goals; develop strategies for delivery of housing & rehabilitation; develop an inventory of housing conditions; & prepare a need & demands survey.

04 Project aimed at providing organizational support to Y.A.N.S.I. for the delivery of their housing program in 1975; plus the survey of housing conditions & need and demand assessment to provide a basis for the 1976 Rural & Native Housing Program in the Yukon.

05 05 Human Sciences

06 01 YUKON (Housing Requirements Survey in 8 Communities (includes Car Cross, Dawson, Watson Lake, Mayo).

06 02 Yukon

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - July 1975 - December

09 01	4	Salaries and wages
09 03	30	Other costs
09 04	34	Total costs
09 05	2	Scientific man-months - Government
09 07	2	Total man-months - Government

10 01 \$30,000.00

11 Nil

12 Survey carried out by Yukon Association of Non-Status Indians and B.C. Remote Housing

13 Nil

14 Nil

15 Barbara Cass,
Policy/Program Officer,
Rural & Native Housing Div.
746-4611
C.M.H.C. National Office,
Montreal Road,
Ottawa, Ontario
K1A 0P7

01 511 Central Mortgage and Housing Corporation

02 Development and Demonstration Group

03 "Annotated Bibliography on Small Communities and Rural Areas"
 (File No. 168-5-6-3) Literature survey, indexing & annotation of
 references on small Canadian communities & rural areas especially
 those references relevant to development, stabilization & growth,
 delivery of housing and improvement of life.

04 Literature survey re economic conditions, social aspects, growth
 trends, planning, housing, local government and policy.
 Identification of data/research gaps in literature. To support
 C.M.H.C. policy, research and program delivery for use by outside
 researchers, etc., to support small communities and rural areas
 projects of Demonstration and Development Group.

05 05 Human Sciences

06 01 Canadian rural areas and communities up to 25,000 in population.
 06 02 Nil

07 01 Nil
 07 02 Nil
 07 03 Nil

08 1975 - July 1976 - July

09 03 14 Other costs
 09 04 14 Total costs'

10 02 \$14,020.

11 Nil

12 Nil

13 Final Report "Annotated Bibliography of Rural Canada" (2 volumes)
 Completed August, 1976. Expect publication in Spring, 1977.

14 Includes references to living in North but difficult to determine
 this as a share of total cost.

15 E. Halfhide, Project Co-ordination,
 Professional Standards & Technology Sector,
 746-4611
 C.M.H.C. National Office,
 Montreal Road,
 Ottawa, Ontario
 K1A 0P7

01 512 Central Mortgage and Housing Corporation
02 Development and Demonstration Group
03 "Statistical Survey of Small Communities and Rural Areas" (File
No. 168-5-6-2) To aggregate and analyse available data on small
communities up to 25,000 to learn about their number, population,
distribution, composition, and characteristics.
04 To identify unique characteristics of Hinterland vs. large urban
centres re N.H.A. impact, need for N.H.A. delivery modifications,
identify growth trends in the Hinterland in support of settlement
policies, to build useful information base in support of
development group project "Small Communities and Rural Areas".
05 05 Human Sciences Economic & Statistical Analysis
06 01 Canada
06 02 Canadian settlements under 25,000 population
07 01 Nil
07 02 Nil
07 03 Nil
08 1975 - January 1975 - April
09 03 4.5 Other costs
09 04 4.5 Total costs
10 01 \$4,500.
10 02
11 Nil
12 Nil
13 Data Base - not for publication.
14 Includes settlements in the North but difficult to determine what
proportion these represent of the total.
15 E. Halfhide, Project Co-ordination,
Professional Standards and Technology Sector.
746-4611
C.M.H.C. National Office,
Montreal Road,
Ottawa, Ontario
K1A 0P7

01 513 Central Mortgage and Housing Corporation

02 Policy & Research Co-ordination/Professional Standards & Services Group

03 Consultant assistance related to the mixed Soviet-Canadian Working Group of scientific and technical co-operation (File No. 159-2/75-71).

04 Russian/Canadian exchange of information preceding direct visits. Relates to C.M.H.C. concern for developing national source of housing and related information for those groups concerned with housing matters in Northern climates and topography.

05 03 Engineering Sciences
05 04 Environmental Sciences
05 05 Human Sciences

06 01 North of the 60th parallel
06 02 Nil

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - August/September 1977 - February

09 03 1 Other costs
09 04 1 Total costs

10 01 Part V Policy Research: \$6,250 (Fees) and \$2,000 (Expenses). Contract cost for 75/76 was \$1,000.

11 1974 USSR/Canada agreement to exchange program and reciprocal visit to the Soviet Union under theme 1 - Settlement Planning in the Far North. Exchange of information.

12 Nil

13 Nil

14 Mixed Soviet-Canadian Working Group composed of a number of separate theme Committees. Canadian Committee on theme 1 "Methods of planning and development in populated areas especially in the conditions of the far North" was chaired by a C.M.H.C. representative until his retirement. Part V funds were used to retain his services as a part-time advisor to the Canadian Committee.

15 Maurice Rabot,
Assistant Director,
International Affairs,
Intergovernmental Liaison Group.
746-4611
C.M.H.C. National Office,
Montreal Road,
Ottawa, Ontario
K1A 0P7

COMMUNICATIONS

- 01 195 Communications
- 02 Scientific direction: Social Policy and Programs Branch
Administration by and from the budget of: Research Policy and
Planning Branch
- 03 Research Study Covering Newfoundland Experiments with the
Communications Satellite (CTS)
- 04 Develop research and evaluation plans and methodologies necessary
to prepare Memorial University's CTS communications experiments.
The development work will be directed towards a comparison of the
delivery of distance education via the CTS instructional
technology with conventional delivery methods. Various teaching
formats in continuing medical education covering some select
topics and continuing health education programs will be developed
and pretested. Criteria, instruments, and methods for the
collection of baseline data will be developed, pretested, and
applied. Instruments and methods for the collection of data during
and after the actual experiment will be developed.
These objectives relate to the Department's responsibilities
for testing new communications technologies, and for using these
technologies in improving communications services in remote areas
of Canada.
- 05 01 Life Sciences Medicine
05 03 Engineering Sciences Telecommunications
- 06 01 St. John's, Stephenville and St. Anthony - Newfoundland
Happy Valley and Labrador City, Labrador
06 02 Memorial University, St. John's, Newfoundland.
- 07 01 Nil
07 02 Nil
07 03 Nil
- 08 1975 - August 1976 - March
- 09 01 1 Salaries and wages
09 03 13 Other costs
09 04 14 Total costs
09 06 1 Other man-months - Government
09 07 1 Total man-months - Government
09 08 8 Scientific man-months - Non-government
09 10 8 Total man-months - Non-government
- 10 01 This contract is being carried out by Memorial University under
contract to DOC. The contract is part of the Department's University
Research Contract Program, and amounts to \$13,000.
- 11 Nil
- 12 Nil
- 13 A final report will be prepared upon completion of the contract.
- 14 The actual experiments for which the N.S.P. developed plans and
methodologies, are scheduled to take place in 1977.
- 15 Anna Casey-Stahmer,
995-9944
Social Policy and Programs,
Department of Communications,
300 Slater Street,
Ottawa, Ontario

01 196 Communications

02 Scientific direction: Social Policy and Programs Branch
Administration by and from the budget of: Research Policy and
Planning Branch

03 Study of the Effectiveness of Satellite Communication as a Vehicle
for Delivering Post Secondary Education.

04 The purpose of the project is to determine the feasibility of
delivering university extension courses by satellite and to compare
the effectiveness of this method of delivery with more traditional
modes, e.g. correspondence and teacher visitation. Use of telewriter
and satellite delivered interaction between instructors and
students will also be evaluated. Criteria for evaluating the
delivery systems will be advancement of knowledge of participating
teachers and their students, social impact on the teachers and
their communities and cost effectiveness.

The objectives of this N.S.P. support the Department's
responsibilities for developing and assessing new communications
technology, and for using this technology to improve communications
services in remote areas of Canada.

05 05 Human Sciences Education
05 06 Mathematical Sciences Didactics of Mathematics

06 01 Northwestern Ontario
06 02 Lakehead University, Thunder Bay, Ontario

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - May 1976 - March

09 01 1 Salaries and wages
09 03 26.9 Other costs
09 04 27.9 Total costs
09 06 1 Other man-months - Government
09 07 1 Total man-months - Government
09 08 21 Scientific man-months - Non-government
09 09 12 Other man-months - Non-government
09 10 33 Total man-months - Non-government

10 01 This project is being carried out by Lakehead University under
contract to DOC. The contract is part of the Department's University
Research Program and amounts to \$26,900.

11 Nil

12 Nil

13 A final report will be prepared upon completion of the contract.

14 This project will accomplish the design of a tele-education
experiment using the CTS experimental satellite. The actual
experiment is scheduled to begin in the Fall of 1977.

15 Anna Casey-Stahmer,
995-9944
Social Policy and Programs,
Department of Communications,
300 Slater Street,
Ottawa, Ontario

0.1 197 Communications

02 Scientific direction: Social Policy and Programs Branch
Administration by and from the budget of: Research Policy and
Planning Branch

03 Design of an evaluative model for assessing the effects of
telemedicine on the delivery of health care in remote communities
using the Communications Technology Satellite.

04 The model will focus on the effects of the transmission of
physiological information and medical consultations on patterns
of provision of service. Answers to the following types of
questions will be sought.

- a) Is there any evidence that Communications Technology Satellite
(CTS) does or can effect the health status outcomes of persons
living in communities served by a CTS facility?
- b) Is the quality of communication of information transmitted
by the CTS such that it can be useful in clinical decision
making?
- c) What are the cost increases or decreases associated with the
utilization of the CTS in the delivery of health care?
- d) Does the extent of use of the CTS facility justify its
implementation?

The objectives of this N.S.P. support the Department's
responsibilities for developing and assessing new communications
technology and for using this technology to improve communications
services in remote areas of Canada.

05 01 Life Sciences Medicine
05 03 Engineering Sciences Telecommunications

06 01 Moose Factory zone, Ontario
06 02 McMaster University, Hamilton, Ontario

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 1976 - March

09 01	1	Salaries and wages
09 03	15	Other costs
09 04	16	Total costs
09 06	1	Other man-months - Government
09 07	1	Total man-months - Government
09 08	6	Scientific man-months - Non-government
09 09	1	Other man-months - Non-government
09 10	7	Total man-months - Non-government

10 01 This project is being carried out by McMaster University under
contract to the DOC. The contract is part of the Department's
University Research Contract Program and amounts to \$14,998.

11 Nil

12 Local nurses have been involved in providing baseline data.

13 A final summary report will be presented upon completion of the
contract.

14 The evaluative model produced by this N.S.P. will be used to
assess two telemedicine experiments that will be done in 1976-77
and 1977-78 by Memorial University and the University of Western
Ontario, using the CTS satellite.

Anna Casey-Stahmer,
995 9944
Social Policy and Programs,
Department of Communications,
300 Slater Street,
Ottawa, Ontario

01 198 Communications

02 Social Policy and Programs Branch

03 Survey of telecommunication use by nurses in Baffin Island, N.W.T.

04 a) to identify present usage and problems of the telecommunications systems (HF and satellite) by the health care providers in the Baffin zone.
 b) to make recommendations to improve the usage of the present systems including administrative arrangements, routing of calls, etc.
 c) to recommend alternate telecommunications systems requirements, including the need for dedicated vs common systems, for private vs shared channels.

The objectives of this project relate to DOC's responsibility for improving communications in the North to approximate southern standards.

05 01 Life Sciences Medicine
 05 03 Engineering Sciences Telecommunications

06 01 Baffin Island, N.W.T.
 06 02 Ottawa, Ontario and Baffin Island communities, N.W.T.

07 01 Department of National Health and Welfare
 07 02 Nil
 07 03 Several man-months

08 1975 - December 1977 - February

09 01 10 Salaries and wages
 09 03 5 Other costs
 09 04 15 Total costs
 09 05 5 Scientific man-months - Government
 09 06 1 Other man-months - Government
 09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Local health care providers will be contributing most of the data.

13 There will be a summary report produced when the project has been completed.

14 Nil

15 Ms. Anna Casey-Stahmer,
 995-9944
 Social Policy and Programs,
 Department of Communications,
 300 Slater Street,
 Ottawa, Ontario
 Dr. H.J. Bagnall,
 992-1654
 Medical Services Branch,
 National Health and Welfare,
 255 Argyle Street,
 Ottawa, Ontario

01 199 Communications

02 Scientific Direction by: Social Policy and Programs Branch
Administered by and from the budget of: Research Policy and
Planning Branch

03 Study to analyze the communication structure of a Regional Centre
in Northern Quebec, Ft. George, Contract No. OSU5-0186.

04 a) to analyze the communication structure of a regional centre
in Northern Quebec, particularly as it affects outstations
and their problems.
b) to monitor television viewing patterns in Ft. George for use
in licencing process and as a basis for later studies on the
effects of TV.
These objectives relate to DOC's responsibility for providing
basic communications services anywhere in the North to standards
similar to those in southern Canada.

05 05 Human Sciences Anthropology and Social Communications

06 01 Fort George, Quebec
06 02 Fort George, Quebec and Montreal, Quebec.

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - September 1976 - August

09 01	1	Salaries and wages
09 03	11	Other costs
09 04	12	Total costs
09 06	1	Other man-months - Government
09 07	1	Total man-months - Government
09 08	9	Scientific man-months - Non-government
09 09	4	Other man-months - Non-government
09 10	13	Total man-months - Non-government

10 01 This project is being carried out by McGill University under
contract to the Department of Communications. The contract is part
of the Department's University Research Contract Program, and is
for \$10,998.

11 Nil

12 Consultations with the Fort George Band Council and the Grand
Council of the Cree were undertaken to gain their approval and
support for the research project and to help relate it to
communications developments in the area. Feedback of results
to the local people was promised. A local field assistant was
engaged for about two months during the field work.

13 Photocopies of the interim and final reports on this study will
be available on demand from the Department, provided there is
nothing confidential in them. Consideration will be given to
publishing the results of the entire Anik and Isolation project,
of which this study is Phase II.

14 This study is Phase II of the Anik and Isolation Project, being
done by Prof. R.F. Salisbury of McGill University. Phase I, a
study of communications in Paint Hills, Quebec, was done in
1974-75 and copies of the report are available from the Department
of Communications.

Stephen Acker,
996-6888
Department of Communications,
Room 1926,
Journal Tower North,
300 Slater Street,
Ottawa, Ontario,
K1A 0C8

01 200 Communications

02 Space Sector

03 Small Terminal Satellite Communications - 4/5261-30500

04 To produce low cost unsupervised earth terminals for satellite communications which relate to departmental objectives for the North by providing improved communications in and to the North.

05 03 Engineering Sciences Telecommunications/Space

06 01 Northern Canada and other areas

06 02 CRC, Ottawa, Montreal, Toronto, Saskatoon

07 01 Nil

07 02 Nil

07 03 Nil

08 Ongoing

09 01 67 Salaries and wages

09 02 55 Capital

09 03 40 Other costs

09 04 162 Total costs

09 05 42 Scientific man-months - Government

09 07 42 Total man-months - Government

10 01 Digital Services Ltd., Montreal; Bell Northern Research; SED System Ltd., Saskatoon; Canadian General Electric, Toronto
All of these contracts were to specify and develop various parts of the terminal and were financed by DSS. Total cost to DSS was \$245,000.

11 Nil

12 Nil

13 CRC and contractor reports.

14 Of the resources applied to this project, 50% were directly applied to Northern communication problems and of the remainder about 40% have a bearing on Northern communications.

15 Dr. J.G. Chambers,
996-9957
Room 1760, Journal Tower North,
300 Slater,
Ottawa, Ontario,
K1A 0C8

01 201 Communications

02 Space Sector

03 Alouette/ISIS Satellite Operation - 4/5292-65358

04 To provide scientific data and to advance knowledge on the ionosphere specifically in the Northern region. This is related to departmental objectives by providing more information on propagation characteristics to ensure a better telecommunications throughout all of Canada.

05 02 Physical Sciences Telecommunications

05 03 Engineering Sciences Space Research

06 01 All of Canada and more specifically the North

06 02 Ottawa (CRC)

07 01 Nil

07 02 Nil

07 03 Nil

08 1962 Ongoing

09 01 19 Salaries and wages

09 03 150 Other costs

09 04 169 Total costs

09 05 12 Scientific man-months - Government

09 07 12 Total man-months - Government

10 01 ADGA for operation of ground control and data processing, cost \$88,000.

11 Nil

12 Nil

13 Numerous publications in the Scientific Literature e.g. Special Issue of IEEE Proceedings.

14 Nil

15 Dr. J.G. Chambers,
996-9957
Room 1760,
Journal Tower North,
300 Slater Street,
Ottawa, Ontario,
K1A 0C8

01 202 Communications

02 Space Sector

03 Multipurpose UHF Satellite - 4182

04 A multipurpose UHF Satellite would meet military and other government needs for specialised communications in remote areas, particularly in mobile, transportable and off-shore applications. It would also improve or provide communications in these areas.

05 03 Engineering Sciences Telecommunication/Space

06 01 All Canada

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 1981

09 01 95 Salaries and wages

09 03 382 Other costs

09 04 477 Total costs

09 05 60 Scientific man-months - Government

09 07 60 Total man-months - Government

10 01 RCA; Sinclair; SPAR; Bell Northern Comm.; Miller Comm.; Canadian Astronautics; total cost \$325,000.
These contracts were to specify various aspects of the spacecraft.

11 Nil

12 Nil

13 DOC and contractor reports

14 The UHF satellite will be used for specialised military and other government applications involving remote, mobile and off-shore communications. Only about 10% of the resources could be attributed directly to the North, this being in the remote and off-shore areas.

15 Dr. J.G. Chambers,
996-9957
Room 1760,
Journal Tower North,
300 Slater Street,
Ottawa, Ontario,
K1A 0C8

01 203 Communications

02 Space Sector

03 CTS Communication Experiment 4/5275-30100

04 To demonstrate the feasibility of new communication services such
as tele-medicine, tele-education, tele-conferencing in Northern and
Southern Canada.

05 03 Engineering Sciences Telecommunication/Space

06 01 All of Canada

06 02 All of Canada

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 1978

09 01 310 Salaries and wages

09 02 2,480 Capital

09 03 352 Other costs

09 04 3,142 Total costs

09 05 /92 Scientific man-months - Government

09 07 192 Total man-months - Government

10 01 Memorial University - \$35,000; Univ. of Western Ontario - \$20,000.

11 Nil

12 In the planning of the experiments there was consultation with the
Inuit Tapirisat, with the Eskimos of Northern Quebec and with the
"Tree of Peace" Native Society in Yellowknife, also the experiments
to be carried out in the North would involve participation with
residents.

13 CTS Report on experiments

14 Only about 25% of the resources indicated here can be applied to
the North.

15 Dr. J.G. Chambers,
996-9957
Room 1760,
Journal Tower North,
300 Slater,
Ottawa, Ontario,
K1A 0C8

01 204 Communications

02 Radio and Radar Branch of the Research Sector

03 Inuit Trail and Remote Camp Radio

04 The objectives of this project are to design and develop together ^{VERY} with Industry an automatic radio telephone system, employing high frequency (VHF) as well as high frequency (HF) radio equipments, and to optimize it for use by the Inuit on the trail and in remote camps for communications back to their home communities. See Reference File.

05 02 Physical Sciences Radio Propagation
05 03 Engineering Sciences Electronics

06 01
06 02 Study is being carried out in the Ottawa area, and in an Inuit community in northern Quebec (probably Kaortac).

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 1 1978 - March 31

09 01 34 Salaries and wages
09 02 14 Capital
09 03 15 Other costs
09 04 63 Total costs
09 05 2.4 Scientific man-months - Government
09 06 24 Other man-months - Government
09 07 26.4 Total man-months - Government

10 Nil

11 Nil

12 There will be extensive involvement. The Inuit will control and use the transceiver system. Such involvement is necessary to optimize the design in response to the real needs.

13 A summary report will be generated at the conclusion of the project.

14 Nil

15 Dr. J.S. Belrose,
(613) 996-7051 ext. 362,
Department of Communications,
Communications Research Centre,
Shirley Bay,
P.O. Box 11490, Station "H",
Ottawa, Ontario,
K2H 8S2

01 205 Communications

03 The Application of Dynamic Modelling to the Study of
Telecommunications Development in Canada. Project No. 75-215:

04 The work is aimed at a study of the feasibility of dynamic modelling
as a possible tool in the evaluation of the impact of
telecommunications on a region or community.

05 01 Life Sciences Biology
05 03 Engineering Sciences Electrical Engineering
05 05 Human Sciences Sociology, Political Science, Psychology,
Business

06 01 Northwestern Ontario - Sioux Lookout, Aroland, Ontario
06 02 Queen's University

07 01 Nil
07 02 Nil
07 03 Nil

08 1972 - July 1975

09 04 5 Total costs
09 08 8 ⁹⁶ Scientific man-months - Non-government
09 09 8 ⁹⁶ Other man-months - Non-government
09 10 ~~16~~ ¹⁹² Total man-months - Non-government

10 01 Contract with Queen's University under the University Research
Program, \$5,000.

11 Nil

12 Nil

13 See Reference File.

14 \$5,000 has been approved to date.

15 Dr. J.C. Beal,
Dept. of Electrical Engineering,
Queen's University,
Kingston, Ontario

01 206 Communications

02 Research Branch - DGTS

03 Integrated Remote Communication Project

04 The objectives of this project are to define, develop, and demonstrate, a system wherein automated HF radio equipments in remote communities are fully integrated with automatic switched telephone facilities both within the community and within the larger context of the TCTS, and to provide for the integration of a Trail Radio capability as part of the overall system. Integration with the TCTS will be through an automatic interface with north-south satellite or terrestrial facilities.

05 02 Physical Sciences Radio propagation
05 03 Engineering Sciences Communications

06 01 The system is being developed under contract through a project office located at the Communications Research Centre of the Department of Communication at Shirley Bay, Ottawa. The pilot system will be located in a region of Northern Canada yet to be determined. A successful implementation will have applicability to small communities in all remote regions where other forms of communications are not economic.

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 1 1978 - July

09 01 42.6 Salaries and wages
09 02 63.7 Capital
09 03 14 Other costs
09 04 120.3 Total costs
09 07 23.4 Total man-months - Government

10 01 a) DSS Serial OST 5-0096 - Development Program to Improve the Performance of High Frequency Radio Links - \$79,498 (DOC \$30,000; DSS \$49,498).
 b) DSS Serial OST 5-0083 - Design and Development of an MF/HF Transceiver for a Remote Communication System - Phase 1. \$34,528 (all DOC)
 c) Other contracts to be let for Phase 2 of (b) above, for system definition, and for pilot system implementation.

11 Nil

12 There will be involvement of Northern residents in use of the pilot system when installed. It is expected that the pilot system will be installed in conjunction with one of the common carriers operating in the North.

13 Results will be published in a final report upon completion of trials. Interim reports will be produced throughout the course of the development. Reports will be available at the project office through the Program Manager, Communication System Development at the Department of Communication, Communications Research Centre, Shirley Bay, P.O. Box 11490, Station "H", Ottawa, Ontario K2H 8S2.

14 Nil

Mr. G.W. Irvine,
596-9357
Department of Communications,
Communications Research Centre,
Shirley Bay,
P.O. Box 11490, Station "H",
Ottawa, Ontario,
K2H 8S2

01 207 Communications

03 Ionosphere Sounding Service

04 To determine the effect of the ionosphere within the auroral zone on north-south high frequency communication in Canada, to optimize H.F. radio communication and to support other international physical studies including those of the International Magnetospheric Year.

05 02 Physical Sciences

06 01 Northern Canada

06 02 Resolute Bay, N.W.T., and Churchill, Manitoba as well as Kenora, Ashton and St. John's, Nfld.

07 01 United States Air Force (In connection with the air defence of North America).

07 02 Nil

07 03 Nil

08 1940 - approx. 1976 - December 31 (subject to approval)

09 01 15.5 Salaries and wages

09 03 132.6 Other costs

09 04 148.1 Total costs

09 06 12 Other man-months - Government

09 07 12 Total man-months - Government

09 09 12 Other man-months - Non-government

09 10 12 Total man-months - Non-government

10 01 There is only one contract to ADGA Consultants to operate the station at Resolute Bay at a cost of about \$70,000.

11 These stations provide data, as a part of a world wide program of studies, to the World Data Center, Boulder Colorado from whence it is available internationally.

12 There was no consultation when these stations were established over 30 years ago.

13 The reports and data which are unclassified are available from the Department of Communications.

14 The requirement for data is about completed as far as Canada is concerned, and it has been recommended that the service be terminated.

15 W.J. Wilson,
992-9404
Department of Communications,
Room 1604,
300 Slater Street,
Ottawa, Ontario,
K1A 0C8

Communications/Reference File

- 04 204 A prototype experimental system will be installed in the summer of 1976 in one of the Inuit communities in Northern Quebec (Perhaps Koartac) for use by the native people to ensure that it meets their needs and to obtain criticisms of the users, since operational use of the equipment is essential in order to optimize the system concept and design, and to determine which elements of the system need further development. For example, it is already evident that there is a requirement to develop in industry an HF radio transceiver optimized for trail and remote camp use, that is small, light, rugged, economical and simple and convenient to use. The development in industry of trail and remote camp HF radio sets is just one part of the Department's strategy in improving communications in the North, but the existence of commercially available equipment of this type is essential to any adequate scenario for communications; i.e. portable power sources and antennas are also required. Related work (not currently involving the field trials in the North) is aimed at facilitating the extension of the telephone facilities in northern communities, as well as improving communications between northern communities.
- 13 205
1. L.E. Peppard, R.J. Adomavicius, J. Aitken, J.C. Beal, J.W. Berry, G.E. Dawson, C.E.S. Franks, K.A. Herman, J.G.M. McKirdy, P.J. McLane, H.K. Tang and G. Weinreb, "The Application of Dynamic Modelling to a Multi-disciplinary Study of Telecommunications Impact on Developing Regions", International Electrical Electronics Conference and Exposition, Toronto, Ont., Oct. 1-3, 1973.
 2. J.W. Berry, "Education Communication and Housing in Northern Canada: Applications of Cross-Cultural Psychological Research", American Psychological Association, Annual Meeting, Montreal, August 1973.
 3. L.E. Peppard, J.W. Berry and K.A. Herman, "Multidisciplinary Approaches to the Assessment of Telecommunications Impact", Seventh Biennial Symposium on Communication, Queen's University, Kingston, Ont., 30-31 May, 1974.
 4. L.E. Peppard, J.W. Berry, K.A. Herman and J.C. Beal, "Multidisciplinary Approaches to the Assessment of Telecommunications Impact", Canadian Psychological Association Institute on Psychology and Telecommunications, University of Windsor, Windsor, Ont., 10-11 June, 1974.
 5. L.E. Peppard, R.J. Adomavicius, H.K. Tang, J.C. Beal, "A Multidisciplinary Approach to the Modeling of a Socioeconomic System" 1974 Systems, Man and Cybernetics Conference, Dallas, Texas, 2-4 October, 1974.

ENERGY, MINES AND RESOURCES

01 241 Energy, Mines and Resources

02 CANMET

03 Cyanide Pollution Abatement Project - Treatment of Canadian Gold Mill Filter Press Barrens

04 Research intended to reduce the cyanide in the mill effluent to a projected specification level of 0.1ppm total, in order to eliminate all possible danger to aquatic life. Material under study concerns filter press discharging to tailings areas from gold mill operations.

05 03 Engineering Sciences Metallurgy

06 01 Operations located near Yellowknife N.W.T. and Ontario.
06 02 Solution samples sent from mines to Ottawa for treatment.

07 01 Cominco (Con-Rycon Mine)
Giant Yellowknife
07 02 2 x \$6000 = \$12,000.00
07 03 Nil

08 1975, January 1976, July

09 01 47.1 Salaries and wages
09 02 2 Capital
09 03 40.2 Other costs
09 04 89.3 Total costs
09 05 21 Scientific man-months - Government
09 06 10.8 Other man-months - Government
09 07 31.8 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Final report will be made public and available to all mines in Canada.

14 Six (6) mines are participating in this program: two (2) are located near Yellowknife, four (4) are located in Ontario. Data in question 9 was pro-rated using 2.6 ratio. Another criteria would be based on respective productions of north vs south.

15 Vic Harrison/V.M. McNamara
4-9916
655 Booth Street.

01 242 Energy, Mines and Resources

02 CANMET (PMRL)

03 Metals and Alloys for Fuel Transmission Pipelines

04 The objective is to ensure the structural integrity of oil and gas pipelines in the North in order to minimize environmental damage and to maintain operational efficiency.
a) evaluation of line pipe of Canadian and Foreign Manufacturer.
b) development of weldable higher strength linepipe steel of improved notch toughness.

05 03 Engineering Sciences Metallurgy

06 01 Canada
06 02 Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1970 Ongoing

09 01 427.8 Salaries and wages
09 03 301.1 Other costs
09 04 729 Total costs
09 05 109.2 Scientific man-months - Government
09 06 188.4 Other man-months - Government
09 07 297.6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 See Reference File.

14 Nil

15 H.V. Kinsey
4-5483
568 Booth St.

01	243	Energy, Mines and Resources	
02		CANMET (MRL)	
03		Dust Sampling and Evaluation Procedures for Northern Mines	
04		Nil	
05	03	Engineering Sciences	Mining
06	01	Canada	
07	01	This comprehensive dust survey was undertaken at the request of the Mines Inspectorate of DIAN.	
07	02	Nil	
07	03	Nil	
08			Ongoing
09	01	0.5	Salaries and wages
09	04	0.5	Total costs
10		Nil	
11		Nil	
12		Nil	
13		Nil	
14		Nil	
15		T.S. Cochrane 996-4570 Mining Res. Laboratories DEMR Bells Corners	

01 244 Energy, Mines and Resources

02 CANMET (PMRL)

03 Characteristics of Metals and Alloys for Engineering Applications
in the Arctic.

04 (a) A monograph intended to provide guidance and technical data
for designers and builders of structures, vehicles and
equipment for the North.
(b) To determine the feasibility of measuring the corrosion
resistance of metals and alloys in air and sea environments
in the Arctic.

05 03 Engineering Sciences Metallurgy

06 01 Northern Canada

06 02 (a) Ottawa
(b) Atmospheric corrosion tests close to ocean, at: Tuktoyaktuk
N.W.T. Sea water corrosion tests off south coast of Devon
Island.

07 01 Nil

07 02 Nil

07 03 Nil

08 1970 1975
1970 1979

09 01 6.5 Salaries and wages

09 03 4 Other costs

09 04 10.5 Total costs

09 05 3.6 Scientific man-months - Government

09 07 3.6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) PMRL Report: ERP/MRP/PMRL-75-21(R) - Monograph
(b) PMRL Report: ERP/PMRL-76-4(TR) - Corrosion

14 Nil

15 H.V. Kinsey/Dr. Biefer
4-5483/4-5122
568 Booth St.

01 216 Energy, Mines and Resources

02 GSC, Institute of Sedimentary and Petroleum Geology, Calgary.

03 Project No. 700034 (A.W. Norris) - Devonian biostratigraphy of northern Yukon Territory and adjacent District of Mackenzie.

04 a) Delineation of facies distribution of Devonian rocks in area.
b) Identifying and determining ranges of fossils for refining correlations with other areas.
c) Determining distribution of faunal provinces and paleogeography of Devonian seas.
d) Obtaining more information on the Upper Silurian and Lower Devonian, an interval well represented in the southern part of the area.

05 04 Environmental Sciences Geological Sciences

06 01 NTS 116(E3/4), 117(S1/2), 106(W1/2)

06 02 Northern Yukon Territory and adjacent District of Mackenzie (Interior Platform)

07 01 Nil

07 02 Nil

07 03 Nil

08 1970 April 12 1977

09 01 .7 Salaries and wages

09 04 .7 Total costs

09 05 .25 Scientific man-months - Government

09 07 .25 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential
A.W. Norris - GSC Paper - "Devonian stratigraphy of northern Yukon Territory and adjacent District of Mackenzie". MS to Head of Subdivision. Anticipated completion date, 1977.

14 Nil

15 Dr. A.W. Norris,
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3303 - 33rd Street Northwest,
Calgary, Alberta,
T2L 2A7

01 273 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 730051 (Trettin) - Completion of reconnaissance geology, northern Ellesmere Island.

04 To prepare terminal reports accompanied by maps of the region at the scale 1:250,000 or more detailed.
One of the last remaining areas to bring up to standard 1:250,000 mapping in basic bedrock mapping project.

05 02 Physical Sciences Geological Sciences

06 01 NTS 340 A, B, C, D, E, F, G, H; 120 C, D, E, F, G; 560 D, E; 49 H.
06 022 Franklin (Innuitian) Arctic Islands.

07 01 Nil
07 02 Nil
07 03 Nil

08 1973 - March 15 1980 - April 1

09 01	60.6	Salaries and wages
09 02	67	Capital
09 03	3	Other costs
09 04	130.6	Total costs
09 05	21	Scientific man-months - Government
09 06	10	Other man-months - Government
09 07	31	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential: Mayr, U. - GSC Paper 77-1B - "Stratigraphy and correlation of upper Paleozoic formations, Yelverton Pass region, northern Ellesmere Island". Anticipated date of completion, 15 March, 1977.

14 Nil

15 Dr. H.P. Trettin,
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01 274 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 670016 (Kerr) - SW Ellesmere - W. Devon Island (Operation Grinnell)

04 To improve the understanding of the stratigraphy and structure of the region which is a key area for information in both of these fields; a primary purpose is to aid in evaluation of the resource potential - particularly petroleum and base metals - of this part of the North.

05 02 Physical Sciences Geological Sciences

06 01 NTS 49B, C; 58G, H; 95A, B, D; 69A

06 02 Franklin, NWT (Innuitian Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1967 1978

09 01 12 Salaries and wages

09 04 12 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
 Kerr, J.W. - GSC Map - "Grinnell Peninsula". Completion expected March, 1977.
 Kerr, J.W. - Outside Paper - "Canadian Arctic Islands". Completion expected December, 1976.
 Kerr, J.W. - Outside Paper - "Cornwallis Fold Belt". Completion expected December, 1976.

14 Nil

15 Dr. J.W. Kerr,
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 T2L 2A7

01 275 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 740030 (Kerr) - Boothia Peninsula and Somerset Island
(Operation Boothia).

04 To improve the understanding of the stratigraphy and structure of the
region, which is a key area for information in both of these fields.
The purpose is twofold: (1) To aid in evaluation of the resource
potential, particularly petroleum and base metals, of this part of the
North; and (2) to provide background knowledge and maps to assist in
future natural gas pipeline construction.

05 02 Physical Sciences Geological Sciences

06 01 NTS 57B, C, F, G; 58B, C, D, E, F; 67D, E, H; 68D, E.
06 02 Franklin, NWT (Innuitian)

07 01 Nil
07 02 Nil
07 03 Nil

08 1974 1978

09 01 33 Salaries and wages
09 02 85.3 Capital
09 04 118.3 Total costs
09 05 6 Scientific man-months - Government
09 06 14 Other man-months - Government
09 07 20 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential: Reports of field work only for instruction year.
Report of Activities. Completion approximately October, 1976.

14 Nil

15 Dr. J.W. Kerr,
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01 276 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750054 (Davies) - Upper Paleozoic subsurface stratigraphy and basic analysis, Sverdrup Basin, Arctic Archipelago.

04 To provide a thorough understanding of the upper Paleozoic geological history of the Sverdrup Basin, stressing the inter-relationships of tectonics, sedimentation, biostratigraphy, geochemistry, and hydrocarbon distribution.

05 02 Physical Sciences Geological Sciences

06 01 NTS 560A, D; 340A, B, C, D; 49A-G; 59A-G; 69A-G; 89A-E; 88H, G; 78H, G.
06 02 District of Franklin (Innuitian Orogen)

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April Continuing

09 01 7.7 Salaries and wages
09 04 7.7 Total costs
09 05 5 Scientific man-months - Government
09 07 5 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential: Davies, G.R., 1975: Hoodoo L-41: diapiric halite facies of the Otto Fiord Formation in the Sverdrup Basin, Arctic Archipelago; Geol. Surv. Can., Paper 75-1, Part C, p. 23-29.

14 Nil

15 Dr. G.R. Davies,
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01 277 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 720060 (Davies) - Sedimentology of selected upper Paleozoic carbonates and evaporites, Arctic Archipelago.

04 To clarify selected aspects of carbonate and evaporite sedimentology in upper Paleozoic rocks of the Queen Elizabeth Islands that relate to basin development and porosity controls.

05 02 Physical Sciences Geological Sciences

06 01 NTS 340B; 340C; 49C; F; 59A, C; 69B; 78G; 79B

06 02 District of Franklin (Innuitian Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1972 - May Ongoing

09 01 10.5 Salaries and wages

09 02 .5 Capital

09 03 2 Other costs

09 04 13 Total costs

09 05 7 Scientific man-months - Government

09 07 7 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential: Nassichuk, Davies; GSC Bulletin - "Stratigraphy and sedimentology of the Carboniferous Otto Fiord Formation, Arctic Arch". First draft near completion, to editor late 1976.
Davies, Ghent, Krouse; GSC Bulletin - "Submarine to post-burial diagenesis of upper Paleozoic carbonates, Arctic Archipelago". Second draft completed. To editor late 1976.

14

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01 278 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750088 (Gunther) - Investigations concerning the optical properties of coals and dispersed organic materials.

04 To provide minimal amounts of critical information concerning paleotemperatures, maximum depths of burial, and coal petrography to GSC geologists in western Canada.

05 02 Physical Sciences Geological Sciences

06 01 Western and Arctic Canada

06 02 Canada

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 1999

09 01 4.7 Salaries and wages

09 02 3 Capital

09 04 7.7 Total costs

09 05 4 Scientific man-months - Government

09 07 4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential: Gunther, P.R. - Interdepartmental reports or memoranda - "Investigations concerning the optical properties of coals and dispersed organic materials".

14 Nil

15 Mr. P.R. Gunther,
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T2L 2A7

01 279 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 740032 (Gunther) - Correlation of Hydrocarbon occurrences and the nature of dispersed organic material in the Mackenzie Delta area.

04 To correlate coal petrographic data to petroleum occurrences. The petrographic data includes vitrinite reflectance (used to determine coal rank) and evaluation of the nature of the dispersed organic material. Both reflected and transmitted light microscopy are required.

05 02 Physical Sciences Geological Sciences

06 01 NTS 106M, N; 107A, B, C, D, E; 117A, D.

06 02 Yukon and Northwest Territories (Interior Platform (Arctic Coastal Plain))

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 1976 - August

09 01 10.3 Salaries and wages

09 02 1 Capital

09 03 3 Other costs

09 04 14.3 Total costs

09 05 8 Scientific man-months - Government

09 07 8 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential: Gunther, P.R. - Technical Report - "Correlation of Hydrocarbon occurrences and the nature of dispersed organic material in the Mackenzie Delta area". Anticipated date of completion 31 August, 1976.

14 Nil

15 Mr. P.R. Gunther,
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01 280 Energy, Mines and Resources

02 GSC, Institute of Sedimentary and Petroleum Geology, Calgary.

03 Project No. 740034 (Procter) - AAPG oil and gas field map and data bank of North America.

04 To prepare a wall map of North America showing the distribution of all oil and gas pools as well as of the tectonic elements which are related to the regional location and the creation of a geological data file of information on selected oil and gas field characteristics. This information may assist in the evaluation of Canada's petroleum potential.

05 02 Physical Sciences Geological Sciences

06 01 Sedimentary basins of eastern, western and northern Canada.

06 02 Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, Franklin (Interior Platform).

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 1977

09 01 4.6 Salaries and wages

09 02 1.5 Capital

09 04 6.1 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Acquisition and formating of data and maps for incorporation in Oil and Gas Field map and data bank of North America being produced by American Association of Petroleum Geologists.

14 Nil

15 Dr. R.M. Procter,
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01 281 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 710010 (G.K. Williams) - Northern Basin Analysis Program,
Great Bear River Map Area.

04 To provide a thorough understanding of geological history of the
sedimentary basins north of the 60th parallel of latitude stressing the
interrelationships of the tectonics, sedimentation, biostratigraphy,
geochemistry, and hydrocarbon distribution. To evaluate the oil and gas
potential of the region.

05 02 Physical Sciences Geological Sciences

06 01 Great Bear River, NTS 86 and 96

06 02 Mackenzie (Interior Platform)

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 Ongoing

09 01 6 Salaries and wages

09 04 6 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Nil

14 Nil

15 G.K. Williams,
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Calgary, Alberta,
T2L 2A7.

01 282 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 710011 (G.K. Williams) - Northern Basin Analysis Program:
Redstone River Map-Area.

04 To provide a thorough understanding of the geological history of the
sedimentary basin north of the 60th parallel of latitude, stressing the
relationships of tectonics, sedimentation, biostratigraphy, geochemistry
and hydrocarbon distribution. To evaluate the oil and gas potential of
the region.

05 02 Physical Sciences Geological Sciences

06 01 NTS 95 - Redstone River

06 02 Mackenzie, Yukon Territory (Interior Platform, Cordilleran Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 - September Ongoing

09 01 11 Salaries and wages

09 04 11 Total costs

09 05 5 Scientific man-months - Government

09 07 5 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential: N.C. Meijer-Drees - GSC Paper - Middle Devonian of
the Redstone map-area. Completion anticipated 1976-77.

14 Nil

15 G.K. Williams,
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T2L 2A7

01 283 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 740033 (Lakeman) - Petroleum zones of Western Canada.

04 To compile, in computer usage form, a file containing data on the major petroleum zones of Western Canada as part of a world-wide file being built by IFP of France, in order to examine the distribution and relationships to variables of oil and gas deposits. Potential plays of northern Canada will be compared to analogs in the file, with the hope of gaining insight into what may be found in lightly explored areas.

05 02 Physical Sciences Geological Sciences

06 01 Saskatchewan, Alberta

06 02 Mackenzie, Franklin

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 Ongoing

09 01 5 Salaries and wages

09 02 1.5 Capital

09 04 6.5 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Nil

14 Nil

15 Mr. R. Lakeman
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3303 - 33rd Street Northwest,
Calgary, Alberta,
T2L 2A7

01 284 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 720066 (McCrossan) - Evaluation of Canada's petroleum potential.

04 To provide the necessary data base in support of departmental oil and natural gas energy programs and policy; to research methods for a basin-by-basin analysis of the liquid hydrocarbon reserves and/or potential in the sedimentary basins of Canada both onshore and offshore; to create and maintain an inventory of liquid hydrocarbon deposits in Canada.

05 02 Physical Sciences Geological Sciences

06 01 Canada

06 02 Canada

07 01 Nil

07 02 Nil

07 03 Nil

08 1972 Ongoing

09 01 42.9 Salaries and wages

09 04 42.9 Total costs

09 05 25 Scientific man-months - Government

09 07 25 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Confidential: Internal reports to Department of Energy, Mines and Resources on Hydrocarbon Resources of Canada.

14 Nil

15 Dr. R.G. McCrossan,
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T2L 2A7

01 285 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750025 (VanElsberg) - Petroleum Geology of Tertiary and Mesozoic strata north of 64° on the NWT mainland and Yukon.

04 To provide a reliable and adequate data base for assessment of the area's hydrocarbon potential and to document proven and potential hydrocarbon occurrences.

05 02 Physical Sciences Geological Sciences

06 01 NTS 107, 117, 87, 97

06 02 NWT (Arctic Continental Shelf)

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - October Ongoing

09 01 23 Salaries and wages

09 02 3.5 Capital

09 04 26.5 Total costs

09 05 15 Scientific man-months - Government

09 07 15 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Data for internal use.

14 Nil

15 Dr. J.N. VanElsberg,
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Calgary, Alberta,
T2L 2A7

01 286 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750026 (Haimila) - Petroleum geology of Devonian and older strata in the NWT north of 70°

04 To provide a reliable and adequate data base for assessment of the area's hydrocarbon potential and to document proven and potential hydrocarbon occurrences in the area.

05 02 Physical Sciences Geological Sciences

06 01 Innuiton Region, Arctic Lowlands

06 02 NWT (Innuiton Orogen, Arctic Platform)

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - October Ongoing

09 01 22 Salaries and wages

09 02 3 Capital

09 04 25 Total costs

09 05 14 Scientific man-months - Government

09 07 14 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Data for internal use.

14 Nil

15 Dr. N.E.Haimila,
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01 287 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750024 (Haimila) - Petroleum geology of Tertiary, Mesozoic
and Upper Paleozoic strata north of 70°.

04 To provide a reliable and adequate data base for assessment of the area's
hydrocarbon potential and to document proven and potential hydrocarbon
occurrences in the area.

05 02 Physical Sciences Geological Sciences

06 01 Innuitian Region

06 02 NWT (Innuitian Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 Ongoing

09 01 18.2 Salaries and wages

09 02 3 Capital

09 04 21.2 Total costs

09 05 15 Scientific man-months - Government

09 07 15 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Data for internal use.

14 Nil

15 Dr. N.E. Haimila
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01 288 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 740036 - Regional Geophysics of Northern Canada.

04 To obtain, interpret and make available to other scientists in the program, geophysical information of assistance in describing the structural configurations within and between the sedimentary basins of Northern Canada in support of mineral inventory objectives.

05 02 Physical Sciences Geological Sciences

06 01 NWT, Arctic Islands, Beaufort Sea

06 02 Mackenzie, Franklin, Yukon

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 - October Ongoing

09 01 30.7 Salaries and wages

09 02 51.5 Capital

09 04 82.2 Total costs

09 05 24 Scientific man-months - Government

09 07 24 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Seismic data and interpretation for internal use in evaluation of hydrocarbon resources.

14 Nil

15 To be reassigned owing to a recent resignation.
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01 289 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 600353 (Jeletzky) - Dibranchiate volume of the Treatise on Invertebrate Paleontology.

04 To prepare an authoritative summary of the present state of knowledge of subclass Dibranchiata based on the study of literature on the global scale supplemented by results of writer's personal research of this subclass in Canada and abroad. The project is to be carried out in conjunction with the writer's monographical study of Canadian belemnites (Project 590194) now in progress.

05 02 Physical Sciences Geological Sciences

06 01 Nil

06 02 Nil

07 01 Nil

07 02 Nil

07 03 Nil

08 1963 1978

09 01 9.5 Salaries and wages

09 04 9.5 Total costs

09 05 5 Scientific man-months - Government

09 07 5 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 No publications scheduled for instruction year.
 Previous publications (non-confidential):
 J.A. Jeletzky - 1969 - New or poorly understood Tertiary Sepiids from Southeastern United States and Mexico; Univ. Kansas, Paleont. Contr. Paper 44(4); 32 pages, 3 pls., 5 figs.
 J.A. Jeletzky - 1972 - "Rhopaloteuthis somaliensis" Spath, 1935; Paleontology, Vol. 15 (1), pp. 158-183, pls. 31-38, 1 table, 1972.

14 Nil

15 Dr. J.A. Jeletzky,
 994-5709
 Geological Survey of Canada,
 601 Booth Street,
 Ottawa, Ontario,
 K1A 0E8

01 290 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750020 (Nassichuk) - Carboniferous biostratigraphy in the northern Yukon, British Columbia, Alberta and Alaska.

04 To extend the Carboniferous biostratigraphy of the Sverdrup Basin, utilizing ammonoids, into northern Yukon, Alaska, Alberta and British Columbia in order to better interpret regional stratigraphy and paleoenvironments.

05 02 Physical Sciences Geological Sciences

06 01 NTS 116I, 116H, 931

06 02 Yukon, BC (Cordilleran)

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - October 1977

09 01 2 Salaries and wages

09 02 2.5 Capital

09 04 4.5 Total costs

09 05 1 Scientific man-months - Government

09 07 1 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential: Nassichuk, W.W. - GSC Paper (Report of Activities) - "Carboniferous biostratigraphy, northern Yukon Territory". To Paleontology Subdivision. Anticipated completion date, December, 1976.

14 Nil

15 Dr. W.W. Nassichuk,
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01 292 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 610007 (D.K. Norris) - Operation Porcupine

04 Critical evaluation of the structural geometry and stratigraphy within these map-areas of northern Yukon Territory and western District of Mackenzie for the documentation of the nature, origin and mechanics of deformation and its bearing on the hydrocarbon and mineral potential of the region.

05 02 Physical Sciences Geological Sciences

06 01 NTS 116N(E/2),0; 116P; 106M; 116J, K(E/2); 116I; 106L; 116F, G(E/2);
116H; 106E; 106F; 106N; 106K.

06 02 YT and western Dist, of Mackenzie (Cordilleran Orogen and Interior Platform)

07 01 Nil

07 02 Nil

07 03 Nil

08 1961 1977-78

09 01 16 Salaries and wages

09 02 29 Capital

09 03 .5 Other costs

09 04 45.5 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential: D.K. Norris - Open File - to Division Chief, June 1, 1976 - "Old Crow Map-area, Eagle River, Bell River, Porcupine River, Ogilvie River."

14 Nil

15 Dr. D.K. Norris,
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01 293 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 690005 (D.K. Norris) - Structural geology of northern Yukon Territory and northwestern District of Mackenzie.

04 Critical evaluation of the structural geometry of Richardson, Barn and British Mountains, intervening plateaux, and adjacent coastal plain for the documentation of the nature, origin and mechanics of the deformation and its bearing on the hydrocarbon potential of the region.

05 02 Physical Sciences Geological Sciences

06 01 NTS 117D; 117C(E/2); 117B(E/2); 117A; 107C; 107B.

06 02 YT and western Dist. of Mackenzie (Cordilleran Orogen and Interior Platform)

07 01 Nil

07 02 Nil

07 03 Nil

08 1969 1977-78

09 01 16 Salaries and wages

09 02 29 Capital

09 03 .5 Other costs

09 04 45.5 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential
D.K. Norris - Open File - with Division Chief - "Demarcation Point Map-area, Herschel Island, Davidson Mountains, Blow River. Anticipated completion date November 1, 1976.
D.K. Norris and C.J. Yorath - Outside publication - with Division Chief - "Geology, northern Mainland". Anticipated completion date May 15, 1976.

14 Nil

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01 294 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 710036 (Young/Myhr) - Northern basin analysis program: Firth River and Horton River map-area.

04 To provide a thorough understanding of the geological history of the sedimentary basins north of the 60th parallel of latitude, stressing the inter-relationships of tectonics, sedimentation, biostratigraphy, geochemistry and hydrocarbon distribution. To evaluate the oil and gas potential of the region.

05 02 Physical Sciences Geological Sciences

06 01 NTS 87, 97, 107, 117

06 02 Yukon, Dist. of Mackenzie, NWT (Interior Plains, Arctic Coastal Plain, Mackenzie Delta, Cordilleran Orogen.)

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 - June Ongoing

09 01 39 Salaries and wages

09 02 42.3 Capital

09 03 2.5 Other costs

09 04 83.8 Total costs

09 05 25 Scientific man-months - Government

09 06 1 Other man-months - Government

09 07 26 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential
 Young, F.G., Myhr, D.W., & Yorath, C.J. - Outside publication, published 1976 or early 1977 - "Geology of the Beaufort-Mackenzie Basin".
 Young, F.G. - GSC bulletin - first draft to division - "Stratigraphy and sedimentology of Aptian-Albian rocks of northern Yukon and adjacent District of Mackenzie". Anticipated completion date - early 1977.
 Myhr, D.W. & Meijer-Drees, N. - Outside publication, published 1976 - "Hydrocarbon reservoir of the Milk River Formation, southeastern Alberta".

14 Nil

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01 295 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 730066 (Sweet) - Reconnaissance survey to determine the biostratigraphic value of megaspores in Mesozoic and Tertiary strata of northern Canada.

04 To determine the potential of megaspores as index fossils in northern Canada.

05 02 Physical Sciences Geological Sciences

06 01 NTS 59, 69, 78, 79, 88, 89, 98, 107, 117 (parts of).

06 02 Yukon, Mackenzie, Franklin (Arctic Continental Shelf, Arctic Platform, Inuitian Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 1977

09 01 6.7 Salaries and wages

09 02 1 Capital

09 03 1.3 Other costs

09 04 9 Total costs

09 05 3 Scientific man-months - Government

09 06 1 Other man-months - Government

09 07 4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential
Sweet, A.R. & Johnson, H. - In: Contributions to Canadian Paleontology, GSC bull. (1977 compilation) - "Jurassic Megaspores from the Jaeger Formation, Cornwall Island". Final draft. Expected date of completion March 31, 1977.
Sweet, A.R. - In: Manual of North American Stratigraphic Palynology - "Jurassic and Cretaceous Megaspores". Final draft. Expected date of completion, October, 1976.

14 Nil

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01 296 Energy, Mines and Resources
02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750066 (Hopkins) - Palynological Study of Cenozoic Rocks,
Dawson City and Old Crow Areas, Yukon Territory.

04 Assessment of the potential for palynological correlation of the Cenozoic
rocks, for establishment of a control sequence of biostratigraphic zones
with application to the continental Cenozoic rocks of northwestern Canada,
including the Beaufort Basin.

05 02 Physical Sciences Geological Sciences

06 01 NTS 116, B, O.
06 02 Yukon (Cordilleran Orogen)

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 Cancelled 1976

09 01 6 Salaries and wages
09 02 .6 Capital
09 03 3.4 Other costs
09 04 10 Total costs
09 05 3 Scientific man-months - Government
09 07 3 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Nil 1976/77 due to cancellation of this project.
Previous publications (non-confidential)
Hopkins, W.S. Jr., Hughes, O.L. & Milner, M. - 1975: Joint author (with
Hughes, O.L. and Milner, M). Some coal bearing Eocene sediments and
comments on their combined microflora, Cliff Creek, Yukon Territory.
Geol. Surv. Can., Paper 75-1C, p. 37-39.

14 Nil

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01 297 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 710033 (Williams) - Northern Basin Analysis Program: Slave River Map-Area.

04 To provide a thorough understanding of the geological history of the sedimentary basins north of the 60th parallel, stressing the inter-relationships of tectonics, sedimentation, biostratigraphy, geochemistry and hydrocarbon distribution. To evaluate the oil and gas potential of the region.

05 02 Physical Sciences Geological Sciences

06 01 NTS 85

06 02 Dist. of Mackenzie (Interior Platform)

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 - May Ongoing

09 01 13.3 Salaries and wages

09 04 13.3 Total costs

09 05 8 Scientific man-months - Government

09 07 8 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential: Williams, G.K. - The Hay River Formation and its relation to adjacent formations.

14 Nil

15 Mr. G.K. Williams
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01 298 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 720061 (Miall): Northern Basin Analysis Program: Thomsen River map-area.

04 To provide a thorough understanding of the geological history of the sedimentary basins north of the 60th parallel of latitude, stressing the inter-relationships of tectonics, sedimentation, biostratigraphy, geochemistry and hydrocarbon distribution. To evaluate the oil and gas potential of the region.

05 02 Physical Sciences Geological Sciences

06 01 NTS 88, 97, 98

06 02 Franklin (Innuition Orogen) Arctic Islands

07 01 Nil

07 02 Nil

07 03 Nil

08 1972 1976

09 01 21 Salaries and wages

09 04 21 Total costs

09 05 12 Scientific man-months - Government

09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
Miall, A.D. - Outside publication - "The Triassic rocks of Sturgeon Lake South, Alberta, and adjacent areas". Anticipated date of completion, September, 1976.
Miall, A.D. - Outside publication - "Markov and fourier analysis of Tertiary deltaic cycles, Banks Island, Arctic Canada". Anticipated date of completion, March/77.
Miall, A.D. - Outside publication - "A review of the braided river depositional environment". Anticipated date of completion, March, 1977.
Miall, A.D. - Outside publication - "Facies models 4: Deltas". Anticipated date of completion, May, 1976.
Miall, A.D. - GSC Memoir - "Mesozoic and Tertiary, geology of Banks Island, Arctic Canada". Anticipated date of completion, May, 1976.

14 Nil

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01 299 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 680101 (Uyeno) - Conodont biostratigraphy of Upper Ordovician to Devonian rocks of the Arctic Islands.

04 a) To set up zonal standards for conodonts for the Arctic Islands.
b) To correlate conodont and palynomorph zones in measured sections.
c) To obtain fossil data of immediate use to those engaged in stratigraphic studies and geological mapping of the Arctic Islands.

05 02 Physical Sciences Geological Sciences

06 01 NTS 49, 57, 58, 68, 69, 78, 79, 88, 89, 560.
06 02 Franklin (Arctic Platform, Innuitian Orogen)

07 01 Nil
07 02 Nil
07 03 Nil

08 1968 - May 1980(?)

09 01 9.2 Salaries and wages
09 03 3 Other costs
09 04 12.2 Total costs
09 05 5 Scientific man-months - Government
09 07 5 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential
Uyeno, T.T. - GSC Paper or outside publication - "Siluro-Devonian conodont biostratigraphy of western Prince of Wales Island, District of Franklin". First draft to Subdivision Head. Completion date 1976 or early 1977.

14 Nil

15 Dr. T.T. Uyeno,
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Calgary, Alberta,
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01 300 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 610019 (Norford) - Ordovician and Silurian biostratigraphy of British Columbia, Alberta, Manitoba, Yukon, Mackenzie and Franklin.

04 Establishment of sequence of biochronological zones for Ordovician and Silurian time. Such sequence of zones to provide necessary time control for exploration of natural resources of Ordovician and Silurian rocks in northern and western Canada.

05 02 Physical Sciences Geological Sciences

06 01 Arctic Islands, Cordillera, Interior Plains, Hudson Region.

06 02 Alberta, B.C., Manitoba, Franklin, Mackenzie, Yukon (Cordilleran and Inuitian Orogens; Hudson, Interior and Arctic Platforms).

07 01 Nil

07 02 Nil

07 03 Nil

08 1961 1977

09 01 6.6 Salaries and wages

09 02 .2 Capital

09 03 1.2 Other costs

09 04 8 Total costs

09 05 2 Scientific man-months - Government

09 07 2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential
B.S. Norford - GSC Bulletin (or part) - "Lower Silurian benthic faunas of the Tegart Formation, southeastern British Columbia. Presently with Information Subdivision of ISPG. Expected completion date, August, 1976.

14 Nil

15 Dr. B.S. Norford,
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01 301 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 500029 (Norford) - Identification and biostratigraphic interpretation of referred fossils.

04 By the study of fossils collected by officers of the Geological Survey of Canada, members of other organizations and the general public, to provide identifications and ages vital to correlation of the host rocks and to the dating of geological events. To describe important fossils from these collections to further knowledge of paleontology and biostratigraphy of Canada.

05 02 Physical Sciences Geological Sciences

06 01 Canada

06 01 All provinces. (Cordilleran, Appalachian & Innuitian Orogens; Arctic Interior, Hudson & St. Lawrence Platforms; Arctic & Pacific Coastal Plains; Atlantic, Labrador, Arctic and Pacific Continental Shelves & Slopes.

07 01 Nil

07 02 Nil

07 03 Nil

08 1950 Ongoing

09 01 75.5 Salaries and wages

09 02 53 Capital

09 03 43.5 Other costs

09 04 172 Total costs

09 05 33 Scientific man-months - Government

09 07 33 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-Confidential
 Various scientists - GSC Paper - "Biostratigraphic determinations from subsurface of Franklin, Mackenzie, Yukon". MS to GIP Division. Completion Date anticipated May, 1976.
 B.S. Norford - GSC Internal Reports - "A number of reports on referred collections". To Central Technical Files, GSC Ottawa, copies (as applicable) to DINA. Anticipated dates of completion, April, 1976 - March, 1977.

14 Nil

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01 302 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750083 (Reinson-Rahmani) - Mesozoic Stratigraphy and Basin
Analysis of Western Queen Elizabeth Islands, Arctic Archipelago.

04 To provide a detailed documentation of the lithostratigraphy, and
depositional and diagenetic history of the predominantly clastic Mesozoic
sequence of the Western Queen Elizabeth Islands. To utilize this
documentation to understand basin history in terms of: (1) tectonism,
(2) major transgressive and regressive depositional events, and
(3) formation of reservoir rock and occurrence and distribution of
hydrocarbons within these reservoirs.

05 02 Physical Sciences Geological Sciences

06 01 NTS 69, 79, 89, 99

06 02 Franklin (Innuitian Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 1980

09 01 2 Salaries and wages

09 04 2 Total costs

09 05 1 Scientific man-months - Government

09 07 1 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Preliminary report on Brock, Borden and Mackenzie King Islands, early
1977.

14 Nil

15 R. Rahmani,
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01 303 Energy, Mine Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 730057 (Aitken) - Helikian and Hadrynian Stratigraphy, Eastern Cordillera and Interior Platform.

04 Firstly, to establish a coherent picture of Helikian and Hadrynian events in western and northwestern Canada, and secondly, to emphasize study of those events that may have created explorable mineral and/or hydrocarbon deposits.

05 02 Physical Sciences Geological Sciences

06 01 NTS: 1975-76-parts of 77, 78, 87, 88. 1976 - parts of 106A, B, G, H, 96D

06 02 Alberta, B.C., Mackenzie, Yukon (Eastern Cordillera, Interior Platform, Minto and Brock subprovinces of Bear Province)

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 - March 1982

09 01 15.6 Salaries and wages

09 04 15.6 Total costs

09 05 4 Scientific man-months - Government

09 06 3 Other man-months - Government

09 07 7 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
Aitken, J.D. - Note in 77-1A - Approximately "Algalbioherm and evaporitic facies, Little Dal Formation, Mackenzie Mountains". MS submitted. Anticipated date of completion, October, 1976.

14 Nil

15 Dr. J.D. Aitken,
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01 304 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750084 (Miall): Stratigraphy and Sedimentology of the
sedimentary succession of Somerset Island and Boothia Peninsula.

04 To improve understanding of the stratigraphy and sedimentology of the
region. The purpose is twofold; 1. To aid the evaluation of the resource
potential, particularly of petroleum and base metals; 2. To provide
background knowledge to assist in future natural gas pipeline
construction.

05 02 Physical Sciences Geological Sciences

06 01 NTS 57B, C, F, G; 58B, C, D

06 02 Franklin (Innuition) Arctic Islands

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 1977 - October

09 01 14 Salaries and wages

09 04 14 Total costs

09 05 9 Scientific man-months - Government

09 07 9 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 No resulting manuscripts anticipated during instruction year except
for report of field activities.

14 Nil

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01 305 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 720047 (Trettin) - Stratigraphy and sedimentology of Silurian and Devonian clastic formations, central Ellesmere Island.

04 To elucidate the stratigraphy and sedimentology of the Silurian and Devonian clastic formations.
 To provide a better understanding of the Franklinian geosyncline and its development through geological time; to assist in the assessment of hydrocarbon and other mineral potential; to provide detailed information for basic bedrock mapping.

05 02 Physical Sciences Geological Sciences

06 01 NTS 49 C, E, F, H; 340B

06 02 Franklin (Innuitian) Arctic Islands.

07 01 Nil

07 02 Nil

07 03 Nil

08 1972 - April 4 1978 - April 1

09 01 11.3 Salaries and wages

09 04 11.3 Total costs

09 05 5 Scientific man-months - Government

09 07 5 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
 Trettin, H.P. - GSC Bulletin - "Middle Ordovician to Lower Devonian deep-water succession at southeastern margin of Hazen Trough, Canon Fiord Ellesmere Island". Date of completion, May, 1976.

14 Field work completed; laboratory studies and office preparation of final manuscript all essentially complete.

15 Dr. H.P. Trettin,
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01 306 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750017 (Mayr) - Stratigraphy and correlation of lower Paleozoic subsurface sections, southern and central Arctic Islands.

04 a) Compare and connect different sets of stratigraphic nomenclature.
b) Elucidate regional facies changes and paleogeography.
c) Outline areas with hydrocarbon potential.

05 02 Physical Sciences Geological Sciences

06 01 NTS 58D, F, G, H; 68D, G, H; 69A, B.
06 02 NWT (Arctic Platform, Boothia Uplift, Cornwallis Fold Belt, Parry Island Fold Belt)

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 1978

09 01 9 Salaries and wages
09 03 1 Other costs
09 04 10 Total costs
09 05 5 Scientific man-months - Government
09 07 5 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
U. Mayr - Paper 77-1B - "Correlation of Lower Paleozoic subsurface sections, Bathurst group of Islands. Anticipated date of completion, March, 1977.
U. Mayr - GSC Bulletin - "Stratigraphy and correlation of lower Paleozoic subsurface sections Cornwallis Devon Somerset and Russel Island, Canadian Arctic Archipelago". MS in editing, final rewrite. Anticipated date of completion, May, 1976.
Ulrich Mayr, 1975: "Correlation of lower Paleozoic subsurface sections, Devon, Cornwallis, and Somerset Islands, District of Franklin; Surv. Can., Paper 75-1B, p. 255, 256.

14 Nil

15 Dr. U. Mayr,
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01 307 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 670059 (F.G. Young) - Stratigraphy of Gog and Caribou
Groups near the Rocky Mountain Trench.

04 a) To elucidate the stratigraphy and structure of the Gog and
Caribou Groups.
b) To determine the nature and amount of possible crustal
displacement associated with the Rocky Mountain Trench by means
of stratigraphic mapping.

05 02 Physical Sciences Geological Sciences

06 01 NTS 93A, 93H, 93I, 83E (parts of)
06 02 B.C., Alberta (Cordillera)

07 01 Nil
07 02 Nil
07 03 Nil

08 1967 1976

09 01 1.6 Salaries and wages
09 02 .7 Capital
09 04 2.3 Total costs
09 05 1 Scientific man-months - Government
09 07 1 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
Young, F.G. - GSC Bulletin or outside publication - first draft to
subdivision - "Late Precambrian-Early Cambrian stratigraphy and
evolution of the Cordilleran miogeocline, eastern, B.C." Anticipated
completion March, 1977.

14 Nil

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01 308 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750092 (Wilson) - Mesozoic Stratigraphy and Basin Analysis
of Eastern Sverdrup Basin, Arctic Archipelago.

04 To provide a thorough understanding of the geological history of the
Eastern Sverdrup Basin, stressing the inter-relationships of tectonics,
sedimentation, biostratigraphy, geochemistry and hydrocarbon
distribution. To evaluate the oil and gas potential of the region.

05 02 Physical Sciences Geological Sciences

06 01 NTS 29, 39, 49, 59, 69, 79E, 79H, 120, 340, 560

06 02 Dist. of Franklin (Innuitian Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 unknown as at this date

09 01 10.5 Salaries and wages

09 02 .3 Capital

09 03 .7 Other costs

09 04 11.5 Total costs

09 05 7 Scientific man-months - Government

09 07 7 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential.
Wall, J.H. & Wilson, D.G. - GSC Paper - "Subsurface Mesozoic
biostratigraphy and lithostratigraphy of the Eureka Sound Area, District
of Franklin, Arctic Archipelago". MS to Head of Subdivision. Anticipated
completion date, March, 1977.
Wilson, D.G. - GSC Paper 77-1A - "Geology of Mesozoic-Cenozoic(?)
formations". Anticipated completion date, October, 1976.

14 Nil

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01 309 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 710013 (Pugh) - Northern Basin Analysis Program: Peel River Map-Area.

04 To provide a thorough understanding of the geological history of the sedimentary basins north of the 60th parallel of latitude, stressing the inter-relationships of tectonics, sedimentation, biostratigraphy, geochemistry and hydrocarbon distribution. To evaluate the oil and gas potential of the region.

05 02 Physical Sciences Geological Sciences

06 01 NTS 106 and 116

06 02 Yukon and NWT (Cordillera and Interior Plains)

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 - April Ongoing

09 01 18.7 Salaries and wages

09 04 18.7 Total costs

09 05 12 Scientific man-months - Government

09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential

 a) D.C. Pugh - GSC Bulletin - "Subsurface Paleozoic-Mesozoic Stratigraphy in Peel River Map-Area, Yukon Territory". First draft to Subdivision. Completion approximately April, 1977.

 b) Internal and interdepartmental oral and written reports pertaining to petroleum potential.

14 Nil

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01 310 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 670068 (Cook) - Operation Norman

04 To complete reconnaissance geological mapping, to conduct stratigraphic and structural studies, and to evaluate the economic potential of bedrock formations in the subject area; to embody the results of these studies in an integrated series of reports and maps, some under single authorship and others under multiple authorship according to the topic of contribution.

05 02 Physical Sciences Geological Sciences

06 01 NTS 86D, E, L, M; 87B, C; 96 complete; 97A, B, C, D, F; 106A, B, G, H, I, J, O, P; 107A, D, E

06 02 Mackenzie (Cordilleran Orogen and Interior Platform)

07 01 Nil

07 02 Nil

07 03 Nil

08 1967 1977

09 01 23 Salaries and wages

09 03 .4 Other costs

09 04 23.4 Total costs

09 05 13 Scientific man-months - Government

09 07 13 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
 Aitken & Cook - 106G & H - GSC Memoir - completed 1976;
 Cook & Aitken - Two Cross-sections - Report of Activities, Pt. C - completed 1976;
 Cook & Aitken - 96B, C - Open File Maps - Completed 1976;
 Aitken & Cook - Mackenzie & Franklin Mountain Tectonics - outside publication - MS to Division, 1976;
 Yorath - Cretaceous & Tertiary Stratigraphy - GSC Bulletin - MS to Division, 1976;
 Macqueen - U.C. Ord. Sil. stratigraphy - GSC Paper - MS to Division.

14

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01 111 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 710019 (Brideaux) - Taxonomy, biostratigraphy and paleoecology of Mesozoic miospore and microplankton assemblages from District of Mackenzie, northwestern Canada.

04 To monograph Mesozoic miospore and microplankton assemblages, to determine the local ranges and their value and application in regional and world-wide biostratigraphy, to investigate their paleoecological distribution in sedimentary basins of the District of Mackenzie.

05 02 Physical Sciences Geological Sciences

06 01 Northwest Territories, District of Mackenzie

06 02 District of Mackenzie (Arctic Coastal Plain and Continental Shelf.)

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 1977

09 01 15.8 Salaries and wages

09 02 1 Capital

09 03 5.9 Other costs

09 04 22.7 Total costs

09 05 6 Scientific man-months - Government

09 06 3 Other man-months - Government

09 07 9 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
W.W. Brideaux - GSC Bulletin - "Taxonomy of Upper Jurassic-Lower Cretaceous microplankton from the Richardson Mountains, Mackenzie Delta, Canada." Manuscript to Head of Subdivision. Expected completion date, October, 1976.
W.W. Brideaux & D.J. McIntyre - GSC Paper - "Valanginian miospores and microplankton from the Blue-Grey shale unit, Aklavik Range, District of Mackenzie". Manuscript to Head of Subdivision. Expected completion date March, 1977.

14 Nil

15 Dr. W.W. Brideaux,
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01 312 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 550004 (Jeletzky) - Cretaceous and Jurassic of Richardson Mountains, Porcupine Plains and Eagle Plains.

04 To study the stratigraphy and palaeontology of Cretaceous and Jurassic formations of the region in order to understand the most essential features of the facies pattern, sequence, and lateral extent of lithological units, palaeogeography and geological history. To describe and to figure the most important elements of the faunas.

05 02 Physical Sciences Geological Sciences

06 01 NTS 106W 1/2, 116, 117AS 1/2, 117BS 1/2

06 02 Yukon, Mackenzie (Cordilleran Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1955 1978

09 01 18.6 Salaries and wages

09 02 1.4 Capital

09 04 20 Total costs

09 05 7 Scientific man-months - Government

09 07 7 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential

J.A. Jeletzky - GSC Paper - "Porcupine Formation: A new Upper Jurassic sandstone unit, Northwestern Yukon". To Subdivision. Anticipated date of completion, April, 1976.

J.A. Jeletzky - GSC Bulletin - "Craspeditid genera *Temnoptychites* and *Tollia* in the lower Valanginian of Sverdrup Basin". To Subdivision. Anticipated date of completion, March, 1977.

14 Nil

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K1A 0E8

01 313 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750067 (Poulton) - Mesozoic Biostratigraphy and Jurassic Paleontology of northern Yukon and adjacent District of Mackenzie.

04 A detailed and comprehensive biostratigraphic, lithostratigraphic, paleoecologic, and paleogeographic scheme of the Triassic to Lower Oxfordian (Upper Jurassic) rocks of Yukon Territory north of 65°N, and adjacent areas of District of Mackenzie and a rigorous description of the most important faunal elements of the Jurassic.

05 02 Physical Sciences Geological Sciences

06 01 NTS 106, 116, 117

06 02 Yukon Territory, NWT (Cordilleran Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1976 1981

09 01 8.3 Salaries and wages

09 02 1.5 Capital

09 04 9.8 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
Poulton, T.P. - Geol. Assoc. Can. oral presentation and publication in symposium volume - "Major features of Lower and Middle Jurassic Biostratigraphy of northern Yukon and northwestern District of Mackenzie". Anticipated date of completion, April, 1976.
Frebald, H. & Poulton, T.P. - GSC Paper - "Hettangian faunas in northern Yukon". Anticipated date of completion, October, 1976.

14 Nil

15 Dr. T.P. Poulton,
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3303 - 33rd Street Northwest,
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T2L 2A7

01 114 Energy, Mines and ReconniGen

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 720044 (Wall) - Reconnaissance of Mesozoic Foraminifera of Arctic Islands.

04 To assess the assemblage composition, paleoecology and biochronological significance of Mesozoic Foraminifera in the Arctic Islands in order to better define Mesozoic subsurface and outcrop stratigraphy.

05 02 Physical Sciences Geological Sciences

06 01 NTS 98, 88, 89, 79, 69, 59

06 02 Franklin (Innuitian Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 1980(?)

09 01 12.6 Salaries and wages

09 02 .4 Capital

09 03 5.9 Other costs

09 04 18.9 Total costs

09 05 5 Scientific man-months - Government

09 06 2 Other man-months - Government

09 07 7 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
 J.H. Wall & D.G. Wilson - GSC Paper - "Subsurface Mesozoic biostratigraphy and lithostratigraphy of Eureka Sound area, Canadian Arctic Archipelago". To Heads, Paleontology and Regional Geology Subdivisions. Anticipated completion date, March 15, 1977.
 W.V. Sliter - GSC Paper - "Foraminifera from the Christopher Formation, Ellef Ringnes and Amund Ringnes Islands". To Head, Paleontology Subdivision. Anticipated completion date, July, 1976.

14 Nil

15 Dr. J.H. Wall,
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 T2L 2A7

01 315 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 710022 (Bamber) - Carboniferous and Permian biostratigraphy and coral faunas, western and northern Canada.

04 Establishment of faunal sequence within stratigraphic framework previously described for upper Paleozoic of Alberta, British Columbia, Yukon, and District of Mackenzie, for use as a biostratigraphic reference succession in surface and subsurface exploration of these areas.
Description of coral faunas from these areas and Arctic Islands to document the above succession and facilitate its use by other workers in industry and in other government organizations.

05 02 Physical Sciences Geological Sciences

06 01 NTS 49, 59, 69, 78, 79, 82, 83, 92-95, 103-106, 115-117, 340, 560

06 02 B.C. Alberta, Yukon, District of Mackenzie, District of Franklin (Cordilleran Orogen, Interior Platform, Innuitian Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 1981

09 01 18.8 Salaries and wages

09 02 6 Capital

09 03 3.5 Other costs

09 04 28.3 Total costs

09 05 7 Scientific man-months - Government

09 07 7 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
Bamber, E.W., & Nassichuk, W.W. - PS Warren Memorial volume, GAC - "Middle Pennsylvanian biostratigraphy, western and northern Canada". To Head of Subdivision. Anticipated completion date, May, 1976.
Sando, W.J. & Bamber, E.W. - "Zonation of Lower Carboniferous corals, western North America". Type of publication still to be determined. Preliminary draft stage. Anticipated date of completion, December, 1976.

14 Nil

15 Dr. E.W. Bamber,
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01 316 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 680064 (Nassichuk) - Stratigraphy and paleontology of
Upper Paleozoic rocks on parts of Ellesmere and Axel Heiberg Islands.

04 a) To improve the understanding of the stratigraphy and facies
relationships of the marginal and axial parts of the Sverdrup
Basin.
b) To evaluate the economic potential of the area.
c) To establish a biostratigraphic framework for Carboniferous and
Permian rocks.

05 02 Physical Sciences Geological Sciences

06 01 NTS 49B, C, F, G, H; 340 A, B, C, D; 560A
06 02 Franklin (Innuitian Orogen)

07 01 Nil
07 02 Nil
07 03 Nil

08 1968 - October 1978

09 01 20 Salaries and wages
09 03 3.5 Other costs
09 04 23.5 Total costs
09 05 10 Scientific man-months - Government
09 07 10 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
W.W. Nassichuk & G.R. Davies - GSC bulletin - "Otto Fiord Formation".
Authors' draft to Subdivision. Anticipated date of completion, December,
1976.
W.W. Nassichuk & G. Wilde (Exxon) - GSC Paper - "Correlation of
Lower Permian rocks at Blind Fiord and Hare Fiord". Final draft to
Subdivision. Anticipated date of completion, April, 1976.
W.W. Nassichuk & E.W. Bamber - Outside publication - "Middle
Pennsylvanian Stratigraphy, western and northern Canada". Authors' draft
to Subdivision. Anticipated date of completion, May, 1976.

14 Nil

15 Dr. W.W. Nassichuk,
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3303 - 33rd Street Northwest,
Calgary, Alberta,
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01 317 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 700045 (Nassichuk) - Belcher Channel and Ballantyne Strait
(NTS 59, 69, 79, 89, 99) map area. 1:1 million Geologic Atlas Program.

04 To publish a modern compilation and synthesis of the geology of the map
area as a unit of the 1:1 million Geological Atlas of Canada. More
detailed objectives are April 1, 1969 of File 116-6-4 (Kerr devoted 1/2
month to the project in 1972-73 and has now completed his contribution).

05 02 Physical Sciences Geological Sciences

06 01 NTS 59, 69, 79, 89, 99

06 02 Franklin (Innuitian Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1970 1977

09 01 2 Salaries and wages

09 04 2 Total costs

09 05 1 Scientific man-months - Government

09 07 1 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 None expected for instruction year. No publication in previous years.

14 Nil

15 Dr. W.W. Nassichuk,
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01 318 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 680090 (Foscolos) - Identification of unknown minerals and
 elemental analysis of sedimentary rocks by X-Ray and chemical techniques.

04 Quantitative and semiquantitative analysis of layer lattice silicates,
 mixed-layer silicates, clays, minerals and elements in samples submitted
 by GSC staff.

05 02 Physical Sciences Geological Sciences

06 01 Canada

06 02 Calgary office, ISPG

07 01 Nil

07 02 Nil

07 03 Nil

08 1968 - May Ongoing

09 01 12.5 Salaries and wages

09 02 8 Capital

09 04 20.5 Total costs

09 05 13 Scientific man-months - Government

09 07 13 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
 A.E. Foscolos - Interdepartmental reports to GSC staff.

14 Nil

15 Dr. A.E. Foscolos,
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 T2L 2A7

01 319 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 730060 (Foscolos) - Mineralogy of fine grained clastic rocks in central Sverdrup Basin.

04 a) To evaluate the use of clay minerals and inorganic geochemical parameters derived from the previous studies, by Foscolos, Powell, Gunther, Foscolos and Stott and Foscolos and Kodama, as indicators for diagenesis and oil generating potential of source rocks.
 b) To assess the importance of the chemical compositions of pore fluids in diagenesis and cementation of oil and gas reservoirs.
 c) To study the changes of amorphous material ($Si^{4-x}(OH)_x, Al^{3-x}((OH), Fe^{3-x}(OH))$) upon diagenesis as water suppliers for oil migration.
 d) To assess the exact chemical and mineralogical changes of sedimentary rocks upon diagenesis.
 e) to correlate the release from the source rock and the migration mechanism of heavy metals with diagenesis.

05 02 Physical Sciences Geological Sciences

06 01 NTS - parts of 59, 69 and 79
 06 02 Franklin (Innuitian Orogen)

07 01 Nil
 07 02 Nil
 07 03 Nil

08 1973 - March 1978(?)

09 01 9.5 Salaries and wages
 09 02 14.5 Capital
 09 04 24 Total costs
 09 05 10 Scientific man-months - Government
 09 07 10 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
 T.G. Powell - An outside paper will be forthcoming at the end of 1976.
 A.E. Foscolos - Incorporating the mineralogical results of this work with the work being carried out on the organics by T.G. Powell and P.R. Gunther.

14 Nil

15 Dr. A.E. Foscolos,
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01 320 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750027 (Powell) - Diagenesis of organic matter and clay minerals in sediments in relation to petroleum generation.

04 To correlate the various methods of determining diagenesis of sediments in relation to oil and gas potential so that the accuracy of each can be determined. To define the ranges in which petroleum generation can be expected in each method. To estimate the relative effects of time and temperature on these parameters.

05 02 Physical Sciences Geological Sciences

06 01 NE British Columbia, Mackenzie Delta, Arctic Islands

06 02 B.C., Mackenzie, Franklin (Beaufort Basin, Sverdrup Basin, western Canada Basin.)

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 1978

09 01 19.2 Salaries and wages

09 02 16 Capital

09 04 35.2 Total costs

09 05 24 Scientific man-months - Government

09 07 24 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
Foscolos, Powell, Gunther - External publication - "Diagenesis of clays and organic matter in sedimentary rocks". Anticipated date of completion, January, 1977.

14 Nil

15 Dr. T.G. Powell,
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Calgary, Alberta,
T2L 2A7

01 321 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750087 (Gunther) - A study of optical properties of sedimentary organic materials in relation to oil and gas occurrences in the Sverdrup Basin.

04 To evaluate the data from 54 samples already processed under a Hacquebard project (680102). They are Sverdrup Basin samples.
 To more fully investigate the total spectrum of microscopic organic materials using their measurable, maturable qualities to evaluate oil and gas potentials in the Sverdrup Basin.

05 02 Physical Sciences Geological Sciences

06 01 Sverdrup Basin, Queen Elizabeth Islands of Arctic Canada

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 1978 - October

09 01 5.2 Salaries and wages

09 02 1.5 Capital

09 04 6.7 Total costs

09 05 4 Scientific man-months - Government

09 07 4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
 Gunther, P.R. - Progress report, GSC Paper - "A study of optical properties of sedimentary organic materials in relation to oil and gas occurrences in the Sverdrup Basin. Anticipated date of completion, October, 1978.

14 Nil

15 Mr. P.R. Gunther,
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 T2L 2A7

01 322 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 500038 (Irvine) - Coal reserves of Canada and studies of coal deposits in Canada.

04 To prepare estimates of the coal reserves of Canada; to prepare for publication reports and illustrations concerning Canada's coal reserves; to advise, and prepare reports for other Branches or Departments when so requested; to have up-to-date knowledge of coalfields in Canada.

05 02 Physical Sciences Geological Sciences

06 01 Canada

06 02 Canada

07 01 Nil

07 02 Nil

07 03 Nil

08 1950 Ongoing

09 01 7.8 Salaries and wages

09 02 1.2 Capital

09 04 9 Total costs

09 05 4 Scientific man-months - Government

09 07 4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 No publications anticipated during instruction year.
Publications during 1975/76 (non-confidential)
Irvine completed a report on Coal Resource Evaluation Methods.
Resource Evaluation Seminar, Ottawa, September, 1975.

14 Nil

15 Mr. J.A. Irvine,
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01 323 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 670576 (Tozer) - Canadian Triassic Ammonoidea and Bivalvia.

04 To describe and assess biochronological significance of Triassic Ammonoidea and Bivalvia in order to refine methods for dating Triassic rocks.

05 02 Physical Sciences Geological Sciences

06 01 Western and Arctic Canada

06 02 Alberta, B.C., Yukon, Franklin (Arctic and Interior Platforms, Cordilleran and Innuitian Orogens)

07 01 Nil

07 02 Nil

07 03 Nil

08 1967 - June 1978

09 01 30 Salaries and wages

09 02 1 Capital

09 03 1 Other costs

09 04 32 Total costs

09 05 9 Scientific man-months - Government

09 07 9 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
 Tozer, E.T. - GSC bulletin - "Canadian Triassic Ammonoid Faunas".
 Revision of MS previously submitted and accepted by critical readers.
 Anticipated date of completion 1976 or 1977.

14 Nil

15 Dr. E.T. Tozer,
 994-5884
 Geological Survey of Canada
 601 Booth St.
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01 324 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 ProjectNo. 750057 (Pedder) - Stratigraphically important cystimorph corals from the Lower Devonian of western Canada.

04 The project will describe stratigraphically important cystimorph corals from the Lower Devonian of the Yukon and also will provide new interpretations of related forms from Ontario, Tasmania and Gotland. The Yukon forms are expected to be important biostratigraphically for the Lower Devonian of that region.

05 02 Physical Sciences Geological Sciences

06 01 Primarily western Canada

06 02 Yukon Territory, Ontario (Cordilleran Orogen, Interior Platform)

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 1976

09 01 8.2 Salaries and wages

09 03 3 Other costs

09 04 11.2 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
A.E.H. Pedder and R.A. McLean - Outside Journal (Palaeontology) - "Lower Devonian cystiphyllid corals from North America and eastern Australia with notes on the genus Utaratuia." Anticipated date of completion, July, 1976.

14 Nil

15 Dr. A.E.H. Pedder,
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T2L 2A7

01 125 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 680093 (Pedder) - Upper Silurian and Devonian biostratigraphy, western and northern Canada.

04 Elucidation of the sequence of Upper Silurian and Devonian faunas, especially corals, of western and northern Canada so that correlations of strata of these ages can be achieved. Description and illustration of fossils that have, or are expected to have, biostratigraphic significance. Paleogeological and biogeographic analyses of species and other taxonomic categories that have different time ranges in different geographic realms and ecologies.

05 02 Physical Sciences Geological Sciences

06 01 Western and Northern Canada

06 02 Dist. of Mackenzie and Franklin, Yukon Territory, B.C., Alberta, Saskatchewan, and Manitoba. (Cordilleran and Innuitian Orogens)

07 01 Nil

07 02 Nil

07 03 Nil

08 1968 - April 1976

09 01 13.6 Salaries and wages

09 02 .6 Capital

09 03 3.6 Other costs

09 04 17.8 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
 Pedder, A.E.H. - Outside J. (Geol. Ass. Canada) - "Sequence, distribution and relationships of the Devonian rugose coral faunas of western and northern Canada". To Subdivision. Anticipated date of completion, May, 1976.
 Jackson, D.E., Lenz, A.C., Pedder, A.E.H. - Outside J. (Geol. Ass. Canada) "Biostratigraphy of the Upper Silurian and Lower Devonian graptolitic and shelly facies of northern Canada". - to Subdivision. Anticipated date of completion, May, 1976.
 Pedder, A.E.H. - GSC Paper 76-1C, Report of Activities - "Pridolian (Upper Silurian) and early Lochkovian (Lower Devonian)". To Subdivision. Anticipated date of completion, June, 1976.

14 Nil

15 Dr. A.E.H. Pedder,
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01 326 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 750085 (Morrow) - Stratigraphy, sedimentology and diagenesis of Paleozoic rocks in the southern Mackenzie Mountains and northern Rocky Mountains.

04 To gain a clearer understanding of the Devonian and Carboniferous stratigraphy of this area particularly regarding the stratigraphic problems of correlation and facies relationships that exist within this succession. This will lead to an analysis of sedimentology and the tectonic setting of these rocks with reference to major tectonic elements, such as the Mackenzie arch and the flanking Selwyn basin and Mackenzie trough. Diagenesis of these rocks will be elucidated by means of petrological and geochemical investigations and will be analyzed in terms of processes related to the sedimentologic and tectonic history of the sequence. This work will result in the publication of several papers and bulletins.

05 02 Physical Sciences Geological Sciences

06 01 NTS 94, 95, 96, 106 and 106

06 02 YT, NWT and BC (Cordilleran Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 1980

09 01 40.6 Salaries and wages

09 02 45.3 Capital

09 03 2 Other costs

09 04 87.9 Total costs

09 05 19 Scientific man-months - Government

09 06 10 Other man-months - Government

09 07 29 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
D.W. Morrow - GSC Paper - "The Dunedin Formation: a transgressive shelf carbonate unit". April, 1976.
D.W. Morrow - GSC bulletin - "Devonian stratigraphy of the southern Mackenzie Mountains". Anticipated date of completion, October, 1977.
D.W. Morrow, G.C. Taylor and K.R. Dawson - Outside paper
- "Barite-Fluorite deposits of northeast British Columbia". Anticipated date of completion, Nov. 1976.

14 Nil

15 Dr. D.W. Morrow,
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T2L 2A7

01 327 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 680134 (Snowdon) - Regional distribution of gaseous hydrocarbon in NWT and western Canada.

04 To extract hydrocarbon gases from drill cuttings from wells in the NWT and western Canada in order to determine the level of thermal alteration of the sediments and to detect potential oil source rocks to aid in an estimate of the hydrocarbon potential in Arctic basins.

05 02 Physical Sciences Geological Sciences

06 01 Arctic Islands, Interior Platform north of 60°N latitude, Alberta, Saskatchewan.

06 02 Alberta, Saskatchewan, Mackenzie and Franklin (western Canada and Arctic sedimentary basins).

07 01 Nil

07 02 Nil

07 03 Nil

08 1968 Terminated

09 01 20.6 Salaries and wages

09 02 2.4 Capital

09 04 23 Total costs

09 05 16 Scientific man-months - Government

09 06 8 Other man-months - Government

09 07 24 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Nil

14 Nil

15 Mr. L.R. Snowdon,
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01 328 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 650003 (Thorsteinsson) - Cornwallis and adjacent smaller islands.

04 a) Improve the understanding of the age, structure, sequence,
relationship, thickness of bedrock formations with a view to helping:
b) Assess the size, grade, mode of occurrence, origin and
potentialities of any fuel or mineral deposit that may occur, and
c) Improve the knowledge and understanding of the morphology of the
Silurian and Devonian ostracoderms of Cornwallis Island, thus
aiding in the establishment of a more useful stratigraphic
framework for the region and therefore contributing to (1).

05 02 Physical Sciences Geological Sciences

06 01 NTS 58F, G; 68E, H; 59B

06 02 Franklin (Innuitian Orogen)

07 01 Nil

07 02 Nil

07 03 Nil

08 1965 1976

09 01 38.6 Salaries and wages

09 02 17.7 Capital

09 04 56.83 Total costs

09 05 12 Scientific man-months - Government

09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Thorsteinsson - Siluro-Devonian heterostracans from the Canadian Arctic
Archipelago, to be submitted for publication in Palaeontographica in 1976

14 Nil

15 Dr. R. Thorsteinsson,
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01 329 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 63003 (Christie) - Operation Grant Land - NE Ellesmere Island and N. Greenland.

04 To obtain a better understanding of the geological features of an orogenic belt extending across northeastern Ellesmere Island into adjacent Greenland.

05 02 Physical Sciences Geological Sciences

06 01 N.E. Ellesmere Island and N. Greenland

07 01 Nil

07 02 Nil

07 03 Nil

08 1963 - August 1977

09 01 25 Salaries and wages

09 04 25 Total costs

09 05 10 Scientific man-months - Government

09 07 10 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Non-confidential
Christie, McGregor, Petryk, Rouse - GSC Paper - "Mesozoic and Tertiary rocks at Lake Hazen; new biochronological and stratigraphic interpretations". April, 1976.
Christie - GSC Paper - "Tertiary stratigraphy, Lake Hazen". May, 1976.
Christie - GSC Paper - "Stratigraphy & Structure, Hudge Daly Promontory". May, 1976.
Christie, Peel - GSC Paper or Bulletin - "Stratigraphy, Bórglum Elv, Northern Greenland". May, 1976.

14 Nil

15 Dr. R.L. Christie,
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01 330 Energy, Mines and Resources

02 GSC, Institute of Sedimentary & Petroleum Geology, Calgary.

03 Project No. 670557 (Christie) - Stratigraphy and age of Precambrian sedimentary rocks and contained sills and dykes, east coast of Canadian Arctic Islands and North and Northwest Greenland.

04 To correlate or distinguish Precambrian sedimentary basins and to obtain information on movement of continental masses.
Aided by age-determinations on diabase-gabbro sill rocks and other intrusive rocks, to compare the tectonic history of the Precambrian sedimentary rocks of the region.

05 02 Physical Sciences Geological Sciences

06 01 NTS 120, 340, 560, 29, 39, 49, 59, 28, 38, 48, 58, 27, 37, 47, 57

06 02 Franklin, NWT, (Innuitian Orogen, Arctic Platform)

07 01 Nil

07 02 Nil

07 03 Nil

08 1967 - March 1977

09 01 5 Salaries and wages

09 04 5 Total costs

09 05 2 Scientific man-months - Government

09 07 2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Christie - GSC Paper - "Stratigraphy of upper Precambrian sedimentary and volcanic rocks of southeastern Ellesmere Island". Anticipated date of completion, July, 1976.
Christie, Dawes - Outside paper - "Stratigraphic and structural reconnaissance of the Thule Basin, northwestern Greenland and southeastern Ellesmere Island". Anticipate date of completion, July, 1976.

14 Nil

15 Dr. R.L. Christie,
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3303 - 33rd Street Northwest,
Calgary, Alberta,
T2L 2A7

01	291	Energy, Mines and Resources	
02		Geological Survey of Canada	
03		Project No. 740017 - Metamorphism in the Canadian Shield.	
04		To provide suitable maps and studies on metamorphism of the Shield which will focus on this parameter in such a way as to make a unique contribution to the understanding of the development of the Shield; and to provide regional and local information on metamorphic grade and history which will be of use in evaluating mineral resources potential of the Canadian Shield. To provide information for Geoscience Data Base.	
05	02	Physical Sciences	Geology
06	01	entire N.W.T.	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1974	1977
09	01	27	Salaries and wages
09	03	30	Other costs
09	04	57	Total costs
09	05	12	Scientific man-months - Government
09	07	12	Total man-months - Government
10		Nil	
11		Nil	
12		Nil	
13		Nil	
14		Nil	
15		I.M. Stevenson, 994-5755 601 Booth Street, Ottawa, K1A 0E8	

01 331 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #730039 - Sloan River Map-Area (86K) District of Mackenzie.

04 To establish the stratigraphic and intrusive relations of the
Aphebian plutonic, volcanic and sedimentary rocks and to provide a
descriptive and conceptual framework for assessment of the mineral
resources of the area, to add to our geoscience data base.

05 02 Physical Sciences Geology

06 01 Sloan River area, Dist. of Mackenzie, N.W.T.

06 02 NTS 86K

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 1977

09 01 36 Salaries and wages

09 03 21 Other costs

09 04 57 Total costs

09 05 19 Scientific man-months - Government

09 06 3 Other man-months - Government

09 07 22 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 G.S.C. Paper 74-1A, p. 173-176; G.S.C. Paper 75-1A, p. 331-337;
G.S.C. Paper 76-1A.

14 Nil

15 I.M. Stevenson,
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01 332 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project 730041 - Geology of the Calder River map-area (86F),
Dist. of Mackenzie.

04 To define the stratigraphic and relative age relations of Aphebian
(Snare, Cameron, Echo Bay Groups) sedimentary rocks and associated
Aphebian plutonic rocks and to provide data for resource assessment
and exploration.

05 02 Physical Sciences Geology

06 01 Calder River map-area, Dist. of Mackenzie

06 02 NTS 86F, 86E (pt. of)

07 01 Nil

07 02 Nil

07 03 Nil

08 1973

09 01 31 Salaries and wages

09 03 35 Other costs

09 04 66 Total costs

09 05 17 Scientific man-months - Government

09 07 17 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 G.S.C. Paper 74-1, Pt. A; G.S.C. Paper 75-1, Pt. A; G.S.C. Paper
76-1A.

14 Nil

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01	333	Energy, Mines and Resources	
02		Geological Survey of Canada	
03		Project 740019 - To map in detail the felsic volcanic belt to provide a basis for resource exploration in the area to further add to our geoscience data base.	
04		Nil	
05	02	Physical Sciences	Geology
06	01	Regan Lake area, Dist. of Mackenzie	
06	02	NTS are 76B, C, F, G (pts. of)	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1974	1978
09	01	22	Salaries and wages
09	03	20	Other costs
09	04	42	Total costs
09	05	5	Scientific man-months - Government
09	06	8	Other man-months - Government
09	07	13	Total man-months - Government
10		Nil	
11		Nil	
12		Nil	
13		G.S.C. Paper 76-1, Part A	
14		Nil	
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01 334 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project 730040 - Archean volcanic studies in the Slave Bear
Province.

04 To determine the stratigraphic and structural relations of rocks
in the area, and the relationship of mineral deposits to volcanic
stratigraphy and volcanic processes in order to add data to our
geoscience data base.

05 02 Physical Sciences Geology

06 01 Hearne Lake map-area, N.W.T.

06 02 NTS 851

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 1976

09 01 7 Salaries and wages

09 04 7 Total costs

09 05 4 Scientific man-months - Government

09 07 4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 G.S.C. Paper 73-1, Part A, p. 148-150; G.S.C. Paper 74-1, Part A,
p. 177-179

14 Nil

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01 335 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project 750004 - Tulemalu Lake Map-Area, Dist. of Keewatin, N.W.T.

04 Nil

05 02 Physical Sciences Geology

06 01 Tulemalu Lake, N.W.T.

06 02 NTS 65J

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 1978

09 01 52 Salaries and wages

09 03 48 Other costs

09 04 100 Total costs

09 05 9 Scientific man-months - Government

09 06 18 Other man-months - Government

09 07 27 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Final report and map to be submitted by March, 1978 to GSC for publication. 1976 - Geology of the Tulemalu map-area, Dist. of Keewatin; Rept. of Activities, Part A, Geol. Surv. Canada, Paper 76-1A.

14 Nil

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01 336 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project 680085 - Structural and stratigraphic study of the
Precambrian rocks of southwestern Keewatin, N.W.T.

04 Geological study of Hurwitz group rocks and to assess their
potential for mineral occurrences. To provide information for
Geoscience Data Base.

05 02 Physical Sciences Geology

06 01 Dist. of Keewatin, N.W.T.

06 02 NTS 65A, W1/2, B, C, G W1/2, I W1/2

07 01 Nil

07 02 Nil

07 03 Nil

08 1968 1976

09 01 5 Salaries and wages

09 04 5 Total costs

09 05 2 Scientific man-months - Government

09 07 2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Geological Survey of Canada Paper 70-45; Paper 72-21; Paper 74-64;
Can. Jour. Earth Sci., vol. 12, pp. 95-114.

14 Nil

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01 337 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #710049 - Geological and geophysical studies in the Beaufort Sea.

04 To produce a magnetic anomaly map and selected shallow seismic profiles at the Beaufort Sea. To provide information for Geoscience Data Base.

05 02 Physical Sciences Geology

06 01 Beaufort Sea, Dist. of Franklin

06 02 NTS 107, 117 (pts. of)

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 1978

09 01 10 Salaries and wages

09 03 14 Other costs

09 04 ~~26~~ 24 Total costs

09 05 8 Scientific man-months - Government

09 07 8 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 G.S.C. Paper 74-1B

14 Nil

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01 338 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #730037 - Stratigraphy, structure and metallogeny of Pelly Mountains and Yukon Plateau.

04 To provide information on the relationship between stratigraphy, structure, sedimentary facies and mineral deposits in Pelly Mountains and adjacent Yukon Plateau. To add information to Canada's geoscience data base.

05 02 Physical Sciences Geology

06 01 Yukon Territory

06 02 105A, F, G, H

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 1977

09 01 32 Salaries and wages

09 03 33 Other costs

09 04 65 Total costs

09 05 18 Scientific man-months - Government

09 07 18 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 G.S.C. Paper 74-1A, pp. 43-44; G.S.C. Paper 75-1A, pp. 45-48.

14 Nil

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01	339	Energy, Mines and Resources	
02		Geological Survey of Canada	
03		Project 750014 - Stratigraphy and sedimentation of the Proterozoic Rapitan Group and related rocks, Mackenzie, Wernecke and Ogilvie Mountains.	
04		To study the geology of the area, to derive a qualitative model of relative mineral potential in Mackenzie, Wernecke and Ogilvie Mountains.	
05	02	Physical Sciences	Geology
06	01	Yukon Territory and Dist. of Mackenzie	
06	02	NTS 95L, M, 105P, 106A, B, C	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975	Ongoing
09	01	18	Salaries and wages
09	03	12	Other costs
09	04	30	Total costs
09	05	8	Scientific man-months - Government
09	06	3	Other man-months - Government
09	07	11	Total man-months - Government
10		Nil	
11		Nil	
12		Nil	
13		Geol. Surv. Canada Paper 76-1A; G.S.C. Open File 298.	
14		Nil	
15		I.M. Stevenson, 994-5755 601 Booth Street, Ottawa, Ontario, K1A 0E8	

01 340 Energy, Mines and Resources
02 Geological Survey of Canada
03 Project 730035 - Operation Mount Saint Elias.
04 To determine the stratigraphy, structure, and metamorphism of
intrusive and volcanic rocks and to assess the mineral
potential of the area and to add information to Canada's
geoscience data base.
05 02 Physical Sciences Geology
06 01 St. Elias Mts., Yukon and Northern B.C.
06 02 NTS 114P, O; 115A,B,C,G,F
07 01 Nil
07 02 Nil
07 03 Nil
08 1973 1980
09 01 14 Salaries and wages
09 03 5 Other costs
09 04 19 Total costs
09 05 6 Scientific man-months - Government
09 07 6 Total man-months - Government
10 Nil
11 Nil
12 Nil
13 G.S.C. Paper 74-1, p. 11-12. G.S.C. Paper 75-1, p. 51-53.
G.S.C. Paper 75-1, p. 61-62.
14 Nil
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01 341 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project 67002 - Operation Bylot.

04 A reconnaissance geological survey of a previously unmapped area to describe and interpret the broad geological framework and outline areas of potential economic interest, to add data to Canada's geoscience base.

05 02 Physical Sciences Geology

06 01 North Central Baffin Island, Dist. of Franklin

06 02 NTS areas 27,37,38,48

07 01 Nil

07 02 Nil

07 03 Nil

08 1967 1976

09 01 22 Salaries and wages

09 04 22 Total costs

09 05 12 Scientific man-months - Government

09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Can. Min. Jour., Vol. 87, No. 6, pp. 57-61.
 Can. Jour. Earth Sci., Vol. 8, No. 4, pp. 455-467.
 Can. Jour. Earth Sci., Vol. 9, No. 12, pp. 1650-1669.
 G.S.C. Paper 69-1, pp. 171-176.
 G.S.C. Paper 73-35, 29 pp.
 G.S.C. Paper 74-29.
 G.S.C. Paper 74-25.

14 Nil

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01 342 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #690028 - Operation Coppermine and Bathurst Inlet.

04 To provide reconnaissance information and assess the economic potential of 120,000 square miles of mainly unmapped terrain in the northwest Canadian Shield. To provide information for Geoscience Data Base.

05 02 Physical Sciences Geology

06 01 Northwest Canadian Shield

06 02 NTS areas (pts. of) 66,67,76;77,86,87,96,97

07 01 Nil

07 02 Nil

07 03 Nil

08 1969 1976

09 01 4 Salaries and wages

09 04 4 Total costs

09 05 2 Scientific man-months - Government

09 07 2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) Geology of the Coppermine River-Bathurst Inlet areas; G.S.C Memoir, to be published, 1976.
(b) G.S.C. Papers 70-40; 73-39; 62-40; G.S.C. maps 18-1960; GAC Special Paper No. 11.

14 Nil

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01 343 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #730069 - Metallogeny of Selwyn Basin.

04 To determine the stratigraphy, facies, structural style and metallogeny of Paleozoic strata in Selwyn Basin as a basis for evaluating the economic potential of the region. To update Canada's geoscience data base.

05 02 Physical Sciences Geology

06 01 Yukon, Dist. of Mackenzie
06 02 NTS 105I,J,N,O,P; 106B,C

07 01 Nil
07 02 Nil
07 03 Nil

08 1973 1977

09 01 23 Salaries and wages
09 03 20 Other costs
09 04 43 Total costs
09 05 10 Scientific man-months - Government
09 06 3 Other man-months - Government
09 07 13 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 75-1B
(b) G.S.C. Paper 76-1A

14 Nil

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01 344 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project 710053 - Penrhyn Group metamorphic complex, Melville Peninsula, District of Franklin.

04 To determine the structural, metamorphic, stratigraphic and age relations between basement gneisses and Penrhyn Group gneisses and schists. To add to Canada's geoscience data base.

05 02 Physical Sciences Geology

06 01 Dist. of Franklin, Melville Peninsula

06 02 NTS area 46J,K,N,O

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 1978

09 01 17 Salaries and wages

09 03 17 Other costs

09 04 34 Total costs

09 05 12 Scientific man-months - Government

09 07 12 Total man-months - Government

09 08 12 Scientific man-months - Non-government

09 10 12 Total man-months - Non-government

10 01 A \$17,000 personal service contract with Mr. J.R. Henderson

11 Nil

12 Nil

13 Nil

14 Nil

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01 345 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project 680119 Operation Stewart

04 To obtain and interpret the regional stratigraphy and structure
in Selwyn Basin and relate them to the search for mineral deposits.
To add information to Canada's geoscience data base.

05 02 Physical Sciences Geology

06 01 Yukon, Dist. of Mackenzie

06 02 NTS 105N,O,106B,C,A(pts. of)

07 01 Nil

07 02 Nil

07 03 Nil

08 1968 1976

09 01 2 Salaries and wages

09 04 2 Total costs

09 05 1 Scientific man-months - Government

09 07 1 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 70-1, Pt. A, pp. 29-32
(b) G.S.C. Paper 71-1, Pt. A, p. 19
(c) G.S.C. Paper 73-1, Pt. A, p. 17
(d) G.S.C. Open File 205
(e) G.S.C. Open File 206

14 Nil

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01 346 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #650010 Operation Selwyn

04 To establish the stratigraphic sequence in lower Paleozoic rocks of western Mackenzie and Selwyn Mountains, and to study the host rocks of large base metal deposits as a contribution to the economic development of the north. Also to add to Canada's geoscience data base.

05 02 Physical Sciences Geology

06 01 Dist. of Mackenzie, Y.T., B.C.

06 02 NTS 105A,H,I,P; 1040; 95D

07 01 Nil

07 02 Nil

07 03 Nil

08 1965 1977

09 01 7 Salaries and wages

09 04 7 Total costs

09 05 4 Scientific man-months - Government

09 07 4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Prelim. Map 6-1966

 (b) G.S.C. Map 19-1966

 (c) G.S.C. Map 8-1967

 (d) G.S.C. Paper 6t8-38

 (e) G.S.C. Paper 68-55

 (f) G.S.C. Paper 69-16

 (g) G.S.C. Paper 71-22

14 Nil

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01 347 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project 750008 - Geology of the Hackett River Back River Area,
N.W.T.

04 To determine the stratigraphy of the rocks of the area and the
mineral potential of the region. To provide data for the
geoscience base of Canada.

05 02 Physical Sciences Geology

06 01 Hackett River - Back River Areas, N.W.T.
06 02 NTS 76F(E1/2), 76G(W1/2)

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 1978

09 01 31 Salaries and wages
09 03 16 Other costs
09 04 ~~4~~ 47 Total costs
09 05 8 Scientific man-months - Government
09 06 10 Other man-months - Government
09 07 18 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 G.S.C. Paper 75-1, Part C, p. 367-370..

14 Nil

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01 348 Energy, Mines and Resources
02 Geological Survey of Canada
03 Project #730160 - Paleomagnetism of Circum-Ungava Belt.
04 To determine (1) whether the curved nature of the belt is due to differential rotation and (2) to arrive at time - stratigraphic correlations between various parts of the Belt.

05 02 Physical Sciences Geology
06 01 Northern Quebec & N.W.T.
06 02 Cape South Belt & Belcher Islands

07 01 Nil
07 02 Nil
07 03 Nil

08 1973 1978

09 01 19 Salaries and wages
09 04 19 Total costs
09 05 24 Scientific man-months - Government
09 07 24 Total man-months - Government

10 Nil
11 Nil
12 Nil

13 "Paleomagnetism of the Circum-Ungava Belt (I); Cape Smith komatiitic basalts" Can. J. of Earth Science, vol. 12, pp. 1785-1793.

14 Nil

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01 349 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #740022 - Porphyry copper in the Canadian Shield.

04 To assess the total porphyry copper type potential in the Superior Province, and thus outline characteristics by which additional deposits may be discovered.

05 02 Physical Sciences Geology

06 01 N.W.T.

06 02 Entire N.W.T.

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 1980

09 01 2 Salaries and wages

09 04 2 Total costs

09 05 1 Scientific man-months - Government

09 07 1 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Nil

14 Nil

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01 350 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #660013 Operation Torngat

04 To determine and interpret the overall geological environment of the area east of longitude 68° and north of latitude 55° to ascertain the geological history and assess its mineral potential.

05 02 Physical Sciences Physical Sciences

06 01 Northern Labrador & N.E. Quebec

06 02 Pts. of NTS 13,14,24,23,25

07 01 Nil

07 02 Nil

07 03 Nil

08 1966 1976

09 01 25 Salaries and wages

09 03 8 Other costs

09 04 33 Total costs

09 05 11 Scientific man-months - Government

09 07 11 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 68-43
 (b) G.S.C. Paper 70-24
 (c) Mineralogical Magazine, Vol. 38, pp. 666-669
 (d) Geol. Assoc. Canada, Spec. Paper No. 11
 (e) G.S.C. Paper 71-43
 (f) Can. J. Earth Sci., Vol. 9, pp. 1650-1669

14 Nil

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01 351 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #720062 - Volcanic rocks of the Prince Albert Belt

04 To determine the structure, stratigraphy and petrology of the volcanic rocks of the Prince Albert Group and to evaluate their mineral potential.

05 02 Physical Sciences Geology

06 01 N.E. Dist. of Keewatin; SE Dist. of Franklin

06 02 NTS areas 46,L,M,N; 47A,B; 56I,J,K,O,P

07 01 Nil

07 02 Nil

07 03 Nil

08 1972 1976

09 01 17 Salaries and wages

09 03 2 Other costs

09 04 19 Total costs

09 05 10 Scientific man-months - Government

09 07 10 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 73-1A

(b) G.S.C. Paper 74-A, pp. 187-188

(c) G.S.C. Paper 75-1A, pp. 363-367

(c) G.S.C. Paper 75-1, part B, pp. 89-96

14 Nil

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01 352 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #740020 - Geology of the Foxe Fold Belt, Baffin Island,
District of Franklin.

04 To study the stratigraphy, structure and metamorphism of the
Aphebian rocks in the Piling Group to provide information for
Canada's geoscience data base.

05 02 Physical Sciences Geology

06 01 Baffin Island, Dist. of Franklin

06 02 NTS 27B,C;37A,C,D; pts of 25H

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 1980

09 01 29 Salaries and wages

09 03 81 Other costs

09 04 110 Total costs

09 05 20 Scientific man-months - Government

09 07 20 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 75-1, Part A, p. 343-347

 (b) G.S.C. Paper 76-1, Part A

14 Nil

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01	353	Energy, Mines & Resources	
02		Geological Survey of Canada	
03		(a) Project 710050 - Lockart River map-area	
		(b) Project 710051 - Slave River map-area	
04		To provide compilations for 1:1 million geological Atlas program.	
05	02	Physical Sciences	Geology
06	01	Lockart River area, Slave River area.	
06	02	NTS 75,85	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1971	1976
09	01	5	Salaries and wages
09	04	5	Total costs
09	05	2	Scientific man-months - Government
09	07	2	Total man-months - Government
10		Nil	
11		Nil	
12		Nil	
13		Nil	
14		Nil	
14		I.M. Stevenson	
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01 354 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project 750005 - Geology of MacQuoid Lake (W1/2) and Thirty Mile Lake (E1/2) map-areas, Dist. of Keewatin, N.W.T.

04 To update geological information of the Dubawnt Group rocks and to assess their mineral potential.

05 02 Physical Sciences Geology

06 01 MacQuoid Lake, Thirty Mile Lake, Dist. of Keewatin

06 02 NTS 55M(W1/2), 65P(E1/2)

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 1977

09 01 44 Salaries and wages

09 03 49 Other costs

09 04 93 Total costs

09 05 12 Scientific man-months - Government

09 06 17 Other man-months - Government

09 07 29 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 G.S.C. Paper 76-1, Part A, pp. 383-386

14 Nil

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01 355 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #650008 - Stratigraphy, sedimentology and correlation of
Nonacho Group, N.W.T.

04 To define the sedimentology and stratigraphy of Nonacho Group to
contribute data for geoscience data base.

05 02 Physical Sciences Geology

06 01 Talston, Nonacho, Rehance
06 02 pts. of 75E,F,K

07 01 Nil
07 02 Nil
07 03 Nil

08 1965 1976

09 01 2.2 Salaries and wages
09 04 2.2 Total costs
09 05 1 Scientific man-months - Government
09 07 1 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 66-1, pp. 32-33
(b) G.S.C. Paper 70-1
(c) G.S.C. Paper 71-1A, pp. 140-42

14 Nil

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01	356	Energy, Mines and Resources	
02		Geological Survey of Canada	
03		Project #680012 - Paleomagnetic study of Proterozoic red beds of the western Canadian Shield.	
04		To obtain paleomagnetic pole positions from various Proterozoic red bed sequences in the western Precambrian Shield for purposes of correlation.	
05	02	Physical Sciences	Geology
06	01	Western Canadian Shield	
06	02	NTS 75E,F; 74; 85; 86; 65; 66	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1968	1978
09	01	5	Salaries and wages
09	04	5	Total costs
09	05	2.5	Scientific man-months - Government
09	07	2.5	Total man-months - Government
10		Nil	
11		Nil	
12		Nil	
13		Paleomagnetism of the Et-Then Group and associated Mackenzie Diabase, Can. Jour. Earth Sci., Vol. 9. Drift of Canadian Shield in Continental Shift, Sea Floor Spreading and Plate Tectonics; Implications to the Earth Sciences; Academic Press, London, Ed.	
14		Nil	
15		I.M. Stevenson 4-5755 601 Booth Street Ottawa, K1A 0E8	

01 357 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #740018 - Sedimentological studies of the Yellowknife
Supergroup in the Slave structural province.

04 To establish the stratigraphic and structural relations of various
members of the Yellowknife Supergroup in a number of areas in the
Slave Province. To provide information for Geoscience Data Base.

05 02 Physical Sciences Geology

06 01 Slave Structural Province, Dist. of Mackenzie 03
06 02 75M; 76C,D,B,F,G,M; 86A,H.

07 01 Nil
07 02 Nil
07 03 Nil

08 1974 1975

09 01 13 Salaries and wages
09 03 2 Other costs
09 04 15 Total costs
09 05 7 Scientific man-months - Government
09 07 7 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 75-1A, pp. 325-330.
(b) Can. J. Earth Sci., vol. 12, pp. 1619-1630 ("Archean
Stromatolites in the Northern Slave Province, Northwest
Territories, Canada") "Archean Geology and Evidence of
Ancient Life in the Slave Structural Province, Canada, in
Proceedings of Second Annual Colloquium on Chemical Evolution.

14 Nil

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01 358 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #700074 Operations Back River and Wager

04 To determine the general structural, historical and economic geologic features of this previously unstudied terrain as a basis for future economic development of this portion of northern Canada. To provide information for Geoscience Data Base.

05 02 Physical Sciences

06 01 N.E. Dist. of Keewatin & S. part of Melville Peninsula

06 02 Pts. of NTS areas 46,47,56,66,57,67

07 01 Nil

07 02 Nil

07 03 Nil

08 1970 1976

09 01 5 Salaries and wages

09 04 5 Total costs

09 05 2 Scientific man-months - Government

09 07 2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 61-18
(b) G.S.C. Paper 66-10
(c) G.S.C. Paper 66-40

14 Nil

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01 359 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project 700073 Operation Northern Melville Peninsula

04 To determine the general structural, historical and economic geology of a previously unmapped terrain in order to aid in the future economic development of northern Canada. To provide information for Geoscience Data Base.

05 02 Physical Sciences Geology

06 01 Melville Peninsula, Dist. of Keewatin

06 02 NTS 47A,B,C,D (pts. of)

07 01 Nil

07 02 Nil

07 03 Nil

08 1970 1976

09 01 11 Salaries and wages

09 03 .3 Other costs

09 04 11.3 Total costs

09 05 5 Scientific man-months - Government

09 07 5 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Nil

14 Nil

15 I.M. Stevenson
4-5755
601 Booth St.
Ottawa, K1A 0E8

01 360 Energy, Mines and Resources
02 Geological Survey of Canada
03 Project 720070 - Gneisses of the Prince Albert Belt.
04 To determine the feasibility of further structural, stratigraphic and petrological studies of the gneissic rocks adjacent to the Prince Albert Belt of metamorphosed sedimentary and volcanic rocks. To provide information for Geoscience Data Base.

05 02 Physical Sciences Geology
06 01 Northeast Keewatin and Melville Peninsula
06 02 NTS area 46M,N,L; 47A,B

07 01 Nil
07 02 Nil
07 03 Nil

08 1972 1976

09 01 10.5 Salaries and wages
09 04 10.5 Total costs
09 05 6 Scientific man-months - Government
09 07 6 Total man-months - Government

10 Nil
11 Nil
12 Nil

13 (a) Geol. Soc. Amer., Abstracts with Programs, pp. 758-9, 1975
(b) G.S.C. Bulletin, submitted March, 1976.

14 Nil

15 I.M. Stevenson
4-5755
601 Booth Street
Ottawa, K1A 0E8

01 361 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #720052 - Indin Lake map-area, District of Mackenzie

04 To revise and interpret the geology and economic potential of the Precambrian terrain of the area known only through early reconnaissance and semi-detailed mapping; to provide data for geoscience data base.

05 02 Physical Sciences Geology

06 01 Indin Lake map-area

06 02 NTS 86B

07 01 Nil

07 02 Nil

07 03 Nil

08 1972 1976

09 01 3 Salaries and wages

09 04 3 Total costs

09 05 2 Scientific man-months - Government

09 07 2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 73-1, Part A, pp. 146-148
 (b) G.S.C. Paper 75-1, Part A, pp. 317-321
 (c) G.S.C. Paper 74-1, Part A, pp. 165-171

14 Nil

15 I.M. Stevenson
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 Ottawa, K1A 0E8

01 363 Energy, Mines & Resources

02 Geological Survey of Canada

03 Project #70015 Yellowknife and Hearne Lake map-areas, District
of Mackenzie

04 To revise and interpret the geology and economic potential of the
Precambrian terrain of the project area known only through earlier
gross reconnaissance. To add information to geoscience data base.

05 02 Physical Sciences Geology

06 01 Yellowknife and Hearne Lake region, District of Mackenzie
06 02 NTS 85J,I

07 01 Nil
07 02 Nil
07 03 Nil

08 1970 1976

09 01 8 Salaries and wages
09 04 8 Total costs
09 05 5 Scientific man-months - Government
09 07 5 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 71-1A, pp. 133-134
(b) G.S.C. Paper 72-1A, pp. 117-119
(c) G.S.C. Paper 73-1A, pp. 148-151

14 Nil

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Ottawa, K1A 0E8

01	364	Energy, Mines and Resources	
02		Geological Survey of Canada	
03		Project #730051 - Completion of Lower Paleozoic geology of northern Ellesmere Island	
04		To prepare terminal reports accompanied by maps of the region at the scale of 1:250,000 or more detailed. To provide information for geoscience data base.	
05	02	Physical Sciences	
06	01	Northern Ellesmere Island	
06	02	NTS 340A,B,C,D,E,F,G,H; 120C,D,E,F,G; 49H; 560D,E	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1973	1977
09	01	13	Salaries and wages
09	04	13	Total costs
09	05	6	Scientific man-months - Government
09	07	6	Total man-months - Government
10		Nil	
11		Nil	
12		Nil	
13		Nil	
14		Nil	
15		I.M. Stevenson 4-5755 601 Booth Street Ottawa, K1A 0E8	

01 365 Energy, Mines and Resources

02 Geological Survey of Canada

03 Geology of the Bathurst Inlet map-area, N.W.T. Project 740092

04 To establish the geology of the intrusive, extrusive and sedimentary rocks of the map-area; to compile a detailed stratigraphic-sedimentological analysis of the Goulburn Group and related overlying rocks; to relate the Goulburn Group to other depositional sequences in the Coronation Geosyncline. To provide information for geoscience data base.

05 02 Physical Sciences Geology

06 01 Bathurst Inlet, N.W.T.

06 02 NTS 76J(W1/2); 76K(E1/2), pts. of 76G,O,N,L; 77A; 86M

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 1976

09 01 37 Salaries and wages

09 02 49 Capital

09 04 86 Total costs

09 05 9 Scientific man-months - Government

09 06 12 Other man-months - Government

09 07 21 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 1976-1A (in Press)

(b) Geology of the Kilohigok Basin (open file map)

14 Nil

15 I.M. Stevenson
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601 Booth St.
Ottawa, K1A 0E8

01 366 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #620012 - Volcanology of Yellowknife Group, N.W.T.

04 Reconnaissance studies in the Wolverine Lake and James River
areas, N.W.T. Detailed studies of drill core to provide data for
geoscience data base.

05 02 Physical Sciences Geology

06 01 Slave Province, Dist. of Mackenzie, N.W.T.

06 02 NTS areas 85J, pts. of 76,86

07 01 Nil

07 02 Nil

07 03 Nil

08 1963 1978

09 01 1 Salaries and wages.

09 03 2 Other costs

09 04 3 Total costs

09 05 .5 Scientific man-months - Government

09 07 .5 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) Can. Jour. Earth Sci., vol. 3, pp. 9-30
(b) Oregon Dept. Geology and Mineral Industries, Bull. 65,
pp. 121-142
(c) Pub. Earth Phys. Branch vol. 42, No. 3, pp. 129-140

14 Nil

15 I.M. Stevenson
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01 367 Energy Mines and Resources

02 Geological Survey of Canada

03 Stratigraphy and Petrology of the Natkusiak basalt, Victoria Island, N.W.T.

04 To determine the variation in chemical compositions and petrography of the lavas; to obtain bulk compositions of the flows, to determine the relationships between the composition of the flows and associated copper prospects. To provide information for geoscience data base.

05 02 Physical Sciences Geology

06 01 Victoria Island, N.W.T.

06 02 77M,N; 78C,D; 87J,K,N,O,P; 88A

7 01 Nil

07 02 Nil

07 03 Nil

08 1974, June 6 1978

09 01 9.6 Salaries and wages

09 02 13 Capital

09 04 22.6 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Nil

14 Includes both office and field components.

15 I.M. Stevenson
4-5755
601 Booth St.
Ottawa, K1A 0E8

01 368 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project #660007. Studies of Coppermine River Volcanics, N.W.T.

04 To determine the total composition, variation in composition, and stratigraphy of the Coppermine River volcanic succession and its relationships to Mackenzie dyke swarm and Muskox Complex. To provide data of assistance to prospecting. To provide information for geoscience data base.

05 02 Physical Sciences Geology

06 01 parts of Dismal Lakes, Coppermine, Prov. Mackenzie

06 02 pts. of NTS areas 86N and 86 O.

07 01 Nil

07 02 Nil

07 03 Nil

08 1976 1977

09 01 4 Salaries and wages

09 03 3 Other costs

09 04 7 Total costs

09 05 2 Scientific man-months - Government

09 07 2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) G.S.C. Paper 70-1A
 (b) G.S.C. Paper 72-23
 (c) Canadian Journal of Earth Sciences, vol. 10, pp. 1519-1532
 (d) G.S.C. Paper 69-44
 (e) Can. Journal of Earth Science, vol. 9, pp. 123-140
 (f) G.S.C. Paper 71-39
 (g) Volcanism of the Stable Crust - G.A.C. Special Paper entitled "Volcanic Regimes in Canada".

14 Nil

15 I.M. Stevenson
 4-5755
 601 Booth St.
 Ottawa, K1A 0E8

01 369 Energy, Mines and Resources

02 Geological Survey of Canada

03 National Geochemical Reconnaissance

04 To provide for industry high quality, multielement reconnaissance exploration data to indicate areas of highest potential for uranium and other mineral commodities. To provide government with nationally consistent systematic data to serve as a basis for the resource appraisal of uranium and other mineral commodities.

05 02 Physical Sciences Applied Geochemistry

06 01 Various areas North of 60°

06 02 In 1975-76 was NTS 1:250,000 sheets 86K, 86L, 75C, 75F, 75K.

07 01 E.M.R.

07 02 Funded as part of the Federal-Provincial U.R.P. in Fiscal 1976-77 approximately \$500,000 North of 60°; \$350,000 in 1975-76.

07 03 Nil

08 1975 Continuing

09 01 50 Salaries and wages

09 03 300 Other costs

09 04 350 Total costs

09 05 36 Scientific man-months - Government

09 07 36 Total man-months - Government

10 01 Contracts approx. \$300,000

11 Exchange of information with ERDA re: Similar work in Alaska.

12 Contractor may at times hire local staff, but much involvement not likely since he will be in any one area only for approximately 10-20 days.

13 (a) G.S.C. Open File Reports
(b) also Paper Series

14 Nil

15 E.M. Cameron
994-9270
Geological Survey of Canada
601 Booth Street
Room 750
Ottawa, Ontario
K1A 0E8

01 370 Energy, Mines and Resources

02 Geological Survey of Canada

03 Electrical Mapping Techniques Project No. 670041

04 To assess the capabilities and limitations of using galvanic and electromagnetic (induction) techniques as a means of providing geological information, delineating faults and shear zones and mapping permafrost occurrence and thickness.

05 02 Physical Sciences Geophysics

06 01 Mackenzie Delta (107C), N.W.T. (76 F & G, 86 I)

06 02 Kugmallit Bay and Tuktoyaktuk Peninsula, Beechey L., Nose L. and Takiyuak L.

07 01 Nil

07 02 Nil

07 03 Nil

08 1972 Continuing

09 01 33.7 Salaries and wages

09 02 65.9 Capital

09 03 19 Other costs

09 04 118.6 Total costs

09 05 12 Scientific man-months - Government

09 07 12 Total man-months - Government

09 08 15 Scientific man-months - Non-government

09 10 15 Total man-months - Non-government

10 01 (a) EMR Research Agreement - Dr. D.W. Strangway, U. of Toronto
\$14,000

(b) EMR Research Agreement - Dr. Sylvester, McGill Univ - \$5,000

11 Cooperation with U.S.A. Cold Regions. Research and Engineering Laboratory, Hanover, N.H. (Consulted Paul Sellman - no funding)

12 Hired 3 natives at Tuktoyaktuk during most of the field season. Contacted local councils to inform them of geophysical activity in their areas.

13 See attached list of W.J. Scott's publications

14 All relevant information requested on this form is contained in forms CG 96, 48 B and 85 for 1975-76. (Copies attached)

15 W.J. Scott
994-5867
Terrain Geophysics Program
R.G.G. Division
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 371 Energy, Mines and Resources

02 Geological Survey of Canada

03 Sub-seabottom Permafrost Distribution in the Southern Beaufort Sea Project No. 740102

04 To obtain a reconnaissance map of permafrost conditions beneath the sea bottom of the southern Beaufort Sea as an aid to the planning of bottom and sub-bottom engineering structures.

05 03 Engineering Sciences Geophysics

06 01 Mackenzie Delta, N.W.T.

06 02 Ottawa - Data reduced from industry seismic reflection data of area.

07 01 Nil

07 02 Nil

07 03 Nil

08 1974, October 1978, March

09 01 21 Salaries and wages

09 03 19 Other costs

09 04 40 Total costs

09 05 10.8 Scientific man-months - Government

09 07 10.8 Total man-months - Government

09 08 3 Scientific man-months - Non-government

09 10 3 Total man-months - Non-government

10 Nil

11 Nil

12 Nil

13 Beaufort Sea Environmental Study Report #22. Paper presented at Soc. of Exploration Geophysicists, Denver, Colorado, October 14/75. All data will be published.

14 Nil

15 H.A. MacAulay
994-9415
Terrain Geophysics Program,
Resource Geophysics &
Geochemistry Division
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 372 Energy, Mines and Resources

02 Geological Survey of Canada

03 Seismic Properties of Permafrost Materials Project No. 730006

04 To obtain geophysical properties of various permafrost materials, and to relate these to engineering properties. To devise and apply various seismic and related geophysical techniques to mapping of engineering properties of earth materials in situ.

05 03 Engineering Sciences Geophysics

06 01 N.W.T.

06 02 Tuktoyaktuk Peninsula, Yukon Coast, Beaufort Sea, Arctic Islands

07 01, Nil

07 02 Nil

07 03 Nil

08 1973 Continuing

09 01 27 Salaries and wages

09 02 40 Capital

09 04 67 Total costs

09 05 24 Scientific man-months - Government

09 07 24 Total man-months - Government

09 08 6 Scientific man-months - Non-government

09 10 6 Total man-months - Non-government

10 Nil

11 Nil

12 Contacted local councils to inform them of geophysical activity in their areas.

13 Beaufort Sea Environmental Study Report #22. "The occurrence of permafrost and frozen sub-seabottom materials in the southern Beaufort Sea". All data will be published. See Reference File.

14 Nil

15 J.A. Hunter
994-5125
Terrain Geophysics Program
Resource Geophysics &
Geochemistry Division
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 373 Energy, Mines and Resources
02 Geological Survey of Canada
03 In-situ Meter for Measuring Relative Permittivity of Earth Materials
Project No. 750028
04 (a) To study the relationship between electrical properties,
especially dielectric constant, and moisture content in soils
at frequencies between 10^7 - 10^9 Hz.
(b) To design, build, test and calibrate a portable field
instrument to measure the dielectric constant of rocks and
soils.
05 02 Physical Sciences Geophysics
06 01 Tuktoyaktuk Peninsula (NTS 107/C)
06 02 Tuktoyaktuk and lab in Ottawa
07 01 Nil
07 02 Nil
07 03 Nil
08 1975, April 1977, March
09 01 11.5 Salaries and wages
09 02 10 Capital
09 03 15 Other costs
09 04 36.5 Total costs
09 05 12 Scientific man-months - Government
09 07 12 Total man-months - Government
10 Nil
11 Nil
12 Nil
13 Davis, J.L. Relative permittivity measurements of a sand and clay
soil in situ: Geol. Surv. Can., Paper 75-1C, pp. 361-365.
14 Purpose of this project is to obtain dielectric constant of
frozen soils to support the Radar sounding project No. 750037 of
Dr. A.P. Annan.
15 J.L. Davis
994-5224
Terrain Geophysics Program
R.G.G. Division
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 374 Energy, Mines and Resources
02 Geological Survey of Canada
03 Project 750037 - Radar sounding for geological mapping
04 To develop radar methods for mapping the lateral variation of
permafrost. The electrical properties may be used to infer the
variation of geological structures and composition both laterally
and vertically. This information is applicable to engineering
projects.

05 02 Physical Sciences Geophysics
06 01 Tuktoyaktuk Peninsula, NWT (107C)
06 02 In field at Tuktoyaktuk and Involuted Hill

07 01 Nil
07 02 Nil
07 03 Nil

08 1975, April 1977, March

09 01 20 Salaries and wages
09 03 7 Other costs
09 04 27 Total costs
09 05 10.8 Scientific man-months - Government
09 07 10.8 Total man-months - Government

10 01 Contract to Geophysical Survey Systems Inc., Burlington Mass.
\$4000 for rental of radar system

11 Nil

12 Consultation with local council in Tuktoyaktuk, NWT

13 (a) Annan, A.P., Davis, J.L. and Scott, W.J. 1975 Impulse radar
profiling in permafrost. Geol. Surv. Can. Paper 75-1C
pp. 343-351.
(b) Annan, A.P., Davis, J.L. and Scott, W.J. 1975 Impulse radar
wide angle reflection and refraction sounding in permafrost.
Geol. Surv. Can., Paper 75-1C, pp. 335-341.
(c) Annan, A.P., and Davis, J.L. 1976 Impulse radar sounding in
permafrost. Radio Science, v. 11, no. 4, p. 383-394,
April 1976.
(d) Davis, J.L., Scott, W.J., Morey, R.M. and Annan, A.P. 1976
Impulse radar experiments on permafrost near Tuktoyaktuk,
N.W.T. Submitted to Canadian Journal of Earth Sciences.

14 Nil

15 Dr. A.P. Annan
4-9264
Terrain Geophysics Prog. RGG Division
Geological Survey of Canada
601 Booth St.
Ottawa, Ontario
K1A 0E8

01 375 Energy, Mines and Resources

02 Geological Survey of Canada

03 Project No. 700089 - Portable weather satellite receiving station

04 To provide daily weather information in support of logistics for ground, ship and airborne survey crews working in onshore and offshore areas of northern Canada by means of portable satellite receivers.

05 02 Physical Sciences Electronics

06 01 Tuktoyaktuk (NTS 107) and Resolute Bay (NTS 58), NWT

06 02 Field as above, lab work in Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1970, September 1977, March

09 01 22 Salaries and wages

09 02 35 Capital

09 03 10 Other costs

09 04 67 Total costs

09 05 12 Scientific man-months - Government

09 06 24 Other man-months - Government

09 07 36 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 (a) Washkurak, S. Weather satellite pictures. Geol. Surv. Can. Geol. Surv. Can., Paper 73-1A, p. 98-101.

(b) Washkurak, S. Portable weather satellite receiving unit at Resolute Bay, NWT Geol. Surv. Can., Paper 74-1A, p. 107-110.

14 Nil

15 Washkurak, S.
4-5867/824-2132(lab)
Terrain Geophysics Program, RGG Div.
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 376 Energy, Mines and Resources

02 Geological Survey of Canada

03 Ocean Aeromagnetism (GSC Project 650007)

04 (a) To conduct high resolution aeromagnetic reconnaissance surveys over the Canadian continental shelves for the purpose of delineating sedimentary basins.

(b) To obtain and study magnetic data over the ocean basins in order to shed light on the theories of magnetic imprinting of oceanic rocks, ocean-floor spreading, and continental drift.

05 02 Physical Sciences Geophysics

06 01 Offshore areas mostly Labrador Sea and Baffin Bay in past years. In 1975 Arctic Ocean.

06 02 Ottawa

07 01 The National Aeronautical Establishment of the National Research Council co-operate in the work; e.g. their aircraft are used but EMR is the sponsor.

07 02 Nil

07 03 Nil

08 1965 Continuing

09 01 27.8 Salaries and wages

09 03 22 Other costs

09 04 49.8 Total costs

09 05 24 Scientific man-months - Government

09 07 24 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Field report each year in GSC Paper Summary of Activities e.g. GSC Paper 76-1A. Other papers are published from time to time in scientific literature and orally presented at scientific meetings. A total of 19 papers and 18 oral presentations have been made over the years. Basic data also placed on GSC Open File.

14 Nil

15 P.J. Hood
994-5652
Geological Survey of Canada
Ottawa

01 377 Energy, Mines and Resources

02 Geological Survey of Canada

03 Federal-Provincial Aeromagnetic Surveys - Keewatin and Mackenzie
(GSC Project 690068)

04 To carry out aeromagnetic surveys (and publish aeromagnetic maps)
as an aid to geological mapping and the mineral industry.

35 02 Physical Sciences

06 01 Parts of NTS 56, 65 and 66

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1969 1977

09 01 29.2 Salaries and wages

09 03 371 Other costs

09 04 400.2 Total costs

09 06 24 Other man-months - Government

09 07 24 Total man-months - Government

09 09 120 Other man-months - Non-government

09 10 120 Total man-months - Non-government

10 01 This is a six-year contract with Kenting Earth Sciences Ltd. to
obtain 359,536 line miles of aeromagnetic survey data in the
Districts of Keewatin and Mackenzie. (\$371,000.)

11 Nil

12 The contractor might have used some local labour from time to time
in support of the field operation.

13 The contractor is required to produce 543 one-mile and 46 four-mile
aeromagnetic maps for distribution to the general public.

14 Nil

15 P.J. Hood,
994-5652
Geological Survey of Canada,
601 Booth Street,
Ottawa, Ontario,
K1A 0E8

01 378 Energy, Mines and Resources

02 Geological Survey of Canada

03 Federal Aeromagnetic Surveys: Labrador - Melville Peninsula
- Coppermine (GSC Project 690072)

04 To carry out aeromagnetic surveys (and publish aeromagnetic maps)
as an aid to geological mapping and the mineral industry.

05 02 Physical Sciences

06 01 Melville Peninsula and Coppermine area
06 02 Maps compiled in Ottawa and Toronto

07 01 Nil
07 02 Nil
07 03 Nil

08 1969 1979

09 01	30	Salaries and wages
09 03	526	Other costs
09 04	556	Total costs
09 06	24	Other man-months - Government
09 07	24	Total man-months - Government
09 09	180	Other man-months - Non-government
09 10	180	Total man-months - Non-government

10 01 To a consortium of companies - Terra Surveys Ltd. and Northway
Survey Corp. Ltd., total cost \$526,000.

11 Nil

12 Some locals employed by contractors from time to time.

13 GSC Aeromagnetic maps - the contractor is responsible for the
compilation of 801 one-mile and 65 four-mile maps.

14 Nil

15 P.J. Hood,
994-5652
Geological Survey of Canada,
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Ottawa, Ontario,
K1A 0E8

01 379 Energy, Mines and Resources

02 Geological Survey of Canada

03 Seismic - Arctic Continental Shelf and Coastal Margin (GSC Project
750029)

04 To define the regional and structural geology in coastal and shelf
regions of Arctic Canada.

05 02 Physical Sciences

06 01 Canadian Arctic coastal margin and continental shelf

06 02 Beaufort Sea

07 01 Polar Continental Shelf Project

07 02 \$8,000

07 03 Room and board

08 1975 - April Ongoing

09 01 10 Salaries and wages

09 02 5 Capital

09 03 8 Other costs

09 04 23 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 01 With aircraft operators for \$8,000

11 Nil

12 Up to six indigenous personnel used for periods up to 2 months.

13 Reports in publications of the Geological Survey of Canada.

15 A. Overton,
994-9415
Geological Survey of Canada,
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Ottawa, Ontario,
K1A 0E8

01 380 Energy, Mines and Resources

02 Geological Survey of Canada

03 Uranium Reconnaissance Program

04 To obtain reconnaissance airborne gamma ray spectrometry data
a) to stimulate exploration for uranium;
b) to provide base data for assessment of uranium resources.

05 02 Physical Sciences Geophysics

06 01 60° - 68°N, over Precambrian Shield 1976/1986, 116°N - Hudson Bay
06 02 Same as above

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 1986

09 01 35 Salaries and wages
09 03 575 Other costs
09 04 610 Total costs
09 05 18 Scientific man-months - Government
09 06 12 Other man-months - Government
09 07 30 Total man-months - Government

10 01 Contracted airborne geophysical surveys
a) 1975 - 03GR 23233-4 2268
b) 1976/80 03GR 23233-5 0811 for total of \$575,000

11 Nil

12 Nil

13 Contour maps and profiles of geophysical data

14 Nil

15 K.A. Richardson,
995-5697
Geological Survey of Canada,
601 Booth Street,
Ottawa, Ontario,
K1A 0E8

01 220 Energy, Mines and Resources

02 Earth Physics Branch - Seismological Service

03 Northern Part of National Project 5.1.1 - Monitoring of Seismic Ground Motion

04 To ensure the availability of Canadian seismological ground motion data and information in order to provide:

- a) improved knowledge of the seismo-tectonics of the Canadian north;
- b) improved national energy, mineral and land use policies;
- c) reduction in hazards due to seismic effects;
- d) improved fossil fuel and mineral resource identification capability;
- e) better informed defence and foreign policy.

05 04 Environmental Sciences Geophysics, Electronic Engineering

06 01 The Canadian landmass north of 60°N, south of 60°N and the earth generally

06 02 Seismograph stations are located at Yellowknife, Whitehorse, Inuvik, Baker Lake, Frobisher Bay, Resolute, Mould Bay, Alert, Igloolik, in the North

07 01 Nil

07 02 Nil

07 03 Nil

08 1950 Ongoing

09 01	114	Salaries and wages
09 02	20	Capital
09 03	149	Other costs
09 04	283	Total costs
09 05	12	Scientific man-months - Government
09 06	72	Other man-months - Government
09 07	84	Total man-months - Government

10 03 Department of the Environment (\$25,000) operate some northern stations under contract - included in #9.

11 See Reference File.

12 Divisional operators are stationed at Yellowknife (3), Mould Bay and Alert. Other stations are run by contract.

13 Daily seismograms are produced at each of the northern stations. Telegram phase reports are transmitted south daily. Yellowknife array station produces seismograms, digital and analogue tapes and an event log which is transmitted daily to Ottawa. The "Canadian Seismograph Operations" - an annual publication, describes the work; an annual Canadian catalogue of earthquakes is published.

14 Seismic stations north of 60°N contribute to studies in the south and vice versa. For the purposes of this return the northern stations are charged wholly to the N.S.P. and the Yellowknife Array Station is charged at 50%.

15 M.J. Berry,
994-5368
Earth Physics Branch,
Energy, Mines & Resources,
Ottawa, Ontario,
K1A 0Y3

01 221 Energy, Mines and Resources

02 Earth Physics Branch - Seismological Service

03 Northern Part of National Project 5.1.2 - Seismological Data Management.

04 To ensure the preservation and dissemination of Canadian seismological data and information in order to make the data available in a timely and efficient manner for studies of Canadian seismicity, seismotectonics and seismic structure and to the international community.

05 04 Environmental Sciences Geophysics, Mathematics

06 01 Canadian landmass N. of 60°, Canada south of 60°N and the earth generally

06 02 Project is carried out in Ottawa.

07 01 Nil

07 02 Nil

07 03 Nil

08 Ongoing

09 01 33 Salaries and wages

09 03 15 Other costs

09 04 48 Total costs

09 05 12 Scientific man-months - Government

09 06 12 Other man-months - Government

09 07 24 Total man-months - Government

10 Nil

11 Data from the Canadian Network is made available internationally through the World Data Centres and the International Seismological Centre. Data from the Yellowknife Array is exchanged with Sweden, U.K., U.S.A.

12 Nil

13 Catalogued library of seismograms and microfilmed seismograms, computer files of phase data, seismological data files.

14 A proportionate part of the national project is charged to the NSP.

15 M.J. Berry,
994-5368
Earth Physics Branch,
Energy, Mines and Resources,
Ottawa, Ontario,
K1A 0Y3

01 221 Energy, Mines and Resources

02 Earth Physics Branch - Seismological Service

03 Northern Part of National Project 5.1.2 - Seismological Data Management.

04 To ensure the preservation and dissemination of Canadian seismological data and information in order to make the data available in a timely and efficient manner for studies of Canadian seismicity, seismotectonics and seismic structure and to the international community.

05 04 Environmental Sciences Geophysics, Mathematics

06 01 Canadian landmass N. of 60°, Canada south of 60°N and the earth generally

06 02 Project is carried out in Ottawa.

07 01 Nil

07 02 Nil

07 03 Nil

08 Ongoing

09 01 33 Salaries and wages

09 03 15 Other costs

09 04 48 Total costs

09 05 12 Scientific man-months - Government

09 06 12 Other man-months - Government

09 07 24 Total man-months - Government

10 Nil

11 Data from the Canadian Network is made available internationally through the World Data Centres and the International Seismological Centre. Data from the Yellowknife Array is exchanged with Sweden, U.K., U.S.A.

12 Nil

13 Catalogued library of seismograms and microfilmed seismograms, computer files of phase data, seismological data files.

14 A proportionate part of the national project is charged to the NSP.

15 M.J. Berry,
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Earth Physics Branch,
Energy, Mines and Resources,
Ottawa, Ontario,
K1A 0Y3

01 222 Energy, Mines and Resources

02 Earth Physics Branch - Seismological Service

03 Northern Part of National Project 5.1.3 - Seismological Studies
of Earth Dynamics

04 To develop a better understanding of seismicity, seismic risk,
and hazard in Canada including the North in order to:
a) provide increased ability to predict the degree of seismic
hazards across the Canadian landmass;
b) provide more effective planning in locating man-made facilities;
c) provide improved construction practices in areas of seismic
hazard.

05 02 Physical Sciences Physics
05 04 Environmental Sciences Geology, Geophysics
05 06 Mathematical Sciences Mathematics

06 01 Seismically active areas north of 60°N
06 02 Analytical studies carried out in offices in Ottawa and Victoria

07 01 Nil
07 02 Nil
07 03 Nil

08 Ongoing

09 01 72 Salaries and wages
09 03 15 Other costs
09 04 87 Total costs
09 05 36 Scientific man-months - Government
09 07 36 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Seismological analyses and evaluation reports, and responses to
seismological information requests, scientific and technical
research papers, monthly and annual catalogues of Canadian
earthquakes, seismic risk map of Canada, Canadian epicentres file
(ERDS), seismicity map of Canada, public information lectures
and materials.

14 Approximately 50% of Canada's earthquakes occur north of 60°N.
However public concern in matters of seismic risk is obviously
greater in the south than the north. The figures in #9 above are
an attempt to apportion logically the costs of the National
Project to the north and south.

15 Dr. M.J. Berry,
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K1A 0Y3

01 223 Energy, Mines and Resources

02 Earth Physics Branch - Seismological Service

03 Northern Part of National Project 5.1.4 - Seismological Studies
of Earth Structure.

04 To develop a better understanding of the evolution, structure,
tectonic framework and physical properties of the Canadian landmass
and the whole earth.

05 04 Environmental Sciences Geophysics/Physics/Geology
05 06 Mathematical Sciences Mathematics

06 01 Sverdrup Basin, Arctic Islands and Ocean Basin
06 02 No field work in 1975-76, but analysis of seismic refraction data
continued in Ottawa, and planning of new field experiment in
Beaufort Sea. theoretical study of Arctic tectonics continued.

07 01 Nil
07 02 Nil
07 03 Nil

08 Ongoing

09 01 20 Salaries and wages
09 03 7 Other costs
09 04 27 Total costs
09 05 12 Scientific man-months - Government
09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Scientific and technical research papers; scientific and technical
advice; data interpretation techniques and software.

14 Nil

15 Dr. M.J. Berry,
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01 224 Energy, Mines and Resources

02 Earth Physics Branch - Seismological Service

03 Northern Part of National Project 5.2.1 - Delineation of the
Geothermal Regime

04 to ensure the availability, preservation and dissemination of data
concerning the sub-surface temperature regime and thermal properties
of rocks in Canada, to support the objectives of the Environmental
Social Program - and other concerns of the Department related to
permafrost.

05 03 Engineering Sciences Geophysics
05 04 Environmental Sciences

06 01 Beaufort Sea (2 sites), Barrow St., Mackenzie Delta (25 sites),
and Arctic Islands (20 sites)

06 02 Data analysis in Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1961 Ongoing

09 01 40 Salaries and wages
09 02 5 Capital
09 03 20 Other costs
09 04 65 Total costs
09 05 12 Scientific man-months - Government
09 06 24 Other man-months - Government
09 07 36 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 a) Geothermal field observations
 b) Canadian Geothermal Data Collection (publication)
 c) Data-temperature and thermal properties of the earth's crust
 (ERDS)
 d) Data-geothermal data file for permafrost regions of Canada
 (ERDS)

14 Nil

15 Dr. M.J. Berry,
 994-5368
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01 225 Energy, Mines and Resources

02 Earth Physics Branch - Geothermal Service

03 Northern Part of National Project 5.2.2 - Geothermal Studies of
the Canadian Landmass

04 To develop a better understanding of the temperature and permafrost
regimes of the Canadian landmass, the thermal effect of man-made
disturbances, and the thermal processes in the crust and mantle in
the context of global tectonics.

05 03 Engineering Sciences Geophysics, Physics, Geology,
05 04 Environmental Sciences Mathematics, Chemistry

06 01 Mackenzie Delta, Arctic Islands, Barrow Strait, Beaufort Sea
06 02 Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1961 Ongoing

09 01 34 Salaries and wages
09 02 3 Capital
09 03 12 Other costs
09 04 49 Total costs
09 05 12 Scientific man-months - Government
09 06 12 Other man-months - Government
09 07 24 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Scientific and technical research papers; scientific and technical
advice

14 Nil

15 Dr. M.J. Berry,
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01 226 Energy, Mines and Resources

02 Earth Physics Branch - Geomagnetic Service

03 Northern Part of National Project 5.3.1 - Magnetic Observatories

04 To provide information on the temporal variations of the earth's magnetic field, as required for navigation, geophysical exploration for mineral resources, telecommunications and scientific research in the north.

05 02 Physical Sciences Geophysics - Electronic Engineering

05 03 Engineering Sciences

06 01 Northern auroral zone and polar cap

06 02 Various northern magnetic observatories

07 01 Nil

07 02 Nil

07 03 Nil

08 1950 Ongoing

09 01 65 Salaries and wages

09 02 5 Capital

09 03 106 Other costs

09 04 176 Total costs

09 05 12 Scientific man-months - Government

09 06 36 Other man-months - Government

09 07 48 Total man-months - Government

10 01 Cam Bay Sports and Electric - operation of Cambridge Bay Observatory - \$3,200.

11 The northern Canadian magnetic observatories are ideally situated for the study of auroral zone and polar cap phenomena, and they make a most important contribution to the worldwide network of 250 magnetic observatories.

12 One operator is stationed at each of Resolute and Baker Lake.

13 Microfilms of magnetograms and digital tapes are deposited in World Data Centres on a monthly basis. Summaries of data are published annually. All data unclassified.

14 Nil

15 P.H. Serson,
994-5359
Earth Physics Branch,
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K1A 0Y3

01 227 Energy, Mines and Resources

02 Earth Physics Branch - Geomagnetic Service

03 Northern Part of National Project 5.3.2 - Magnetic Surveys

04 To provide up-to-date information on the direction and intensity of the earth's magnetic field, for navigation, geophysical exploration for mineral resources and scientific research in the North.

05 02 Physical Sciences Geophysics, Physics
05 04 Environmental Sciences

06 01 Yukon Territory and District of Mackenzie, Victoria Island, Banks Island
06 02 Stations in Yukon Territory (2); NWT, (15)

07 01 Nil
07 02 Nil
07 03 Nil

08 Ongoing

09 01 25 Salaries and wages
09 02 10 Capital
09 03 20 Other costs
09 04 55 Total costs
09 05 12 Scientific man-months - Government
09 07 12 Total man-months - Government

10 Nil

11 Reduced data are promptly exchanged with other countries through World Data Centres. Data from Alaska, Greenland and USSR are used in deriving magnetic secular change in north.

12 Nil

13 Data are deposited promptly in World Data Centres. All data are unclassified. Results are published in Magnetic Charts of Canada, issued every 5 years, and in some 2,000 other charts and map sheets published annually.

14 Nil

15 P.H. Serson,
994-5359
Earth Physics Branch,
Energy, Mines and Resources,
Ottawa, Ontario,
K1A 0Y3

01 228 Energy, Mines and Resources

02 Earth Physics Branch - Géomagnetic Service

03 Northern Part of National Project 5.3.3 - Management of Geomagnetic Data Base

04 To ensure the preservation and dissemination of Canadian geomagnetic data and information.

05 02 Physical Sciences

05 04 Environmental Sciences Geophysics, Mathematics

06 01 All of Canada north of 60°N, including the Canadian sector of the Arctic Ocean; also Greenland, Iceland, Alaska.

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1940 Ongoing

09 01 60 Salaries and wages

09 02 10 Capital

09 03 50 Other costs

09 04 120 Total costs

09 05 12 Scientific man-months - Government

09 06 24 Other man-months - Government

09 07 36 Total man-months - Government

10 Nil

11 The configuration of the geomagnetic field, its secular variation, and its more rapid changes such as magnetic storms must be analysed on a world-wide scale. The prompt international exchange of data and analyses is of the greatest importance. For example, daily reports are sent from Resolute Bay to Moscow, to assist in determining the sign of the interplanetary magnetic field.

12 Nil

13 Data from magnetic observatories, from magnetic recording stations (such as those on the Churchill Line), from magnetic surveys and from magnetic repeat stations are deposited promptly in World Data Centers, from which they are available to the international scientific community. Indices of magnetic disturbance are sent every two weeks to international agencies. Copies of microfilms and digital tapes are supplied on request. Magnetic charts are published. Magnetic declination values are provided to chart-making organizations at the rate of 2000 requests per year.

14 Nil

15 Paul H. Serson
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K1A 0Y3

01 229 Energy, Mines and Resources

02 Earth Physics Branch - Geomagnetic Service

03 Northern Part of National Project 5.3.4 - Geomagnetic studies of earth structure

04... To develop a better understanding of the structure, physical properties and evolution of the crust and upper mantle in the north.

05 02 Physical Sciences
05 04 Environmental Sciences Geophysics, Physics, Geology, Mathematics

06 01 Northwest Territories and Yukon
06 02 Mackenzie Valley, Richardson Mountains, Snake River (YT), Somerset Island, Great Bear Lake, Great Slave Lake

07 01 Nil
07 02 Nil
07 03 Nil

08 1959 Ongoing

09 01 85 Salaries and wages
09 02 40 Capital
09 03 110 Other costs
09 04 235 Total costs
09 05 48 Scientific man-months - Government
09 06 12 Other man-months - Government
09 07 60 Total man-months - Government
06 08 12
06 10 12

10 Nil

11 Essentially none for the induction studies. The paleomagnetic results are generally interpreted in conjunction with data from other countries to establish patterns of continental drift and polar wander.

12 Nil

13 All data are unclassified, but raw data are in general not useful to others. All work is eventually published in the open scientific literature.

14 Nil

15 P.H. Serson
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01 230 Energy, Mines and Resources

02 Earth Physics Branch - Geomagnetic Service

03 Northern Part of National Project 5.3.5 - Geomagnetic disturbances and dynamics of the ionosphere and magnetosphere

04 To develop a better understanding of the physics of geomagnetic disturbance in the north, and to relate this to visual aurora and to processes in the ionosphere and magnetosphere.

05 04 Environmental Sciences Geophysics

06 01 The northern auroral zone and polar cap

06 02 Ottawa, Manitoba and west coast of Hudson Bay

07 01 Nil

07 02 Nil

07 03 Nil

08 Ongoing

09 01	35	Salaries and wages
09 02	40	Capital
09 03	30	Other costs
09 04	105	Total costs
09 05	12	Scientific man-months - Government
09 06	12	Other man-months - Government
09 07	24	Total man-months - Government
09 08	3.6	Scientific man-months - Non-government
09 09	6	Other man-months - Non-government
09 10	9.6	Total man-months - Non-government

10 01 Above figures include contract with the University of Alberta for a study of electric current flow in the magnetosphere during periods of moderate activity: \$8,000.

11 This project will constitute the Department's special contribution to the International Magnetospheric Study, July 1976 to December 1978. The major effort in 1975/76 was planning and preparing equipment for the IMS.

12 Local personal service contracts for checking unmanned recording stations on a line from Winnipeg to Eskimo Point, arranged through DSS, totalled \$2,500.

13 Papers are published in the scientific literature. Edited data for selected events recorded on the meridian line through Fort Churchill are deposited in World Data Centres. All data are unclassified.

14 Nil

15 P.H. Serson
994-5359
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Energy, Mines and Resources
Ottawa, Ontario
K1A 0Y3

01 211 Energy, Mines and Resources

02 Earth Physics Branch - Gravity Service

03 Northern Part of National Project 5.4.1 - Gravity Mapping

04 To continue mapping of the gravity field in northern Canada in support of departmental objectives relating to mineral and energy development and increased knowledge of the Canadian landmass.

05 02 Physical Sciences

05 04 Environmental Sciences Geophysics, Physics, Geology, Mathematics

06 01 Northwest Territories, James Bay, Hudson Bay, Great Slave Lake

06 02 Field and H.Q. (Ottawa)

07 01 Nil

07 02 Nil

07 03 Nil

08 Ongoing

09 01 72 Salaries and wages

09 02 36 Capital

09 03 465 Other costs

09 04 573 Total costs

09 05 48 Scientific man-months - Government

09 07 48 Total man-months - Government

09 08 31.2 Scientific man-months - Non-government

09 10 31.2 Total man-months - Non-government

10 01 Photogravity Surveys (Calgary) \$85,000 (Contract)

10 03 Kenting Exploration Services \$105,000 (Contract)

A transfer of \$120,000 to DOE is included under other costs in #9.

11 Nil

12 Nil

13 Data from northern gravity surveys is released through the National Gravity Data base in digital and map form.

14 Some of the tasks within this project involve cooperative undertakings with other government departments or other agencies within EMR. Only the EPB portion of the total project cost is reported here.

15 J.B. Boyd
994-9120
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Ottawa, Ontario
K1A 0Y3

01	232	Energy, Mines and Resources	
02		Earth Physics Branch - Gravity Service	
03		Northern part of National Project 5.4.2 - Gravity Standards and Data Base	
04		To ensure the availability of gravity reference standards and the preservation and dissemination of gravity data and information.	
05	02	Physical Sciences	Geophysics, Applied Mathematics, Computer
05	04	Environmental Sciences	Science
06	01	Northern Canada	
06	02	Ottawa	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		Ongoing	
09	01	30	Salaries and wages
09	03	34	Other costs
09	04	64	Total costs
09	05	12	Scientific man-months - Government
09	06	12	Other man-months - Government
09	07	24	Total man-months - Government
10		Nil	
11		Nil	
12		Nil	
13		Data is released at nominal cost through the National Gravity Data Base. Custom data retrievals and map plotting are available. Descriptions and principal facts for all National Gravity Net Reference stations are provided free of charge to users.	
14		Nil	
15		R.K. McConnell 994-9035 Earth Physics Branch Energy, Mines and Resources Ottawa, Ontario K1A 0Y3	

01 233 Energy, Mines and Resources

02 Earth Physics Branch - Gravity Service

03 Northern Part of National Project 5.4.3 - Gravity Studies of Earth Structure

04 To develop a better understanding of the figure, evolution and structure of the Canadian landmass and the whole earth.

05 02 Physical Sciences

05 .04 Environmental Sciences physics, Mathematics

06 01 Arctic Ocean Basin, Sverdrup Basin, Great Slave Lake

06 02 Field and H.Q. (Ottawa)

07 01 Nil

07 02 Nil

07 03 Nil

08 Ongoing

09 01 70 Salaries and wages

09 03 35 Other costs

09 04 105 Total costs

09 05 36 Scientific man-months - Government

09 06 12 Other man-months - Government

09 07 48 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Papers are published in various scientific journals. Data is released through the National Gravity Data Base.

14 Nil

15 Dr. R.A. Gibb
994-9112
Earth Physics Branch
Energy, Mines and Resources
Ottawa, Ontario
K1A 0Y3

01 234 Energy, Mines and Resources
02 Earth Physics Branch - Geodynamics Service
03 Northern Part of National Project 5.5.2 - Dynamics of the Earth
04 To study the tilt of the Arctic Ocean water and ice surfaces in AIDJEX as part of a broader study of the dynamics of the solid earth and associated natural and induced geophysical hazards.
05 02 Physical Sciences Physics, Mathematics, Meteorology,
05 04 Environmental Sciences Geodesy
06 01 Beaufort Sea
06 02 Beaufort Sea and H.Q. (Ottawa)
07 01 Nil
07 02 Nil
07 03 Nil
08 1974 1977
09 01 25 Salaries and wages
09 02 10 Capital
09 03 5 Other costs
09 04 40 Total costs
09 05 12 Scientific man-months - Government
09 07 12 Total man-months - Government
10 Nil
11 The Beaufort Sea study forms a part of the Canadian contribution to the AIDJEX Project.
12 Nil
13 The results of data analyses to be carried out in 1976 will be published in scientific journals.
14 Nil
15 Dr. A. Lambert
994-9843
Earth Physics Branch
Energy, Mines and Resources
Ottawa, Ontario
K1A 0Y3

01 235 Energy, Mines and Resources

02 Polar Continental Shelf Project

03 Sea Ice Reconnaissance Surveys Project 1-73

04 Observation of sea ice in the Canadian Arctic Archipelago to
determine distribution and progression of the ice regime.

05 04 Environmental Sciences Sea ice physics

06 01 Arctic Archipelago

06 02 Beaufort Sea to Baffin Bay Mainland to Arctic Ocean

07 01 Nil

07 02 Nil

07 03 Nil

08 1961, April Ongoing

09 01 19 Salaries and wages

09 03 206 Other costs

09 04 225 Total costs

09 06 12 Other man-months - Government

09 07 12 Total man-months - Government

10 01 Contract with private enterprise to survey ice conditions, reduce
data and publish in map form with written annotation. (Cost \$36,000.)

11 Nil

12 Nil

13 Sea Ice Atlas of Arctic Canada - volume 1 (1961-68) - recently published.
volume 2 (1969-74) (in final draft)

14 Nil

15 G.D. Hobson
6-3388
4th Floor,
880 Wellington St.,
Ottawa, Ontario
K1A 0E4

01 236 Energy, Mines and Resources

02 Polar Continental Shelf Project

03 Synoptic climatology of the Barrow Strait area Project 85-75

04 To collate all surface, satellite and upper air meteorological data and interpret the climatology of the area particularly the interrelationship between ice cover and ice movement with climate.

05 04 Environmental Sciences Meteorology

06 01 Queen Elizabeth Islands

06 02 Bathurst Island 75° 45'N 98° 05'W

07 01 Nil

07 02 Nil

07 03 Nil

08 1973, April 1977, September

09 01 9 Salaries and wages

09 03 11 Other costs

09 04 20 Total costs

09 06 6 Other man-months - Government

09 07 6 Total man-months - Government

10 01 Contract with private sector to gather and compile meteorological data - \$3,000. Contract with McGill University (M.Sc. student thesis) to analyse meteorological and ice data for Barrow Strait - \$1,000.

11 Nil

12 Nil

13 Reports will be published in scientific journals.

14 Nil

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K1A 0E4

01 237 Energy, Mines and Resources

02 Polar Continental Shelf Project

03 Historical Research, Project 87-75

04 To identify and map precisely the remains of structures and other artifacts associated with the Franklin encampment on Beechey Island in 1845-46. To obtain aerial and terrestrial photographic documentation. To examine and assess the present condition of the grave markers and to carry out, if possible, suitable on-site conservation treatment.

05 05 Human Sciences History of the Arctic

06 01 Beechey Island, N.W.T.
06 02 74° 42'N 91° 55'W

07 01 Nil
07 02 Nil
07 03 Nil

08 1975, June 1978, October

09 01	5	Salaries and wages
09 03	3	Other costs
09 04	8	Total costs
09 05	1.2	Scientific man-months - Government
09 06	2.4	Other man-months - Government
09 07	3.6	Total man-months - Government

10 Nil

11 Nil

12 Local council at Resolute was made aware of this project in 1975 in an unofficial manner.

13. Report to Commissioner of N.W.T. Publication in a scientific journal. No data held confidential.

14. Nil

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K1A 0E4

01 238 Energy, Mines and Resources

02 Polar Continental Shelf Project

03 Arctic Ice Dynamics Joint Experiment (AIDJEX) Project 20-73

04 To advance man's understanding of the large-scale response of sea ice to its environment. The information it provides will help solve many important theoretical and practical problems, ranging from the interaction between the ice cover and global circulation to the passage of ships in ice-covered areas.

05 04 Environmental Sciences Oceanography air/ice/sea interaction

06 01 Arctic Ocean

06 02 approx. 73°N 143°W

07 01 National Science Foundation through University of Washington at Seattle (U.S.A.)

07 02 Nil

07 03 Nil

08 1969, March 1977, May

09 01 73 Salaries and wages

09 02 22 Capital

09 03 463 Other costs

09 04 558 Total costs

09 06 54 Other man-months - Government

09 07 54 Total man-months - Government

10 01 Contract with McGill University to collect Arctic Oceanography data, interpret and publish reports. Also to investigate stress between ice and water at AIDJEX camp. Cost - \$70,000.

11 The Arctic Ice Dynamics Joint Experiment (AIDJEX) is a joint scientific experiment between Canada and the USA to study the interaction of ice, water and air in the Arctic Ocean. Several other natural science projects are being conducted by Canadian scientists during the 14 month duration of the main experiment.

12 Nil

13 Several reports in scientific journals. No data held confidential.

14 Nil

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01 239 Energy, Mines and Resources

02 Surveys and Mapping - Topographical Survey

03 Topographical Mapping of Northern Canada

04 To produce complete coverage at 1:50,000 within 20 years. Keep
existing 1:50,000 mapping and smaller scales up to date.

05 04 Environmental Sciences

06 01 all of northern Canada

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 ongoing

09 04 2,000 Total costs

09 05 1200 Scientific man-months - Government

09 07 1200 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Topographical maps as produced.

14 This represents approximately 2/7 of total Topo budget.

15 L.M. Severt
4-5764
Topographical Survey
615 Booth Street
Ottawa, Ontario
K1A 0E9

01 240 Energy, Mines and Resources

02 Surveys and Mapping

03 Extension of Geodetic Survey Networks

04 To provide a positional and elevation control system to international standards of accuracy as the basis for topographical mapping, resource management, earth science research, land administration, public works and defence.

05 04 Environmental Sciences Geodesy

06 01 Canada - North of Lat. 60°

06 02 On location and Ottawa

07 01 Department of Public Works

07 02 \$75,000.00

07 03 Nil

08 Ongoing

09 01 345 Salaries and wages

09 02 63 Capital

09 03 620 Other costs

09 04 1,028 Total costs

09 05 108 Scientific man-months - Government

09 06 108 Other man-months - Government

09 07 216 Total man-months - Government

10 01 Aircraft Contracts for \$252 K. are included in other costs (above).

11 Nil

12 Accommodation, provisioning, fuel, casual air charter.

13 Resultant geographical co-ordinates, elevations and descriptive material are publicly distributed through the Data Services Section of Geodetic Survey Division.

14 Nil

15 W.L. MacLellan
4-5339
Geodetic Survey
615 Booth Street.

01 245 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 750079 - Fluvial and mass wasting processes, Banks Island

04 Multidisciplinary investigations on reconnaissance scale of various fluvial, coastal and surface processes with direct relevance to Arctic pipeline construction.

05 04 Environmental Sciences Geology

06 01 Banks Island

06 02 Ottawa, U.B.C. Vancouver, B.C.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 1978

09 01	38.4	Salaries and wages
09 03	110.9	Other costs
09 04	149.3	Total costs
09 05	19.2	Scientific man-months - Government
09 06	10.8	Other man-months - Government
09 07	30	Total man-months - Government

10 01 Personal Service Contract - M. Miles \$3,000.

11 Nil

12 Nil

13 To be published as G.S.C. reports. Non confidential.

14 Nil

15 T.J. Day
593-6054
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 246 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 750074 - Uranium drift prospecting techniques, lower Kazan River area.

04 Development of techniques applicable to the search for uranium deposits in permafrost terrain using glacial drift as a prospecting medium

05 04 Environmental Sciences Geology

06 01 Pitz Lake - Yandle Lake area, Keewatin, NTS 65 H, P.

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 1978

09 01 47.8 Salaries and wages

09 02 6.2 Capital

09 03 152 Other costs

09 04 206 Total costs

09 05 22.8 Scientific man-months - Government

09 06 18 Other man-months - Government

09 07 40.8 Total man-months - Government

10 01 (a) Aircraft - DC3 - Ontario Central Airlines, Gimli, Manitoba \$26,500
 (b) Charter of helicopter - Viking H/C Ltd., Carp, Ont. \$74,900
 (c) Rental of Hydrolab Survey - M.S.C. Toronto \$1,000

11 Nil

12 See question 12, project 700014. In addition, two Inuit high school students hired in Baker Lake to participate in field operation.

13 To be published in GSC reports. Non confidential.

14 Nil

15 R.A. Klassen
 994-9818
 Geological Survey of Canada
 601 Booth Street
 Ottawa, Ontario
 K1A 0E8

01 247 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 700014 - Mineral indicator tracing, southern Keewatin

04 Investigation of the dispersion of rock, mineral and chemical components in glacial and related sediments relative to the search for mineral deposits masked or buried by glacial drift.

05 04 Environmental Sciences Geology

06 01 NTS 65 H, P.
06 02 Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1970 1978

09 01	35.7	Salaries and wages
09 03	13.5	Other costs
09 04	49.2	Total costs
09 05	16.8	Scientific man-months - Government
09 06	13.2	Other man-months - Government
09 07	30	Total man-months - Government

10 01 Sample analyses - Bondar & Clegg, Ottawa \$2,800

11 Nil

12 Discussion by scientist involved in the purpose and methods of investigation of the Inuit in Baker Lake, letters prior to field season to settlement councils in Baker Lake and Eskimo Point.

13 To be published as GSC reports. Non confidential.

14 Nil

15 W.W. Shilts
994-5031
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 248 Energy, Mines and Resources

02 Terrain Sciences Division - Geological Survey of Canada

03 730013 - Quaternary geology inventory - geomorphic process studies, Maguse River.

04 Inventory mapping of distribution and description of surficial materials, permafrost, etc., investigation of lake sediment processes as related to mineral exploration and potential pipeline construction.

05 04 Environmental Sciences Geology

06 01 Dawson Inlet, Eskimo Point, Kaminak Lake and Henik Lake areas
NTS 55 E, F, L, 65 H.

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 1978

09 01 10.2 Salaries and wages

09 03 12.8 Other costs

09 04 23 Total costs

09 05 7.2 Scientific man-months - Government

09 07 7.2 Total man-months - Government

10 Nil

11 Nil

12 See question 12, project 7000.14 (#247)

13 To be published as GSC reports, non confidential.

14 Nil

15 W.W. Shilts
994-5031
Geological Survey of Canada
601 Booth Street,
Ottawa, Ontario
K1A 0E8

01 249 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 740055 - Mackenzie Highway evaluation

04 Review and assessment of design submission for the Mackenzie Highway

05 04 Environmental Sciences Geology

06 01 Various segments of Mackenzie Highway (office work only)

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 1975 - December

09 01 7 Salaries and wages

09 04 7 Total costs

09 05 4.8 Scientific man-months - Government

09 07 4.8 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Reports to Mackenzie Highway Environmental Working Group.

14 Nil

15 J.J.B. Dugal
593-6076
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Ottawa, Ontario
K1A 0E8

01 250 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 740046 - Assessment of terrain performance in the Mackenzie Valley
and Arctic Islands.

04 Investigations of terrain, permafrost and ground ice conditions
relative to efforts of traffic engineering, construction
activities and other man-made and natural disturbances.

05 04 Environmental Sciences Geology

06 01 Bathurst-Cornwallis Islands
06 02 Ottawa

07 01 ESP-NP (partial support)
07 02 \$28,700-3.5 m.y.
07 03 Nil

08 1974 1977

09 03 38 Other costs
09 04 38 Total costs

10 Nil

11 Nil

12 Nil

13 ESP-NP reports and GSC reports. Non confidential.

14 Nil

15 P.J. Kurfurst
593-6103
Geological Survey of Canada
601 Booth Street,
Ottawa, Ontario
K1A 0E8

01 251 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 730021 - Coastal erosion - sedimentation, Barrow Strait region

04 Investigations of sedimentary environments and rates of active processes in shore and nearshore zones to assess impact of human activity with particular reference to pipeline concerns.

05 04 Environmental Sciences Geology

06 01 Cunningham Inlet, northern Somerset Island; Russell Island; Lowther Island

06 02 Ottawa

07 01 ESP NP (partial support)

07 02 \$25,200-2.5 m.y.

07 03 Nil

08 1973 1977

09 03 33.4 Other costs

09 04 33.4 Total costs

10 Nil

11 Nil

12 Nil

13 To be published as GSC reports. Non confidential.

14 Nil

15 R.B. Taylor
593-6044
Geological Survey of Canada,
601 Booth Street,
Ottawa, Ontario.

01 252 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 730020 - Coastal erosion - sedimentation southeast Melville Island

04 Investigations of sedimentary environments and rates of active processes in shore and nearshore zones to assess impact of human activity with particular reference to pipeline concerns.

05 04 Environmental Sciences Geology

06 01 Southeast coast of Melville Island (In 1975 SCUBA support also given to other projects near Tuktoyaktuk and in Beaufort Sea.)

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 1977

09 01	20.5	Salaries and wages
09 02	.4	Capital
09 03	11.5	Other costs
09 04	33.4 32.4	Total costs
09 05	15.6	Scientific man-months - Government
09 07	15.6	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 To be published as GSC reports. Non confidential.

14 Nil

15 P. McLaren
593-6044
Geological Survey of Canada,
601 Booth Street,
Ottawa, Ontario
K1A 0E8

01	253	Energy, Mines and Resources	
02		Terrain Sciences Division, Geological Survey of Canada	
03		680046 Geomorphology of delta lakes, Mackenzie Delta	
04		Mechanism and stages of development involved in evolution of lakes in the Mackenzie Delta.	
05	04	Environmental Sciences	Geology
06	01	Mackenzie Delta (office work only)	
06	02	Ottawa	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1968	1976
09	01	4.4	Salaries and wages
09	04	4.4	Total costs
09	05	3	Scientific man-months - Government
09	07	3	Total man-months - Government
10		Nil	
11		Nil	
12		Nil	
13		To be published as GSC report. Non confidential.	
14		Nil	
15		C.P. Lewis 593-6048 Geological Survey of Canada 601 Booth Street, Ottawa, Ontario K1A 0E8	

01 254 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 720079 Sedimentary and geomorphic processes, southern Canadian
Beaufort Sea Coast.

04 To assess impact of human activities on natural balance of
processes active along Beaufort Sea coast.

05 04 Environmental Sciences

06 01 Kay Point area, NTS 117 D (1975)

06 02 Ottawa

07 01 D.O.E. Beaufort Sea Project - F3

07 02 \$89,800 2.7 m.y.

07 03 Nil

08 1972 1977

09 03 8.8 Other costs

09 04 8.8 Total costs

10 01 - Personal Service Contract - Miss J.H. Klassen: \$1,000.
- Rental of Trisponder System - ComDev Marine, Ottawa: \$11,700.

11 Nil

12 Nil

13 Beaufort Sea Project reports and GSC reports non-confidential.

14 Nil

15 C.P. Lewis
593-6048
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01	255	Energy, Mines and Resources	
02		Terrain Sciences Division, Geological Survey of Canada	
03		700092 Surficial geology and geomorphology, Mackenzie Bay - Continental Shelf.	
04		Inventory mapping of distribution and description of submarine unconsolidated sediments, geomorphic processes, permafrost relative to petroleum exploration and development.	
05	04	Environmental Sciences	
06	01	Beaufort Sea - Continental Shelf between 128°W and 141°W longitude.	
06	02	Ottawa	
07	01	DOE Beaufort Sea Project F2	
07	02	\$15,400 1.3 m.y.	
07	03	Nil	
08		1970	Continuing
09	03	.2	Other costs
09	04	.2	Total costs
10	01	Personal Service Contract - S.M. Blasco	\$ 400.
		F-2 Compilation - Geomarine Ltd., Halifax, N.S.	9,700.
		Beaufort Mosaic - BEICIP, Malmaison, France	15,300.
		Beaufort Mosaic - BEICIP, Malmaison, France	19,700.
		Rental of trisponder system - Comdev Marine, Ottawa	6,700.
		Rental Side Scan Sonar System - Kenting, Calgary, Alta.	29,700.
		Total contract costs of \$81,500 was paid for by industry.	
11		Nil	
12.		Nil	
13		Beaufort Sea Project reports and GSC reports, non-confidential.	
14		Nil	
15		C.F.M. Lewis	
		593-6048	
		Geological Survey of Canada	
		601 Booth Street	
		Ottawa, Ontario	
		K1A 0E8	

01 256 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 750073 Arctic Ocean Quaternary sedimentation

04 Investigation of sea floor sediments from an ice platform in the Arctic Ocean.

05 04 Environmental Sciences

06 01 Arctic Ocean 76° 25' N, 145° 00' W

06 02 Ottawa

07 01 U.S. National Science Foundation

U.S. Office of Naval Research

07 02 Nil

07 03 Logistic facilities

08 1975 1976

09 01 9.4 Salaries and wages

09 03 7.1 Other costs

09 04 16.5 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 01 Winch Modification - Hanboldt Industries, Chester, N.S. \$2,500.

11 See 7(01)

12 Nil

13 GSC report, non-confidential

14 Nil

15 B.D. Bornhold
593-6408
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 257 Energy, Mines & Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 730031 Offshore Quaternary geology, Arctic Island channels

04 Inventory mapping of distribution and description of submarine
unconsolidated sediments and active geomorphic processes relative
to petroleum and mineral exploration and development.

05 04 Environmental Sciences

06 01 Viscount Melville Sound, south of Bathurst Island; Strathcona
Sound, Baffin Island; Cunningham Inlet, Somerset Island.

06 02 Ottawa

07 01 ESP-N.P. (partial support)

07 02 \$14,800 1.1 m.y.

07 03 MOT - Accommodation on board ice breakers

08 1973 Undecided

09 03 19.7 Other costs

09 04 19.7 Total costs

10 01 Gyro Compass Lease - Sperry Marine, Halifax, N.S. \$3,400.

11 Nil

12 Nil

13 To be published as GSC reports, non-confidential.

14 Nil

15 B.D. Bornhold
593-6048
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01	258	Energy, Mines and Resources	
02		Terrain Sciences Division - Geological Survey of Canada	
03		730027 Quaternary fossil insects and paleoecology	
04		Investigations of Quaternary stratigraphy and paleoecology	
05	04	Environmental Sciences	
06	01	Meighen Island, District of Franklin	
		Old Crow area, Yukon	
06	02	Ottawa	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1973	Continuing
09	01	26.	Salaries and wages
09	02	.7	Capital
09	03	7.6	Other costs
09	04	34.3	Total costs
09	05	13.2	Scientific man-months - Government
09	06	3.6	Other man-months - Government
09	07	16.8	Total man-months - Government
10		Nil	
11		Nil	
12		Nil	
13		To be published as GSC reports, non-confidential.	
14		Nil	
15		J.V. Matthews, Jr. 994-5198 Geological Survey of Canada 601 Booth Street Ottawa, Ontario K1A 0E8	

01	259	Energy, Mines and Resources	
02		Terrain Sciences Division - Geological Survey of Canada	
03		750063 Quaternary geochronology, Arctic Islands	
04		To establish chronology of Quaternary events in the Arctic Islands	
05	04	Environmental Sciences	
06	01	Stuart River, Bathurst Island; Cape Storm, Ellesmere Island;	
		Nelson Head, Banks Island.	
06	02	Ottawa	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975	Continuing
09	01	19.9	Salaries and wages
09	03	4.4	Other costs
09	04	24.3	Total costs
09	05	8.4	Scientific man-months - Government
09	07	8.4	Total man-months - Government
10		Nil	
11		Nil	
12		Nil	
13		To be published as GSC reports, non-confidential.	
14		Nil	
15		W. Blake, Jr. 994-9427 Geological Survey of Canada 601 Booth Street Ottawa, Ontario K1A 0E8	

01 260 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 740067 Surficial geology - terrain inventory, Bathurst,
Cornwallis and adjacent islands.

04 Inventory mapping of distribution and description of surficial
materials, permafrost, etc., terrain performance relative to
petroleum development and transportation.

05 04 Environmental Sciences

06 01 Bathurst, Cornwallis, and adjacent islands
06 02 Ottawa

07 01 ESP-NP
07 02 \$95,200 3.4 m.y.
07 03 Nil

08 1974 1977

09 03 126. Other costs
09 04 126. Total costs

10 01 A/C Contract - Okanagan Helicopter Ltd. \$80,500

11 Nil

12 Nil

13 To be published as GSC reports, non-confidential

14 Nil

15 D.M. Barnett
593-6037
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 261 Energy, Mines and Resources

02 Terrain Sciences Division - Geological Survey of Canada

03 710041 Surficial geology, geomorphology and terrain performance,
Melville Island.

04 Inventory mapping of distribution and description of surficial
materials, permafrost, etc., terrain performance related to
petroleum development and transportation.

05 04 Environmental Sciences

06 01 Melville Island, District of Franklin (office work only)

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 1977

09 01 13.2 Salaries and wages

09 04 13.2 Total costs

09 05 8.4 Scientific man-months - Government

09 07 8.4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 To be published as GSC report, non-confidential.

14 Nil

15 D.M. Barnett
593-6057
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 262 Energy, Mines & Resources

02 Terrain Sciences Division - Geological Survey of Canada

03 680040 Proglacial geomorphology
Generator Lake, Baffin Island

04 Investigation of the development of landforms and deposits in
glaciolacustrine environment.

05 04 Environmental Sciences

06 01 NTS 27C, 37D (office work only)
06 02 Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1968 1976

09 01 3.9 Salaries and wages
09 04 3.9 Total costs
09 05 2.4 Scientific man-months - Government
09 07 2.4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 To be published as GSC report, non-confidential.

14 Nil

15 D.M. Barnett
593-6057
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 263 Energy, Mines & Resources

02 Terrain Sciences Division - Geological Survey of Canada

03 710047 Surficial geology and land classification, Mackenzie
Valley Transportation Corridor (southern part)

04 Inventory mapping of distribution and description of surficial
materials, permafrost, etc., relative to petroleum development
and transportation.

05 04 Environmental Sciences

06 01 Southern Mackenzie Valley NTS 85D, E, 95A, B, G-K, N-P
(Office work only)

06 02 Ottawa-Calgary

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 1977

09 01 12. Salaries and wages

09 04 12. Total costs

09 05 12. Scientific man-months - Government

09 07 12. Total man-months - Government

10 Nil

11 Nil

12 Nil

13 To be published as GSC reports, non-confidential.

14 Formerly supported by ESP-NP

15 O.L. Hughes
284-0110
Institute of Sedimentary and Petroleum Geology
3303-33rd Street N.W.,
Calgary, Alberta
T2L 2A7

01 264 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 710020 Surficial geology and land classification, Mackenzie Valley Transportation Corridor.

04 Inventory mapping of distribution and description of surficial materials, permafrost, etc., relative to petroleum development and transportation.

05 04 Environmental Sciences

06 01 Central Mackenzie Valley NTS 96F, 106E, F, I-P, 116I, N-P (office work only)

06 02 Calgary

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 1977

09 01 29.5 Salaries and wages

09 03 .5 Other costs

09 04 30. Total costs

09 05 13.2 Scientific man-months - Government

09 07 13.2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 GSC Open File release and publication, non-confidential after publication.

14 Formerly sponsored by ESP. NP.

15 O.L. Hughes
284-0110
Institute of Sedimentary & Petroleum Geology
3303-33rd Street N.W.
Calgary, Alberta
T2L 2A7

01 265 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 680031 Quaternary stratigraphy of Old Crow Basin and Porcupine River Valley.

04 Quaternary stratigraphy and history relative to vertebrate palaeontology and archeology studies.

05 04 Environmental Sciences

06 01 Old Crow area

06 02 Calgary

07 01 Nil

07 02 Nil

07 03 Nil

08 1968 Indefinite

09 01 7.1 Salaries and wages

09 03 20. Other costs

09 04 27.1 Total costs

09 05 2.4 Scientific man-months - Government

09 07 2.4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 G.S.C. publications and scientific journals.
Non-confidential after publication.

14 Cooperation with National Museum of Man.

15 O.L. Hughes
284-0110
Institute of Sedimentary and Petroleum Geology
3303-33rd Street, N.W.
Calgary, Alberta
T2L 2A7

01 266 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 730019 - Permafrost drilling and sampling service

04 Permafrost drilling and sampling service - in support of surficial geology and terrain performance investigations.

05 04 Environmental Sciences

06 01 Tuktoyaktuk; Somerset Island - Cresswell Bay and Stanwell Fletcher Lakes area, Cunningham Inlet area; Prince of Wales Island - Back Bay area.

06 02 Ottawa

07 01 Partial support - ESP-NP

07 02 \$14,700 1.0 m.y.

07 03 Nil

08 1973 Continuing

09 02	8.4	Capital
09 03	11.1	Other costs
09 04	19.5	Total costs

10 Nil

11 Nil

12 Nil

13 To be published in GSC reports, non-confidential.

14 Nil

15 J.J. Veillette
593-6059
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 267 Energy, Mines and Resources

02 Terrain Sciences Division - Geological Survey of Canada

03 740065 Surficial geology inventory, Banks Island

04 Inventory mapping of distribution and description of surficial materials, permafrost etc., terrain performance relative to petroleum exploration.

05 04 Environmental Sciences Geology

06 01 Banks Island

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 1978

09 01	53.	Salaries and wages
09 03	27.4	Other costs
09 04	80.4	Total costs
09 05	24	Scientific man-months - Government
09 06	16.8	Other man-months - Government
09 07	40.8	Total man-months - Government

10 Nil

11 Nil

12 One Inuit hired as cook's helper for field party. Discussion by project leader with local (Sachs Harbour) Inuit re purpose and method of investigations prior to commencement of field work.

13 To be published as GSC reports, non-confidential.

14 Nil

15 J-S. Vincent
593-6057
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 268 Energy, Mines and Resources

02 Terrain Sciences Division - Geological Survey of Canada

03 690047 Quaternary geology, Beaufort-Mackenzie

04 Inventory mapping of distribution and description of surficial materials, permafrost etc., terrain performance relative to petroleum development and transportation.

05 04 Environmental Sciences

06 01 Northern Yukon - western Mackenzie Delta
NTS 107B, 117A, C, 117D (parts of)(office work only)

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1969 1976

09 03 7.6 Other costs

09 04 7.6 Total costs

10 01 Contract to V.N. Rampton for \$7,600.

11 Nil

12 Nil

13 To be published as GSC report, non-confidential.

14 Formerly supported by ESP-NP

15 V.N. Rampton
836-2594.
Terrain Analysis and Mapping Services Ltd.
P.O. Box 756
Suite 4, 106 Carp Road
Stittsville, Ontario

01 269 Energy, Mines and Resources

02 Terrain Sciences Division - Geological Survey of Canada

03 740074 Surficial geology - terrain inventory, Boothia Peninsula
and northeast Keewatin.

04 Inventory mapping of distribution and description of surficial
materials, permafrost, etc., terrain performance relative to
petroleum development and transportation.

05 04 Environmental Sciences

06 01 Boothia Peninsula, northeast Keewatin
NTS 56N, O, 57A-G, 67D-H (parts of)(office work only)

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 1976

09 01	2.3	Salaries and wages
09 03	2.3	Other costs
09 04	4.6	Total costs
09 05	1.2	Scientific man-months - Government
09 07	1.2	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 To be published as G.S.C. reports, non-confidential.

14 Nil

15 J.A. Netterville
994-5116
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 270 Energy, Mines and Resources

02 Terrain Sciences Division, Geological Survey of Canada

03 750071 Quaternary geology - terrain inventory, Somerset and Prince
of Wales Islands

04 Inventory mapping of distribution and description of surficial
materials, permafrost, etc., terrain performance relative to
petroleum development and transportation.

05 04 Environmental Sciences

06 01 Somerset and Prince of Wales Islands
06 02 Ottawa

07 01 ESP-NP
07 02 \$78,300 3.5 m.y.
07 03 Nil

08 1975 1977

09 03 103.7 Other costs
09 04 103.7 Total costs

10 01 A/C Contract - Aerotrade Western \$56,000

11 Nil

12 Discussion by project leader with Town Council, Resolute re
purpose and method of investigations prior to commencement
of field work.

13 To be published as GSC Reports
Non-confidential

14 Nil

15 J.A. Netterville
994-5116
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01 271 Energy, Mines and Resources

02 Terrain Sciences Division - Geological Survey of Canada

03 720081 Surficial geology and geomorphology of central Ellesmere Island.

04 Inventory mapping of distribution and description of surficial materials, permafrost etc., terrain performance.

05 04 Environmental Sciences

06 01 Eureka Sound area, central Ellesmere Island
NTS 49D,E,G,H, 340B (parts of) (office work only)

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08		1972		1977
09	01	21.7	Salaries and wages	
09	03	.8	Other costs	
09	04	22.5	Total costs	
09	05	13.2	Scientific man-months - Government	
09	07	13.2	Total man-months - Government	

10 Nil

11 Nil

12 Nil

13 To be published as GSC reports, non-confidential.

15 D.A. Hodgson
593-6083
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario
K1A 0E8

01	272	Energy, Mines and Resources	
02		Terrain Sciences Division, Geological Survey of Canada	
03		740086 Sedimentary processes and sediments, Babbage River delta, Yukon coast.	
04		Sedimentary processes and sediments, Babbage River delta, Yukon coast - to develop understanding of estuarine delta formation relative to potential response resulting from pipeline construction or oil spills.	
05	04	Environmental Sciences	
06	01	Babbage River delta, NTS 117/D 3,6	
06	02	Vancouver	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1974	1977
09	01	15.7	Salaries and wages
09	02	2.1	Capital
09	03	8.5	Other costs
09	04	26.3	Total costs
09	05	4	Scientific man-months - Government
09	06	8	Other man-months - Government
09	07	12	Total man-months - Government
10		Nil	
11		Nil	
12		Nil	
13		To be published as GSC report, non-confidential.	
14		Nil	
15		D.L. Forbes Department of Geography University of British Columbia Vancouver, British Columbia	

Energy, Mines and Resources/Reference File

- 11 220 1. Operation of Yellowknife medium aperture array station as a major research facility, both from the standpoint of possible test ban policing methods and as a tool for basic research in earth structure (Cabinet decision of October 31, 1963), enables Canada to participate in a nuclear detection club (Canada, Sweden, Japan) and to contribute to the meetings of the Conference of the Committee on Disarmament (Cabinet decision of May 12, 1966).
2. Canada operates a network of seismograph stations for national purposes as described in 4 above. The data from the network, however, is contributed to world data centres and the International Seismological Centre for the international study of global seismicity.

- 13 242 Enclosed is a complete list of pipeline report, issued by PMRL staff.
- the "I" series were for info. memos & not considered major.
 - the "IC" (Inf. Circulars) are formal reports.
 - the "IR" (Inv. Reports) are usually Restricted or confidential.
 - the "R" series (Interim Research) are of importance.
 - the "M" and "J" reports cover papers submitted to Journals for publication.

PM-I-71-2 D.R. Bell
Conference on North Slope Pipeline - Metal or Composite
(March 19, 1971)

PM-V-72-5 D.R. Bell
Visit to Alberta Gas Trunk Lines, Calgary, Alberta, Mar. 28, 1972
(Apr. 13, 1972)

PM-I-72-8 D.R. Bell
Discussions with Mannesmann Corporation Personnel at PMD regarding
Transmission Line Pipe, Mar. 3, 1972
(Apr. 13, 1972)

PM-V-72-6 D.R. Bell
Inspection of Plant Facilities at Canadian Phoenix Steel & Pipe Ltd.,
Calgary, Alberta, Mar. 29, 1972.
(Apr. 17, 1972)

PM-I-72-7 G.J. Biefer
The Environmental Cracking of Line-Pipe Steels: A Short Review
(Apr. 19, 1972)

PM-I-72-10 D.R. Bell
Discussions with Personnel of Nissho-Iwai Canada Ltd. and Nippon Steel
Corp. regarding Transmission Line Pipe
(May 3, 1972)

PM-V-72-15 G.J. Biefer
Attendance at the International Nickel Co. Petroleum and Petrochemical
Materials and Corrosion Conference, Wrightsville Beach, N.C.,
May 23-25, 1972
(June 8, 1972)

PM-V-72-23 L.P. Trudeau
Large-Scale Pipe Burst Test at Athens, Ohio, Aug. 23, 1972
(Sept. 7, 1972)
(Restricted)

PM-M-72-19 S.L. Gertsman, D.R. Bell
The Arctic Pipeline Research Project of the Physical Metallurgy Division
of the Mines Branch
(Oct. 1972)

PM-R-72-10 J.D. Boyd
The Physical Metallurgy Quenched and Tempered Low-Carbon Steel with
special reference to Large-Diameter Line-Pipe Applications.
(Dec. 1972)
(Restricted)

Report 73-11 R.C.A. Thurston
Progress Report of the Physical Metallurgy Division for the
Environmental-Social Program, Northern Pipelines.
(July 1973).

PM-R-73-1 G.J. Biefer, J.G. Garrison
Research on Environmental Cracking of Line-Pipe Steels: Progress
During 1972.
(Jan. 8, 1973)

IC 295 G.J. Biefer
The Environmental Cracking of Line-Pipe Steels: A Short Review
(Nov. 1972)

PM-V-73-7 D.R. Bell
Inspection of Japanese Line Pipe Manufacturing Facilities
(May 28, 1973)

IC 299 J.D. Boyd
The Physical Metallurgy of Quenched and Tempered Low-Carbon Steel,
with Special Reference to Large Diameter Line Pipe Applications.
(May 1973)

PM-I-73-10 D.R. Bell
Some Implications for the Metal-working, Fabrication, and Inspection
Industries of a Mackenzie Valley Pipeline
(June 1, 1973)

PM-V-73-16 J. Gordine
Inspection of the Welding Procedures used in the Production of Spiral
Weld Line Pipe at the Interprovincial Steel & Pipe Corp. Plant in Regina
(Aug. 21, 1973)

PM-V-73-21 G.J. Biefer, E. Smith
Attendance at International Hydrogen-in-Metals Conference, held at
Seven Springs Conference Center near Pittsburgh, Pa.
(Oct. 30, 1973)

PM-I-74-2 G.J. Biefer
Environmental Cracking of Line-Pipe and Other Steels as shown by the
Rising-Load Cantilever Test
(Jan. 8, 1974)

PM-I-74-1 L.P. Trudeau, J.A. Ellis
Interim Report on the Effects of Span Length and Notch Depth and
Sharpness on Drop-Weight Tear Energy
(Jan. 4, 1974)

PM-I-73-5 D.R. Bell
A Brief Commentary on Materials Specifications, Jan. 1973 (Preliminary)
issued by Canadian Arctic Gas Study Ltd.
(June 5, 1973)

PM-R-73-9 D.M. Fegredo
The Effect of Continuous Rolling under Various Conditions on the
Properties of a Structural Steel
(Dec. 1973)

PM-R-74-12 D.R. Bell

Uniformity of Properties of Line Pipe "F"
(1974)
(Restricted)

PM-I-74-18 J.D. Boyd
Current Trends in the Development of Arctic Grade Line-Pipe Steels
(1974)

PM-R-74-11 J.D. Boyd
Microstructure and Properties of a Quenched and Tempered
Low-Carbon-Manganese-Niobium Steel
(1974)
(Restricted)

PM-R-74-21 R.J. Cooke
An Evaluation of the Thermal Cycles Imposed on the HAZ during Manual
Pipe Welding
(1974)
(Restricted)

PM-M-74-5 D.M. Fegredo
The Effect of Rolling under Various Conditions on the Properties of a
C-Mn Structural Steel
(1974)

PM-M-74-7 D.M. Fegredo
The Effect of Rolling at Different Temperatures on the Fracture
Toughness Anisotropy of a C-Mn Structural Steel
(1974)

PM-M-74-4 S.L. Gertsman
Future Canadian Pipelines
(1974)

PM-I-74-13 J. Gordine
Welding of Line-Pipe Steels - Summary of Progress for 1973
(1974)
(Restricted)

IR 74-30 J. Gordine
Welding Evaluation of IN 787 Line-Pipe Steel
(1974)
(Restricted)

IR 74-14 J. Gordine, I.C.E. Ogle
Assessment of Material Properties and Evaluation of Repair Welding of
Corrosion Damage in the Trans-Northern Pipeline
(1974)
(Restricted)

PM-R-74-17 F.S. Jeglic
Fractographic Examination of a Field-Test Rupture in a 12.75 in. (324 mm)
Diameter Pipeline
(1974)
(Restricted)

PM-M-74-13 C.M. Mitchell, D.M. Fegredo
The Investigation of Preferred Orientation in a Plain C-Mn Steel Rolled
at Different Temperatures
(1974)

PM-R-74-23 I.C.G. Ogle
Simulation of the Mill Weld HAZ of Line Pipe "F"
(1974)
(Restricted)

ERP/PMRL(CF) 75-1 (IR) I.C.G. Ogle
Determination of Internal Corrosion Damage and Provision of Methods of
Corrosion Control as Applied to a Crude-Oil Suction Line
(1974-75)
(Restricted)

Report 74-13 R.C.A. Thurston
Second Progress Report of the Physical Metallurgy Division for the
Environmental Social Program
(1974)

R 275 L.P. Trudeau
Dynamic Toughness - Its Relevance and Measurement
(1974)

PM-M-71-19 L.P. Trudeau, O. Vosikovsky
Strain Fields of Cracks Under Tension Including Thickness Effects,
Part II - Correlations, J. of Fracture, v. 10, pp 159-166

PM-M-71-18 O. Vosikovsky
Strain Fields of Cracks Under Tension Including Thickness Effects,
Part I - Experimental Results, Int. J. of Fracture, v. 10, pp 141-157.

PM-M-74-11 O. Vosikovsky
Fatigue-Crack Growth in an X65 Line-Pipe Steel at Low Cyclic
Frequencies in Aqueous Environments.
(1974)

ERP/PMRL-75-4 (OP) I.C.G. Ogle
Environmental Cracking of Line Pipe Steels
(1975)
(In preparation)

ERP/PMRL-75-1 (R) F. Jeglic
Impact Indentation of Pipeline Steel
(Jan. 1975)

ERP/PMRL-75-4 (R) G.J. Bieffer
Screening Tests of the Environmental Cracking Susceptibility of Line
Pipe Steels under Embrittling Conditions
(1975)

ERP/PMRL-75-10 (R) R.C.A. Thurston
Third Progress Report of the Environmental-Social Program Northern
Pipelines
(1974)

ERP/PMRL (CF) 75-12 (R) J. Gordine
Welding Evaluation of Line Pipe "F"
(1975)
(Restricted)

ERP/PMRL-75-1 (R) F.S. Jeglic
Impact Indentation of Pipeline Steel
(1975)

ERP/PMRL 75-34 (J) I.C.G. Ogle
Sulphide Stress Cracking in Line-Pipe HAZ Microstructures
(Dec. 1975)

13

370

Scott, W.J.
1968

EM anomalies, Moose River and Kinmount areas, Ontario; GSC Paper 68-1,
Part A, pp.87-88.

- Scott, W.J. and West, G.F.
1969
Induced polarization of synthetic, high-resistivity rocks containing disseminated sulphides: *Geophysics*, v. 34, no. 1, pp.87-100.
- Scott, W.J.
1969
Geophysical investigations, Eardley and Clinton Townships, Quebec, Moose River, Ontario (31 F/O, 21 E/7, I) GSC Paper 69-1, Part A, p.99.
- Scott, W.J.
1970
Low-frequency phase-sensitive resistivity measurements, Manitoba (62 H,J), Quebec (21 E); GSC Paper 70-1, Part A, p.83-84.
- Scott, W.J. and Gauvreau, C.
1970
A variable low-frequency power signal generator; GSC Paper 70-1, Part B, pp.45-46.
- Scott, W.J.
1972
Phase angle measurements in the induced polarization method of geophysical prospecting; Ph.D. Thesis, McGill University.
- Scott, W.J.
1972
VLF mapping; GSC Paper 72-1A, p.60.
- Scott, W.J. and Fraser, D.C.
1973
Drilling of EM anomalies caused by overburden; *CIM Bull.*, v. 66, no. 735, pp.72-77.
- Kurfurst, P.J., Isaacs, R.M., Hunter, J.A. and Scott, W.J.
1973
Permafrost studies in the Norman Wells region, N.W.T.: in Aitken, J.D. and Glass D.J. editors. *Proc. of Symposium on Canadian Arctic Geology, GAC*, pp.277-279.
- Williams, D.A., Stangl, K.O., Scott, W.J. and Dyck, A.V.
1973
Cavendish Township drilling program, 1973; *Geol. Surv. Can. O.F.* 160.
- Williams, D.A., Scott, W.J. and Dyck, A.V.
1974
Cavendish Township geophysical test range: 1973 diamond drilling, *Geol. Surv. Can.*, Paper 74-62.
- Co-author with Williams and Dyck
A condensation of Open File 160. Cavendish is used extensively for geophysical experiments by the GSC, instrument and contracting companies and universities. Paper presents a geologic map, description of rock types and a summary of the logs of the 33 holes.
- Scott, W.J.
1974
Geophysical study of permafrost: Mackenzie Valley: *Geol. Surv. Can.*, Paper 74-1A, p.99.
- Describes locations of 5 geophysical test sites in the Mackenzie Valley
Scott, W.J. and Hunter, J.A.
1974
Site investigations: *Geophysical Surveys: Sect. 5.4 in National Research Council Canada, Permafrost Engineering Manual.*
- Co-author with Hunter. Guidelines for the selection of geophysical techniques for site investigations in permafrost, with indications of the limitations of each technique.
Scott, W.J. and Hunter, J.A.
1975
Seismic and electrical methods in permafrost detection: *National Research Council, Canada, Technical Memorandum #113*, p.48-49.
- Co-author with Hunter. Expanded abstract of paper presented at Calgary Permafrost Symposium, 1974. Covered results at Fort Simpson, Norman Wells, Willowlake River and Tuk. First convincing demonstration of the utility of combined geophysical techniques for mapping discontinuous permafrost.
Sellman, P.V., McNeill, J.D. and Scott, W.J.

1975

Airborne E-Phase resistivity surveys of permafrost: National Research Council, Canada, Technical Memorandum #113, p.67-72.
Junior author: Sellmann did most of the work. Comparison of E-Phase surveys in thin, thick and very thick permafrost zones, with an explanation of the survey results in light of ground geophysical results and geology. First report on E-Phase surveys in permafrost.

Scott, W.J., Campbell, K.J. and Orange, A.S.

1975

EM pulse survey method in permafrost: National Research Council, Canada, Technical Memorandum #113, p.92-96.

Scott was senior author. Campbell contributed geological analysis, Orange gave experimental results from laboratory work. Described characteristics of GSSI radar and showed results of trials at Tuk test site. Restored radar sounding in permafrost to scientific respectability in the eyes of some of its opponents.

Scott, W.J.

1975

Preliminary experiments in marine resistivity near Tuktoyaktuk, District of Mackenzie: Geol. Surv. Can., Paper 75-1A, p.141-145.

Described results obtained a) in winter, by boring holes in sea and lake ice to insert electrodes, and b) in summer by towing electrode arrays behind rubber boats. Demonstrated that the method was feasible, in spite of crude equipment.

Scott, W.J.

1975

VLF resistivity (radiohm) survey, Agricola Lake area, District of Mackenzie: Geol. Surv. Can., Paper 75-1A, p.223-225.

One of a group of papers reporting on a multi-discipline study organised by E.M. Cameron showed results of an EM16R survey over the Yava sulphide deposit. Showed positive correlation with geology as mapped from sparse outcrop.

McLaren, P., Scott, W.J. Hunter, J.A.

1975

The implications of geophysical studies on the Permafrost regime and surficial geology, Melville Island and Byam Channel, N.W.T. Geol. Surv. Can., Paper 75-1B, pp.39-45.

Co-author with McLaren and Hunter. Seismic and electrical measurements at sites on shore and in the sea ice were interpreted in terms of the surficial and bedrock geology.

Annan, A.P., Davis, J.L. and Scott, W.J.

1975

Impulse radar profiling in permafrost. Geol. Surv. Can. Paper 75-10, pp.343-351.

Junior author with Annan and David. Describes results of field experiments at Tuktoyaktuk in 1974 and 1975, and interpretations of those results. Sets limits on the use of radar for profiling in areas of fine-grained sediments. Suggests that ice density estimates used for interpreting gravity profiles over ice-covered features may be too high.

Annan, A.P., Davis, J.L. and Scott, W.J.

1975

Impulse radar wide angle reflection and refraction sounding in permafrost. Geol. Surv. Can., Paper 75-1C, pp.335-341.

Junior author with Annan and Davis. Describes WARR technique developed to obtain estimates of depth and average velocity to strong reflectors identified in radar profile data. This technique, developed by GSC, has since been used by Geophysical Survey Systems Inc. (supplier of the radar system used in these experiments) to solve interpretation problems both in unconsolidated sediments and in tunnels in rock in temperate regions.

Hunter, J.A. and Scott, W.J.

1974

Geophysical investigations of ground ice, Tuktoyaktuk Peninsula, N.W.T.: Ice, no. 44, p.7-8.

One-paragraph outline of work on Tuk Peninsula done in spring and summer seasons of 1973. Written by neither Hunter nor Scott, submitted by persons unknown.

Scott, W.J., and Hunter, J.A.

1976

Application of geophysical techniques in permafrost regions, submitted to CJES December 1975. Co-author with Hunter.

Summary of recent developments in permafrost geophysics at the GSC. Scott contributed electrical and electromagnetic portions and geological control for Involuted Hill.

Internal Reports

Scott, W.J., and Hunter, J.A.

1974

Geophysical Surveys in Permafrost: a report to the Working Group, Northern Pipelines, 1 Mar 1974.

Co-author with Hunter. A summary of criteria for applicability of electrical and seismic techniques to permafrost studies, with some indications of limits of reliability.

McLaren, P., Scott, W.J. and Hunter, J.A.

1975

The implications of geophysical studies on the permafrost regime and surficial geology, Melville Island and Byam Channel, N.W.T.: Geol.

Surv. Can., Paper 75-1B, pp.39-45.

Annan, A.P., Davis, J.L. and Scott, W.J.

1975

Impulse radar profiling in permafrost. Geol. Surv. Can. Paper 75-1B, pp.343-3

Annan, A.P., Davis, J.L. and Scott, W.J.

1975

Impulse radar wide angle reflection and refraction sounding in permafrost. Geol. Surv. Can., Paper 75-1C, pp.335-341.

Scott, W.J. and Hunter, J.A.

1976

Application of geophysical techniques in permafrost regions. Submitted to CJES December 1975.

Davis, J.L., Scott, W.J., Morey, R. and Annan, A.P.

Impulse radar experiments on permafrost near Tuktoyaktuk, N.W.T.

Submitted to CJES, Dec. 75.

13. 372 35. Hunter, J.A. and G.D. Hobson
1975 A seismic refraction method to detect sub-seabottom permafrost; in Proc. of the Beaufort Sea Symposium, San Francisco, Arctic Institute of North America, pp.401-416.
Presents a seismic method and preliminary results of a permafrost mapping program in the southern Beaufort Sea.
36. Killeen, P.G., J.A. Hunter and J.M. Carson
1975 Optimizing some parameters for airborne gamma-ray spectrometric surveying; Geoporation Vol. 13, No. 1.
Optional flight and equipment conditions are examined from the point of view of desired ground anomaly characteristics.
37. Hunter, J.A. and W.J. Scott
1974 Geophysical surveys, in Permafrost Engineering Manual, Geotechnical Section, Div. of Building Research, NRC, ed. by G.A. Johnston chap. 5, part 4.
A review of various geophysical techniques used to obtain geotechnical properties of permafrost.
38. Hunter, J.A., H.A. MacAulay, R.L. Good, R.M. Gagne and R.A. Burns
1974 The study of frozen seabed materials in the southern Beaufort sea; report to the Beaufort Sea Project, Dept. of the Environment, Dec. 1974.

A compilation of existing data on the occurrence of permafrost in the southern Beaufort Sea.

39. Hunter, J.A.
1974 Borehole geophysical methods in permafrost; in Borehole geophysics applied to metallic mineral prospecting, a review. GSC Paper 75-31 ed. A.V. Dyck in press.
Presents a state of the art description and a comprehensive bibliography covering the application of geophysical logging techniques to mapping of permafrost.
40. Carson, J.M., Hunter, J.A. and C.P. Lewis
1975 Marine seismic refraction profiling Kay Point, Yukon Territory, GSC Paper 75 1-B, pp. 9-12.
A detailed investigation of the depth to the top of permafrost in an Arctic river delta is presented.
41. Gagne, R.M. and J.A. Hunter
1975 Hammer seismic studies of surficial materials, Banks Island, Ellesmere Island, and Boothia Peninsula, N.W.T. GSC Paper 75-1B, pp. 13-18.
42. Hunter, J.A. and Godfrey, R.J.
1975 A shallow marine refraction survey, Cunningham Inlet, Somerset Island, N.W.T. GSC Paper 75-1B, pp. 19-22.
An interpretation of surficial material type and bedrock topography based on seismic refraction and reflection methods is offered.
43. McLaren, P., Scott, W.J. and Hunter, J.A.
1975 The implications of geophysical studies on the permafrost regime and surficial geology, Melville Island an Byam Channel, N.W.T. GSC Paper 75-1B, pp. 39-45.
A correlation of seabottom seismic and resistivity survey results with surficial materials is given.
44. Judge, A.S., J.A. Hunter, R.L. Good, J. Cowan and G. Robb
1976 Thermistor Cable Installation in Permafrost Materials with a Water Jet drilling method. In GSC Paper 76-1A, pp. 479-480.
An inexpensive drilling method for surficial permafrost materials is described.
45. Caulfield, D.D., A. Liron, C.F.M. Lewis, and J.A. Hunter
1976 Preliminary test results of the "Banques" Through-Ice Sub-Bottom Acoustic Profiling System at Tuktoyaktuk, N.W.T. In GSC Paper 76-1A, pp.503-510.
A comparison of interpreted sub-seabottom geotechnical properties and drilling results is made.
46. Hunter, J.A. and J. Veillette
1976 Borehole Density Logging in Permafrost, Tuktoyaktuk, N.W.T. in GSC Paper 76-1A, pp. 417.
An example of density logging techniques for indicating ice-content is given.
47. Judge, A.S., H.A. MacAulay and J.A. Hunter
1976 Anomalous shallow seismic velocities in Mackenzie Bay, N.W.T. in GSC Paper 76-1A, pp.481-484.
The occurrence of near-surface high seismic velocities is examined with respect to the occurrence of relict permafrost. It is concluded that permafrost must be about; anomalous velocities result from either anomalous rock types or gas-hydrate occurrences.

Part B Internal Reports

1. Scott, W.J. and J.A. Hunter
1974 Geophysical surveys in permafrost; report to the working group of the Environmental Social Program. Northern Pipelines, March 1974.
Reports on the feasibility of applying geophysical techniques to detection of variations in geotechnical properties of permafrost surficial materials.

2. Hunter, J.A., R.L. Good and R.A. Burns
1975 Seismic Velocity Measurements of Seabottom Sediments Using a Refraction Array. A progress report distributed internally.
Preliminary results of the "fixed array" concept are presented and design recommendations are offered.

ENVIRONMENT

01 101 Environment

02 Fisheries and Marine Service, Arctic Biological Station

03 Project 8952 - arctic seals

04 a) to provide information on the ecology, distribution and
 population dynamics of ringed and bearded seals for resource
 management;
 b) to study the effects of environmental change on the
 biochemistry and physiology of ringed and bearded seals in
 order to provide background data for environmental impact
 assessments.

05 01 Life Sciences zoology, ecology, biochemistry, physiology

06 01 Amundsen Gulf (Holman Island and Cape Parry)

06 02 Barrow Strait

07 01 Nil

07 02 Nil

07 03 Nil

08 1952 Ongoing

 1972 Ongoing

09 01 77 Salaries and wages

09 02 7 Capital

09 03 182 Other costs

09 04 266 Total costs

09 05 12 Scientific man-months - Government

09 06 50.4 Other man-months - Government

09 07 62.4 Total man-months - Government

09 09 3.6 Other man-months - Non-government

09 10 3.6 Total man-months - Non-government

10 01 \$15,200 to University of Guelph, \$4,600 to Dr. J. Geraci and
 \$2,500 to D. St. Aubin for bio-energetics studies of ringed and
 bearded seals under field and laboratory conditions. \$1,700 to
 N. Øritsland for physiological studies of heat budget and
 insulation of seals.

11 Nil

12 Several Inuit used as guides and hunters in obtaining samples and
 helping in marking program.

13 See Reference File.

14 See Reference File.

15 A.W. Mansfield/T.G. Smith,
 457-3660
 Arctic Biological Station,
 Fisheries and Marine Service,
 Department of the Environment,
 Ste. Anne de Bellevue, Que.
 H9X 3L6

01 102 Environment

02 Fisheries and Marine Service, Arctic Biological Station

03 Project 8957 - arctic whales

04 To provide information on the distribution, population dynamics, feeding and behaviour of white whales, narwhales and bowhead whales for resource management and environmental impact assessment.

05 01 Life Sciences Zoology, Ecology

06 01 Southeastern Beaufort Sea and Mackenzie delta
06 Northern Baffin Island (Arctic Bay and Pond Inlet)

07 01 Nil
07 02 Nil
07 03 Nil

08 1955 - April Ongoing

09 01	20	Salaries and wages
09 02	1	Capital
09 03	24	Other costs
09 04	45	Total costs
09 05	3.6	Scientific man-months - Government
09 06	24	Other man-months - Government
09 07	27.6	Total man-months - Government
09 09	3.6	Other man-months - Non-government
09 10	3.6	Total man-months - Non-government

10 Nil

11 Nil

12 Several Inuit used as guides and hunters in obtaining biological samples

13 See Reference File.

14 See Reference File.

15 A.W. Mansfield/D.E. Sergeant,
457-3660
Arctic Biological Station,
Fisheries and Marine Service,
Department of the Environment,
Ste. Anne de Bellevue, Quebec,
H9X 3L6

01 103 Environment

02 Fisheries and Marine Service, Arctic Biological Station

03 Project 8960 - arctic marine plants

04 a) to provide information on the distribution and production of diatoms, dinoflagellates and larger algae inhabiting the plankton, the undersurface of sea ice and the sea floor and their relation to the marine ecosystem.
b) to study their abilities to tolerate pollutants, particularly oil.

05 01 Life Sciences Botany, Ecology

06 01 Mackenzie delta (Eskimo Lakes) and southeastern Beaufort Sea, James Bay

07 01 Nil
07 02 Nil
07 03 Nil

08 1952 Ongoing
1973 Ongoing

09 01 51 Salaries and wages
09 02 13 Capital
09 03 46 Other costs
09 04 110 Total costs
09 05 12 Scientific man-months - Government
09 06 25.2 Other man-months - Government
09 07 37.2 Total man-months - Government

10 01 \$13,000 to M. Foy for laboratory analysis of James Bay phytoplankton samples and \$6,500 to D. Kittle for field and laboratory studies of arctic marine phytoplankton and macrophytes.

11 Nil

12 Nil

13 Foy, M.G., and S.I.C. Hsiao. 1976. Phytoplankton data from the Beaufort Sea, 1973-1975. Canada Dept. Env., Fish. and Mar. Svc. Tech. Rep. 617: 44 p.
Foy, M.G., and S.I.C. Hsiao. 1976. Phytoplankton data from James Bay, 1974. Canada Dept. Env., Fish. and Mar. Svc. Tech. Rep. 631: 73 p.
Hsiao, S.I.C. 1976. Biological productivity of the southern Beaufort Sea: phytoplankton and seaweed studies. Can. Dept. Env., Beaufort Sea Proj. Tech. Rep. 12c: 99 p.

14 Beginning in 1973 environmental studies were carried out under the Beaufort Sea program. Particular emphasis was paid to the effects of crude oil and dispersants on the photosynthesis rate and growth of phytoplankton and seaweeds.
Studies will be continued at Frobisher Bay in 1976.

15 E.H. Grainger/S.I.C. Hsiao,
457-3660
Arctic Biological Station,
Fisheries and Marine Service,
Department of the Environment,
Ste. Anne de Bellevue, Quebec,
H9X 3L6

01 104 Environment

02 Fisheries and Marine Service, Arctic Biological Station

03 Project 8961 - arctic biological oceanography and marine zooplankton

04 To provide information on the distribution and production of the principal species of marine zooplankton and their relation to the marine ecosystem.

05 01 Life Sciences Zoology, Ecology

06 01 Mackenzie delta (Eskimo Lakes) and southeastern Beaufort Sea; Southeastern Baffin Island (Frobisher Bay); James Bay

07 01 Nil

07 02 Nil

07 03 Nil

08 1952 Ongoing

09 01 66 Salaries and wages

09 02 1 Capital

09 03 54 Other costs

09 04 121 Total costs

09 05 12 Scientific man-months - Government

09 06 25.2 Other man-months - Government

09 07 37.2 Total man-months - Government

10 01 \$6,000 to C. Grohe and \$8,900 to S. McSween for laboratory analysis of plankton collected in the Mackenzie area and James Bay.

11 Nil

12 Nil

13 See Reference File.

14 During the period 1972-1976, a study was made of primary and secondary production in the Eskimo Lakes, an arctic estuarine system, and baseline data related to offshore drilling were collected in the southeastern Beaufort Sea.
A survey of part of James Bay was conducted to supply baseline data on the marine environment for the preparation of an environmental impact statement related to anticipated changes in the flow of freshwater into the Bay as a result of hydroelectric development.

15 A.W. Mansfield/E.H. Grainger,
457-3660
Arctic Biological Station,
Fisheries and Marine Service,
Department of the Environment,
Ste. Anne de Bellevue, Que.
H9X 3L6

01 105 Environment

02 Fisheries and Marine Service, Arctic Biological Station

03 Project 8962 - arctic marine zoobenthos

04 To provide information on the distribution and production of principal species of marine zoobenthos and their relation to the marine ecosystem.

05 01 Life Sciences Zoology, Ecology

06 01 Mackenzie delta (Eskimo Lakes) and southeastern Beaufort Sea; James Bay; Southeastern Baffin island (Frobisher Bay)

07 01 Nil

07 02 Nil

07 03 Nil

08 1952 Ongoing

09 01 57 Salaries and wages

09 02 2 Capital

09 03 70 Other costs

09 04 129 Total costs

09 05 12 Scientific man-months - Government

09 06 25.2 Other man-months - Government

09 07 37.2 Total man-months - Government

10 01 \$5,600 to A. Weinstein and \$1,500 to L. Kinlough for analysis of benthos samples from James Bay and the Mackenzie delta, and \$1,500 E. Krivanek for preparation of illustrations.

11 Nil

12 Nil

13 Atkinson, E.G., and J.W. Wacasey. 1976. Caloric values of zoobenthos and phytobenthos from the Canadian arctic. Canada Dept. Env., Fish. and Mar. Svc. Tech. Rep. 632: 24 p.
Wacasey, J.W. 1975. Biological productivity of the southern Beaufort Sea: zoobenthic studies. Canada Dept. Env., Beaufort Sea Proj. Tech. Rep. 12b: 39 p.

14 A full-time investigator was assigned to this project in 1971 in order to continue the long term studies on zoobenthos and to obtain the necessary baseline information for making environmental impact statements, particularly with regard to the Beaufort Sea.

15 E.H. Grainger/J.W. Wacasey,
457-3660
Arctic Biological Station,
Fisheries and Marine Service,
Department of the Environment,
Ste. Anne de Bellevue, Quebec,
H9X 3L6

01 106 Environment

02 Fisheries and Marine Service, Arctic Biological Station

03 Project 8971 - arctic marine microbiology

04 a) to provide information on the distribution, abundance and
physiological characteristics of marine bacteria
b) to study their ability to tolerate pollutants and degrade oil

05 01 Life Sciences Microbiology, Ecology

06 01 Mackenzie delta (Eskimo Lakes) and southeastern Beaufort Sea

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 Ongoing

09 01 40 Salaries and wages

09 02 5 Capital

09 03 17 Other costs

09 04 62 Total costs

09 05 12 Scientific man-months - Government

09 06 15.6 Other man-months - Government

09 07 27.6 Total man-months - Government

10 01 \$4,400 to F. Pilkington and \$3,800 to D. Michaud for laboratory
preparation and analysis of microbiological cultures.

11 Nil

12 Nil

13 Bunch, J.N., and R.C. Harland. 1976. Biodegradation of crude
petroleum by the indigenous microbial flora of the Beaufort Sea.
Can. Dept. Env., Beaufort Sea Proj. Tech. Rep. 10: 52 p.
Knowles, R. 1975. Nitrogen fixation in arctic marine sediments.
Can. Dept. Env., Beaufort Sea. Proj. Tech. Rep. 9: 44 p.

14 This project was initiated in 1971 as a reponse to pipeline
developments in the Mackenzie delta and, later, to offshore
drilling in the Beaufort Sea.

15 E.H. Grainger/J.N. Bunch,
457-3660
Arctic Biological Station,
Fisheries and Marine Service,
Department of the Environment,
Ste. Anne de Bellevue, Quebec,
H9X 3L6.

01 107 Environment

02 Fisheries and Marine Service, Arctic Biological Station

03 Project 8972 - arctic marine invertebrate physiology

04 a) to study the bio-energetics of selected marine invertebrates
b) to study their physiological and biochemical responses to
 environmental stress and their ability to tolerate pollutants

05 01 Life Sciences Physiology, zoology, ecology

06 01 Mackenzie delta (Eskimo Lakes) and southeastern Beaufort Sea

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 Ongoing

09 01 46 Salaries and wages

09 02 3 Capital

09 03 17 Other costs

09 04 66 Total costs

09 05 12 Scientific man-months - Government

09 06 25.2 Other man-months - Government

09 07 37.2 Total man-months - Government

10 01 \$7,500 to T. Mullin for field and laboratory experiments on selected
marine invertebrates.

11 Nil

12 Nil

13 Percy, J.A. 1975. Ecological physiology of arctic marine
invertebrates. Temperature and salinity relationships of the
amphipod *Onisimus affinis* J.J. Hansen. J. Exp. Mar. Biol. Ecol.
20: 99-117.
 Percy, J.A., and T.C. Mullin. 1975. Effects of crude oils on
arctic marine invertebrates. Can. Dept. Env., Beaufort Sea Proj.
Tech. Rep. 11: 167 p.
 Percy, J.A. 1976. Responses of Arctic marine crustaceans to
crude oil and oil-tainted food. Environ. Pollut. (10): 155-162.

14 This project was initiated in 1971 as a response to pipeline
developments in the Mackenzie delta and, later, to offshore drilling
in the Beaufort Sea.

15 E.H. Grainger/J.A. Percy
457-3660
Arctic Biological Station,
Fisheries and Marine Service,
Department of the Environment,
Ste. Anne de Bellevue, Quebec,
H9X 3L6

01 108 Environment

02 Fisheries and Marine Service, Arctic Biological Station

03 Project 8973 - arctic marine and anadromous fish

04 a) to provide information on the distribution, population dynamics and ecological relationships of the more important species of benthic and anadromous fishes for resource management and environmental impact assessment.

05 01 Life Sciences Zoology, Ecology

06 01 Mackenzie delta and southeastern Beaufort Sea; Frobisher Bay; James Bay

07 01 Nil

07 02 Nil

07 03 Nil

08 1952 Ongoing

09 01 54 Salaries and wages

09 02 4 Capital

09 03 97 Other costs

09 04 ~~115~~ 155 Total costs

09 05 12 Scientific man-months - Government

09 06 48 Other man-months - Government

09 07 60 Total man-months - Government

10 01 \$16,600 to B. Kidd, \$12,000 to R. Baxter, \$13,100 to R. Greendale and \$13,000 to R. Morin for field work in James Bay and laboratory analysis of data. \$10,900 to D. Galbraith for field work in the southeastern Beaufort Sea and laboratory analysis of data.

11 Nil

12 Nil

13 Bray, J.R. 1975. Marine fish surveys in the Mackenzie delta area. J. Fish. Res. Board Can. MS Rep. Series 1326: 10 p.
Galbraith, D. 1975. Movements, distribution, populations and food habits of fish in the coastal Beaufort Sea. Can. Dept. Env., Beaufort Sea Interim Rep. 6 p.
Hunter, J.G. 1975. Fishery resources of the western Arctic. Fish. Res. Board Can. MS Rep. Series 1335: 33 p.
Hunter, J.G. 1976. Arctic char and hydroelectric power in the Sylvia Grinnell River. Fish. Res. Board Can. MS Rep. 1376: 21 p.
Results of the James Bay studies will initially be available as an MS report of the Arctic Biological Station.

14 This was the final year of 3 year environmental impact studies in both the southeastern Beaufort Sea and James Bay.

15 A.W. Mansfield/J.G. Hunter,
457-3660
Arctic Biological Station,
Fisheries and Marine Service,
Department of the Environment,
Ste. Anne de Bellevue, Quebec,
H9X 3L6

01 109 Environment

02 Fisheries and Marine Service, Ocean and Aquatic Sciences

03 Hydrographic Surveys in the Arctic

04 a) Hydrographic surveys in the Belcher Channel-Penny Strait areas;
 b) Support for Oceanographic programs;
 c) Field testing of tracked survey vehicles;
 d) Special surveys to support pipeline feasibility studies.

05 03 Engineering Sciences Hydrography
 05 04 Environmental Sciences

06 01 Queen Elizabeth Islands
 06 02 Belcher Channel - Penny Strait

07 01 Nil
 07 02 Nil
 07 03 Nil

08 1976 - March 1 1976 - April 30

09 01 35 Salaries and wages
 09 02 20 Capital
 09 03 50 Other costs
 09 04 105 Total costs
 09 05 20 Scientific man-months - Government
 09 06 18 Other man-months - Government
 09 07 38 Total man-months - Government

10 01 Unsolicited proposal by Banister Technical Services accepted by
 DSS to develop and test a system for through ice sounding.
 (Question 4 c) & d)).

11 Nil

12 Local air support and accommodations at Resolute Bay and Rea Point

13 Final field report (CHS O & AS); bathymetric manuscript; technical
 reports on Banister contract

14 Non-government scientific manpower for the unsolicited proposal
 was approximately 8 man months.

15 E. Thompson,
 (416) 637-4233
 CCIW,
 Burlington

01 110 Environment

02 Fisheries and Marine Service, Ocean and Aquatic Sciences

03 Hudson and James Bay Oceanography

04 a) the objective is to study the interaction between 1) Hudson Bay and Hudson Strait 2) Hudson Bay and James Bay 3) La Grande River and nearshore region of James Bay;
b) the study is a continuing one designed to assess the physical impact on the marine waters resulting from the James Bay hydro development.

05 02 Physical Sciences Physical Oceanography

06 01 Hudson Bay - Hudson Strait

06 02 Field and CCIW, Burlington (Research)

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - summer 1977 - winter

09 01	75	Salaries and wages
09 02	25	Capital
09 03	100	Other costs
09 04	200	Total costs
09 05	24	Scientific man-months - Government
09 06	36	Other man-months - Government
09 07	60	Total man-months - Government
09 08	12	Scientific man-months - Non-government
09 09	12	Other man-months - Non-government
09 10	24	Total man-months - Non-government

10 Nil

11 Nil

12 Use has been made in the past of native peoples of Fort George to assist in the taking of winter oceanographic measurements.

13 Data reports, manuscript reports, no confidentiality.

14 It should be noted that this program has a large winter component which involves through-the-ice measurements of currents, salinity and temperature.

15 N.G. Freeman,
(416) 637-4380
CCIW,
Box 5050,
Burlington, Ontario.

01 111 Environment.

02 F & MS Western (Winnipeg), Environmental Impact Section

03 Redknife River Baffle Study

04 To assess the effectiveness of two prototype baffle designs in reducing flow velocities through highway culverts such that easy passage for migrating fish is provided.
 To provide F & MS with baffle design and hydrological information on which to base recommendations for remedial measures for culvert blockage problems.

05 01 Life Sciences

06 01 Mackenzie Highway crossing of the Redknife River, approximately half way between Hay River and Fort Simpson, N.W.T.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - September 1977 - March

09 01	12	Salaries and wages
09 02	1.4	Capital
09 03	12	Other costs
09 04	25.4	Total costs
09 05	12	Scientific man-months - Government
09 07	12	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Technical report to be published by March, 1977.

14 Nil

15 J.N. Stein, A/Head,
 (204) 269-7379
 Impact Assessment Division,
 Environmental Impact Section,
 Fisheries and Marine Service,
 Freshwater Institute,
 501 University Crescent,
 Winnipeg, Manitoba,
 R3T 2N6

01 112 Environment

02 F & MS Western (Winnipeg), Environmental Impact Section

03 Fish Resources of Lac La Martre.

04 To assess the fish resources of Lac La Martre; to provide F & MS with information necessary to assess the likely impact on these resources resulting from proposed hydroelectric development on the La Martre River.

05 01 Life Sciences

06 01 Lac La Martre, N.W.T.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 01	32.2	Salaries and wages
09 02	1.3	Capital
09 03	36	Other costs
09 04	69.5	Total costs
09 05	24	Scientific man-months - Government
09 07	24	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Technical report to be published by March, 1977.

14 Nil

15 J.N. Stein, A/Head,
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 Impact Assessment Division,
 Environmental Impact Section,
 Fisheries and Marine Service,
 Freshwater Institute,
 501 University Crescent,
 Winnipeg, Manitoba,
 R3T 2N6

01 113 Environment

02 F & MS Western (Winnipeg), Environmental Impact Section

03 Nanisivik Mine Study

04 to survey the aquatic resources in the vicinity of Nanisivik Mine;
to provide F & MS with information necessary to assess the likely
impact on these resources resulting from mine development and to
monitor changes in the aquatic environment as operations continue.

05 01 Life Sciences

06 01 Strathcona Sound, Baffin Island, N.W.T.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1977 - March 31

09 01	29.4	Salaries and wages
09 02	4.2	Capital
09 03	58.3	Other costs
09 04	91.9	Total costs
09 05	24	Scientific man-months - Government
09 07	24	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Technical report to be published by March, 1977.

14 Nil

15 J.N. Stein, A/Head,
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Impact Assessment Division,
Environmental Impact Section,
Fisheries and Marine Service,
Freshwater Institute,
501 University Crescent,
Winnipeg, Manitoba,
R3T 2N6

01 114 Environment

02 F & MS Western (Winnipeg), Environmental Impact Section

03 Mackenzie Highway Monitoring Study

04 To assess the impact of highway construction on the aquatic environments of three Mackenzie River tributaries; to revise or update F & MS guidelines for highway construction and operation in the N.W.T. as it relates to aquatic environments.

05 01 Life Sciences

06 01 Studies are located at the proposed Mackenzie Highway crossing sites on Smith Creek and two unidentified streams at highway mile points 430.0, 426.5 and 422.7 respectively, south of Wrigley, N.W.T.

07 01 Department of Indian and Northern Affairs.
07 02 \$88,000.
07 03 Nil

08 1975 - August 1979 - March

09 01	19.1	Salaries and wages
09 03	3	Other costs
09 04	22.1	Total costs
09 05	24	Scientific man-months - Government
09 07	24	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Interim report to be published by January 1, 1977, and for each year thereafter. Final report to be published by March, 1979.

14 Nil

15 J.N. Stein, A/Head,
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Impact Assessment Division,
Environmental Impact Section,
Fisheries and Marine Service,
Freshwater Institute,
501 University Crescent,
Winnipeg, Manitoba,
R3T 2N6

01 115 Environment

02 F & MS Western (Winnipeg), Environmental Impact Section

03 Anadromous and Freshwater Fish of the Outer Mackenzie Delta - Beaufort Sea Study - Project B-2.

04 To determine the species, relative abundance and life histories of freshwater and anadromous fish utilizing the outer Mackenzie Delta; to assess the possible impact on aquatic resources as a result of offshore exploratory drilling activities.

05 01 Life Sciences

06 01 Mackenzie River Delta, N.W.T.

07 01 The Beaufort Sea Project was funded jointly by the Federal Government and the oil industry - this particular study received industry support.

07 02 \$21,000 from the Beaufort Sea Project

07 03 Some logistics such as use of helicopter.

08 1974 - May 1976 - December

09 01 36 Salaries and wages

09 03 18 Other costs

09 04 54 Total costs

09 05 24 Scientific man-months - Government

09 07 24 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Technical reports have been published by the Beaufort Sea Project Office. An overview report should be completed by December, 1976 and similarly published.

14 Nil

15 J.N. Stein, A/Head,
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Impact Assessment Division,
Environmental Impact Section,
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Freshwater Institute,
501 University Crescent,
Winnipeg, Manitoba,
R3T 2N6

01 116 Environment

02 F & MS Western (Winnipeg), Environmental Impact Section

03 Arctic Islands Pipeline Program - Project FP-2

04 To study the limnology of a large oligotrophic polar lake; to investigate the aquatic resources along the proposed route of the Arctic Islands Pipeline; to provide F & MS with suitable information to assess the pipeline application and determine the possible effects of construction on the aquatic resources.

05 01 Life Sciences

06 01 Stanwell-Fletcher Lake, Boothia Peninsula.

06 02 Surveys were conducted on several river systems on Somerset, Prince of Wales and Cornwallis Islands.

07 01 Funding provided by DINA to the AIPP Project Office.

07 02 \$150,000.

07 03 3 man-years

08 1975 - April 1977 - March

09 01	29.2	Salaries and wages
09 04	29.2	Total costs
09 05	24	Scientific man-months - Government
09 07	24	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Interim report is available from the project office. Final report to be completed by February, 1977.

14 Nil

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 Impact Assessment Division,
 Environmental Impact Section,
 Fisheries and Marine Service,
 Freshwater Institute,
 501 University Crescent,
 Winnipeg, Manitoba,
 R3T 2N6

01 118 Environment

02 F & MS Western (Winnipeg), Environmental Impact Section

03 Investigations of the aquatic resources in the Taglu-Richards
Island and Parson's Lake areas, N.W.T.

04 To provide F & MS with aquatic resource informaion suitable to
enable an assessment to be made on the possible impacts on these
resources resulting from construction of natural gas production
facilities.

05 01 Life Sciences

06 01 Mackenzie River Delta, N.W.T.

07 01 Department of Indian and Northern Affairs
07 02 \$99,000.
07 03 Nil

08 1975 - August 1976 - March

10 01 While DINA supplied the funds, this project was contracted out to
a private consultant by F & MS (\$99,000).

11 Nil

12 Nil

13 Report has been completed and is available from F & MS, Western
Region.

14 Nil

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Winnipeg, Manitoba,
R3T 2N6

01 119 Environment

02 F & MS Western (Winnipeg), Fisheries Resources Section

03 Monitoring and Assessment of the Great Slave Lake Commercial Fishery (311:1)

04 To maintain an up-to-date status of the commercial fishery in terms of the catch (i.e. size, age composition, growth and mortality rates of species caught; in particular the Lake Whitefish) and in terms of exploitation (i.e. catch per unit of effort, cullage, landings by area and season etc.). This information is essential to determine optimal levels of exploitation and to measure the effect of regulation changes relevant to the management of the Fishery.

05 01 Life Sciences

06 01 Great Slave Lake, Northwest Territories

07 01 Nil

07 02 Nil

07 03 Nil

08 1950 ongoing

09 01	25	Salaries and wages
09 02	8	Capital
09 03	35	Other costs
09 04	68	Total costs
09 05	15.6	Scientific man-months - Government
09 07	15.6	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 A Data Report concerning each year's results is published by March annually. The data is also disseminated to the N.W.T. government and the F & MS District Office, N.W.T. in various forms for economic and resource planning and is used to set quotas embodied in the N.W.T. Fishery Regulations.

14 Nil

15 Mr. R.F. Peet/Mr. R. Moshenko,
(204) 269-7379
Fishery Management Division,
Fisheries Resources Section,
Fisheries and Marine Service,
Freshwater Institute,
501 University Crescent,
Winnipeg, Manitoba,
R3T 2N6.

01 120 Environment

02 F & MS Western (Winnipeg), Fisheries Resources Section

03 Monitoring and assessment of commercial fisheries Area I (i.e. Great Slave Lake, Great Bear Lake Area) exclusive of the Great Slave Lake Fishery (311:2).

04 a) To collect biological data on such fish species as Inconnu, Walleye, Whitefish to determine their population dynamics and structure, movement, spawning habits, maturity and fecundity;
b) to assess the effects of current harvest levels on the various populations.

05 01 Life Sciences

06 01 Buffalo River, Great Slave Lake, N.W.T. (Inconnu); Little Buffalo River, Great Slave Lake, N.W.T. (Whitefish); Kakisa and Tathlina Lakes, N.W.T. (Walleye)

07 01 Nil
07 02 Nil
07 03 Nil

08 1976 - May 1978 - September
1975 - May 1979 - September
1975 - May ongoing

09 01 10 Salaries and wages
09 02 1 Capital
09 03 10 Other costs
09 04 21 Total costs
09 05 8.4 Scientific man-months - Government
09 07 8.4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 A summary data report is published at the end of each fiscal year. The data is also disseminated to the N.W.T. government and the F & MS District Office, N.W.T. in various formats for economic and resource planning.

14 Nil

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Fishery Management Division,
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Freshwater Institute,
501 University Crescent,
Winnipeg, Manitoba,
R3T 2N6

01 121 Environment

02 F & MS Western (Winnipeg), Fisheries Resources Section

03 Monitoring the Great Bear and East Great Slave Lake sport fishery (311:3(1-2)).

04 This project was initiated because of priority areas recommended in the Fed./Terr. Task Force Rept. on fisheries development in the N.W.T. The objectives during 1976 are to determine the results of reduced catch and possession limits imposed during 1974 in terms of harvest and also to determine the population dynamics of the pertinent game fish species of the area in order to assess the effects of the sports fishery on the population.

05 01 Life Sciences

06 01 Great Bear Lake and the east arm of Great Slave Lake, N.W.T.

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 ongoing

09 01 20 Salaries and wages

09 02 2 Capital

09 03 10 Other costs

09 04 32 Total costs

09 05 9.6 Scientific man-months - Government

09 07 9.6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 A summary data report is published at the end of each fiscal year. The data is also disseminated to the N.W.T. government and the F & MS District Office, N.W.T. in various formats for economic and resource planning.

14 Nil

15 Mr. R.F. Peet/Mr. R. Moshenko,
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 Freshwater Institute,
 501 University Crescent,
 Winnipeg, Manitoba,
 R3T 2N6

01 122 Environment

02 F & MS Western (Winnipeg), Fisheries Resources Section

03 Monitoring and assessment of sports fisheries in the Yellowknife, Hay River and Brabant Island areas (311:3 (3-5))

04 a) to inventory the recreational fisheries' potential and use of water bodies in the stated area;
b) to determine harvest levels and the species caught;
c) to assess the effects of fishing on the populations involved.

05 01 Life Sciences

06 01 Great Slave Lake, N.W.T.

07 01 Nil
07 02 Nil
07 03 Nil

08 1973 1978/ongoing
1973 1978/ongoing
1971 ongoing

09 01 5 Salaries and wages
09 02 1 Capital
09 03 5 Other costs
09 04 11 Total costs
09 05 7.2 Scientific man-months - Government
09 07 7.2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 A summary data report is published at the end of each fiscal year. The data is also disseminated to the N.W.T. government and the F & MS District Office, N.W.T. in various formats for economic and resource planning.

14 Nil

15 Mr. R.F. Peet/Mr. R. Moshenko,
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Fishery Management Division,
Fisheries Resources Section,
Fisheries and Marine Service,
Freshwater Institute,
501 University Crescent,
Winnipeg, Manitoba,
R3T 2N6

01 123 Environment

02 F & MS Western (Winnipeg), Fisheries Resources Section

03 Monitoring of sports fisheries in the Coronation Gulf Area (312:3)

04 To determine the harvest by sports exploitation, to determine the size and age characteristics of the species caught and also growth and mortality rates, population structure in order to assess the effects of exploitation.

05 01 Life Sciences

06 01 Tree River, Coronation Gulf and Outpost Camps, Victoria Island (Albert Edward Bay).

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 ongoing

09 01 10 Salaries and wages

09 02 1 Capital

09 03 3 Other costs

09 04 14 Total costs

09 05 8.4 Scientific man-months - Government

09 07 8.4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 A data report concerning each year's results is published by March annually. The data is also disseminated to the N.W.T. government and the F & MS District Office, N.W.T.

14 Nil

15 Mr. R.F. Peet
 (204) 269-7379
 Fishery Management Division,
 Fisheries Resources Section,
 Fisheries and Marine Service,
 Freshwater Institute,
 501 University Crescent,
 Winnipeg, Manitoba,
 R3T 2N6

01 124 Environment

02 F & MS Western (Winnipeg), Fisheries Resources Section

03 Assessment of the anadromous Arctic Char populations of the Keewatin, N.W.T. and monitoring of the commercial fishery.

04 To assess the populations being exploited in terms of:
a) size (i.e. estimate of numbers) and homogeneity of stock,
b) migration patterns and timing of movement,
c) composition (i.e. length, weight, age, etc.).
To monitor the commercial fishery in terms of
a) poundage landed per area,
b) cullage,
c) gear used and location,
d) catch composition (i.e. length, weight, age, etc.)
The project was initiated in response to priorities determined by the N.W.T. Fisheries Task Force. The information collected will be used to establish quotas for the commercial fishery.

05 01 Life Sciences

06 01 Various locations including Diana River, Keewatin Coast, west Hudson Bay, N.W.T.

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 1978

09 01 30 Salaries and wages

09 02 2 Capital

09 03 30 Other costs

09 04 62 Total costs

09 05 26.4 Scientific man-months - Government

09 07 26.4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Two interim technical reports; one on the commercial fishery, one on the assessment survey of char populations will be completed during 1976.

14 Nil

15 Mr. R.F. Peet
(204) 269-7379
Fishery Management Division,
Fisheries Resources Section,
Fisheries and Marine Service,
Freshwater Institute,
501 University Crescent,
Winnipeg, Manitoba,
R3T 2N6

01 125 Environment

02 F & MS Western (Winnipeg), Fisheries Resources Section

03 Assessment of the andromous char populations of Nettilling Lake and Sylvia Grinnell River, Baffin Island, and monitoring of exploitation.

04 To maintain an up-to-date status of:

a) exploitation (i.e. catch per unit of effort, total pounds landed, cullage, time of fishing, etc.);

b) of the stocks being fished (i.e. size and age composition, growth and mortality rate, homogeneity of stock, etc.).

05 01 Life Sciences

06 01 Nettilling Lake and Sylvia Grinnell River, southern Baffin Island

07 01 Nil

07 02 Nil

07 03 Nil

08 1976 1979 - ongoing

09 01 24 Salaries and wages

09 02 2 Capital

09 03 35 Other costs

09 04 61 Total costs

09 05 21.6 Scientific man-months - Government

09 07 21.6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Two data reports will be completed during the fiscal year 1976/77.

14 Nil

15 Mr. R.F. Peet/Mr. R. Sopuck
 (204) 269-7379
 Fishery Management Division,
 Fisheries Resources Section,
 Fisheries and Marine Service,
 Freshwater Institute,
 501 University Crescent,
 Winnipeg, Manitoba,
 R3T 2N6

01 126 Environment

02 Fisheries and Marine Service

03 Arctic Char Production

04 To investigate factors which control biology and production of unexploited populations of Arctic char and to ascertain the potential yield of these populations.

05 01 Life Sciences Biology

06 01 Northwest Territories

06 02 Nauyuk Lake, Kent Peninsula 68°21'N, 107°41'W

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 continuing

09 01 57.5 Salaries and wages

09 02 4.1 Capital

09 03 62 Other costs

09 04 123.6 Total costs

09 05 36 Scientific man-months - Government

09 07 36 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Papers on the Arctic char of Nauyuk Lake have been presented at the C.C.F.F.R. meetings in 1975 and 1976. A Fisheries and Marine Service technical report will be prepared which will include the vital statistics, information on the migratory pattern and production estimates of the Nauyuk Lake char population. It is anticipated that papers for publication will be submitted to the Journal of the Fisheries Research Board of Canada.

14 Nil

15 Dr. L. Johnson,
(204) 269-7379
Freshwater Institute,
501 University Crescent,
Winnipeg, Manitoba.

01 127 Environment

02 Fisheries and Marine Service, NBC&Y Division

03 Study of fish resources in the Yukon River within Canada.

04 a) to determine species composition and absolute or relative abundance of the fish stocks;
 b) to collect baseline information on the fish populations; sex and size composition, growth, sexual maturity, diets and migration routes and timings;
 c) to identify biological critical areas, particularly those associated with spawning, overwintering and rearing;
 d) to assess resource use;
 e) to measure some physical and chemical parameters of the aquatic environment and relate these to productivity.

05 01 Life Sciences Fisheries

06 01 Whitehorse - Dawson City

06 02 Whitehorse, Minto and Dawson City

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - May 15 1975 - October 23

09 01 40 Salaries and wages

09 02 3 Capital

09 03 17 Other costs

09 04 60 Total costs

09 05 12 Scientific man-months - Government

09 06 12 Other man-months - Government

09 07 24 Total man-months - Government

10 Nil

11 Not carried out as a part of or in response to an international project but study results have application to international fishery problems.

12 Three northern residents involved in implementation of project.

13 Studies on the freshwater and anadromous fishes of the Yukon River within Canada by C.E. Walker. Tech. Rpt. Serv. PAC T/76-7; 99p.

14 Nil

15 G. Jones/C.E. Walker,
 666-3611/666-3281
 Fisheries and Marine Service,
 1090 W. Pender Street,
 Vancouver, B.C.
 V6E 2P1

01 128 Environment

02 Fisheries and Marine Service, NBC&Y Division

03 Study of chum salmon escapement to the Fishing Branch River.

04 a) To determine abundance of chum salmon spawners in the Fishing
Branch River;
b) to obtain information on sex and size composition of the
spawning stock.

05 01 Life Sciences Fisheries

06 01 Fishing Branch River (trib. to Porcupine River and into the Yukon
River)

06 02 as above.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - September 3 1975 - October 12

09 03 16.5 Other costs

09 04 16.5 Total costs

09 08 6 Scientific man-months - Non-government

09 10 6 Total man-months - Non-government

10 01 Northern Natural Resource Services Ltd - \$15,000.

11 Not carried out as a part of an international project however
results have important application in international fishery
problems.

12 One northern resident involved in implementation and carrying out
of study.

13 Enumeration of the 1975 chum salmon spawning population in the
Fishing Branch River by M.S. Elson Tech. Rpt. Ser. PAC/T-76-1, 29p.

14 Nil

15 G. Jones/C. Walker,
666-3611/666-3281
Fisheries and Marine Service,
1090 W. Pender Street,
Vancouver, B.C.
V6E 2P1

01 129 Environment

02 Fisheries and Marine Service, NBC&Y Division

03 Study of salmon resources in the Stikine River.

04 a) To implement a commercial fishery in the Stikine River.
b) To enumerate salmon escapement by time, location and species.
c) To assess resource use.

05 01 Life Sciences Fisheries

06 01 Stikine River watershed
06 02 Telegraph Creek

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - May 1 1975 - October 30

09 01 30 Salaries and wages
09 02 2 Capital
09 03 10 Other costs
09 04 42 Total costs
09 06 20.4 Other man-months - Government
09 07 20.4 Total man-months - Government

10 Nil

11 Not carried out as a part of an international project however
results have direct application in international fishery problems.

12 Five northern residents involved in the implementation and carrying
out of study.

13 Stikine River Study (no authors given) Memo. Rpt. 20p.

14 Nil

15 G. Jones,
666-3611
Fisheries and Marine Service,
1090 W. Pender Street,
Vancouver, B.C.
V6E 2P1
or
O. Sweitzer,
667-2235
Fisheries and Marine Service,
122 Industrial Road,
Whitehorse, Y.T.
V1A 2T9

01 186 Environment

02 Fisheries and Marine Service - Ocean and Aquatic Sciences,
Atlantic.

03 Literature review of the physical oceanography of the Labrador
coast.

04 The review considered such factors as fresh water run-off, waves,
tidal currents, sea ice, and general physical properties of the
water. The conditions are typical of those for an arctic
environment, and the water circulation represents part of the
general system of the Labrador Sea/Davis Strait/Baffin Basin
region.

05 04 Environmental Sciences Oceanography.

06 01 Labrador coast.

06 02 Bedford Institute of Oceanography.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - October 1976 - May

09 01	30	Salaries and wages
09 03	5	Other costs
09 04	35	Total costs
09 05	12	Scientific man-months - Government
09 06	6	Other man-months - Government
09 07	18	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Review to be published as a Bedford Institute of Oceanography
Technical Report and in the open literature. Results not
confidential.

14 Nil

15 Dr. J.A. Elliott
(902) 426-3857
Bedford Institute of Oceanography
Dartmouth, Nova Scotia

01 187 Environment

02 Fisheries and Marine Service, Ocean and Aquatic Sciences, Atlantic.

03 Air-ice interaction.

04 To parameterize wind stress and heat flux on the surface of pack ice. Relates to the numerical modelling of ice movement.

05 04 Environmental Sciences Oceanography, Atmospheric Sciences

06 01 Beaufort Sea

06 02 Beaufort Sea and Bedford Institute of Oceanography.

07 01 This project was supported by the Polar Continental Shelf Project of DEMR through the provision of field camp facilities, etc. in the Arctic.

07 02 Nil

07 03 The value of this support to the project in 1975/76 was approx. \$200K.

08 1970 Ongoing

09 01 60 Salaries and wages

09 03 18 Other costs

09 04 78 Total costs

09 05 24 Scientific man-months - Government

09 06 12 Other man-months - Government

09 07 36 Total man-months - Government

10 01 There is a contract with the private sector (Canada) for data analysis. Value of contract (which is included under 9, above) = \$1.5K.

11 Project undertaken in cooperation with AIDJEX (Arctic Ice Dynamics Joint Experiment), which is a joint U.S./Canadian Project.

12 Nil

13 Preliminary results to be published in J. Fish.Res.Bd.Can., Oct. 1976. Data on file in ADJEX data bank, Univ. of Washington. Additional results will be published in the open literature. Not confidential.

14 Nil

15 Dr. S.D. Smith
(902) 426-3584
Bedford Institute of Oceanography
Dartmouth, Nova Scotia

01 188 Environment

02 Fisheries and Marine Service, Ocean and Aquatic Sciences,
Atlantic.

03 Underwater electric rock core drill redevelopment for use in
Arctic regions.

04 In support of DEMR programs in the north.

05 03 Engineering Sciences
05 04 Environmental Sciences & Oceanography

06 01 Not applicable (development work).
06 02 Southeastern Baffin Island shelf and Bedford Institute of
Oceanography.

07 01 DEMR (Atlantic Geoscience Centre).
07 02 Value of support in 1975/76 approx. \$12250.
07 03 Nil

08 1965 Ongoing

09 04 190 Total costs
09 05 36 Scientific man-months - Government
09 06 24 Other man-months - Government
09 07 60 Total man-months - Government

10 01 (a) With the private sector (USA) for the development of "Kelvar"
rope with electrical conductors. (Note: efforts are being made
to involve Canadian interests in this work). (b) With the private
sector (Canada) for drilling operation. Total amount chargeable
to this project and included under item 7, above = \$9000.

11 There is a regular exchange of information with several
countries, including the U.K., Norway, and Italy.

12 Nil

13 The development and operation of the drill is described in several
publications in the open literature. The design of the drill is
covered by Canadian Patents and Developments Ltd.

14 Nil

15 Mr. J. Brooke
(902) 426-3698
Bedford Institute of Oceanography
Dartmouth, Nova Scotia

01 189 Environment

02 Fisheries and Marine Service, Ocean and Aquatic Sciences, Atlantic.

03 Marine oil pollution monitoring.

04 To establish baseline levels of pollution by oil in the ocean environment and to relate these to the oceanography.

05 04 Environmental Sciences

06 01 North Atlantic Ocean including the following Arctic areas: -
Davis Strait, Baffin Basin, and the Northwest Passage through to
the Beaufort Sea (to 75°N)

06 02 In the above areas.

07 01 Nil

07 02 Nil

07 03 Nil

08 1970 Ongoing

09 01 4.5 Salaries and wages

09 03 2.9 Other costs

09 04 7.4 Total costs

09 05 1.8 Scientific man-months - Government

09 06 .9 Other man-months - Government

09 07 2.7 Total man-months - Government

10 Nil

11 Part of Inter-Governmental Oceanographic Commission/World Meteorological Organization pilot project on marine pollution monitoring.

12 Nil

13 Results to be published in J. Fish Res. Bd. Can., Dec. 1976.
"High seas oil pollution: particulate petroleum residues in the north Atlantic", by E.M. Levy and A. Walton. Results not confidential.

14 (a) resources represent 10% of total cost of project, only that portion relating to Arctic.
(b) resources exclude cost (and manpower) of ship time since samples were collected on an opportunity basis by many ships not specifically dedicated to this project.

15 Dr. E.M. Levy
(902) 426-3658
Bedford Institute of Oceanography
Dartmouth, Nova Scotia

01 190 Environment

02 Fisheries and Marine Service, Ocean and Aquatic Sciences, Atlantic.

03 Labrador Sea Project-physical oceanographic study of water circulation.

04 (a) to investigate the boundary currents in the Labrador Sea in order to gain an understanding of the driving forces of the Labrador Current; and (b) to study the formation of a water mass (the Labrador Sea water) through deep convection. One application of the results of this project will be in the prediction of ice movement.

05 04 Environmental Sciences

06 01 Labrador Sea-central basin and Labrador slope.

06 02 Labrador Sea and Bedford Institute of Oceanography.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 Ongoing

09 04 437 Total costs

09 05 24 Scientific man-months - Government

09 06 84 Other man-months - Government

09 07 108 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Results to be published in the open literature. Data not confidential.

14 Nil

15 Dr. R.A. Clarke
(902) 426-3144
Bedford Institute of Oceanography
Dartmouth, Nova Scotia

01 191 Environment

02 Fisheries and Marine Service, Ocean and Aquatic Sciences, Atlantic.

03 Satellite positioning on sea ice.

04 To study the techniques of processing Doppler satellite positioning data: (a) in polar regions; (b) from a slowly deforming network of tracking stations; with the overall objective of improving ship navigation by satellite methods.

05 03 Engineering Sciences
05 04 Environmental Sciences

06 01 Beaufort Sea
06 02 Beaufort Sea and Bedford Institute of Oceanography.

07 01 National Science Foundation, USA and Office of Naval Research, USA
(through University of Washington); Polar Continental Shelf Project of DEMR.
07 02 \$10K; \$2K.
07 03 Nil

08 1974 - August Ongoing

09 01 7.5 Salaries and wages
09 03 3.8 Other costs
09 04 11.3 Total costs
09 05 3 Scientific man-months - Government
09 06 1.5 Other man-months - Government
09 07 4.5 Total man-months - Government

10 Nil

11 Project undertaken in cooperation with AIDJEX (Arctic Ice Dynamics Joint Experiment), which is a joint U.S./Canadian project.

12 Nil

13 Results to be published in the open literature. Data held in University of Washington data bank and at the Bedford Institute of Oceanography. Not confidential.

14 Nil

15 Dr. D. Wells
(902) 426-2572
Bedford Institute of Oceanography
Dartmouth, Nova Scotia

01 192 Environment

02 Fisheries and Marine Service, Ocean and Aquatic Sciences, Atlantic.

03 Hudson Bay radar altimetry experiment.

04 To study the technique of defining sea surface topography using satellite borne radar altimeters. If the technique is viable it will provide a new tool for tidal, geotidal, and ice thickness studies in the arctic.

05 02 Physical Sciences
05 03 Engineering Sciences
05 04 Environmental Sciences

06 01 Hudson Bay
06 02 Bedford Institute of Oceanography, Dartmouth, N.S. (Note: during 1975/76 the work on this project was of a planning nature; no work was undertaken in Hudson Bay during this year).

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 1978

09 01	3	Salaries and wages
09 02	1	Capital
09 04	4	Total costs
09 05	1.2	Scientific man-months - Government
09 06	.6	Other man-months - Government
09 07	1.8	Total man-months - Government

10 Nil

11 see Question 14

12 Nil

13 Results will be published in the open literature. Data not confidential.

14 No sponsors during 1975/76, but in future years the following will be involved: DEMR, Earth Physics Branch; Shell; NASA; U.S. Defense Mapping Agency; Institute für Angewandte Geodaise, Frankfurt.

15 Dr. D. Wells,
(902) 426-2572
Bedford Institute of Oceanography

01 193 Environment

02 Fisheries and Marine Service, Ocean and Aquatic Sciences, Atlantic

03 Literature survey of chemical oceanography in the arctic.

04 Background to future studies in the north.

05 04 Environmental Sciences Oceanography

06 01 North of 60° (no other limitations)

06 02 Dartmouth, N.S.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - November 1976 - March

09 03 4 Other costs

09 04 4 Total costs

10 01 The project was carried out under contract by Canplan Consultants Ltd. Cost \$4,000.

11 Nil

12 Nil

13 Consultants (Canplan Ltd.) report to the Bedford Institute of Oceanography: "A literature survey of chemical oceanographic studies around and in the arctic". This report may be consulted in the Bedford Institute of Oceanography Library.

14 Nil

15 Dr. E.P. Jones,
(902) 426-3869
Bedford Institute of Oceanography

01 194 Environment

02 Fisheries and Marine Service, Ocean and Aquatic Sciences, Atlantic

03 Hydrographic charting in the Arctic

04 Charting of navigable waters in support of:
a) transportation of standard cargoes and movement of oil and natural gas;
b) navigation;
c) cross-section surveys in support of proposed pipeline crossings.

05 04 Environmental Sciences Oceanography

06 01 Eastern Canadian Arctic archipelago
06 02 In the arctic and at the Bedford Institute of Oceanography, Dartmouth, N.S.

07 01 Pipeline crossing work in Viscount Melville Sound/Peel Sound/Barrow Strait area undertaken in conjunction with Montreal Engineering Ltd.
07 02 Nil
07 03 Nil

08 Ongoing

09 04 652 Total costs
09 05 39.6 Scientific man-months - Government
09 06 276 Other man-months - Government
09 07 315.6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Hydrographic charts and papers in the open literature. Data not confidential.

14 Nil

15 Mr. R. Melanson,
(902) 426-3497
Bedford Institute of Oceanography

01 132 Environment

02 AES/CENTRAL SERVICES DIRECTORATE/METEOROLOGICAL APPLICATIONS
BRANCH

03 Agroclimatic Classification of Yukon - N.W.T.

04 The evaluation of lands, in a climatic sense, for agricultural
development and practice.

05 04 Environmental Sciences Meteorology

06 01 southern Yukon and southwestern District of Mackenzie
06 02 As above and at Toronto

07 01 Dept. of Indian and Northern Affairs
07 02 \$72K
07 03 Advice from land specialists

08 1975 - February 1977 - March

09 04	28	Total costs
09 05	21.6	Scientific man-months - Government
09 06	12	Other man-months - Government
09 07	33.6	Total man-months - Government
09 08	12	Scientific man-months - Non-government
09 10	12	Total man-months - Non-government

10 01 Contract with private meteorologist as field coordinator.
Accounts for non-government man-year above. Cost \$21K.

11 Nil

12 Interviews with northern residents. Casual staff hired locally.

13 Reports to Northern National Resources and Environment Branch,
DINA by March 31, 1977.

14 Nil

M.O. Berry
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4905 Dufferin Street,
Downsview, Ontario
M3H 5T4

01 133 Environment

02 AES/CENTRAL SERVICES DIRECTORATE/METEOROLOGICAL APPLICATIONS
BRANCH

03 Applied Studies and Dissemination of Climatological Information

04 To meet the need for climatological information relating to the
North. This includes undertaking applied studies, preparing a
variety of reports and publications, and providing consultative
service to a variety of users.

05 04 Environmental Sciences Meteorology

06 01 Northern Canada
06 02 Most work is done at Toronto

07 01 Nil
07 02 Nil
07 03 Nil

08 Ongoing

09 01	65.9	Salaries and wages
09 02	0.0	Capital
09 03	14.7	Other costs
09 04	80.6	Total costs
09 05	38.4	Scientific man-months - Government
09 06	9.6	Other man-months - Government
09 07	48	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 A variety of climatological reports and publications are prepared,
some dealing entirely with the North, others combining northern
data with data from other areas.

14 This NSP does not include major applied meteorological projects
which are concerned primarily with the North. These are treated
as individual projects.

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M3H 5T4

01 134 Environment

02 AES/CENTRAL SERVICES DIRECTORATE/METEOROLOGICAL APPLICATIONS
BRANCH

03 Climate of the Arctic Islands

04 To prepare a publication which will serve a variety of users as
a reference on climate and climate-related factors in the Arctic
Islands.

05 04 Environmental Sciences Meteorology

06 01 Arctic Islands
06 02 Toronto

07 01 Nil
07 02 Nil
07 03 Nil

08 1974 - January 1977 - September

09 01	33.0	Salaries and wages
09 02	0.0	Capital
09 03	1.0	Other costs
09 04	34.0	Total costs
09 05	24	Scientific man-months - Government
09 07	24	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Reference book to be published as soon as possible after
preparation completed in 1977.

14 Nil

15 M.O. Berry
667-4909
4905 Dufferin Street,
Downsview, Ontario.
M3H 5T4

01 135 Environment

02 AES/CENTRAL SERVICES DIRECTORATE/METEOROLOGICAL APPLICATIONS
BRANCH

03 Quality control and archiving of data from meteorological
stations in the North

04 a) To establish standards and procedures for acquisition of
atmospheric and related data
b) To provide quality control of collected data
c) To archive collected data

05 04 Environmental Sciences Meteorology

06 01 Data are collected throughout the North
06 02 Toronto

07 01 Nil
07 02 Nil
07 03 Nil

08 Ongoing

09 01	47.8	Salaries and wages
09 03	14.5	Other costs
09 04	62.3	Total costs
09 05	3.6	Scientific man-months - Government
09 06	39.6	Other man-months - Government
09 07	43.2	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Archives of climatological and related data are maintained.
Documents relating to standards and procedures are prepared.

14 Nil

15 M.O. Berry
667-4909
4905 Dufferin Street,
Downsview, Ontario.
M3H 5T4

01 136 Environment

02 AES/CENTRAL SERVICES DIRECTORATE

03 Climatological Study of Beaufort Sea

04 To provide information on weather and weather-related conditions which could be of significance to an offshore drilling program.

05 04 Environmental Sciences Meteorology/Oceanography

06 01 Beaufort Sea

06 02 Toronto

07 01 Industry through Beaufort Sea Project Office

07 02 \$15,000

07 03 Nil

08 1974 - April 1975 - December

09 01 19.0 Salaries and wages

09 02 0.0 Capital

09 03 5.0 Other costs

09 04 24.0 Total costs

09 05 12 Scientific man-months - Government

09 06 0.0 Other man-months - Government

09 07 12 Total man-months - Government

10 01 Contract with private firm, Dames and Moore, to provide estimates of wave conditions in Beaufort Sea. Cost \$13.1k.

11 Nil

12 Nil

13 No AES publications. Results have been published as part of Beaufort Sea Project.

14 This work was one of a number of components of the Beaufort Sea Project.

15 M.O. Berry
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4905 Dufferin Street,
Downsview, Ontario.
M3H 5T4

01 137 Environment

02 AES/Central Services Directorate/Ice Branch

03 Ice Reconnaissance and Advisory Services

04 To acquire information on the distribution, state, and characteristics of ice in Canadian coastal waters:

a) to provide tactical and strategic support and forecast services to shipping and other marine activities, and

b) to develop an ice climatology of Canadian waters to help fulfill national economic, environmental, and social needs.

05 04 Environmental Sciences Meteorology/Oceanography

06 01 All northern coastal and contiguous waters

06 02 Ice reconnaissance - throughout the Arctic; ice forecast and advisory services - from Ottawa for Arctic shipping and marine activities.

07 01 Ice Reconnaissance program funded by CMTA (MOT)

07 02 From MOT: \$4,178,900.

07 03 Nil

08 1959 Ongoing

09 01 92 Salaries and wages

09 03 95 Other costs

09 04 187 Total costs

09 05 144 Scientific man-months - Government

09 06 12 Other man-months - Government

09 07 156 Total man-months - Government

10 Nil

11 Nil

12 Nil - except for local logistics involvement arranged by the aircraft charter company.

13 Ice Topography - Central Arctic Archipelago, by W.E. Markham (published); The occurrence of icebergs in Western Barrow Strait, by W.E. Markham (published); Annual summary of ice conditions.

14 All ice data are available at the Ice Forecasting Central, Ottawa, and will be incorporated in an Ice Atlas of the Arctic, to be published.

15 A.P. Beaton,
667-4712
4905 Dufferin Street,
Downsview, Ontario,
M8H 5T4

01 138 Environment

02 Atmospheric Environment Service, Air Quality and Inter-Environmental
Research Branch

03 Background levels of atmospheric contaminants in Arctic Lichens.

04 To determine the concentrations of environmental contaminants in
samples of lichens collected from remote sites in the Arctic.
This research is designed to provide baseline data for
environmental contaminants which may be transported over long
distances in the atmosphere.

05 01 Life Sciences Biology
05 04 Environmental Sciences Air Pollution Meteorology

06 01 Canadian Arctic
06 02 AES Headquarters, Downsview

07 01 Nil
07 02 Nil
07 03 Nil

08 1976 - March 1977 - March

09 01 10 Salaries and wages
09 03 10 Other costs
09 04 20 Total costs
09 05 6 Scientific man-months - Government
09 07 6 Total man-months - Government

10 01 To Laurentian University for X-ray fluorescence analysis of
prepared samples - \$5,000.

11 Nil

12 Government employees stationed at remote weather stations are
participating in the collection of samples.

13 Reports and publications will be available at the completion of
work from ARQA at AES.

14 Nil

15 Dr. K.J. Puckett,
(416) 667-4965
Atmospheric Environment Service,
4905 Dufferin Street,
Downsview, Ontario,
M3H 5T4
Attn: ARQA

01 139 Environment

02 Atmospheric Environment Service, Air Quality and Inter-Environmental
Research Branch

03 Support of Environmental Assessment and Review Process (EARP)

04 Review of documents, guidelines, environmental impact statements,
etc., related to northern development, and development of assessment
of impacts on climate, weather, air quality, water balance, etc.

05 04 Environmental Sciences Meteorology

06 01 Various locations in northern Canada
06 02 AES Headquarters, Downsview

07 01 Nil
07 02 Nil
07 03 Nil

08 1974 Ongoing

09 01 25 Salaries and wages
09 03 20 Other costs
09 04 45 Total costs
09 05 8.4 Scientific man-months - Government
09 06 1.2 Other man-months - Government
09 07 9.6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Internal reports in AES/DOE. Some information may be confidential.

14 Nil

15 H.E. Ferguson,
(416) 667-4610
Atmospheric Environment Service,
4905 Dufferin Street,
Downsview, Ontario,
M3H 5T4

01 140 Environment

02 Atmospheric Environment Service, Meteorological Services Research Branch

03 Beaufort Sea Project

04 To develop a real-time environmental prediction system to allow maximum efficiency of off-shore oil exploration operations while at the same time minimizing risks from these operations to the natural environment.

05 04 Environmental Sciences Meteorology, Ice and Oceanography

06 01 Beaufort Sea

06 02 Toronto

07 01 Arctic Petroleum Operators Association

07 02 \$284,000

07 03 Nil

08 1974 - April 1 1976 - mid to late

09 01 60 Salaries and wages

09 03 10 Other costs

09 04 70 Total costs

09 05 36 Scientific man-months - Government

09 07 36 Total man-months - Government

10 01 Contracts totalling \$254,400. See Reference File.

11 Nil

12 Nil

13 Unpublished reports on work performed in the individual contracts are available in the Meteorological Services Research Branch, Atmospheric Environment, 4905 Dufferin Street, Downsview, Ontario. In addition a Technical Report entitled "Real-Time Environmental Prediction System" has been published and is available from the Beaufort Sea Project Office, Department of the Environment, 512 Federal Building, 1230 Government Street, Victoria, B.C., V8W 1Y4. None of the above reports are confidential.

14 The 3 MY's in question 9 represent part of the time of 10 or 12, staff members.

15 W. Getman,
667-4809
Atmospheric Environment Service,
4905 Dufferin Street,
Downsview, Ontario,
M3H 5T4

01 141 Environment

02 Atmospheric Environment Service, Air Quality and Inter-Environmental
Research Branch

03 Study on the potential air pollution damage to primary producers
in Arctic and Sub-Arctic environments.

04 To develop a predictive model linking micro- and macro-meteorological
parameters with potential air pollution damage to primary producers
in Arctic and Sub-Arctic environments. This research will provide
information necessary for the assessment of the environmental impact
of industrial development in the North. It supports the activities
of the Environmental Protection Service in these areas.

05 01 Life Sciences Biology

05 04 Environmental Sciences Air Pollution Meteorology

06 01 McKenzie Valley, NWT; Fort Simpson, Norman Wells, Tuktoyaktuk,
Inuvik.

06 02 AES Headquarters, Downsview

07 01 Nil

07 02 Nil

07 03 Nil

08 1976 - March 1979 - March

09 01	28	Salaries and wages
09 02	1	Capital
09 03	21	Other costs
09 04	50	Total costs
09 05	6	Scientific man-months - Government
09 07	6	Total man-months - Government
09 08	14.4	Scientific man-months - Non-government
09 09	3.6	Other man-months - Non-government
09 10	18	Total man-months - Non-government

10 01 To the University of Guelph, Ontario, for collection of field data
and development of a model; \$26,000 (included in 9).

11 Nil

12 Nil

13 Reports will be available from ARQA at AES. Data will be published
in the Scientific literature probably at the end of the project
period. Inquiries can be made to ARQA at AES for information about
publications. The results and data are not confidential.

14 Nil

15 Dr. M.L. Phillips,
(416) 667-4794
Atmospheric Environment Service,
4905 Dufferin Street,
Downsview, Ontario,
M3H 5T4
Attn: ARQA

01 142 Environment

02 Atmospheric Environment Service, AES Science Subvention Programme

03 Numerical Model of Sea Ice Movement and Modification

04 To design a computer model to predict ice movement and formation in areas such as the Gulf of St. Lawrence, and to serve as an aid in the subjective analysis used by Ice Central whenever the lack of observational data necessitates the utilization of forecasting methods.

05 04 Environmental Sciences Meteorology, Ice and Oceanography

06 01 Canadian sea-ice surfaces as observed by satellite

06 02 Dalhousie University, Halifax, N.S.

07 01 see 14. below

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - mid to late

~~09 02 2.5 Capital~~

09 03 ~~2.7~~ 2.7 Other costs

09 04 2.7 Total costs

10 02 Grant to Prof. Garrett for \$2,670., under AES subvention program.

11 Nil

12 Nil

13 Results may be published in scientific journals dealing with meteorology and/or oceanography. Unpublished reports are available from project leader - see 15. below.

14 Prof. Garrett applied in 1975-76 to NRC for \$22K to support a Project in Physical Oceanography covering his work and that of 6 other graduate students in a field covered by the AES subvention.

15 Prof. C.J.R. Garrett,
 (902) 424-3674
 Department of Oceanography,
 Dalhousie University,
 Halifax, N.S.
 B3H 3J5

01 143 Environment

02 Atmospheric Environment Service, Atmospheric Processes Research Branch

03 Forest Fire Weather Modification Project

04 To determine the potential of rainfall enhancement techniques to suppress large forest fires. This project directly supports DOE research in weather modification (AES) and forest fire control (CFS). It is of particular consequence in the N.W.T. due to the inaccessibility and difficulties associated with fighting forest fires by conventional means.

05 04 Environmental Sciences Atmospheric Sciences (Cloud Physics)

06 01 within 200 nautical miles range of Yellowknife, N.W.T.

06 02 Field project at Yellowknife; analysis at Toronto and Ottawa.

07 01 DINA; NRC (NAE)

07 02 NAE provided resources for the project but not to the DOE, since the project was cooperative

07 03 DINA paid hotel accommodation (\$6,000); (CFS in DOE provided about 1.0 MY and \$20,000).

08 1974 - January 1980 - mid-year

09 01 122 (~~Toronto~~ Salaries and wages ~~at~~ Yellowknife)

09 02 120 Capital

09 03 28 Other costs ~~22~~

09 04 270 Total costs ~~26~~

09 05 60 Scientific man-months - Government

09 06 24 Other man-months - Government

09 07 84 Total man-months - Government

10 01 Computing services - Mr. H. van Meurs - \$3,000
Statistical Services - Dr. A. Feuerverger - \$4,050

11 Nil

12 Nil, except for use of government facilities (AES & DND) at Yellowknife

13 Reports issued by AES, CFS and NRC. Publications in scientific journals and in conference proceedings. Not confidential.

14 Nil

15 Dr. A.J. Chisholm,
(416) 667-4683
Atmospheric Environment Service,
4905 Dufferin Street,
Downsview, Ontario,
M3H 5T4

01 144 Environment

02 Atmospheric Environment Service, AES Science Subvention Programme

03 The Radiation Climatology of Canada

04 To reformulate and test a previously developed model for computing the component fluxes of the surface radiation balance; to apply the model to data from a comparatively dense network of Canadian stations in order to determine the spatial and temporal characteristics of the surface radiative energy exchanges.

05 04 Environmental Sciences Meteorology

06 01 All of Canada, with particular emphasis on 4 stations including Resolute, N.W.T.

06 02 University of British Columbia, Vancouver.

07 01 See 14. below

07 02 Nil

07 03 Nil

08 1974 - April 1 1977 - late to end

09 03 3 Other costs

09 04 3 Total costs

09 08 3.6 Scientific man-months - Non-government

09 10 3.6 Total man-months - Non-government

10 02 Grant to Prof. Hay for \$3,000, under AES subvention program.

11 Nil

12 Nil

13 Publications in scientific journals and in conference proceedings. Unpublished reports also available from project leader - see 15. below.

14 Also applied to NRC (1975-76) for \$12K to support project with same purpose as this one.

15 Prof. J.E. Hay,
(604) 228-4929
Department of Geography,
University of British Columbia,
Vancouver, B.C.
V6T 1W5

01 145 Environment

02 Atmospheric Environment Service, Air Quality and Inter-Environmental
Research Branch

03 National Water Balance Maps

04 To map mean annual and monthly values of precipitation and
evapotranspiration and runoff for all of Canada on a 10⁴ km² grid.
As a sub-program cover and physiography are analyzed for the same
grid.

05 04 Environmental Sciences Hydrometeorology

06 01 All of Canada

06 02 AES Headquarters, Downsview; EMS Headquarters, Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1972 1978

09 01 25 Salaries and wages

09 02 0 Capital

09 03 20 Other costs

09 04 45 Total costs

09 05 9.6 Scientific man-months - Government

09 06 2.4 Other man-months - Government

09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Results published in National Atlas of Canada, IHD Hydrological
a Atlas of Canada, Proceedings of Scientific Symposia, etc.
Not confidential.

14 Nil

15 H.L. Ferguson,
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01 146 Environment

02 Atmospheric Environment Service, Air Quality and Inter-Environmental
Research Branch

03 Northern Basin Program

04 To study hydrometeorological processes in arctic and sub-arctic
climates and develop water balance and hydrological models for
northern basins. (Co-operative project with Inland Waters
Directorate, EMS/DOE.)

05 04 Environmental Sciences Hydrometeorology

06 01 Yellowknife, NWT; other locations may be considered later.
06 02 AES Headquarters, Downsview

07 01 Nil
07 02 Nil
07 03 Nil

08 1974 Ongoing

09 01 1.5 Salaries and wages
09 02 0.5 Capital
09 03 2.0 Other costs
09 04 4.0 Total costs
09 05 1.2 Scientific man-months - Government
09 07 1.2 Total man-months - Government

10 Nil

11 In support of Unesco International Hydrological Program (IHP)
Participating Countries include U.S.A.

12 Nil

13 Basic data available from AES and EMS not confidential.

14 Nil

15 H.L. Ferguson,
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M3H 5T4

01 147 Environment

02 Atmospheric Environment Service, Air Quality and Inter-Environmental
Research Branch

03 Snowfall-snowpack measurement program.

04 Assessment of current methods of snowfall-snowpack measurement and
determination of measurement errors. Comparison of gauge catch of
different snow gauges used in Canada, as related to "true" snowfall,
and their comparison with gauges used in other countries. Study
aimed at providing improved estimates of snowfall - snow water
equivalent values throughout Canada.

05 04 Environmental Sciences Hydrometeorology

06 01 Initial studies in Southern Ontario
06 02 Woodbridge Research Station; Cold Creek Basin; Monticello
Climatological Station. Other locations in mountains and sub-arctic
to be initiated if resources permit.

07 01 Nil
07 02 Nil
07 03 Nil

08 1974 Ongoing

09 01 30 Salaries and wages
09 02 5 Capital
09 03 2 Other costs
09 04 37 Total costs
09 05 15.6 Scientific man-months - Government
09 07 15.6 Total man-months - Government

10 Nil

11 In support of CIMO Working Group on Precipitation, Evaporation and
Soil Moisture, World Meteorological Organization.

12 Nil

13 Publications, reports will be available in scientific journals,
symposia proceedings, AES research reports, or WMO reports.
Not confidential.

14 Nil

15 H.L. Ferguson,
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01 148 Environment

02 Atmospheric Environment Service

03 Field Services Directorate Operations (9000), Management and Administration (9000).

04 To provide current and predictive meteorological and sea-state information services, and advice and consultation on the effect of meteorological and sea-state conditions on natural processes and human activities.

05 04 Environmental Sciences Meteorology

06 01 The Yukon and Northwest Territories
See Reference File.

06 02 On site and in Edmonton, Winnipeg, Toronto and Montreal

07 01 Ministry of Transport

07 02 \$2,780.7K

07 03 89.4 MY; building maintenance and fire safety inspection services; advice on the maintenance of vehicles and heavy equipment; maintenance of electrical generation and distribution facilities; maintenance of electronic communications equipment; etc.

08 1975 - April 1 1976 - March 31

09 01	4,492.4	Salaries and wages
09 02	413.0	Capital
09 03	3,158.1	Other costs
09 04	8,063.5	Total costs
09 05	3112.8 31,128	Scientific man-months - Government
09 07	3112.8 31,128	Total man-months - Government
09 09	36	Other man-months - Non-government
09 10	36	Total man-months - Non-government

10 01 Eight (8) contracts totalling \$103,151.00

11 Nil

12 Three of the surface weather stations of the principal network - namely, Cape Dorset, Old Crow and Pond Inlet, continued to be operated by Indian and Inuit people under contract. A number of stations in the climatological network are staffed by native people under contract such as Grise Fjord, Whale Cove, Spence Bay, and Repulse Bay.

13 Data and predictive messages are communicated immediately to numerous weather offices in Canada; information is also transmitted internationally, as required.

14 Refer to attached report, giving additional details of observational and predictive services.
See reference file.

15 J.H. McBride,
(416) 667-4697
Arctic Co-ordinator,
Field Services Directorate,
Atmospheric Environment Service,
4905 Dufferin Street,
Downsview, Ontario
M3H 5T4

01 149 Environment

02 Atmospheric Environment Service, Field Services Directorate, Western Region

03 Beaufort Sea Project (part E1) - Field test of the Real-time Environmental Prediction System

04 To field test the Real-time Environmental Prediction System. To improve the forecasting of weather, waves, and ice, in the Beaufort Sea Area.

05 04 Environmental Sciences Meteorology/Oceanography

06 01 Beaufort Sea

06 02 Arctic Weather Centre, Edmonton, Alberta

07 01 Arctic Petroleum Operators Association

07 02 \$43,000.

07 03 Nil

08 1975 - April 1 1976 - April 1

09 01 20 Salaries and wages

09 04 20 Total costs

09 05 12 Scientific man-months - Government

09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Report on the Field test contained in the Technical Report of the Meteorological Services Research Branch, AES.

14 Nil

15 D.B. Fraser,
(403) 955-8357
Arctic Weather Centre,
Atmospheric Environment Service,
Box 9860, International Airport,
Edmonton AMF, Alberta,
T5J 2T2

01 150 Environment.

02 AES Central Region

03 Strathcona Sound Atmospheric Study Phase I: Ventilation
Coefficients

04 To estimate the capability of the atmosphere at Strathcona Sound,
N.W.T. to disperse pollutants.

05 04 Environmental Sciences Meteorology

06 01 Nanisivik Mines, Strathcona Sound, N.W.T.
06 02 Winnipeg

07 01 Strathcona Mineral Services
07 02 \$1,500.
07 03 Operation of meteorological instruments on site October,
1974 - March, 1976.

08 1974 - October 1976 - May

09 01	1	Salaries and wages
09 03	.6	Other costs
09 04	1.6	Total costs
09 05	.5	Scientific man-months - Government
09 07	.5	Total man-months - Government
09 09	1	Other man-months - Non-government
09 10	1	Total man-months - Non-government

10 Nil

11 Nil

12 Nil

13 "Strathcona Sound Atmospheric Study Phase I: Ventilation
Coefficients by E. Einarsson and H.M. Fraser, Central Region
Scientific Services.

14 Nil

15 H.M. Fraser,
985-4379
600-185 Carlton Street,
Winnipeg, Manitoba,
R3C 3J1

01 151 Environment

02 AES Central Region

03 Southern Indian Lake Evaporation Study

04 To determine evaporation from a large lake in the sub-Arctic climate of northern Manitoba.

05 04 Environmental Sciences Meteorology

06 01 Southern Indian Lake

06 02 Winnipeg and Regina

07 01 Manitoba Hydro

07 02 Nil

07 03 Recording of daily wind, temperature and precipitation data.

08 1974 - June 1975 - October

09 01	1	Salaries and wages
09 02	.5	Capital
09 03	.5	Other costs
09 04	2	Total costs
09 05	.25	Scientific man-months - Government
09 06	.25	Other man-months - Government
09 07	.5	Total man-months - Government
09 09	.5	Other man-months - Non-government
09 10	.5	Total man-months - Non-government

10 Nil

11 Nil

12 Nil

13 "Evaporation from Southern Indian Lake, 1974 and 1975" report prepared by H.F. Cork of the Prairie Hydrometeorological Office.

14 Nil

15 H.M. Fraser,
985-4379
600-185 Carlton Street,
Winnipeg, Manitoba,
R3C 3J1

01 153 Environment

02 Liaison and Coordination - MAB Secretariat (Man and the Biosphere)

03 Science for the North

04 As one of 4 approved sub-programs for Canada/MAB, this sub-program has the following objective:
 The purpose of the present project (Working Group) is the preparation of a report providing the research framework for actual interdisciplinary studies which may be undertaken in this sub-program and which conform to MAB criteria.

05 01 Life Sciences
 05 02 Physical Sciences
 05 03 Engineering Sciences
 05 04 Environmental Sciences
 05 05 Human Sciences
 05 06 Mathematical Sciences

06 01 At this stage the work is conceptual in nature - applicable to research in the North generally.
 06 02 Nil

07 01 Sponsors are the joint MAB Committees - the ICMAB, Interdepartmental Committee on MAB, and the CCMAB, the Canadian Committee on MAB - and the Department of Environment. The Chairman of the Working Group is a member of DINA.
 07 02 Financial support for the non-federal member of the Working Group is split evenly between NRC and DOE. In 1975-76, NRC contributed about \$1800.
 07 03 Ten non-DOE people were involved in 1975-76 in one 1-1/2 day meeting.

08 1976 - January 1976 - December

09 01	3	Salaries and wages
09 03	1.8	Other costs
09 04	4.8	Total costs
09 05	1.2	Scientific man-months - Government
09 06	.6	Other man-months - Government
09 07	1.8	Total man-months - Government

10 01 Coordination for this MAB sub-program provided through DSS Contract @ \$55,000/year of which approximately \$20,000 was utilized in 1975-76.

11 This is part of Canada's response to the Unesco Program on Man and the Biosphere (MAB) which is an internationally coordinated interdisciplinary research program directed towards the more rational uses of the resources of the biosphere and the improvement of man/environment interrelationships.

12 A special effort has been made to involve local residents and native peoples' organizations in the deliberations of the Working Group.

13 It is expected that the Research Framework Report will be published by the end of this fiscal year and it will be a public document.

14 Nil

15 P.M. Bird
 997-3183

Director-General
Liaison and Coordination Directorate
Environment Canada
Ottawa, Ontario
K1A 0H3

01 154 Environment

02 Environmental Protection Service - Air Pollution Control
Directorate - Abatement and Compliance Branch

03 Development of "Arctic Mining Emission Guidelines"

04 Development of Emission Guidelines for new and existing mining
operations in the north. The objective is to protect the
natural environment.

05 04 Environmental Sciences Engineering

06 01 Yukon and Northwest Territories
06 02 Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1974 - April 1976 - July

09 01	15	Salaries and wages
09 02	0	Capital
09 03	3	Other costs
09 04	18	Total costs
09 06	9.6	Other man-months - Government
09 07	9.6	Total man-months - Government
09 09	3.6	Other man-months - Non-government
09 10	3.6	Total man-months - Non-government

10 Nil

11 Nil

12 Territorial employees, local mining companies.

13 "Air Pollution Emissions and Control Technology - The Arctic
Mining Industry" (to be published in 1976)

14 The cost indicated, represents only that of the Federal
Government. Industry involvement was self-financed.

15 W.A. Lemmon
997-1346
Department of the Environment
Environmental Protection Service
Air Pollution Control Directorate
Ottawa, Ontario
K1A 0H3

01 155 Environment

02 Environmental Protection Service - Quebec Region

03 Study of sanitation systems for sub-arctic villages in Quebec and specific evaluation for Inoucjouac.

04 The provision of sanitary services to northern residential and communal establishment is lacking because of the high costs of traditional technology. This study reviews present and promising technology with performance and costs to indicate areas of activity for development and demonstration.

05 03 Engineering Sciences Sanitary Engineering

06 01 Inuit settlements of Northern Quebec

06 02 Consultants in Trois-Rivières for EPS Regional Office (Quebec) in Montreal.

07 01 DINA Regional Office

07 02 Nil

07 03 Technical Advice

08 1975 - April 1975 - December

09 01 3 Salaries and wages

09 03 25 Other costs

09 04 28 Total costs

09 05 1.2 Scientific man-months - Government

09 07 1.2 Total man-months - Government

10 01 Contract to Pluritec Consultants (Trois-Rivieres) - \$21,000
Contract to W.K. Lombard Eng. (Toronto) - \$4,000

11 Nil

12 Visit to village of Inoucjouac by consultant and survey of area.

13 Consultants Report incorporating data from the two (2) contracts "Etudes de système - Aqueduc, égouts, résidus ménagers - village de Inoucjouac, Nouveau-Québec.
Report to Environment Canada. EPS - Montreal, Que. by Pluritec Consultants, December 1975, 162 pages - 26 figures, 25 tables, 55 references.

14 The major conclusions of the Study were presented as a paper by J.J.O. Gravel at a "utilities delivery in Arctic regions" symposium held by Env. Canada March 16-18-1976 in Edmonton. See Published Proceedings.

15 J.J.O. Gravel,
(514) 283-6408
Environment Canada,
P.B. 1330, Station "B",
Montreal, Quebec,
H3B 3K9

01 156 Environment

02 Environmental Protection Service - Quebec Region

03 Evaluation of composting toilets in northern homes.

04 Verify the claims made for the principles and the performance of commercially available self contained composting toilets.

05 03 Engineering Sciences Sanitary Engineering

06 01 Northern Quebec

06 02 Northern Quebec Villages - (Homes)

07 01 DINA - Regional Office
Local Agent for apparatus - (Humus toilet Corp.)

07 02 Nil

07 03 DINA installation, labor, periodic reports
Agent - installation, materials, labor, transp., replacement of failed parts.

08 1975 - April 1976 - continuing

09 01 3.7 Salaries and wages

09 03 3 Other costs

09 04 6.7 Total costs

09 05 1.8 Scientific man-months - Government

09 07 1.8 Total man-months - Government

10 Nil

11 Evaluation of Swedish apparatus (Mul-Toh) Toilets

12 Installation in 2 Inuit Homes (Povunguituk) and in 2 white Homes (Pov. and Inoucjouac)

13 Results in memo form collated by EPS Northern Technology Centre at Edmonton.

14 This activity is now co-ordinated by NTS (Edmonton) Regional experiments continuing in 1976 for new design etc.

15 J.J.O. Gravel,
283-6408
Environment Canada,
P.B. 1330, Station "B",
Montreal, Quebec,
H3B 3K9

01 157 Environment

02 Environmental Management Service, Canada Forestry Service,
Northern Forest Research Station

03 NOR-25 Vegetation-terrain-permafrost relationships, eastern Arctic

04 a) To determine dominant vegetation types and their influence on
permafrost;
b) To determine the relationships between vegetation and soil;
c) To determine the qualities of near-surface permafrost;
d) To develop a basis for identifying vegetation, soil and sensitive
terrain from remotely sensed imagery.

Fulfilment of the objectives will lead to the identification of
terrain which is sensitive to disturbance by activities related to
development. The development of natural resources of the north is
imminent: a proposal for the construction of a pipeline from the Arctic
Islands to southern Canada is expected within a few years. Basic
knowledge on vegetation-soil-permafrost interrelationships is essential
in the assessment and mitigation of the impact on the natural
environment.

05 01 Life Sciences Botany, Plant Ecology
05 04 Environmental Sciences Pedology, Geomorphology

06 01 Arctic Islands: Somerset Island, Prince of Wales Island

07 01 Environmental - Social Program, Task Force on Northern Oil Development,
Government of Canada
07 02 \$23,000

08 1971-72 1977-78

09 01 45 Salaries and wages
09 03 3 Other costs
09 04 48 Total costs
09 05 12 Scientific man-months - Government
09 06 12 Other man-months - Government
09 07 24 Total man-months - Government

10 01 Brock University - Radiocarbon Laboratory - \$1,300.00

11 Nil

12 Nil

13 Data will be published as Information Report, Northern Forest Research
Station. No part of the results or data will be classed confidential.

14 Logistic support was supplied by Energy, Mines and Resources, Geological
Survey of Canada.

15 S.C. Zoltai
435-7210
Northern Forest Research Station,
5320 - 122 Street,
Edmonton, Alberta,
T6H 3S5

01 158 Environment

02 Canadian Forestry Service, Project (WFP-26) Service to Cooperators

03 Study: (WFP-26-1; VP-181) Dendrochronological Studies along the Mackenzie Valley Transport Routes

04 Tree-ring analysis is used to reconstruct geomorphic and climatic history along the Mackenzie Valley transportation route. Annual tree-rings are used to study flooding, ice jamming, ground slumping, erosion alluviation, permafrost and climate. These studies will aid in determining the best transportation routes to the north.

05 01 Life Sciences
05 02 Physical Sciences
05 04 Environmental Sciences

06 01 Northwest Territories
06 02 Field Work - Fort Simpson area and Mackenzie Delta Laboratory
Work - Western Forest Products Laboratory, Vancouver

07 01 Western Forest Products Laboratory, Vancouver in conjunction with
Glaciology Division, Water Resources Branch, Department of Environment,
Ottawa.
07 02 Nil
07 03 WFPL - Man/Years - Before 75/76 - 1.4
75/76 .5
Total 1.9
Travel and field expenses - covered by Glaciology Division

08 1973 1975

09 01 9 Salaries and wages
09 02 Nil Capital
09 03 1 Other costs
09 04 10 Total costs
09 05 6 Scientific man-months - Government
09 07 6 Total man-months - Government

10 Nil

11 Nil

12 None from Western Forest Products Laboratory Glaciology Division
obtained use of Inuvik Research Laboratory and hired local people.

13 See reference file.

14 Tree-ring width and density chronologies are being produced for
climatic and other studies.

15 Study Officer:
Mr. M.L. Parker,
(604) 224-3221
Western Forest Products Laboratory,
6620 N.W. Marine Drive,
Vancouver, B.C.
V6T 1X2

01 159 Environment

02 Canadian Forestry Service, Pacific Forest Research Centre

03 Forest resource management research in the Yukon Territory

04 To provide resource baseline data for the Yukon Territory suitable for integrated resource planning and management, to evaluate and prescribe for reforestation of environmentally sensitive sites.

05 01 Life Sciences Forestry, Plant Physiology

05 03 Engineering Sciences Photogrammetry

05 05 Human Sciences Computer Programming

06 01 Yukon Territory

06 02 Watson Lake, other Yukon locations, and Victoria, B.C.

07 01 Yukon Lands and Forest Service, DIAND

07 02 Nil

07 03 Significant vehicular and aircraft support

08 1975 1982

09 01 51 Salaries and wages

09 02 2.3 Capital

09 03 15.7 Other costs

09 04 69 Total costs

09 05 30 Scientific man-months - Government

09 06 8.5 Other man-months - Government

09 07 38.5 Total man-months - Government

10 01 OECD seed certification, \$1000 pro-rated share of B.C. and Yukon contract with Phelps.

11 Part of project in response to OECD tree seed provenance certification requirements.

12 Yukon Lands and Forest Service requested project.

13 Oswald, E.T. (in press) Terrain analysis from Landsat imagery. For. Chron.
Oswald, E.T. and J.P. Senyk. 1976. Ecoregions of Yukon Territory. Under review.

14 Other significant output consisted of production of container-grown Yukon provenance seedlings and instructions and training of a nurseryman for Yukon Lands and Forest Service.

15 T.G. Honer
388-3811
Canadian Forestry Service
Pacific Forest Research Centre
506 West Burnside Road
Victoria, B.C.
V8Z 1M5

01 160 Environment

02 Canadian Forestry Service, Pacific Forest Research Centre

03 Development of the Canadian Forest Fire Behavior System

04 To provide a user approved technique of integrating fuel characteristics with the moisture components of the Fire Weather Index to predict fire behavior.

05 02 Physical Sciences Physics, Chemistry
05 04 Environmental Sciences Atmospheric Sciences

06 01 B.C., Yukon Territory
06 02 Throughout Territory and in Victoria, B.C.

07 01 Yukon Lands and Forest Service, B.C. Forest Service
07 02 \$1500
07 03 Casual manpower and vehicular support.

08 1973 1977

09 01	9.1	Salaries and wages
09 03	1.8	Other costs
09 04	10.9	Total costs
09 05	3.6	Scientific man-months - Government
09 06	1.2	Other man-months - Government
09 07	4.8	Total man-months - Government

10 Nil

11 Nil

12 Discussions with Yukon Lands and Forest Service as to needs and appropriate techniques.

13 Nil

14 These figures attributable only to Yukon portion of project, which in total covers a much wider area.

15 C.E. Brown
388-3811
Canadian Forestry Service
Pacific Forest Research Centre
506 West Burnside Road
Victoria, B.C.
V8Z 1M5

01 161 Environment

02 Canadian Forestry Service, Pacific Forest Research Centre

03 Economic advice and services - feasibility study of forest nursery for Yukon Territory.

04 To determine whether a forest nursery could feasibly be developed to serve needs of Yukon Lands and Forest Service.

05 05 Human Sciences Economics

06 01 Yukon Territory

06 02 Whitehorse and Victoria, B.C.

07 01 Yukon Lands and Forest Service

07 02 Nil

07 03 Casual vehicular support.

08 1975 1975

09 01 2.5 Salaries and wages

09 03 0.5 Other costs

09 04 3.0 Total costs

09 05 1.2 Scientific man-months - Government

09 07 1.2 Total man-months - Government

10 Nil

11 Nil

12 Requested study

13 Confidential report to Yukon Lands and Forest Service

14 Nil

15 M.R.C. Massie
388-3811
Canadian Forestry Service
Pacific Forest Research Centre
506 West Burnside Road
Victoria, B.C.
V8Z 1M5

01 162 Environment

02 Canadian Forestry Service, Pacific Forest Research Centre

03 Detection and appraisal of forest pests and tree damage in the Yukon Territory.

04 To promote improved protection and utilization of the forest estate as it relates to forest insects and diseases by the prompt identification and evaluation of critical problem areas.

05 01 Life Sciences Entomology, Pathology

06 01 Yukon Territory

06 02 Throughout Territory and Victoria, B.C.

07 01 Yukon Lands and Forest Service

07 02 \$700

07 03 15 flight hours as observer on routine fire patrol flights looking for pest damage.

08 1970 Ongoing

09 01 3.5 Salaries and wages

09 03 0.7 Other costs

09 04 4.2 Total costs

09 05 2.4 Scientific man-months - Government

09 07 2.4 Total man-months - Government

10 Nil

11 Nil

12 Request from Yukon Lands and Forest Service through PFRC DIAND research advisory committee.

13 Annual report on forest pest conditions in Yukon.

14 Nil

15 D.R. Macdonald
388-3811
Canadian Forestry Service
Pacific Forest Research Centre
506 West Burnside Road
Victoria, B.C.
V8Z 1M5

01 163 Environment

02 Inland Waters Directorate

03 I.W.D. Activities in the Yukon Territory. Essential basic data on streamflow quantity and quality, water levels and sediment transport is collected, analyzed and included in publications.

04 The objective is to provide the essential basic information for economic development of water use projects and for the solution of water problems.

05 02 Physical Sciences Chemistry

05 03 Engineering Sciences Hydrology, Hydrometrics

05 04 Environmental Sciences Chemistry

06 01 Yukon Territory

06 02 Surface waters in and adjacent to various mining areas within the Yukon Territory.

07 01 Department of Indian and Northern Affairs

07 02 Operations \$61,000: Capital \$65,000: \$22,000 of analytical services are performed by I.W.D. and paid by DINA (Operations).

07 03 The balance of monies are provided under the terms of a Cost-Sharing Agreement on Water Quantity Surveys in the Yukon Territory. This contract, which is renewed annually, was first signed between DOE and DINA on 1 April 1975. The Agreement can be terminated on one month's notice.

08 1944 Ongoing

09 01	115.0	Salaries and wages
09 02	30.0	Capital
09 04	145.0	Total costs
09 05	84	Scientific man-months - Government
09 07	84	Total man-months - Government
09 09	12	Other man-months - Non-government
09 10	12	Total man-months - Non-government

10 01 A portion of the chemical analysis is contracted out to Cantest Ltd., Vancouver, B.C.

11 Nil

12 Nil

13 Analytical results are forwarded to DINA, Whitehorse, and the data is stored in the Water Quality Data bank in Ottawa (NAQUADAT). An annual report is also published entitled "Surface Water Data - Yukon and Northwest Territories".

14 Nil

15 E.M. Clark
666-3357
Room 502, 1001 W. Pender St.,
Vancouver, B.C.
V6E 2M9

01 164 Environment

02 Inland Waters Directorate, Water Resources/Water Survey of Canada

03 Hydrometric investigation of fresh water inflow to D'Iberville Fiord, Ellesmere Island.

04 Objectives are to support research by frozen sea research group, Victoria, B.C., and to gather, analyze and interpret water resources data in an area where no knowledge exists.

05 02 Physical Sciences
05 04 Environmental Sciences

06 01 Ellesmere Island, D'Iberville Fiord.
06 02 Falls River, Other unnamed rivers, Lat. 78°-80°W and Long. 80°30"N

07 01 Nil
07 02 Nil
07 03 Nil

08 1973 1975

09 01 5.1 Salaries and wages
09 02 2.0 Capital
09 04 7.1 Total costs
09 05 3 Scientific man-months - Government
09 07 3 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 First year results in Proceedings of Workshop Seminar, 1974, Canadian National Committee, International Hydrologic Decade. Data published in Surface Water Data, Water Survey of Canada.

14 Further interpretation of data from this and other areas will be completed and published. Investigation halted after 1975; however, further work may begin again in 1977.

15 J.E. Peters
426-5776
District Engineer,
P.O. Box 365,
Halifax, Nova Scotia.

01 165 Environment

02 Inland Waters Directorate, Water Resources/Water Survey of Canada

03 Collection of hydrologic data on specific rivers (Arctic Hydrometric Program).

04 Objective is to collect, compile and publish surface water data at specific locations.

05 02 Physical Sciences

05 04 Environmental Sciences

06 01 Frobisher Bay, Apex, Broughton, Pangnirtung

06 02

07 01 Nil

07 02 Nil

07 03 Nil

08 1969 Ongoing

09 01 21 Salaries and wages

09 02 15 Capital

09 04 36 Total costs

09 06 15.6 Other man-months - Government

09 07 15.6 Total man-months - Government

10 Nil

11 Nil

12 Local resident hired to be gauge attendant during operating period (June-September).

13 Data published in "Surface Water Data", Water Survey of Canada, annually.

14 Nil

15 J.E. Peters
426-5776
District Engineer,
P.O. Box 365,
Halifax, Nova Scotia

01	166	Environment	
02		Inland Waters Directorate, Water Resources/Water Survey of Canada	
03		Collection of Data on ocean tides and water levels (Arctic tidal program)	
04		To collect, compile and publish tidal information for specific locations.	
05	02	Physical Sciences	
05	04	Environmental Sciences	
06	01	Alert, Resolute Bay, Igloolik, Lake Harbour, Frobisher Bay, Clyde River	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08			Ongoing
09	01	3	Salaries and wages
09	02	20	Capital
09	03	20	Other costs
09	04	43	Total costs
09	06	2.4	Other man-months - Government
09	07	2.4	Total man-months - Government
10		Nil	
11		Nil	
12		Local resident hired to report on status of gauge periodically.	
13		Data published in "Canadian Tide and Current Tables" annually.	
14		Nil	
15		J.E. Peters (902) 426-5776 District Engineer, Water Survey of Canada, P.O. Box 365, Halifax, Nova Scotia.	

01 167 Environment

02 Canadian Wildlife Service Migratory Birds Branch

03 Migratory Birds Research and Surveys, Project numbers, 6872, 6885, 6886.

04 To determine population, size, distribution, natality and mortality for arctic waterfowl. Determine environmental and human factors which affect these parameters. Preserve and manage whooping cranes.

05 01 Life Sciences
05 04 Environmental Sciences

06 01 Central and Western Arctic; Wood Buffalo National Park
06 02 same as above

07 01 Nil
07 02 Nil
07 03 Nil

08 ongoing

09 01	98	Salaries and wages
09 03	82.5	Other costs
09 04	180.5	Total costs
09 05	60	Scientific man-months - Government
09 07	60	Total man-months - Government
09 08	3.6	Scientific man-months - Non-government
09 10	3.6	Total man-months - Non-government

10 01 Aircraft charter and survey contracts \$51,000.

11 Projects involve cooperative management of geese, ducks and Whooping Cranes with the U.S.F.W.S.

12 Eskimo field assistant hired on contract.

13 All results to be published in scientific journals or CWS publications.

14 Nil

15 J.H. Paterson,
665-4090
Prairie Migrating Bird Research Centre,
115 Perimeter Road,
University of Saskatchewan Campus,
Saskatoon, Saskatchewan,
S7N 0X4

01 168 Environment

02 Canadian Wildlife Service, Environmental Assessment Section

03 Future Studies Monitoring Group - Mackenzie Highway Wetland Assessment

04 To monitor the effects of Mackenzie Highway construction use on the wetland complexes adjacent to the highway.

05 01 Life Sciences
05 04 Environmental Sciences

06 01 All along Mackenzie Highway NWT.
06 02 From Fort Simpson to Norman Wells

07 01 DIAND
07 02 \$19,500
07 03 Nil

08 1975 - May Ongoing

09 01 8 Salaries and wages
09 02 2 Capital
09 03 .5 Other costs
09 04 10.5 Total costs
09 05 3.6 Scientific man-months - Government
09 07 3.6 Total man-months - Government
09 08 3.6 Scientific man-months - Non-government
09 10 3.6 Total man-months - Non-government

10 01 Arctic Air - \$4,000 flying

11 Nil

12 Local discussions with Territorial and highway officials.

13 Results compiled in report summarizing 1975 work.

14 Nil

15 J.B. Kenyson,
(403) 425-6860
1110 - 11025 Jasper Avenue,
Edmonton, Alberta,
T5J 1S6

01 169 Environment

02 Canadian Wildlife Service, Environmental Assessment Section

03 Biological Baseline Surveys of Strathcona Sound, Baffin Island Area

04 To describe numbers, distribution and heavy metal tissue levels of principal sea birds, and marine mammals in the Admiralty - Inlet - Navy Board Inlet Area. These were background surveys necessitated by development of NANISIVIK Mine. Direct relationship to C.W.S. and F.M.S. management programs.

05 01 Life Sciences Biology of species

05 04 Environmental Sciences Toxicology and heavy metal loading

06 01 North Baffin Island Area

06 02 Base camp - Strathcona Sound. Study area in Admiralty and Navy Board Inlets.

07 01 \$26,000 from Mineral Resources Interaction; \$93,000 DIAND

07 02 Total (including the above) \$119,000.

07 03 Nil

08 1975 - June 1976 - September

09 01	10	Salaries and wages
09 02	1	Capital
09 03	.5	Other costs
09 04	11.5	Total costs
09 05	6	Scientific man-months - Government
09 06	1.2	Other man-months - Government
09 07	7.2	Total man-months - Government
09 08	2.4	Scientific man-months - Non-government
09 10	2.4	Total man-months - Non-government

10 01 Contract - Ontario Research Foundation - \$30,000 for heavy metal analysis; Okanagan Helicopter - \$40,000 for flying; Kewling Aviation - \$12,000 fuel caching

11 Some liaison with Danish Official regarding the Black-Angle lead-zinc mine in Greenland.

12 Those interviews with hunters-trappers at summer field camps.

13 1975 results published in report entitled "Environmental Baseline studies - 1975." Strathcona Sound Program, preliminary Report. J.B. Kemper, CWS March 1976. No confidential information.

14 Nil

15 Bryan Kemper,
(403) 425-6860
1110 - 10025 Jasper Avenue,
Edmonton, Alberta,
T6J 1S6

01 172 Environment

02 National Forestry Institutes - Forest Management Institute

03 Integrated Resource Survey Nahanni National Park

04 The project involves the gathering, processing, collating, and upon analysis, presentation in visual (maps) and written form (report) of data on the land, vegetation and waterbodies (limited) of Nahanni National Park. This work includes technical and research operations to establish proper classifications.

05 04 Environmental Sciences

06 01 Nahanni National Park (NWT)

06 02 In the field on location, and at the FMI (Ottawa)

07 01 The National Parks Service, DINA

07 02 \$96,000, 1975/76

07 03 Incidental support to field parties.

08 1975 - April 1 1978 - March 31

09 01	33	Salaries and wages
09 02	5	Capital
09 04	38	Total costs
09 05	1.2	Scientific man-months - Government
09 06	31.2	Other man-months - Government
09 07	32.4	Total man-months - Government
09 08	12	Scientific man-months - Non-government
09 09	10.8	Other man-months - Non-government
09 10	22.8	Total man-months - Non-government

10 01 Two outside specialists work with the Project staff on contract, either full or part-time. This contract, plus the field expenses for all personnel amounted to \$96,000.

11 Nil

12 Local National Parks Service staff occasionally involved.

13 Slated to be completed in 1978.

14 Project falls within cooperative inter-departmental category.

15 Mr. P. Gimbarzevsky,
(613) 996-8793
Forest Management Institute,
Environment Canada,
Majestic Building,
396 Cooper Street,
Ottawa, Ontario,
K1A 0H3

01 173 Environment

02 Environmental Management Service, Canada Ctr. for Inland Waters - Ontario Region

03 Cold Environment Hydraulics

04 To understand the phenomenon of flow under ice cover and the interaction of water and various types of ice cover so as to apply this knowledge for the solution of ice related problems such as jamming, ice cover breakup, flooding problems, etc.

05 02 Physical Sciences
05 03 Engineering Sciences

06 01 Canada
06 02 Burlington, Ontario

07 01 Nil
07 02 Nil
07 03 Nil

08 1972 1980

09 01 76 Salaries and wages
09 02 140 Capital
09 03 30 Other costs
09 04 246 Total costs
09 05 24 Scientific man-months - Government
09 06 24 Other man-months - Government
09 07 48 Total man-months - Government

10 01 Contract to Canadian Research Institute, Don Mills, Ontario for the development of an instrument to measure frazil ice concentration and flow velocity in water with frazil ice. Contract cost \$25,000.

11 Nil

12 Nil

13 See Reference File

14 Nil

15 Dr. T.M. Dick
(416) 637-4326
Hydraulics Research Division
Canada Centre for Inland Waters
P.O. Box 5050
Burlington, Ontario
L7R 4A6

01 174 Environment

02 Environmental Management Service, Canadian Wildlife Service - Ontario Region

03 Migratory Birds Research and Surveys - Hudson Bay Lowlands

04 To obtain data for the James and Hudson Bay coasts of northern Ontario on the distribution, number and movements of waterfowl and shorebirds and to study the habitat usage and feeding ecology of these groups of species. Such data are required for management purposes; in support of EMS baseline study program, and potential impact assessment analysis; to improve knowledge of important habitat zones in Ontario critical to a number of rare and endangered species; and to improve understanding of waterfowl and shorebirds in the James Bay Lowlands, in Ontario, nationally and internationally.

05 01 Life Sciences shorebird and waterfowl ecology
05 02 Physical Sciences soil and water chemistry

06 01 James Bay Lowlands of Ontario - James Bay Coast
06 02 North Point 51° 29'N, 80° 27'W
Longridge Point 51° 46'N, 80° 40'W
Chickney Point 52° 26'N, 81° 33'W

07 01 Nil
07 02 Nil
07 03 Nil

08 1976 - April 1 Ongoing

09 01 12 Salaries and wages
09 02 3.5 Capital
09 03 26 Other costs
09 04 41.5 Total costs
09 05 7.2 Scientific man-months - Government
09 06 6 Other man-months - Government
09 07 13.2 Total man-months - Government

10 01 a) \$3,400 T. Manning, Merrickville, Ont. - shoreline ecology
b) \$2,100 J. Wilson, Birmingham, England - shoreline banding
c) \$1,500 S. Brown, Birmingham, England - shoreline banding
d) \$ 250 R. Carter, Toronto, Ontario - shoreline banding

11 Nil

12 No direct involvement as yet.

13 Several "notes" have already been published and all work will be available either through scientific publications or progress reports. No data are foreseen as being confidential in nature.

14 The Hudson Bay Lowland Baseline Studies Program - Ontario arose from Canadian Wildlife Service participation on DOE's environmental assessment of the James Bay Power Project.

15 Steven Curtis
(613) 998-8004
Canadian Wildlife Service
2721 Highway 31
Ottawa, Ontario
K1A 0H3

01 175 Environment

02 Water Survey of Canada

03 Arctic Islands Pipeline Program, Freshwater project No. 1,
Hydrologic Regimes.

04 To obtain an overview of hydrology along the proposed pipeline
corridor north of Spence Bay, in order to provide data for an
adequate assessment of the proponent's application.

05 02 Physical Sciences
05 03 Engineering Sciences
05 04 Environmental Sciences

06 01 The Arctic Archipelago of the District of Franklin, NWT and
Boothia Peninsula.

06 02 Along the proposed pipeline corridor from Spence Bay to
eastern Melville Island.

07 01 Environmental-Social Program, Northern Pipelines, Department of
Indian Affairs and Northern Development.
07 02 \$125,000 and 2.5 term man-years.
07 03 Nil

08 1975 - April Ongoing

09 Nil

10 Nil

11 Nil

12 Nil

13 Interim Report (1975), Hydrologic Regimes, Freshwater Project
No. 1.

14 Nil

15 A.K. Mattick or J.E. Slater
985-5500 or 985-3652
Water Survey of Canada
521 - 269 Main Street
Winnipeg, Manitoba
R3C 1B2

01 176 Environment

02 Water Survey of Canada

03 Water Quantity Surveys - District of Keewatin

04 To collect, analyze, compile and publish streamflow, water level and sediment transport data required for the design and development of water resource projects.

05 03 Engineering Sciences

06 01 District of Keewatin

06 02 Through Baker Lake, N.W.T. sub-office and District Office in Winnipeg.

07 01 DIAND

07 02 Operation and Maintenance of hydrometric stations, \$9,400.
Construction of stations of hydrometric stations, \$13,000.
Total \$22,400.

07 03 Hydrometric network planning in co-operation with the Water Survey of Canada.

08 1960 Ongoing

09 01	41.8	Salaries and wages
09 02	23.1	Capital
09 03	69.1	Other costs
09 04	134.0	Total costs
09 05	24	Scientific man-months - Government
09 06	6	Other man-months - Government
09 07	30	Total man-months - Government
09 09	6	Other man-months - Non-government
09 10	6	Total man-months - Non-government

10 Nil

11 Nil

12 Casual employment of native people to support Water Quantity Surveys conducted from the Baker Lake Office.

13 Annual Report on Hydrometric Operations in the District of Keewatin.
Publications: Surface Water Data Reference Index - Canada 1975.
Surface Water Data Annual Publication - Yukon and Northwest Territories. Historical Streamflow Summary - Yukon and Northwest Territories to 1973.

14 Memorandum of Agreement - DOE and DIAND.

15 A.K. Mattick or J.E. Slater
985-5500 or 985-3652
W.S.C.
521 - 269 Main Street
Winnipeg, Manitoba
R3C 1B2

01 177 Environment

02 Water Survey of Canada

03 Mackenzie River water level forecast.

04 To supply forecasts of future water levels (2 to 3 days in advance) for users of the Mackenzie navigation system.

05 02 Physical Sciences

06 01 Mackenzie River from Great Slave Lake to Fort Good Hope.

06 02 Nil

07 01 Nil

07 02 Nil

07 03 Nil

08 Ongoing

09 01 20. Salaries and wages

09 03 15.2 Other costs

09 04 35.2 Total costs

09 05 3.6 Scientific man-months - Government

09 06 8.4 Other man-months - Government

09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Local people phone daily, water levels to Calgary from Fort Providence, Norman Wells, and Fort Good Hope.

13 Daily forecast telexed to major users and broadcast on CBC, MOT and private radio.

14 Nil

15 R.D. May
 (403) 231-5301
 Clennan Square
 2nd Floor
 110 - 11 Avenue S.W.,
 Calgary, Alberta
 T2R 0B8

01	178	Environment	
02		Water Survey of Canada	
03		Hydrologic Data Collection Program Northwest Territories	
04		Nil	
05	02	Physical Sciences	
06	01	District of Mackenzie, Arctic Islands	
06	02	Nil	
07	01	D.I.A.N.D.	
07	02	\$110,000	
07	03	Nil	
08			Ongoing
09	01	282.8	Salaries and wages
09	02	33.3	Capital
09	03	288.3	Other costs
09	04	604.4	Total costs
09	05	12	Scientific man-months - Government
09	06	240	Other man-months - Government
09	07	252	Total man-months - Government
10		Nil	
11		Nil	
12		Local residents hired at numerous locations to take observations of flow and water level.	
13		Data published annually by Water Survey of Canada.	
14		Nil	
15		R.D. May (403) 231-5301 Clennan Square 2nd Floor 110 - 11 Avenue S.W., Calgary, Alberta T2R 0B8	

01	179	Environment	
02		Water Survey	
03		Storage-precipitation data collection	
04		To collect precipitation data in ungauged areas as a complement to the A.E.S. network.	
05	02	Physical Sciences	
06	01	Northern Canada	
06	02	Nil	
07	01	A.E.S.	
07	02	Supply of Equipment	
07	03	Nil	
08			Ongoing
09	03	3	Other costs
09	04	3	Total costs
10		Nil	
11		Nil	
12		Nil	
13		Data supplied to A.E.S. and available from their publications.	
14		Nil	
15		R.D. May (403) 231-5301 Clennan Square 2nd Floor 110 - 11 Avenue S.W., Calgary, Alberta T2R 0B8	

01	180	Environment	
02		Water Survey	
03		Tidal data collection program, Northwest Territories.	
04		Nil	
05	02	Physical Sciences	
06	01	Districts of Mackenzie, Keewatin and Franklin	
06	02	Nil	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08			Ongoing
09	01	17	Salaries and wages
09	03	38	Other costs
09	04	55	Total costs
09	06	12	Other man-months - Government
09	07	12	Total man-months - Government
10		Nil	
11		Nil	
12		Local residents hired at some locations to tend gauge and take observations.	
13		Data published annually by tides and water levels.	
14		Nil	
15		R.D. May (403) 231-5301 Clennan Square 2nd Floor 110 - 11 Avenue S.W., Calgary, Alberta. T2R 0B8	

01 181 Environment

02 Water Quality Branch

03 Baseline water quality monitoring in N.W.T.

04 To describe the quality of the water resource in the N.W.T.

05 04 Environmental Sciences

06 01 Various locations on rivers throughout N.W.T.

06 02 Nil

07 01 Nil

07 02 Nil

07 03 Nil

08 1970 Ongoing

09 01 18 Salaries and wages

09 03 5 Other costs

09 04 23 Total costs

09 05 12 Scientific man-months - Government

09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Data stored in NAQUADAT and available on request.

14 Nil

15 Robert Douglas
(403) 873-4421
Box 2121
Yellowknife, N.W.T.

01 182 Environment

02 Land Evaluation and Mapping Branch.

03 Ecological Land Classification Research for Canada's Wildlands.

04 a) to carry out research in and to develop techniques for ecological land classification in northern areas.
b) to facilitate establishment of ecological baseline data for resource management and impact assessment.

05 01 Life Sciences Multi-disciplinary
05 02 Physical Sciences Multi-disciplinary
05 04 Environmental Sciences Multi-disciplinary

06 01 Canada - Boreal and Arctic regions
06 02 Research and operational projects include:
a) Testing of remote sensing techniques for ecological land classification (Ottawa)
b) Integration of land/water classifications (Ottawa)
c) Biophysical mapping in various areas to test new methods (Caribou Range, Alberta; Northern Manitoba; Melville Island)

07 01 D.S.S. - \$40,000 (unsolicited proposal)
Province of Manitoba - logistical support
07 02 (see above)
07 03 (see above)

08 Ongoing

09 01 45 Salaries and wages
09 02 3 Capital
09 03 77 Other costs
09 04 125 Total costs
09 05 36 Scientific man-months - Government
09 06 0 Other man-months - Government
09 07 36 Total man-months - Government
09 08 24 Scientific man-months - Non-government
09 09 0 Other man-months - Non-government
09 10 24 Total man-months - Non-government

10 01 a) Dr. Stan Rowe, Institute of Northern Studies, University of Saskatchewan \$40,000
b) Dr. P.H. Howarth, Department of Geography, McMaster University - \$3,000

11 Nil

12 Nil

13 Interim reports available

14 Nil

15 Jean Thie
997-2320
Lands Directorate
Environment Canada
Ottawa, Ontario
K1A 0H3

01 183 Environment

02 Land Evaluation and Mapping Branch
(See #14, Other comments)

03 Land Use Information Map Series
(1976-77: Research for and production of 28 map sheets for area north of Great Bear Lake, and Banks Island)

04 The map series is intended to provide a convenient information base to assist in the administration of the Territorial Land Use Regulations and in regional land use planning.

05 01 Life Sciences Multi-disciplinary
05 02 Physical Sciences Multi-disciplinary
05 04 Environmental Sciences Multi-disciplinary
05 05 Human Sciences Multi-disciplinary

06 01 area north of Great Bear Lake and Banks Island
06 02 a) field research on site in Northwest Territories
b) map production in Ottawa

07 01 Environment Division, Department of Indian and Northern Affairs.
07 02 \$184,000
07 03 a) assistance in data collection, including some logistical support

08 1971 Ongoing

09 01 154 Salaries and wages
09 02 1 Capital
09 03 75 Other costs
09 04 230 Total costs
09 05 48 Scientific man-months - Government
09 06 66 Other man-months - Government
09 07 114 Total man-months - Government
09 08 12 Scientific man-months - Non-government
09 09 12 Other man-months - Non-government
09 10 24 Total man-months - Non-government

10 01 a) Mackenzie Consulting Ltd - \$60,000 for wildlife surveys
b) Several short-term contracts for data on native land use - \$2,000
c) Miscellaneous contracts for aircraft charter during field surveys - \$70,000 (includes \$58,000. for FMS (Winnipeg) Surveys)

11 Nil

12 Extensive consultation with individuals, native organizations, and Hunters'/Trappers' Associations during data collection.

13 Annual publication of map sheets.
(Available from Canada Map Office.)

14 DOE research is undertaken by the Canadian Wildlife Service (Edmonton and Yellowknife) who contract out to Mackenzie Consulting, Fisheries and Marine Service (Winnipeg), and Lands Directorate (Ottawa).
Lands Directorate also manages the project, and publishes the map series. Operational funding is received from DIAND.

15 Ken Taylor
997-2240
Lands Directorate
Environment Canada
Ottawa, Ontario
K1A 0H3

01 184 Environment

02 Water Quality Objectives Program.

03 Guidelines for Establishing Water Quality Objectives for the Territorial Waters of the Yukon and Northwest Territories.

04 To maintain and enhance the quality of territorial waters to ensure a safe and acceptable water supply for all users.
Water quality objectives are essential tools for effective water resource management.

05 01 Life Sciences aquatic ecosystems and human health

06 Applicable to all fresh waters of the YT and NWT.

07 01 DINA

07 02 Nil

07 03 Nil

08 1974 - May 1976 - October

09 01 11.3 Salaries and wages

09 03 1.8 Other costs

09 04 13.1 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Report to be issued to the Chairmen, YT and NWT Water Boards.

14 Nil

15 Mr. S.W. Reeder, Chairman,
(819) 997-1920
Working Group,
Water Quality Branch,
Inland Water Directorate,
Environment Canada,
Ottawa, Ontario.
K1A 0E7

01 185 Environment

02 CCIW

03 Cold Environment Hydraulics

04 To understand the phenomenon of flow under ice cover and the interaction of water and various types of ice cover so as to apply this knowledge for the solution of ice related problems such as jamming, ice cover breakup; flooding problems etc.

05 02 Physical Sciences
05 03 Engineering Sciences

06 01 Applicable to Northern Canada
06 02 Burlington

07 01 Nil
07 02 Nil
07 03 Nil

08 1972 1980

09 01	76.0	Salaries and wages
09 02	140.0	Capital
09 03	30.0	Other costs
09 04	246.0	Total costs
09 05	24	Scientific man-months - Government
09 06	24	Other man-months - Government
09 07	48	Total man-months - Government

10 01 Contract to Canadian Research Institute, Don Mills, Ont. for the development of an instrument to measure frazilice concentration and flow velocity in water with frazilice. Contract cost \$25,000.

11 Nil

12 Nil

13 See Reference File.

14 Nil

15 Dr. T.M. Dick
637-4326
Hydraulics Research Division
CCIW, Burlington

Environment/Reference File

- 13 101 Beck, B., and T.G. Smith. 1976. "Seal Finger" - An Unsolved medical problem in Canada. Canada, Dept. Env., Fish. and Mar. Service Tech. Rep. 625: 7p.
- Smith, T.G. 1975. Parameters and dynamics of ringed seal populations in the Canadian eastern arctic, pp. 281-295. In K. Ronald and A.W. Mansfield (ed.) Biology of the seal; Proceedings of a symposium held in Guelph 14-17 August 1972. Rapp. P.-v, Reun. Cons. int. Explor. Mer, 169: 557 p.
- Mansfield, A.W., D.E. Sergeant, and T.G. Smith. 1975. Marine mammal research in the Canadian arctic. Canada, Dept. Env., Fish. and Mar. Service Tech. Rep. 507: 23p.
- Smith, T.G., and F.A.J. Armstrong. 1975. Mercury in seals, terrestrial carnivores, and principal food items of the Inuit, from Holman, N.W.T. J. Fish. Res. Board Can. 32(6): 795-801.
- Smith, T.G., and J.R. Geraci. 1975. Effect of contact and ingestion of crude oil on ringed seals. Canada, Dept. Env., Beaufort Sea Proj. Tech. Rep. 5: 66 p.
- Smith, T.G., and I. Stirling. 1975. The breeding habitat of the ringed seal (*Phoca hispida*). The birth lair and associated structures. Canadian J. Zool. 53: 1297-1305.
- 14 101 The basic biology of the ringed and bearded seal was studied from 1952 to 1960. A more detailed study of the population dynamics of the ringed seal and the factors affecting production was started in 1966 and continues at present.
- Since 1972 studies on the physiology and biochemistry of ringed seals have been carried out in collaboration with J. Geraci, Dept. of Pathology, University of Guelph. This project was given adequate funds over 3 years to set up a seal-holding facility at Guelph, but funds are being reduced in view of other commitments.
- Environmental impact studies have been carried out under the Beaufort Sea program (1973-75) and the Arctic Islands Pipeline Program (1975-76). The latter study will continue into 1977 and will no doubt be followed by similar projects.
- 13 102 Hay, K., and R. McClung. 1976. Observations on beluga and narwhal in the Canadian high arctic, summer 1974. Fish. Res. Board Can. MS Rep. 1385: 55 p.
- Heyland, J.D., and K. Hay. 1976. An attack by a polar bear on a juvenile beluga. Arctic 29(1): 56-57.
- Mansfield, A.W., D.E. Sergeant, and T.G. Smith. 1975. Marine mammal research in the Canadian arctic. Canada Dept. Env., Fish. and Mar. Service Tech. Rep. 507: 23 p.
- Mansfield, A.W., T.G. Smith, and B. Beck. 1975. The narwhal *Monodon monoceros*, in eastern Canadian waters. J. Fish. Res. Board Can. 32: 1041-1046.
- Sergeant, D.E., and P.F. Brodie. 1975. Identity, abundance, and present status of populations of white whales *Delphinapterus leucas*, in North America. J. Fish. Res. Board Can. 32: 1047-1054.
- Sergeant, D.E., and W. Hoek. 1975. Biology of bowhead *Balaena mysticetus* and white whale *Delphinapterus leucas* in the Beaufort Sea, 1974. Beaufort Sea Interim Report, Dec. 1974. 14 p.
- 14 102 Studies on the white whale have been carried on at varying levels since 1955, first in the Mackenzie delta and western Hudson Bay, then in southeastern Baffin Island, and most recently in the Mackenzie delta and in Barrow Strait and Lancaster Sound. The earlier studies were concerned primarily with exploitation of the white whales as a natural resource, but the more recent studies have been concerned with behaviour, especially that influenced by construction activities associated with offshore drilling for oil and gas pipelines;

Study of the narwhale began in 1963 and was terminated in 1966 when more pressing problems of marine mammal management arose. The project was revitalised in 1975 in response to pressing demands for more information on this species for resource management and the assessment of environmental impacts;

Study of the bowhead whale has consisted mainly of incidental observations made while carrying out aerial surveys of white whales, particularly in the Beaufort Sea.

- 13 104 Grainger, E.H. 1975. A marine ecology study in Frobisher Bay, Arctic Canada, pp. 261-266. In Cameron, T.W.M., and L.W. Billingsley (ed.) Energy Flow - Its Biological Dimensions. A Summary of the IBP in Canada 1964-1974. Royal Society of Canada, Ottawa.
- Grainger, E.H. 1975. Biological productivity of the southern Beaufort Sea: the physical-chemical environment and the plankton. Can. Dept. Env., Beaufort Sea Proj. Tech. Rep. 12a: 82 p.
- Grainger, E.H., and C. Grohe. 1975. Zooplankton data from the Beaufort Sea, 1971 to 1975. Dept. Env., Fish. and Mar. Serv. Tech. Rep. 591: 54 p.
- Grainger, E.H., and J.E. Lovrity. 1975. Physical and chemical oceanographic data from the Beaufort Sea, 1960-1975. Dept. Env., Fish. and Mar. Serv. Tech. Rep. 590: 52 p.
- Grainger, E.H., and S. McSween. 1976. Marine zooplankton and some physical-chemical features of James Bay related to La Grande hydro-electric development. Dept. Env., Fish. and Mar. Serv. Tech. Rep. 650: 94 p.
- 10 140 (a) Atmospheric Dynamics Corp.
(i) Development of a Computerized System for Predictions of Weather Dependent Environmental Conditions in the Beaufort Sea.
42.3K
(ii) Development of Techniques and Computer Routines for Special Data Assimilation in the Beaufort Sea Area.
9.7K
(iii) Improvements to Data Access System for Weather Prediction in the Beaufort Sea.
8.0K
- (b) D.C. Ayles Co.
(i) Applications Computer Programming for a Computerized Environmental Prediction Support System
20.3K
- (c) Mr. D.A. Bourque
(i) Test of Beaufort Sea Observational Networks
7.0K
- (d) Mr. L. Bertin
(i) Preparation of an Overview Report on the Meteorological and Oceanographic Aspects of the Beaufort Sea Project
6.4K
- (e) Mr. S.L. Csanady
(i) Mathematical Programming Services for Research and Development of a Planetary Boundary-Layer Prediction Model to Support Beaufort Sea Environmental Prediction
7.5K
(ii) Preparation of Forecast Research Division's Planetary Boundary-Layer Model for Real-Time Operation - For application in the Beaufort Sea Area
3.0K
(iii) Preparation and Testing of the Performance of the Planetary Boundary-Layer Model - For Application in the Beaufort Sea Area
4.8K

- (f) Dr. R. Godard
 - (i) Testing of Release II Weather Element Prediction Modules for the Beaufort Sea Computerized Prediction Support System
8.3K
- (g) Mr. M. Morrow
 - The Further Development of A Historical Beaufort Sea Meteorological Data Access System
8.1K
- (h) Mr. A. Maarouf
 - (i) Development of Objective Analyses Routines for Observed Meteorological Elements in Support of Beaufort Sea Sub-Project E-1
10.8K
- (i) Dr. W. Physick
 - (i) Design of a Test System for a Meteorological Observation Network
7.1K
- (j) University of Alberta
 - (i) Research Studies of Numerical Enhancement of APT (Automated Picture Transmission) Scanning Radiometer Data for Application to Arctic Weather and Ice Prediction
12.7K
- (k) Miss N. Altman
 - (i) Computer Programming Support for the Development of Planetary Boundary-Layer Model
2.3K
- (l) Toronto Executive Consultants
 - (i) Programming Services for Display of Output from the Beaufort Sea Computerized Prediction Support System
11.4K
- (m) Mr. Wm. Tan
 - (i) Technical and Engineering Support and Consultation for the Beaufort Sea Instrumentation Project.
2.4K
- (n) Bristol Aerospace Ltd.
 - (i) Design and Development of a Meteorological Data Acquisition System for the Beaufort Sea Project
82.3K

06

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Operational Services

1. Field Services Directorate (FSD) of the Atmospheric Environment Service (AES) has a national mandate in the field of environmental sciences to provide current and predictive meteorological and sea-state information services, and advice and consultation on the effect of meteorological and sea-state conditions on natural processes and human activities. Although these responsibilities apply throughout Canada, it is noteworthy that approximately 176 of the total FSD staff are employed directly in Arctic operations. Details concerning FSD's data acquisition networks, predictive services and the operation and maintenance of stations in the northern territories are explained in the N.S.P. Questionnaire No. 1 attached. This primary activity involved about 260 man-years and an expenditure of some eight million dollars in FY1975-76.

Specific Projects

2. Besides this primary responsibility, FSD also undertakes limited research to increase knowledge of atmospheric processes and wind-wave interactions. Research and development are carried out to improve

information services and predictive systems. Three projects undertaken in FY 1975-76 are explained in attached N.S.P. Questionnaires as follows:

N.S.P. No. 2 Beaufort Sea Project	\$63.0K	1 MY
N.S.P. No. 3 Strathcona Sound Study	\$ 3.1K	0.1 MY
N.S.P. No. 4 Southern Indian Lake Study	\$ 2.0K	0.1 MY

SSU Support

3. Many internal research projects were undertaken. In most cases, the small size of these projects precludes realistic individual resource cost estimates. Scientific Service Units (SSU) provided scientific and technical support to projects conducted by other federal departments or agencies, and provided consultation, advice, and instruments on loan. For example, FSD provided minor logistic support to NRC in January, 1976 for their Rocket Sounding program at Cape Parry; N.W.T. Meteorological and climatological advice was provided to Inland Waters concerning hydrological studies related to a proposed Arctic Islands pipeline.
4. Participation in the environmental assessment process has been particularly active regarding northern developments. FSD has membership in continuing groups such as the Regional Screening and Co-ordinating Committee (RSCC) and the Arctic Environmental Steering Committee which provide scientific review of northern developments. In other cases, specific committees are set up for specific projects, such as the Strathcona Sound Working Group, the Arvik Mines Working Group, etc.
5. Total SSU contributions for 1975-76 are estimated to be 1.0 MY and \$40K.

Logistic and Technical Support

6. Logistic and technical support was supplied to approximately a dozen agencies undertaking scientific work in the Arctic. Accommodation, meals, electrical power, surface transportation, installation and maintenance of instruments, etc., were supplied to National Research Council, Polar Continental Shelf Project, Carleton University, Canadian Wildlife Service, etc. It is estimated that our total contribution under this type of support in 1975-76 was 0.2 MY and \$36.0K, and the costs were recovered from the Agencies. In 1975-76, FSD continued all regular observing, communications, forecasting and inspecting programs, including special support for forestry and agrometeorology.

Data Acquisition

Three types of meteorological observing networks were operated continuously to acquire basic data. An upper air network consisted of 15 stations in the Arctic; there were 68 principal surface stations; and there were 116 stations in the climatological network. Automatic reporting stations were installed and operated at Port Radium and Teslin. Supplementary programs such as snow surveys, ice thickness, radiation, etc., and more specialized observations of marine weather, ozone, soil temperatures, water evaporation, air turbidity, carbon dioxide, etc., were undertaken and maintained regularly.

On behalf of other government departments, radioactive sampling, seismological observations, and a neutron gamma-ray project were maintained.

A regular inspection program included quality control, on-the-job training, site selection and installations, as well as maintenance and repair of instruments and equipment.

Data were made available to national and international users on a real time basis using teletype and facsimile communications circuits and leased circuits including ANIK.

Predictive Services

FSD maintained five weather offices in the Arctic where regularly scheduled aviation, marine and public weather forecasts, charts and current observations were available, and where briefing and presentation services

could be obtained. Offices were staffed at Whitehorse, Inuvik, Yellowknife, Resolute and Frobisher Bay to provide these predictive services, and to issue warnings of severe weather phenomena, when appropriate. In addition, meteorological information services for Arctic activities were supplied from the Goose Bay Weather Office, the Churchill Weather Office, the Arctic Weather Centre in Edmonton, and the Canadian Meteorological Centre in Montreal. Limited data were also available at a few aeradio stations.

Fire-weather forecasts were prepared during the forest fire hazard season at Forest Fire Control Centres in Whitehorse and Fort Smith.

In support of a specific project - namely, the off-shore drilling in the Beaufort Sea, a special environmental prediction service was designed, developed and tested (refer to N.S.P. No. 2).

14

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Location	C	H	S	U
Alert, NWT	X		X	X
Anvil, YT	X			
Arctic Bay, NWT	X		X	
Arctic Red River, NWT	X			
Baker Creek, NWT	X			
Baker Lake, NWT	X			X
Bathurst Island, NWT	X			
Beaver Creek, YT	X	X		
Bonanza Creek, YT	X			
Boundary, YT	X			
Braeburn, YT	X			
Brevoort Island, NWT	X	X	X	
Broughton Island, NWT	X	X	X	
Burwash, YT	X	X	X	
Byron Bay, NWT	X	X	X	
Cambridge Bay, NWT	X	X	X	X
Can Tung, NWT	X			
Cape Dorset, NWT	X	X	X	
Cape Dyer, NWT	X	X	X	
Cape Hooper, NWT	X	X	X	
Cape Parry, NWT	X	X	X	
Cape Young, NWT	X	X	X	
Carcross, YT	X			
Carmacks, YT	X			
Chesterfield, NWT	X	X	X	
Clinton Creek, YT	X			
Clinton Point, NWT	X	X	X	
Clyde, NWT	X		X	
Contwoyto Lake, NWT	X	X	X	
Coppermine, NWT	X	X	X	
Coral Harbour, NWT	X	X	X	X
Dawson, YT	X	X	X	
Dempster, YT	X			
Dempster 203, YT	X			
Destruction Bay, YT	X			
Dewar Lakes, NWT	X	X	X	
Dezadeash, YT	X			
Drury Creek, YT	X			
Elsa, YT	X			
Ennadai Lake, NWT	X	X	X	
Eskimo Point, NWT	X			
Eureka, NWT	X		X	X
Faro, YT	X	X	X	
Fort Good Hope, NWT	X	X		
Fort Liard, NWT	X	X		
Fort McPherson, NWT	X			
Fort Providence, NWT	X	X		
Fort Reliance, NWT	X	X	X	
Fort Resolution, NWT	X	X		
Fort Selkirk, YT	X			

Fort Simpson, NWT	X X X
Fort Smith, NWT	X X X X
Frances River, YT	X
Frobisher Bay, NWT	X X X X
Gladman Point, NWT	X X X
Grise Fjord, NWT	X
Haines Junction, YT	X X
Hall Beach, NWT	X X X X
Hay River, NWT	X X X
Hay River Prds. Grdns., NWT	X
Hyland River Strip, YT	X
Inuvik, NWT	X X X
Isachsen, NWT	X X X
Jenny Lind Island, NWT	X X X
Johnson's Crossing, YT	X
Keno Hill, YT	X
Kluene Lake, YT	X
Kamakuk Beach, YT	X X X
Lady Franklin Point, NWT	X X X
Little Doctor Lake, NWT	X
Little Gold Creek, YT	X
Longstaff Bluff, NWT	X X X
Mackar Inlet, NWT	X X X
Mayo, YT	X X X
Minto, YT	X
Mould Bay, NWT	X X X
Mountain View Lodge, YT	X
Nahanni Hot Springs, NWT	X
Nahanni Valley, NWT	X
Nicholson Peninsula, NWT	X X X
Norman Wells, NWT	X X X X
Ogilvie River, YT	X
Old Crow, YT	X X
Pelly Bay, NWT	X X X
Pine Point, NWT	X
Pond Inlet, NWT	X X X
Port Burwell, NWT	X X
Port Radium, NWT	X X
Porter Lake, NWT	X
Quiet Lake, YT	X
Rankin Inlet, NWT	X
Rea Point, NWT	X X
Repulse Bay, NWT	X
Resolute, NWT	X X X X
Rock River, YT	X
Ross River, YT	X
Sachs Harbour, NWT	X X X X
Sheldon Lake, YT	X
Shepherd Bay, NWT	X X X
Shingle Point, YT	X X X
Spence Bay, NWT	X
Stewart Crossing, YT	X
Strathcona Sound, NWT	X X
Swift River, YT	X
Teslin, YT	X X X
Tuchitua, YT	X
Tsichu River, NWT	X
Tuktoyaktuk, NWT	X X X
Tungsten, NWT	X
Virginia Falls, NWT	X
Watson Lake, YT	X X X
Whale Cove, NWT	X
Whitehorse, YT	X X X X
Whitehorse Riverdale, YT	X
Wrigley, NWT	X X

- 13 173 E.C. Chen, D.K. Charles, "Surface tension spreading of crude oil on ice." *Marine Science Communications, Basic and Applied*, Vol. 2, No. 1, 1976.
- E.C. Chen, "Behaviour of crude oil under fresh water ice." *Journal of Canadian Petroleum Technology* 15, pp. 79-83, 1976.
- E.C. Chen, "Behaviour of oil spilled in ice-covered rivers." *Inland Waters Directorate Scientific Series No. 61. Environment Canada*, 1976.
- G. Tsang, "Conceptual design of a multi-purpose instrument for winter stream metering." *Proc. of Interdisciplinary Symposium on Advanced Concepts and Techniques in the Study of Snow and Ice Resources*, December 1973. Monterey, California.
- G. Tsang, "Ice piling on lake shores with special reference to the occurrences on Lake Simcoe in the Spring of 1973." *Scientific Series No. 35*, 1974. *Inland Waters Directorate, Department of the Environment*. August 1974.
- G. Tsang, "A preliminary investigation and experimental set-up for the study of frazil formation in water with surface waves." *Proc. Seminar on Ice Thermal Regime*, Oct. 24-25, 1974. Laval University, Quebec City. Published by NRC as Tech. Memo No. 114. January 1975, pp.82-94. (NRCC 14407)
- G. Tsang, "A field study on ice piling on shores and the associated hydro-meteorological parameters." *3rd International Symposium on Ice Problems, IAHR, Hanover, New Hampshire*. August 1975.
- G. Tsang, "A study of the ice conditions and the containment and removal of spilled oil on the St. Clair and Detroit Rivers. A report for Operation Preparedness, Oil Spill on St. Clair and Detroit Rivers. *Inland Waters Directorate Publication Series*. 1975. In press.
- G. Tsang, "Ice Action on Shore and Shoreline Structures." An invited paper presented at a General Conference on Pollution and Shoreline Erosion, Cook Bay - Lake Simcoe, Keswick, Ontario. September 29, 1975.
- G. Tsang, "Wind-Water Drag Coefficients of Lake Ice at Break-up." *CCIW Unpublished Report*. December 1975.
- G. Tsang, "Frazil Ice and Anchor Ice in Rivers and Future Research: A Progress Report." *Progress Report for Working group on hydraulics of ice-covered rivers, Associate Committee on Hydrology and Associate Committee on Geotechnical Research*. May 1976.
- 13 185 E.C. Chen, D.K. Charles, "Surface tension spreading of crude oil on ice." *Marine Science Communications, Basic and Applied*, Vol. 2, No. 1, 1976.
- E.C. Chen, "Behaviour of crude oil under fresh water ice." *Journal of Canadian Petroleum Technology* 15, pp. 79-83, 1976.
- E.C. Chen, "Behaviour of oil spilled in ice-covered rivers." *Inland Waters Directorate Scientific Series No. 61. Environment Canada*, 1976.
- G. Tsang, "Conceptual design of a multi-purpose instrument for winter stream metering." *Proc. of Interdisciplinary Symposium on Advanced Concepts and Techniques in the Study of Snow and Ice Resources*, December 1973. Monterey, California.

- G. Tsang, "Ice piling on lake shores with special reference to the occurrences on Lake Simcoe in the Spring of 1973." Scientific Series No. 35, 1974. Inland Waters Directorate, Department of the Environment. August 1974.
- G. Tsang, "A preliminary investigation and experimental set-up for the study of frazil formation in water with surface waves." Proc. Seminar on Ice Thermal Regime, Oct. 24-25, 1974. Laval University, Quebec City. Published by NRC as Tech. Memo No. 114. January 1975, pp. 82-94. (NRCC 14407).
- G. Tsang, "A field study on ice piling on shores and the associated hydro-meteorological parameters." 3rd International Symposium on Ice Problems, IAHR, Hanover, New Hampshire. August 1975.
- G. Tsang, "A study of the ice conditions and the containment and removal of spilled oil on the St. Clair and Detroit Rivers." A report for Operation Preparedness, Oil Spill on St. Clair and Detroit Rivers. Inland Waters Directorate Publication Series. 1975. In press.
- G. Tsang, "Ice Action on Shore and Shoreline Structures." An invited paper presented at a General Conference on Pollution and Shoreline Erosion, Cook Bay - Lake Simcoe, Keswick, Ontario. September 29, 1975.
- G. Tsang, "Wind-Water Drag Coefficients of Lake Ice at Break-up." CCIW Unpublished Report. December 1975.
- G. Tsang, "Frazil Ice and Anchor Ice in Rivers and Future Research: A Progress Report." Progress Report for Working group on hydraulics of ice-covered rivers, Associate Committee on Hydrology and Associate Committee on Geotechnical Research. May 1976.

INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

01 1 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch

03 A study of Migration Behaviour in the Mackenzie District of Northern Canada.

04 The objective of the project was to investigate factors which influence members of the labour force of the Mackenzie District to migrate internally and externally, as well as to investigate the kinds of people that are likely to migrate. The results of the project will be used in the overall development planning effort in the Canadian North.

05 05 Human Sciences Demography

06 01 Mackenzie District of the N.W.T.
06 02 Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1973 - September 1975 - May

09 01 3.5 Salaries and wages
09 03 .5 Other costs
09 04 4 Total costs
09 05 2 Scientific man-months - Government
09 07 2 Total man-months - Government

10 Nil

11 Nil

12 Preliminary discussions were held with employees of the N.W.T. Government.

13 Results of the project were published in a departmental report.

14 Nil

15 Rudy Rogalsky,
992-0921
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 2 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch

03 Incomes of Northerners in the Yukon Territory and the Northwest Territories, 1970.

04 The objective of the project was to examine average family income and income distribution as indicators of the standard of living in the Canadian North. The results of the study will be used in formulating policy objectives aimed at developing the human resources of the Canadian North.

05 05 Human Sciences Economics/Sociology

06 01 Yukon Territory and Northwest Territories

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - December 1975 - April

09 01 4 Salaries and wages

09 03 1.7 Other costs

09 04 5.7 Total costs

09 05 2 Scientific man-months - Government

09 07 2 Total man-months - Government

10 Nil

11 Nil

12 Territorial employees examined and commented on drafts of the study.

13 Results of the project were published in a departmental report.

14 Nil

15 Rudy Rogalsky,
992-0921
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 3 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch

03 Population Projections of the Yukon Territory to 1981.

04 The purpose of the project was to examine the Yukon population changes in past years and to project Yukon population by age, sex, and ethnic group for the 1972-81 period. The results of the project were prerequisites to the overall planning effort in the Canadian North.

05 05 Human Sciences Demography

06 01 Yukon Territory

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 - September 1975 - May

09 01 3 Salaries and wages

09 03 1 Other costs

09 04 4 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

10 Nil

11 Nil

12 Employees of the Yukon Government supplied some data used for analysis.

13 Results of the project were published in a departmental report.

14 Nil

15 Rudy Rogalsky,
992-0921
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 4 Indian Affairs and Northern Development

02 Northern Affairs Program

03 Annual Northern Expenditure Plan

04 Main objective - to promote joint planning and coordination of government policies and programs North of 60°; involving the territorial governments and federal departments and agencies as called for in the Northern Policy Statement of 1972.
 Secondary objective - to promote better public understanding of the nature and extent of government expenditures in and on the North.

05 05 Human Sciences Economics/Political Science

06 01 Federal and Territorial government expenditures relating to the Yukon and Northwest Territories

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 annual annual

09 01 40 Salaries and wages

09 03 25 Other costs

09 04 65 Total costs

09 05 18 Scientific man-months - Government

09 06 6 Other man-months - Government

09 07 24 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Aggregate data is published but detail by agency activity is confidential.

14 Nil

15 B.A. Anderson,
 996-5506
 Room 924,
 Centennial Tower Building,
 Ottawa, Ontario.

01 5 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch

03 This research project involves the interpretations and analysis of proceedings of the Mackenzie Valley Pipeline Inquiry.

04 The objective of this project is to examine the regional and socio-economic factors involved in major northern development proposals.

05 05 Human Sciences Sociology/Economics/Geography (land use)/
Political science/Anthropology

06 01 Mackenzie Valley

06 02 Yellowknife and other northern communities

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - March 3 1976 - March 31

09 01 24 Salaries and wages

09 03 9 Other costs

09 04 33 Total costs

09 05 15 Scientific man-months - Government

09 06 3 Other man-months - Government

09 07 18 Total man-months - Government

10 Nil

11 Nil

12 Research contacts with scientific agencies in and out of government. Interviews with representatives of northern organizations.

13 Two Departmental publications. Three publications will be available in 1976/77 based on 1975/76 research project.

14 Nil

15 Don Bissett,
992-2998
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 6 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning Division

03 Noress No. 4.13 The Experience of Public Sector Involvement in
Mineral Development

04 a) To document the experience of a broad range of countries and
provinces in encouraging mineral development.
b) To evaluate the various approaches being taken in terms of
social and economic returns and relate to North.
c) To be used in program development for the North.

05 05 Human Sciences Economics Sociology

06 01 Québec, Manitoba, Saskatchewan, U.S.A., France, Sweden, Norway,
Australia and some developing countries

06 02 Same as above with headquarters in Toronto.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - December 9 1976 - June 15

09 01 .4 Salaries and wages

09 03 15.0 Other costs

09 04 15.4 Total costs

09 06 .2 Other man-months - Government

09 07 .2 Total man-months - Government

10 01 Contract to Private consulting firm, total \$15,000.

11 Nil

12 Nil

13 Unknown at present whether report will be published or confidential.

14 Nil

15 John Palmer,
992-1213
Head, Program Development Section,
Northern Program Planning,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 7 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning Division

03 Noress No. 4.28 Corporate Decision Criteria with Respect to
Development of Mineral Resources in the Northern Canadian
Territories.

04 To study the principal factors influencing mining and exploration
companies in choosing reasons to explore and develop, in order to
more effectively design incentive programs to encourage mineral
exploration and development in the North.

05 05 Human Sciences Economics

06 01 Canada

09 06 Toronto Other man-months - Government

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - March 15 1975 - April 15

09 01 .2 Salaries and wages

09 03 4.9 Other costs

09 04 5.1 Total costs

09 06 .1 Other man-months - Government

09 07 .1 Total man-months - Government

10 01 Total contract to private consulting firms \$4,900.

11 Nil

12 Some northern mining personnel provided responses to questionnaires.

13 Report unpublished and confidential

14 Nil

15 John Palmer,
992-1213
Head, Program Development Section,
Northern Program Planning Division,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 8 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning Division

03 Noress No. 4.29 Northern Roads - a Policy Review

04 To critically evaluate the 1965-75 northern roads program in the
light of current policy needs.

05 05 Human Sciences Economics - Sociology

06 01 Western N.W.T. and Yukon

06 02 Toronto, Vancouver, N.W.T., and Yukon with headquarters - Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - June 1975 - September

09 01 1.5 Salaries and wages

09 03 2.0 Other costs

09 04 3.5 Total costs

09 05 3 Scientific man-months - Government

09 06 .6 Other man-months - Government

09 07 3.6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Report is unpublished and confidential at present

14 Nil

15 Mr. John Palmer,
992-3822
Head, Program Development Section,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 9 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning Division

03 Preliminary discussions on Social Evaluation of Strathcona Sound.

04 To develop a proposal for social evaluation of Strathcona Sound
based on the expressed needs of the local Inuit.

05 05 Human Sciences Sociology

06 01 North Baffin Region communities

06 02 North Baffin Region communities with headquarters in Frobisher Bay

07 01 Nil

07 02 Nil

07 03 Nil

08 1976 - February 15 1976 - March 15

09 01 2.0 Salaries and wages

09 03 6.0 Other costs

09 04 8.0 Total costs

09 06 .6 Other man-months - Government

09 07 .6 Total man-months - Government

10 01 Contract to Inuit Association for a total of \$6,000.

11 Nil

12 Members of the Baffin Region Inuit Association were involved from
the initial stages and are now conducting this N.S.P.

13 None expected.

14 Nil

15 Mr. John Palmer,
992-1213
Head, Program Development Section,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 10 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning division

03 Noress No. 4.30 - Annotated Summary of the Alaskan Native Claims
Settlement and the James Bay Agreement in Principle. Summary of
Recent Issues relating to the Alaska Native Claims Act.

04 To provide up-to-date information on northern land claim settlements.

05 05 Human Sciences Economics - Sociology

06 01 Alaska
06 02 Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - February 1975 - November

09 01 3.5 Salaries and wages
09 04 3.5 Total costs
09 05 3.6 Scientific man-months - Government
09 06 .4 Other man-months - Government
09 07 4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Report unpublished, not confidential and available from the
Division

14 Nil

15 Mr. John Palmer,
992-1213
Head, Program Development Section,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 11 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning Division

03 Noress No. 4.8 Report on the Taxation of Mines in the Yukon

04 To determine the ability of the mining industry in the Yukon to pay a mining tax that would ensure an equitable share of the economic yield as well as a maximum investment in the development of the resources.

05 05 Human Sciences Economics

06 01 Yukon and part of N.W.T.
06 02 Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - June 1975 - August

09 01	3.0	Salaries and wages
09 04	3.0	Total costs
09 05	2.4	Scientific man-months - Government
09 06	.6	Other man-months - Government
09 07	3	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Report in unpublished, confidential and distribution is restricted.

14 Nil

15 John Palmer,
992-1213
Head, Program Development Section,
Program Planning Division,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 12 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning Division

03 Noress No. 4.34 Alternative Resupply Systems - Old Crow, Yukon
Territory

04 To evaluate and compare alternative systems for cost and efficiency
in response to a request from the Yukon Government.

05 05 Human Sciences Economics - Communications

06 01 Yukon Territory

06 02 Yukon and Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - October 1976 - February

09 01	5	Salaries and wages
09 03	1	Other costs
09 04	6	Total costs
09 05	2.4	Scientific man-months - Government
09 06	.6	Other man-months - Government
09 07	3	Total man-months - Government

10 Nil

11 Nil

12 Yukon Territorial Government, Old Crow Co-op and local transportation
companies were consulted.

13 Report is unpublished, not confidential and copies can be obtained
from the author.

14 Nil

15 Mr. B.M. Gardner,
996-5551
Transportation Section,
Northern Program Planning division,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 13 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning Division

03 Noress No. 4.32 An Analysis of the Nature and Efficiency of the
Trucking Industry in the Yukon

04 To collect data on cost and production to be used in establishing
criteria of efficiency and determining whether the trucking
industry can make a greater direct contribution to the Yukon
economy.

05 05 Human Sciences Economics - Communications

06 01 Yukon

06 02 Yukon and Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - July 1976

09 01	6.2	Salaries and wages
09 03	1.2	Other costs
09 04	7.4	Total costs
09 05	1.8	Scientific man-months - Government
09 06	4.2	Other man-months - Government
09 07	6	Total man-months - Government

10 Nil

11 Nil

12 Questionnaires were responded to by northern residents.

13 Report will be published, available from Information Services and
not confidential.

14 Nil

15 Mr. B.M. Gardner,
996-5551
Transportation Section,
Northern Program Planning Division,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 14 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning Division

03 Noress No. 4.11 Yukon Rail Study

04 To compare the economic benefits, relative to the existing
transportation system, of five alternative railway extensions.

05 05 Human Sciences Economics - Communications

06 01 Yukon and Northern British Columbia
06 02 Ottawa, Montreal, Whitehorse

07 01 Government of the Yukon Territory
07 02 \$25,000 as their share of the contract
07 03 MOT administered project

08 1975 - January 1976 - January

09 01	6.5	Salaries and wages
09 03	9.3	Other costs
09 04	15.8	Total costs
09 05	3	Scientific man-months - Government
09 06	1	Other man-months - Government
09 07	4	Total man-months - Government

10 01 Our share of the contract to the consulting firm was in the amount
of \$9,300. The contract was administered by the Ministry of
Transport.

11 Nil

12 Yukon Government was represented on the steering committee which
set the terms of reference for the study and supervised the
consultants

13 Report published. Not confidential, available from this Division.

14 Nil

15 Mr. Harold Wirth,
992-8629
Head, Transportation Section,
Northern Program Planning Division,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario
K1A 0H4

01 15 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning division

03 Noress No. 4.31 Eastern Arctic Resupply - Feasibility of Using
Ports other than Montreal.

04 To assess the feasibility of supplying the Eastern Arctic from
alternative ports based on total landed cost at destination.

05 05 Human Sciences Economics - Communications

06 01 Ports on the east coast of Canada and the eastern Arctic area.
06 02 Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - July 1975 - August

09 01	2.8	Salaries and wages
09 04	2.8	Total costs
09 05	1	Scientific man-months - Government
09 06	.2	Other man-months - Government
09 07	1.2	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Nil

14 Nil

15 Mr. Harold Wirth,
992-8629
Head, Transportation Section,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 16 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning Division

03 Noress No. 4.33 Task Force on Northern Business

04 To study problems encountered by Northern Businessmen in obtaining
Federal contracts.

05 05 Human Sciences Commerce

06 01 Yukon and N.W.T.
06 02 Yukon and N.W.T.

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - January 1976

09 01	12.0	Salaries and wages
09 03	22.0	Other costs
09 04	34.0	Total costs
09 06	6	Other man-months - Government
09 07	6	Total man-months - Government

10 Nil

11 Nil

12 Task Force consisted of Northern Businessmen and public hearings
were held in nine larger communities.

13 Reports published and available from Information Services (not
confidential)

14 Nil

15 Mr. A. Métivier,
992-3822
Program Development Section,
Northern Program Planning Division,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 17 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch
Northern Program Planning Division

03 Transportation Component of the Regional Plan for the Mackenzie
Delta.

04 To evaluate future requirements for Mackenzie Delta transportation
infrastructure in light of hydrocarbon development. The project
was done in support of overall planning activity in the Mackenzie
Delta Regional Plan.

05 05 Human Sciences Economics - Communications

06 01 Mackenzie Delta
06 02 Ottawa (10 days in North)

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - September 1976 - April

09 01 8.5 Salaries and wages
09 03 1.8 Other costs
09 04 10.3 Total costs
09 05 6 Scientific man-months - Government
09 06 1.2 Other man-months - Government
09 07 7.2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Reports entitled, "Transportation Implications, of Option 3 and
Option 4 of the Mackenzie Delta Regional Plan" and "Inventory of
Existing and Planned Transportation Facilities in the Mackenzie
Delta", available from Rudy Rogalsky, Regional Planning Section,
Northern Policy and Planning ACND Division, DIAND.

14 Nil

15 Mr. Edouard Préfontaine,
992-8629
Transportation Section,
Northern Program Planning Division,
Room 923,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 18 Indian Affairs and Northern Development

02 Northern Policy and Program Planning

03 Administrative Support for the Arctic Institute of North America.

04 To provide scientific and general information on arctic regions.

05 01 Life Sciences Multi-disciplinary

05 02 Physical Sciences Multi-disciplinary

05 03 Engineering Sciences Multi-disciplinary

05 04 Environmental Sciences Multi-disciplinary

05 05 Human Sciences Multi-disciplinary

06 01 NWT - YT - Arctic Québec

06 02 Montreal and Calgary

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 141.1 Other costs

09 04 141.1 Total costs

09 05 08 48 Scientific man-months - Government NDN-GOV.

09 06 09 36 Other man-months - Government NDN-GOV.

09 07 10 84 Total man-months - Government NDN-GOV.

10 02 A grant to the Arctic Institute of North America for \$141,400 of which \$84,700 was for publications.

11 Nil

12 Nil

13 ARCTIC BIBLIOGRAPHY, Volume XVI
 "Arctic" A quarterly scientific journal
 Other reports and data as provided by AINA. Also, includes support to the AINA library.

14 This grant-in-aid in 50% of audited administrative expenses, or \$150,000. whichever is the lesser, to provide information on the North.
 The grant is made on an annual basis, subject to review by the Advisory Committee on Northern Development.

15 Leo M. Bereza,
 (613) 996-8514
 Chief, A.C.N.D. Secretariat,
 Indian Affairs and Northern Development
 Room 341,
 400 Laurier Avenue West,
 Ottawa, Ontario,
 K1A 0H4

01 19 Indian Affairs and Northern Development

02 Northern Policy and Program Planning Branch

03 Mackenzie Highway Project - Social/Environmental/Technical Cost
Benefit Analysis - Part I and II.

04 Part I - Social Factors. Introducing native populations to
non-native wage economy and providing them with theoretical and
practical education in operating heavy equipment related to
Northern Road construction activities.
Part II - Technical/Environmental - To develop methods with
which technical and environmental aspects of northern road
building could be improved with minimal damage to the fragile
northern environment.

05 03 Engineering Sciences
05 04 Environmental Sciences
05 05 Human Sciences

06 01 Both parts of the report studied the Mackenzie Valley Region.
06 02 Ottawa and above location

07 01 Nil
07 02 Nil
07 03 Nil

08 1974 - August 1975 - October - Part I
1974 - August 1975 - October - Part II

09 01 50 Salaries and wages
09 04 50 Total costs
09 05 36 Scientific man-months - Government
09 07 36 Total man-months - Government

10 Nil

11 Nil

12 Officials of Northwest Territorial Government

13 Report entitled - Mackenzie Highway Project Social/Environmental/
Technical Cost Benefit Analysis

14 Nil

15 Mr. J. Vida,
992-0881
15th Floor, Journal Bldg.,
365 Laurier Avenue West,
Ottawa, Ontario

01 20 Indian Affairs and Northern Development

02 Northern Program

03 Resource Revenue Projections

04 To project non-tax revenue which might accrue to the Government of Canada from oil and gas development in areas under the jurisdiction of the Department of Indian Affairs and Northern Development under varying assumptions regarding oil and gas prices, pipeline systems and royalty rates for the period 1983 to 2000.

05 05 Human Sciences Economics

06 01 Yukon, Northwest Territories and Arctic Offshore Area.
06 02 Ottawa, Ontario

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - May 1976 - February

09 01	23.5	Salaries and wages
09 04	23.5	Total costs
09 05	12	Scientific man-months - Government
09 06	3	Other man-months - Government
09 07	15	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Data are available for use on a "need to know" basis (confidential) within the Department.

14 Nil

15 Mr. B. Bennion,
992-3451
A/Chief, Northern Data and Liaison Division,
Room 278,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 21 Indian Affairs and Northern Development

02 Northern Program

03 Development of Economic Accounts for the Yukon Territory and the Northwest Territories.

04 To provide a consistent set of economic accounts for each year 1967 to 1974, by territory, required for determining the nature of changes in the northern economy over time, which information is needed in the process of government policy formulation and evaluation relating to northern economic development.

05 05 Human Sciences Economics

06 01 Yukon and Northwest Territories

06 02 Ottawa, Ontario

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - November 1976 - summer

09 01 17 Salaries and wages

09 04 17 Total costs

09 05 6 Scientific man-months - Government

09 06 3 Other man-months - Government

09 07 9 Total man-months - Government

10 Nil

11 Nil

12 Project undertaken in consultation and cooperation with the Territorial governments.

13 None at present; economic accounts by Territory, for period 1967 to 1974 inclusive to be published during 1976.

14 Nil

15 Mr. B.J. Bennion,
992-3451
A/Chief, Northern Data and Liaison Division,
Room 278,
400 Laurier Avenue West,
Ottawa, Ontario
K1A 0H4

01 22 Indian Affairs and Northern Development

02 Northern Program

03 Assessment of the feasibility of extending the national Labour Force Survey to the Northwest Territories and Yukon.

04 To generate meaningful monthly labour force data by sex, age and ethnic group - on a regional basis - for the Yukon and the Northwest Territories, to be used as an input for program and policy development and evaluation.

05 05 Human Sciences Demography - Economics

06 01 Yukon and Northwest Territories

06 02 Ottawa, Ontario

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1976

09 01 12 Salaries and wages

09 04 12 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Project undertaken in consultation and cooperation with the territorial governments through the Economic Planning Committee of the ACND.

13 None at present.

14 This project is being conducted jointly with Statistics Canada who will actually conduct much of the work in 1976, under contract to this Department.

15 Mr. B.J. Bennion,
992-3451
A/Chief, Northern Data and Liaison Division,
Room 278,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 23 Indian Affairs and Northern Development

02 Northern Affairs Program

03 The collection, compilation and analysis of social statistics on the labour force and income from employment of the population of the Northwest Territories and Yukon, using 1961 and 1971 Census data.

04 These social statistics delineate in quantitative terms some principal features of northern society, assist in identifying existing and emerging social problems, policy and program development and the evaluation of governmental policies and programs related to these areas.

05 05 Human Sciences Economics, sociology, political science.

06 01 Yukon and Northwest Territories
06 02 Ottawa, Ontario

07 01 Nil
07 02 Nil
07 03 Nil

08 1974 - November 1976 - March

09 01 27 Salaries and wages
09 03 2 Other costs
09 04 29 Total costs
09 05 12 Scientific man-months - Government
09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 The special Census tabulations on which the statistics on employment and income from employment are based are available on request.

14 A policy paper on social statistics was considered by the ACND in October of 1974. This is the basis of the work that has followed.

15 Mr. B.J. Bennion,
992-3451
A/Chief, Northern Data and Liaison Division,
Room 278,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 24 Indian Affairs and Northern Development

02 Northern Affairs

03 Circumpolar Research

04 The Northern Affairs Program maintains a circumpolar research group whose responsibility is to follow socio-economic and technical developments in the circumpolar north, primarily in Greenland, Scandinavia and in the Soviet North in order to provide scientific and other information to federal, provincial and private agencies.

05 05 Human Sciences Economics - Sociology

06 01 Scandinavia, northern regions of the U.S.S.R. and Greenland
06 02 Ottawa, Ontario

07 01 Nil
07 02 Nil
07 03 Nil

08 Ongoing

09 01 76 Salaries and wages
09 03 20 Other costs
09 04 96 Total costs
09 05 24 Scientific man-months - Government
09 06 12 Other man-months - Government
09 07 36 Total man-months - Government

10 01 a) Review of the Soviet Petroleum Industry in the Soviet North.
b) Methodological Problems of the Soviet All Union Census as it Relates to Northern Native Groups.
Total cost of \$6,500.

11 Nil

12 Nil

13 Information on the findings of all circumpolar research activities is available on request. It is planned to publish reports on the projects shown below during 1976.
a) Canada's Eastern Neighbour - a Social and Economic Review of Greenland;
b) Review of the Soviet Petroleum Industry in the Soviet North;
c) Methodological Problems of the Soviet All Union Census as it Relates to Northern Native Groups;
d) Socio-Economic Survey of Norway.

14 The socio-economic surveys of Greenland and Norway (items 1 and 4 above) were conducted in those countries. Other work is based on published material and largely Canadian based expertise.

15 Mr. B.J. Bennion,
992-3451
A/Chief, Northern Data and Liaison Division,
Room 278,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 25 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Canadian Arctic Islands Terrain Sensitivity Photomosaics

04 To establish the relative sensitivity of tolerance of various terrain units in the Arctic Islands to disturbance of the surface conditions.

05 04 Environmental Sciences Geology - geomorphology - Physics

06 01 Northwest Victoria Islands, Queen Elizabeth Group, Grinnell Peninsula, Prince of Wales Island, Amund Ringnes & Cornwall Islands, Cornwallis Island and Somerset Island

06 02 Calgary, Alberta

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 164 Other costs

09 04 164 Total costs

10 01 Sproule Associates Ltd.,
Box 6525, Postal Station D,
Calgary, Alberta,
T2P 2E1
Cost \$164,000.

11 Nil

12 Nil

13 Maps available from Sproule Associates

14 Nil

15 G.A. Yarranton,
996-9806
Head, Environmental Studies,
Department of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 26 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Ecology of the Canadian Arctic Archipelago - Selected References
Volumes 3 and 4

04 To provide a summary and list of all work in environmental
sciences in the Arctic Islands for reference purposes.

05 04 Environmental Sciences All environmental sciences

06 01 Arctic Archipelago
06 02 Edmonton, Alberta

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 19.8 Other costs
09 04 19.8 Total costs

10 01 Western Ecological Services,
211 - 11 Fairway Drive,
Edmonton, Alberta,
T6J 3S6
Cost \$19,800.

11 Nil

12 Nil

13 Report Summary 1976

14 Nil

15 G.A. Yarranton,
996-9806
Head, Environmental Studies,
Department of Indian and Northern Affairs

01	27	Indian Affairs and Northern Development	
02		Water, Lands, Forests and Environment (Environment)	
03		Monitoring Studies of Short and Long-Term Effects of Crude Oil Spills on Terrestrial and Aquatic Vegetation in Arctic Ecosystems.	
04		Continuation of monitoring at the experimental spill sites at Norman Wells and completion of the program at Tuktoyaktuk to give data for three summers following a spill.	
05	04	Environmental Sciences	Plant Ecology
06	01		
06	02	Norman Wells, Tuktoyaktuk	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975 - April 1	1976 - March 31
09	03	21.1	Other costs
09	04	21.1	Total costs
10	01	\$21,100	
		Dr. T.C. Hutchinson,	
		Department of Botany,	
		University of Toronto,	
		TORONTO, Ontario.	
11		Nil	
12		Nil	
13		Summer 1976	
14		Nil	
15		G.A. Yarranton,	
		996-9806	
		Head, Environmental Studies,	
		Department of Indian and Northern Affairs,	
		400 Laurier Avenue West,	
		Ottawa, Ontario,	
		K1A 0H4	

01 28 Indian Affairs and Northern Development

02 Northern Affairs

03 Yukon Land & Resources Inventory

04 The purpose of this inventory is to collect and present in illustrated form the available information on land use and resources of the Yukon Territory to provide data base to which new information may be added, and to identify voids in the available knowledge.

05 04 Environmental Sciences Forestry/Hydrology/Wildlife biology/
Agricultural science

06 01 Yukon Territory

06 02 Yukon Territory and Vancouver

07 01 Government of the Yukon

07 02 Yukon Government \$12,500.

07 03 Nil

08 1975 - January 1976 - August

09 03 142.5 Other costs

09 04 142.5 Total costs

10 01 \$142,500.
F.F. Slaney & Company Ltd.,
402 West Pender Street,
Vancouver, B.C.
V6B 1T9

11 Nil

12 Nil

13 Summer 1976

14 Nil

15 B.J. Trevor,
668-5151
Regional Director of Resources,
Department of Indian and Northern Affairs,
Building 200, Takhini,
Whitehorse, Y.T.

01 29 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Fire Effects on Terrain in the Western Northwest Territories

04 To compare the study of vegetation "successions" on uplands following fire, and to describe quantitatively the changes in plant populations along temporal and spatial gradients in relation to environment.

05 01 Life Sciences Plant Ecology

05 04 Environmental Sciences Forestry - Wildlife biology

06 01 Precambrian Uplands (Caribou Range)

06 02 Northeast of Ft. Smith (using Porter Lake and Snowdrift as Bases)

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 21.6 Other costs

09 04 21.6 Total costs

10 01 \$21,600

 Dr. Rowe, University of Saskatchewan

11 Nil

12 Nil

13 ALUR report 1975-76 to be available Info Canada. One publication in Scientific Journal

14 Nil

15 Dr. G.A. Yarranton,
 992-4067
 Head, Environmental Studies,
 Department of Indian and Northern Affairs,
 400 Laurier Avenue West,
 Ottawa, Ontario,
 K1A 0H4

01 30 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Terrain Disturbance Studies, Banks Island, N.W.T.

04 To evaluate the nature and extent of recent terrain disturbances with emphasis to (1) cross tundra movement of heavy equipment (2) seismic lines (3) drill hole site (4) major storage and staging points.

05 04 Environmental Sciences Geology - geomorphology/Physics

06 01 Banks Island, N.W.T.

06 02 a) Johnson Point
b) Sachs River Lowlands
c) Jesse Harbour
d) West Coast sites
e) Big River Site (Deminex)
f) 1973/4 seismic lines

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 34.5 Other costs

09 04 34.5 Total costs

10 01 \$34,500
Dr. H.M. French,
Department of Geography and Regional Planning,
University of Ottawa,
Ottawa, Ontario,
K1N 6N5

11 Nil

12 Nil

13 Reports Summer 1976

14 Nil

15 G.A. Yarranton,
996-9806
Head, Environmental Studies,
Dept. of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 31 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Impact of Fire on Forest and Tundra Ecosystems

04 To study the recovery of burnt surfaces characteristic of the region to the east of Great Slave Lake in terms of vegetation development and microclimatic and the interaction between these facets of the central problem of fire damage.

05 04 Environmental Sciences Plant ecology/Atmospheric sciences

06 01 Great Slave Lake

06 02 60°5', 106°58'W (Carleton Lake Area) and McMaster University

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 69.9 Other costs

09 04 69.9 Total costs

10 01 \$69,900
Dr. K.A. Kershaw,
Dept. of Biology,
McMaster University,
Hamilton, Ontario
L8S 4K1

11 Nil

12 Nil

13 Report summer 1976

14 Nil

15 Dr. G.A. Yarranton,
996-9806
Head, Environmental Studies,
Dept. of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 32 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment(Environment)

03 An Inventory of Aquatic Resources of the Mackenzie Delta as Related to Gas Development.

04 To provide environmental baseline data which can be used in assessing the potential environmental impact of the development of gas treatment and transportation facilities within the study area.

05 01 Life Sciences Marine biology/Fisheries biology

05 04 Environmental Sciences Limnology/Hydrology

06 01 Mackenzie Valley

06 02 Parsons with group east of Parsons Lake to an intersection with the proposed CAGSL pipeline, and from the vicinity of Taglu to the vicinity of Swimming Point.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - August 21 1976 - March 31

09 03 10 Other costs

09 04 10 Total costs

10 03 \$10,000 transfer to:
R.J. Paterson,
Chief, Resources Management Branch,
Fisheries & Marine Service,
Department of the Environment,
501 University Crescent,
Winnipeg, Manitoba,
R3T 2N6

11 Nil

12 Nil

13 Nil

14 Nil

15 Dr. N.B. Snow,
992-8639
Aquatic Biologist,
Environmental Assessment,
Dept. of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 33 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Northern Land Use Information Map Series (Great Bear Lake Region
Baseline Research)

04 Research results will outline critical and important areas for
fish and wildlife and provide background data on current
utilization of those resources.

05 01 Life Sciences Wildlife biology/Fisheries biology

05 04 Environmental Sciences Hydrology/Limnology/Archaeology/Forestry/
Plant Ecology/Zoology/Geology/Sociology

06 01 Region north of Great Bear Lake, south of Amundsen Gulf, and east
of Amundsen Gulf

06 02 Same as above.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 163.2 Other costs

09 04 163.2 Total costs

10 03 \$163,200 transfer to:
Ken Taylor, Project Co-ordinator,
Lands Directorate,
Department of Environment,
Place Vincent Massey,
351 St. Joseph Blvd.,
Hull, P.Q.,
K1A 0H3

11 Nil

12 Nil

13 Maps available summer 1976

14 Nil

15 Dr. G.A. Yarranton,
996-9806
Head, Environmental Studies,
Dept. of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01	34	Indian Affairs and Northern Development	
02		Water, Lands, Forests and Environment	
03		Strathcona Sound Biological Monitoring Program	
04		Evaluation of potential environment impact of mine waste disposal in Strathcona Sound.	
05	04	Environmental Sciences	Marine biology/Oceanography
06	01	Strathcona Sound	
06	02	Admiralty Inlet, South Lancaster Sound Area	05
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975 - April 1	1976 - March 31
09	03	118	Other costs
09	04	118	Total costs
10	03	\$118,000 transfer to: W.J.D. Stephen, Regional Director, C.W.S. Environment Canada, 1110-10025 Jasper Avenue, Edmonton, Alberta.	
11		Nil	
12		Nil	
13		Nil	
14		Studies being undertaken by CWS personnel (DOE)	
15		W.J.D. Stephen, C.W.S., Environment Canada, 1110-10025 Jasper Avenue, Edmonton, Alberta.	

01	35	Indian Affairs and Northern Development
02		Water, Lands, Forests and Environment(Water)
03		Flood Prediction Ross River and Stuart River, Y.T.
04		To develop a predictive model for flooding in communities near the Ross River and Stuart River as a function of climatic variables and/or preceding discharging so that an early flood warning system can be derived.
05	04	Environmental Sciences Atmospheric sciences/Hydrology
06	01	Ross & Stuart River Flood Plains, Y.T.
06	02	Laboratory studies in Edmonton
07	01	Nil
07	02	Nil
07	03	Nil
08		1975 - April 1 1975 - December 31
09	03	7 Other costs
09	04	7 Total costs
10	01	\$7,000 Dr. J.P. Verschuren, Department of Civil Engineering, University of Alberta, Edmonton, Alberta
11		Nil
12		Nil
13		Report Spring 1976
14		Nil
15		Mr. V. Schilder, 992-8322 Hydrologist, Environment Division, Dept. of Indian and Northern Affairs, 400 Laurier Avenue West, Ottawa, Ontario, K1A 0H4

01 36 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment

03 The Probable Effects of Disposal of Mine Tailings into Strathcona Sound, N.W.T.

04 To review and summarize existing knowledge of the fate of lead, zinc, cadmium, copper and iron compounds in mine wastes discharged into water bodies with particular reference to Arctic Marine Waters.

05 04 Environmental Sciences Oceanography/Marine biology

06 01 Strathcona Sound

06 02 Literature Search and Review

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - June 2 1975 - July 31

09 03 16.3 Other costs

09 04 16.3 Total costs

10 01 \$16,300
Hatfield Consulting Ltd.,
4394 Gallant Ave.,
Deep Cove, North Vancouver,
British Columbia,
V7G 1Z2

11 Nil

12 Nil

13 Report to be published late Spring 1976

14 Nil

15 Dr. N.B. Snow,
992-8639
Room 1036,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 37 Indian Affairs and Northern Development
02 Water, Lands, Forests and Environment
03 Toxicity of Formulated Mine Tailings on Marine Polychaeta
04 Investigate potential effects of effluent from a mine development
if it is allowed to run into Strathcona Sound
05 01 Life Sciences Marine biology
05 04 Environmental Sciences
06 01 Strathcona Sound
06 02 Laboratory Studies
07 01 Nil
07 02 Nil
07 03 Nil
08 1975 - October 1 1976 - July 31
09 03 35 Other costs
09 04 35 Total costs
10 01 \$35,000
Marine Biological Consultants Inc.,
947 Newall Street,
Costa Mesa, California,
92627
Attn: C.T. Mitchell
11 Nil
12 Nil
13 Report to be available Fall 1976
14 Nil
15 Dr. N.B. Snow,
992-8639
Environment Division,
Department of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A0H4

01 38 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Effects of Perturbations on Plant Communities, a Quantitative
Approach to the Potential for Revegetation in the High Arctic

04 Determine the potential for natural and artificial establishment
of plants in relation to exploration and development of gas fields
in the Arctic Islands.

05 04 Environmental Sciences Plant Ecology

06 01 Arctic Islands

06 02 Sun Oil Camp, Northeastern end of King Christian Island

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 11.5 Other costs

09 04 11.5 Total costs

10 01 \$11,500
L.C. Bliss,
Department of Botany,
University of Alberta,
Edmonton, Alberta

11 Nil

12 Nil

13 Report, June 1976

14 Nil

15 Dr. G.A. Yarranton,
996-9806
Head, Environmental Studies,
Dept. of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01	39	Indian Affairs and Northern Development
02		Water, Lands, Forests and Environment (Environment)
03		Investigation of Factors Affecting the Biodegradability of Northern Crude Oils
04		Nil
05	04	Environmental Sciences Microbiology
06	01	Swan Hills, Alberta, Norman Wells, N.W.T.
06	02	Laboratory studies
07	01	Nil
07	02	Nil
07	03	Nil
08		1975 - April 1 1976 - March 31
09	03	19.2 Other costs
09	04	19.2 Total costs
10	01	\$19,200 Dr. D.W.S. Westlake, Department of Microbiology, University of Alberta, Edmonton, Alberta
11		Nil
12		Nil
13		Report Spring 1976
14		Nil
15		Dr. G.A. Yarranton, 996-9806 Head, Environmental Studies, Dept. of Indian and Northern Affairs, 400 Laurier Avenue West, K1A 0H4

01 40 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Toxicity Studies of Arsenic and Cyanide Associated with Northern Mining Operations

04 Cyanide and arsenic are closely associated in mine tailings effluents. Recent studies of the toxicity of these two chemicals combined showed some synergistic effect.
 Studies are directed to better define water quality standards to protect arctic fish population and man.

05 04 Environmental Sciences Fisheries biology/Limnology

06 01
 06 02 Water Pollution Research Laboratory, Concordia University, Montreal, P.Q.

07 01 Nil
 07 02 Nil
 07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 35.5 Other costs
 09 04 35.5 Total costs

10 01 \$35,500
 Dr. G. Leduc,
 Department of Biological Sciences,
 Concordia University,
 1455 de Maisonneuve Blvd. West,
 Montreal, P.Q.,
 H3G 1M8

11 Nil

12 Nil

13 Report Spring 1976

14 Nil

15 Dr. G. Yarranton,
 996-9806
 Head, Environmental Studies,
 Department of Indian and Northern Affairs,
 400 Laurier Avenue West,
 Ottawa, Ontario,
 K1A 0H4

01 41 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Numerical Simulation of Microclimatic and Active Layer Regimes in
a High Arctic Environment

04 Energy Balance Studies of natural and disturbed sites in High Arctic
a) obtain an understanding of the natural system;
b) test a computer model which predicts microclimatic regimes.

05 04 Environmental Sciences Geology/Atmospheric Sciences

06 01 Arctic Islands
06 02 12 miles north of Eureka, Ellesmere Island, N.W.T.

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 23.4 Other costs
09 04 23.4 Total costs

10 01 \$23,400
Dr. M.W. Smith,
Department of Geography,
Carleton University,
Ottawa, Ontario,
K1A 5B6

11 Nil

12 Nil

13 Report Spring 1976

14 Nil

15 Dr. G.A. Yarranton,
996-9806
Head, Environmental Studies,
Department of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 42 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Water)

03 Study of the Northwest Territories Water Resources

04 Analyze and summarize available data relevant to qualitative and quantitative illustration of the hydrologic cycle in various basins and regions.

05 04 Environmental Sciences Atmospheric sciences/Hydrology

06 01 Mackenzie River Basin

06 02 Sylvia Grinnel River, La Marte River, Taltson River, Liard River, Mackenzie River

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - September 18 1976 - March 31

09 03 62.2 Other costs

09 04 62.2 Total costs

10 01 \$62,200
Acres Consulting Services Ltd.,
5259 Dorchester Road,
Niagara Falls, Ontario,
L2E 6N8
Attn: C.H. Atkinson

11 Nil

12 Nil

13 Report 31 March 1976

14 Nil

15 A.H. Jones,
(613) 996-4648
Chief, Water Resources Division,
Department of Indian & Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01	43	Indian Affairs and Northern Development
02		Water, Lands, Forests and Environment (Environment)
03		Mackenzie Valley Data Bank
04		Nil
05	04	Environmental Sciences Geology
06	01	Mackenzie Valley
06	02	Ottawa
07	01	Nil
07	02	Nil
07	03	Nil
08		1975 - April 1976 - March
09	03	10 Other costs
09	04	10 Total costs
10	03	\$10,000 transferred to: R.G. Skinner, Co-ordinator, G.S.C., Department of Energy, Mines and Resources, 601 Booth Street, Ottawa, Ontario, K1A 0E8
11		Nil
12		Nil
13		Borehole information analyzed and stored in computer data bank
14		Geotech. information available upon request.
15		P.J. Ferris, 996-9806 Head, Environmental Engineering, Dept. of Indian and Northern Affairs, 400 Laurier Avenue West, Ottawa, Ontario, K1A 0H4

01 44 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Geological and Geotechnical Monitoring of Mackenzie Highway

04 Study the hydraulic and morphologic behaviour of selected river crossings and initiate long-term studies into river processes and form.

05 03 Engineering Sciences Engineering

05 04 Environmental Sciences Geology

06 01 Mackenzie Valley

06 02 river crossings in Franklin Mountains between Miles 297 & 556

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 14.1 Other costs

09 04 14.1 Total costs

10 03 \$14,100 transferred to:
 J.S. Scott,
 Terrain Science Division,
 G.S.C.
 Dept. of Energy, Mines and Resources,
 601 Booth Street,
 Ottawa, Ontario,
 K1A 0E8

11 Nil

12 Nil

13 Report completed on location for embankment study and possible locations for backslope monitoring study.

14 Nil

15 P.J. Ferris,
 996-9806
 Head, Environmental Engineering,
 Dept. of Indian and Northern Affairs,
 400 Laurier Avenue West,
 Ottawa, Ontario,
 K1A 0H4

01 45 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Hydraulic and Morphologic and Morphometric Studies on Selected Rivers along Mackenzie Highway.

04 Assess the accuracy of design estimates, identify and monitor any modifications to the channel regime and form caused by construction.

05 04 Environmental Sciences Geology

06 01 Mackenzie Valley

06 02 river crossings in Franklin Mountains between Miles 297 & 556

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 48.8 Other costs

09 04 48.8 Total costs

10 03 \$48,800 transferred to:
 J.S. Scott, Director,
 Terrain Sciences Division,
 G.S.C.,
 Dept. of Energy, Mines and Resources,
 601 Booth Street,
 Ottawa, Ontario,
 K1A 0E8

11 Nil

12 Nil

13 Progress report on field work completed.

14 At present baseline or preconstruction data is being collected.

15 P.J. Ferris,
 996-9806
 Head, Environmental Engineering,
 Dept. of Indian and Northern Affairs,
 400 Laurier Avenue West,
 Ottawa, Ontario,
 K1A 0H4

01 46 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Assessment of Thermal Performance of Embankments Constructed on
Permafrost Mackenzie Highway.

04 Conduct field studies prior to, during and after construction in
ice rich (thaw unstable) permafrost for the assessment of the
effect of the highway on the ground thermal regime (environment)
and gather information required to improve the thermal design of
embankments in permafrost areas.

05 03 Engineering Sciences Soil Sciences
05 04 Environmental Sciences Engineering

06 01 along Mackenzie Highway at approximately Mile 419 (South of Wrigley)
07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 40 Other costs
09 04 40 Total costs

10 03 \$40,000 transferred to:
G.H. Johnston,
Geotechnical Section,
Division of Building Research,
National Research Council of Canada,
Ottawa, Ontario,
K1A 0R6

11 Nil

12 Nil

13 Nil

14 Instrumentation has been installed to collect pre-construction data.
Instrumentation, to determine the stability of the ice rich
permafrost under the embankment, has also been installed.

15 P.J. Ferris,
996-9806
Head, Environmental Engineering,
Department of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 47 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Wetland Habitat Monitoring Along the Mackenzie Highway

04 In selected areas along the highway alignment, to monitor changes in wetlands before, during and after highway construction.

05 04 Environmental Sciences Biology

06 01 Mackenzie Valley

06 02 Mackenzie Highway Corridor

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 19.5 Other costs

09 04 19.5 Total costs

10 03 \$19,500 transferred to:
W.J.D. Stephen,
Regional director, C.W.S.,
Dept. of Environment,
Room 1110-10025 Jasper Avenue,
Edmonton, Alberta,
T5G 1S6

11 Nil

12 Nil

13 Report and data on survey plots have been completed.

14 At present baseline or preconstruction data is being collected at most sites.

15 P.J. Ferris,
996-9806
Head, Environmental Engineering,
Dept. of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 48 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Impact of Mackenzie Highway Construction on Aquatic Resources of
Hodgson Creek (M.438) and Smith Creek (M.430).

04 Determine the effects of highway construction, hydrological changes
and siltation on the systems and their aquatic resources and to
determine the effectiveness of construction recommendations and
guidelines.

05 01 Life Sciences Biology
05 04 Environmental Sciences Hydrology

06 01 Mackenzie Highway
06 02 Hodgson Creek (M.438) and Smith Creek (M.430)

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 88 Other costs
09 04 88 Total costs

10 03 \$88,000 transferred to:
R.J. Paterson,
Chief, Fisheries & Marine Service,
Dept. of Environment,
501 University Crescent,
Winnipeg, Manitoba,
R3T 2N6

11 Nil

12 Nil

13 Interim progress report completed.

14 At present baseline data is being collected

15 P.J. Ferris,
996-9806
Head, Environmental Engineering,
Dept. of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 49 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Hydrologic Studies at Culvert Sites Along the Mackenzie Highway

04 At selected basins determine the characteristics of the annual runoff cycle and response of basins to summer storms by measuring the precipitation and runoff throughout the summer, at existing culvert locations; investigate the influences of the culvert and the accompanying road construction.

05 03 Engineering Sciences Hydrology

05 04 Environmental Sciences

06 01 Mackenzie Valley

06 02 Mackenzie Highway Corridor

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 11 1976 - March 31

09 03 67.5 Other costs

09 04 67.5 Total costs

10 03 \$67,500 transferred to:
 Dr. O.H. Loken,
 Chief, Glaciology Division,
 Water Resources Branch,
 Dept. of Environment,
 Ottawa, Ontario,
 K1A 0H3

11 Nil

12 Nil

13 Report and data from field work completed.

14 Nil

15 P.J. Ferris,
 996-9806
 Head, Environmental Engineering,
 Department of Indian and Northern Affairs,
 400 Laurier Avenue West,
 Ottawa, Ontario,
 K1A 0H4

01 50 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment (Environment)

03 Impact of Highway Development on Peregrin Falcons

04 To determine the effects of highway construction on nest success, adult behaviour and site occupancy; and apply the implications to subsequent portions of the highway.

05 01 Life Sciences Biology

05 04 Environmental Sciences

06 01 Mackenzie Highway

06 02 Campbell Hills and Arctic Red River, Norman Range

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 29.2 Other costs

09 04 29.2 Total costs

10 03 \$29,200 transferred to:
W.J.D. Stephen,
Regional Director,
CWS,
Dept. of Environment,
Room 1110-10025 Jasper Avenue,
Edmonton, Alberta,
T5G 1S6

11 Nil

12 Nil

13 Progress report on the year's field work completed.

14 At present the study is establishing baseline data for comparison with data following highway construction.

15 P.J. Ferris,
996-9806
Head, Environmental Engineering,
Department of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 51 Indian Affairs and Northern Development

02 Northern Affairs

03 Hydrometric Surveys Yukon and N.W.T.

04 Collection of stream flow and water level and water quality
required data in the planning, management and use of the water
resources of Yukon and N.W.T.

05 04 Environmental Sciences Hydrology

06 01 Yukon and N.W.T. and Arctic Islands

06 02 Yukon and N.W.T. and Arctic Islands

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

9 03 250 OTHER COSTS

09 04 250 Total costs

10 03 This study is carried out for us by the Department of Environment.
Total during 1975-76 \$250,000.

11 Nil

12 Nil

13 Data published by Department of Environment yearly.

14 Nil

15 Allan H. Jones,
996-4648
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 52 Indian Affairs and Northern Development

02 Northern Affairs

03 River Surveys, Yukon Territory

04 Obtain hydrologic and geomorphic characteristics of rivers and drainage basins in the Yukon Territory, to aid in the management of the water resources.

05 04 Environmental Sciences Geology/Hydrology

06 01 Yukon Territory

06 02 Yukon Territory

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 18.5 Other costs

09 04 18.5 Total costs

10 01 Contract let for entire project. Price \$18,500 Hosford, Impey and Walters, Whitehorse, Y.T.

11 Nil

12 Engaged local surveyors

13 Data available upon request

14 Nil

15 C.N. Williams,
(403) 668-5151
200 Range Road Takhini,
Whitehorse, Yukon Territory,
Y1A 3V1

01 53 Indian Affairs and Northern Development

02 Northern Affairs

03 Prepare a master planning framework for water resource management
in the Yukon River Basin.

04 To establish the nature, scale and quality of the work already
completed, underway or planned by several federal and territorial
agencies presently involved in management of the water resources
of the Yukon River Basin, to enable the Department to effectively
allocate funds for further water management work in the Basin.

05 04 Environmental Sciences

06 01 Yukon River Basin

06 02 Yukon Territory and Ottawa, Ontario

07 01 Nil

07 02 Nil

07 03 Nil

08 1976 - January 27 1976 - March 31

09 03 19.7 Other costs

09 04 19.7 Total costs

10 01 Laurentian Institute for Social and Economic Development, Ottawa,
Ontario. Cost \$19,700. Entire study completed by contract.

11 Nil

12 Nil

13 Draft report available May 1, 1976.

14 Nil

15 Allan H. Jones,
996-4648
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 54 Indian Affairs and Northern Development

02 Northern Program; Water, Land, Forest and Environmental Branch

03 Geotechnical Evaluation of selected sources of granular material
in the Mackenzie Delta area.

04 To obtain precise information on the location, quantity and quality
of granular material available, on three selected sources in the
Mackenzie Delta area, in order to formulate a management plan for
these resources.

05 04 Environmental Sciences Geology

06 01 Mackenzie Delta area

06 02 Edmonton, Alberta

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - November 1976 - April 1

09 01 7.4 Salaries and wages

09 03 194.6 Other costs

09 04 202.0 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

10 01 E.G. A. Engineering Consultants, Edmonton, Alberta. Contract for
complete geotechnical evaluation:

Professional fees	\$56,000
Sub-Contractors (drillers etc.)	116,000
Lab. testing and other costs	<u>22,600</u>
	<u>\$194,600</u>

11 Nil

12 The information acquired will be used to formulate an overall
management plan for granular resources in the Mackenzie Delta area.
The NWT government will be consulted in order to consider
communities' requirements for granular material.

13 Reports will provide an evaluation of quantities and quality of
granular material, borehole logs, grain size analysis and other
laboratory tests. The report will be available for consultation at
DIAND regional offices in Ottawa, Yellowknife and Edmonton.

14 Nil

15 Ian Petrie,
992-9237
Rm. 1035
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 55 Indian Affairs and Northern Development

02 Northern Program, Water Land Forest and Environment Branch, Land Administration Division.

03 Climate Capability for Agriculture of the Southern Yukon and Southwestern NWT.

04 To inventory and assess the agro-climatic resources North of the 60th parallel towards developing the department's agricultural land use policy.

05 04 Environmental Sciences Climatology/Meteorology

06 01 Southern Yukon and Southwestern N.W.T.
06 02 Climate Study: Edmonton - Cartography: Toronto

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 1976 - end of March

09 01	8.0	Salaries and wages
09 03	71.0	Other costs
09 04	79.0	Total costs
09 05	4	Scientific man-months - Government
09 07	4	Total man-months - Government

10 03 \$71,000 transferred to: Atmospheric Environment Service, DOE

11 Nil

12 Territorial Government consulted. Resident expertise in the field consulted. Technical help in the field hired in the north.

13 Interim report and maps have been submitted end of March 1976 - Final report due March 1977 - To be published in 1977-78. Available from the Department of Indian Affairs and Northern Development as a publication and as internal report from DOE.

14 Nil

15 Ian Sneddon,
992-7627
Room 1033,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 56 Indian Affairs and Northern Development

02 Northern Program, Water, Land, Forest and Environment Branch, Land Administration Division.

03 Soil Survey and Agricultural Capability Assessment of the Lower Liard River Valley NWT, and Soil Interpretation for the use of the adjacent Uplands.

04 To develop the Department's agricultural land use policy.

05 02 Physical Sciences Pedology
05 04 Environmental Sciences Grazing specialist

06 01 NWT, Liard Valley
06 02 Soil study - University of Saskatchewan, Cartography - Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 1 1976 - March 31

09 01 8.0 Salaries and wages
09 03 110.0 Other costs
09 04 118.0 Total costs
09 05 4 Scientific man-months - Government
09 07 4 Total man-months - Government

10 03 \$110,000 transferred to: Soil Research Institute of Agriculture Canada sub-contracted to - Saskatchewan Institute of Pedology. Agriculture Canada, Research Station - Beaver Lodge.

11 Nil

12 Federal and Territorial Agencies consulted in the conceptual stages. Involved in drawing up final policy.

13 Agriculture Canada - Soil Survey Report due by March 76 to DIAND for policy development. Available from DIAND which will publish this report in conjunction with a report on the study entitled "Climatic Capability for Agriculture of the Southern Yukon and Southwestern NWT" in 1978.

14 Nil

15 Ian Sneddon,
992-7627
Room 1033,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 57 Indian Affairs and Northern Development

02 Water, Lands, Forests and Environment Branch

03 Terraquest Geophysical Surveys in the Willowlake River Area,
Mackenzie Highway.

04 To direct 4 holes in the Terraquest Study area near Willowlake
River to confirm the results of the Terraquest Geophysical Survey.

05 04 Environmental Sciences Geology

06 01 Mackenzie Valley

06 02 Willowlake River area

07 01 Nil

07 02 Nil

07 03 Nil

08 1976 - March 1976 - April

09 03 4.5 Other costs

09 04 4.5 Total costs

10 03 \$4,500 transferred to:
J.S. Scott,
Terrain Sciences Division,
G.S.C.,
Dept. of Energy, Mines and Resources,
601 Booth Street,
Ottawa, Ontario,
K1A 0E8

11 Nil

12 Nil

13 Data is being compiled

14 Nil

15 P.J. Ferris,
996-9806
Head, Environmental Engineering,
Department of Indian and Northern Affairs,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 58 Indian Affairs and Northern Development

02 Northern Program

03 To study the magmatic and metamorphic history of the Athapusion
Aulacogen, N.W.T.

04 Nil

05 02 Physical Sciences Geology

06 01 Great Slave Lake area, N.W.T.

06 02 as above, through the University of Alberta

07 01 Nil

07 02 Nil

07 03 Nil

08 1975-76 1976-77

09 03 4 Other costs

09 04 4 Total costs

10 01 University of Alberta, contract for \$4,000.

11 Nil

12 Nil

13 University thesis

14 Nil

15 A.D. Oliver,
992-9486
Room 554E,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01	59	Indian Affairs and Northern Development	
02		Northern Affairs Program	
03		To study and catalogue the lead-zinc deposits of the northern Yukon Territory and adjacent N.W.T.	
04		Nil	
05	02	Physical Sciences	Geology
06	01	Northern Yukon Territory and adjacent N.W.T.	
06	02	as above, through University of British Columbia	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975-76	1977-78
09	03	7.4	Other costs
09	04	7.4	Total costs
10	01	University of British Columbia, contract for \$7,400.	
11		Nil	
12		Nil	
13		University thesis	
14		Nil	
15		A.D. Oliver, 992-9486 Room 554E, 400 Laurier Avenue West, Ottawa, Ontario, K1A 0H4	

01 60 Indian Affairs and Northern Development
02 Northern Affairs Program
03 To study the genesis of the Clinton Creek ultramagic body and
associated chrysotile deposits.
04 Nil
05 02 Physical Sciences Geology
06 01 Clinton Creek, Yukon Territory
06 02 as above, through University of British Columbia
07 01 Nil
07 02 Nil
07 03 Nil
08 1975-76 1976-77
09 03 7.3 Other costs
09 04 7.3 Total costs
10 01 University of British Columbia, contract for \$7,300.
11 Nil
12 Nil
13 University thesis.
14 Nil
15 A.D. Oliver,
992-9486
Room 554E,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 61 Indian Affairs and Northern Development

02 Northern Affairs Program

03 To study geomorphology of the Klondike placer gold fields, Yukon Territory.

04 Nil

05 02 Physical Sciences Geology

06 01 Klondike, Yukon Territory
06 02 as above, through McGill University

07 01 Nil
07 02 Nil
07 03 Nil

08 1975-76 1975-76

09 03 13.8 Other costs
09 04 13.8 Total costs

10 01 McGill University, contract for \$13,800.

11 Nil

12 Nil

13 University thesis.

14 Nil

15 A.D. Oliver,
992-9486
Room 554E,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 62 Indian Affairs and Northern Development

02 Territorial and Social Development Branch,
Northern Research Division.

03 Northern Scientific Training Grants to Canadian Universities.

04 The training of scientists in the North with northern experience
and a commitment to northern work. This is in response to the
Minister's Statutory responsibility for fostering science in the
North.

05 01 Life Sciences
05 02 Physical Sciences
05 03 Engineering Sciences
05 04 Environmental Sciences
05 05 Human Sciences

06 01 Canada's northern Territory
06 02 Across the Canadian North.

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 1 1976 - April 1

09 03 325 Other costs
09 04 325 Total costs

10 02 To Northern Institutes of Canadian Universities conducting research
work relating to the Canadian North, grants totalling \$325,000.

11 Nil

12 Through the N.W.T. licensing arrangements.

13 Many and varied.

14 It should be noted that this program is to support the training
for scientists in the north.

15 A.J. Kerr,
992-4778
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01	63	Indian Affairs and Northern Development
02		Territorial and Social Development Branch, Northern Research Division.
03		Northern Man and his Environment.
04		A Study of population and resource utilization.
05	05	Human Sciences Demography and Human Ecology
06	01	Northern Saskatchewan and adjacent N.W.T.
06	02	Institute for Northern Studies, University of Saskatchewan
07	01	Nil
07	02	Nil
07	03	Nil
08		1974 - April 1976 - April
09	03	34 Other costs
09	04	34 Total costs
10	02	To Dr. R. Bone of the University of Saskatchewan, a grant for \$34,000.
11		Nil
12		Extensive
13		Report forthcoming.
14		Nil
15		A.J. Kerr, 992-4778 400 Laurier Avenue West, Ottawa, Ontario, K1A 0H4

01 64 Indian Affairs and Northern Development

02 Territorial and Social Development Branch,
Northern Research Division

03 Local definitions of social problems.

04 Investigate the definitions of social problems in the Eskimo
community of Nain, Labrador.

05 05 Human Sciences Anthropology

06 01 Labrador

06 02 Nain, Labrador

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - March 1976 - April

09 03 23 Other costs

09 04 23 Total costs

10 02 \$23,000. to Dr. English of Memorial University St. John's, Newfoundland.

11 Nil

12 Extensive.

13 Report following

14 Nil

15 A.J. Kerr,
992-4778
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 65 Indian Affairs and Northern Development

02 Territorial and Social Development - Northern Research Division

03 Evaluation of the Frobisher Bay Legal Service Centre.

04 Evaluation of the delivery of socio-legal services, designed to serve Inuit.

05 05 Human Sciences Sociology/Law

06 01 Eastern Arctic

06 02 Frobisher Bay, N.W.T.

07 01 Possible collaboration with Department of Justice.

07 02 Nil

07 03 Nil

08 1975 - December 1976 - December

09 01 6.5 Salaries and wages

09 03 5.0 Other costs

09 04 11.5 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

10 Nil

11 Nil

12 Consultation with the board of the legal service centre as well as with the Inuit community of Frobisher Bay regarding their impressions of existing socio-legal services along with suggestions for change.

13 Nil

14 Nil

15 H. Finkler,
996-2058
Research Officer,
Room 1057,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 66 Indian Affairs and Northern Development

02 Northern Research Division

03 Athapaskan Language Project

04 To provide textual materials in four Athapaskan dialects: To provide base data on language loss and maintenance in the Mackenzie District, N.W.T.

05 05 Human Sciences Linguistics/Sociology/Anthropology

06 01 Mackenzie Valley Indian Settlements

06 02 Mackenzie Valley

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - October 1977 - October

09 01 7.0 Salaries and wages

09 03 1.6 Other costs

09 04 8.6 Total costs

09 05 4 Scientific man-months - Government

09 07 4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Several texts anticipated during 1976-77.

14 Nil

15 G. Lerchs,
992-7638
Northern Research Division,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 67 Indian Affairs and Northern Development

02 Northern Research Division

03 A study of early school-leaving in the N.W.T.

04 To shed light on the social and cultural factors associated with
early school-leaving by native students in the N.W.T.

05 05 Human Sciences Sociology

06 01 Mackenzie District, N.W.T.

06 02 Ottawa, Yellowknife

07 01 Nil

07 02 Nil

07 03 Nil

08 1976 - January 1976 - October

09 01 6.9 Salaries and wages

09 03 2.3 Other costs

09 04 9.2 Total costs

09 05 4 Scientific man-months - Government

09 07 4 Total man-months - Government

10 01 To Maria Barrados, Carleton University - \$1,300.

11 Nil

12 Nil

13 None to date.

14 Nil

15 G. Lerchs,
992-7638
Northern Research Division,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 68 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division

03 A Comparison and Analysis of Minority Group images in mass media
with particular reference to Canadian Indians and Inuit.

04 Nil

05 05 Human Sciences Sociology

06 01 Canada
06 02 London, Ontario

07 01 Nil
07 02 Nil
07 03 Nil

08 1976 - March 1976 - August

09 03 10 Other costs
09 04 10 Total costs

10 02 Grant of \$10,000 to Professor Benjamin D. Singer, University of
Western Ontario.

11 Nil

12 Nil

13 Report will be submitted in August 1976.

14 Nil

15 Donat Savoie,
996-2299
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 69 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development
Branch, Northern Research Division.

03 Theories of Land Tenure and Ownership with Particular Reference
to the Canadian North.

04 Nil

05 05 Human Sciences Political geography

06 01 Canadian North

07 01 Nil

07 02 Nil

07 03 Nil

08 1976 - March 20 1977 - January 31

09 03 4.5 Other costs

09 04 4.5 Total costs

10 02 Grant of \$4,450 to Professor G. Beakhurst, York University.

11 Nil

12 Nil

13 Report will be submitted on January 31, 1977.

14 Nil

15 Léonce Naud,
992-7638
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 70 Indian Affairs and Northern Development
02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division.
03 Inuit Legal Acculturation.
04 Nil
05 05 Human Sciences Anthropology
06 01 Yellowknife, Frobisher Bay
06 02 Yellowknife, Frobisher Bay
07 01 Nil
07 02 Nil
07 03 Nil
08 1976 - March 1977 - April
09 03 4.3 Other costs
09 04 4.3 Total costs
10 02 Grant of \$4,250 to Professor Milton Freeman, McMaster University.
11 Nil
12 Nil
13 Report will be handed over in April 1977.
14 Nil
15 Harold Finkler,
992-6054
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 71 Indian Affairs and Northern Development

02 Territorial and Social Development

03 Alaska Liaison and Information Exchange Program

04 To facilitate the dissemination and exchange of social science information between the Branch and appropriate agencies in Alaska, both governmental and academic.

05 05 Human Sciences Sociology/Anthropology

06 01 Canadian North

06 02 Ottawa, Alaska

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - January Ongoing (intermittent)

09 01 6.0 Salaries and wages

09 03 1.0 Other costs

09 04 7.0 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

10 Nil

11 see question 4 above

12 Nil

13 A quantity of reports and data accumulated to date.

14 Nil

15 G.F. Parsons,
992-6454
Northern Research Division,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 72 Indian Affairs and Northern Development

02 Territorial and Social Development - Northern Research Division

03 Study of methods to facilitate greater participation by northern native people in the political, economic, and social aspects of northern development.

04 Involves comparative analysis of programs in Canada and in other countries having indigenous populations. Seeks to identify future research needs.

05 05 Human Sciences Sociology

06 01 Northwest Territories

06 02 Ottawa, Yellowknife

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - September 1976 - December

09 01 3.0 Salaries and wages

09 03 4.0 Other costs

09 04 7.0 Total costs

09 05 4 Scientific man-months - Government

09 07 4 Total man-months - Government

10 01 \$3,000 contract for initial phase. Contract to Ms. Mona Evans (University of Calgary).

11 Nil

12 Nil

13 None to date.

14 Nil

15 G.F. Parsons,
992-6454
Northern Research Division,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 73 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division.

03 Study of Inuit and Indians in the School Manuals in Canada.

04 Study of the prejudices against the Indians and Inuit of Canada
which appear in the school manuals used in Canadian schools.

05 05 Human Sciences Sociology

06 01 Phase I: Manuals used in Quebec.

06 02 Montréal, Quebec

07 01 Nil

07 02 Nil

07 03 Nil

08 1976 - March 1976 - September 15

09 03 16 Other costs

09 04 16 Total costs

10 02 Grant of \$16,000 to Professor Rémi Savard, Department of Anthropology,
University of Montreal.

11 Nil

12 Nil

13 Report will be submitted on September 15, 1976.

14 Nil

15 Donat Savoie,
996-2299
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 74 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division

03 Organization of a Seminar on Northern Demography

04 To determine what has been done concerning demographic data and
studies on the North; to know what Natives think of population
problems; to identify guidelines for future demographic research.

05 05 Human Sciences Demography

06 01

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - October 1976 - May 12

09 03 25 Other costs

09 04 25 Total costs

10 02 Grant of \$25,000 to the Arctic Institute of North America for
organizing the seminar.

11 Participation of demographers from the University of Copenhagen
and the University of Alaska in Fairbanks.

12 Nil

13 Minutes of the seminar will be published by the Arctic Institute
of North America.

14 Nil

15 Donat Savoie,
996-2299
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 75 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division.

03 Lexicon on Administration in Eskimo language. Lexicon on Teaching
in Eskimo language.

04 Nil

05 05 Human Sciences Linguistics

06 01 Dialect of Northern Quebec

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - July 1 1975 - December 31

09 03 3.9 Other costs

09 04 3.9 Total costs

10 01 Contract of \$1,950 to Professor Louis-J. Dorais of Laval University.

10 ~~01~~ Contract of \$1,950 to Professor D. Ronan-Collis of the University of Ottawa.

11 Nil

12 Nil

13 Reports handed over on December 31st, 1975.

14 Nil

15 Donat Savoie,
996-2299
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 76 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division.

03 Bibliographic Draft on Northern Workers

04 To know the quantity and the quality of written documents on that
subject.

05 05 Human Sciences Sociology of Work

06 01 Canadian North
06 02 Quebec, Quebec

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - June 1975 - September

09 03 5 Other costs
09 04 5 Total costs

10 01 Contract of \$4,990 to Mr. Jean-Noël Tremblay of Laval University.

11 Nil

12 Nil

13 Report handed over on September 15, 1975.

14 Nil

15 Donat Savoie,
996-2299
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 77 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division

03 Identification of Research Needs of Labrador Inuit. Consultation
Phase.

04 The consultation phase of this project is to discuss with the
Labrador Inuit the possibility of doing the study and to evaluate
the importance of such a project for them.

05 05 Human Sciences Anthropology

06 01 Inuit communities of Labrador
06 02 Inuit communities of Labrador

07 01 Nil
07 02 Nil
07 03 Nil

08 1976 - February 1 1976 - June 15

09 03 1.2 Other costs
09 04 1.2 Total costs

10 01 Contract of \$662 to Professor Louis-J. Dorais of Laval University
and contract of \$572 to Professor Carmen Lambert of McGill
University.

11 Nil

12 Nil

13 Report on the consultation phase will be handed over on June 15,
1976.

14 Nil

15 Donat Savoie,
996-2299
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 78 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division

03 Inventory of Information Concerning the Social Dimension of Northern
Communications.

04 To identify present work in the social field of northern
communications in order to be able to determine a socio-cultural
research sector.

05 05 Human Sciences Sociology of Communication

06 01 Canadian North
06 02 Ottawa, Ontario

07 01 Nil
07 02 Nil
07 03 Nil

08 1976 - January 15 1976 - March 31

09 03 3.5 Other costs
09 04 3.5 Total costs

10 01 Contract with Andrea Young \$3,500.

11 Nil

12 Nil

13 Report will be submitted on March 31, 1976.

14 Nil

15 Donat Savoie,
996-2299
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 79 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division

03 Study on Northern Workers.

04 Production of a "think paper" on northern workers which would
suggest research areas in that field.

05 05 Human Sciences Sociology of Work

06 01 Canadian North
06 02 Ottawa, Ontario

07 01 Nil
07 02 Nil
07 03 Nil

08 1976 - January 15 1976 - March 31

09 03 3 Other costs
09 04 3 Total costs

10 01 Contract with Mr. I. LaRusic \$3,000.

11 Nil

12 Nil

13 Report will be submitted on March 31, 1976.

14 Nil

15 Donat Savoie,
996-2299
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 80 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division

03 Study of the Impact of Television on Children of Two Communities
in Northern Manitoba.

04 Nil

05 05 Human Sciences Communications

06 01 Two communities in Northern Manitoba
06 02 In those 2 communities

07 01 Nil
07 02 Nil
07 03 Nil

08 1976 - March 1 1977 - March

09 03 5 Other costs
09 04 5 Total costs

10 02 Grant of \$5,000 to Professor Hamer of Brandon University, Manitoba
(following an agreement with the Department of Communications, the
project will be administered by that department).

11 Nil

12 Nil

13 Nil

14 Nil

15 Donat Savoie,
996-2299
Room 1045
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 81 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division

03 Study of the Eskimo Cooperative Stores in Northern Quebec.

04 Nil

05 05 Human Sciences Socio-economics

06 01 Northern Quebec

06 02 Eskimo communities of Northern Quebec

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - September 1976 - May

09 03 6.4 Other costs

09 04 6.4 Total costs

10 02 Grant of \$6,400 to Department of Sociology, Laval University.

11 Nil

12 Northern Quebec Coops Federation and Northern Quebec Inuit
Association

13 Final report will be handed over in May 1976. No immediate
publication plans. Possibility of publishing certain chapters in
Eskimo language.

14 Nil

15 Donat Savoie,
996-2299
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 82 Indian Affairs and Northern Development

02 Northern Affairs Program, Territorial and Social Development Branch,
Northern Research Division

03 Study of the Socio-economic Consequences Related to the Arctic
Islands Pipeline Project.

04 Evaluation project of the "social" content of the Berger Commission
hearings in order to know how the Northern Natives consider the
Mackenzie Pipeline Project and thus to be able to develop a research
program for the Arctic Islands Project which would be more consistent
with the Natives' interests.

05 05 Human Sciences Socio-economics

06 01 Mackenzie Region
06 02 Ottawa, Ontario

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 1 1976 - March 31

09 03 25 Other costs
09 04 25 Total costs

10 01 Mr. Robert Lanari, McGill University - \$25,000.

11 Nil

12 Nil

13 Final report will be submitted on March 31, 1976.

14 Nil

15 Donat Savoie,
996-2299
Room 1045,
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

01 083 Indian Affairs and Northern Development

02 Parks Canada, National Parks Branch

03 Bio-physical classification of Auyuittuq National Park Territory.

04 Bio-physical classification of the Territory on a regional basis.
 Bio-physical classification of Pangnirtung Pass on a system basis.
 Results will be used to prepare a development plan ^{for} of the park and
 for the interpretation program.

05 04 Environmental Sciences Botany, geology, geomorphology, pedology,
 climatology.

06 01 Auyuittuq National Park
 02 Auyuittuq National Park

07 Nil

08 1974 - July 1975 - September

09 03 57.2 Other costs
 09 04 not availaTotal costs
 09 05 not availaScientific man-months - Government
 09 08 8.5 Scientific man-months - Non-government
 09 09 6 Other man-months - Non-government
 09 10 14.5 Total man-months - Non-government

10 01 Contract 74-102
 Gauthier, Poulin, Thériault Limited
 990 De Bourgogne
 Ste-Foy, Québec.
 Total cost of contract, \$57,200.

11 Nil

12 Not determined

13 Report given to the Quebec region Contains certain recommendations
 (confidential).

14 Nil

15 Daniel Le Sauteur,
 995-7784
 Department of Indian Affairs and Northern Development,
 Parks Canada,
 Applied Research Division,
 400 Laurier Avenue West,
 Ottawa

01 084 Indian Affairs and Northern Development
02 Parks Canada, National Parks Branch
03 Climatology of a National Park
04 General study of the climate and interpretation of the results.
05 04 Environmental Sciences Climatology
06 01 Auyuittuq National Park
06 02 Auyuittuq National Park
07 01 Environment Canada, Atmospheric Environment Service.
07 02 Not available.
08 1973 - March 1976 - March
09 04 4 Total costs
10 Nil
11 Nil
12 Not determined.
13 A report will be presented to the Québec region
14 Nil
15 Mr. Ken East,
995-7784
Department of Indian Affairs and Northern Development,
Parks Canada,
Applied Research Division,
400 Laurier Avenue West,
Ottawa.

01 085 Indian Affairs and Northern Development

02 Parks Canada, National Parks Branch

03 Geomorphological Inventory Phase II

04 Geomorphological description, analysis and cartography of a section of Auyuittuq National Park. Used for the development plan and for the interpretation program.

05 04 Environmental Sciences Geography, geology

06 01 Auyuittuq National Park
Auyuittuq National Park, South border of Penny ice-cap, between Ranger River and Cumberland Bay.

07 01 Nil
07 02 Nil
07 03 Nil

08 1974 - June 1976 - June

09 03 5 Other costs
09 04 not available Total costs

10 01 Contract 74-112
Arthur Dyke,
c/o Institute of Arctic Alpine Research,
University of Colorado,
Boulder, Colorado
U.S.A.
Total cost of contract \$5,000.

11 Nil

12 Not determined.

13 A report was written and it includes recommendations.

14 Nil

15 Alain Dufresne,
964-4049
Quebec Region.

01 086 Indian Affairs and Northern Development

02 Parks Canada, National Parks Branch

03 Installation of a glaciology mass balance station network, Auyuittuq National Park (contract 74-173).

04 Study the glaciology mass balance; collect data on climate; study glaciers' movements. This information will be used for the planning and the development of the park and also by the interpretation centre.

05 04 Environmental Sciences Climatology and glaciology

06 01 Auyuittuq National Park

06 02 Auyuittuq National Park

07 Nil

08 1975 - March 1975 - October

09 03 8.6 Other costs

09 04 Not available Total costs

10 01 Contract 73-134.
 Dr. J.T. Andrews,
 Institute of Arctic Alpine Research,
 Department of Geological Sciences,
 University of Colorado,
 Boulder, Colorado.
 Total cost of contract \$8,600.

11 Nil

12 Nil

13 A report will be presented to the Quebec Region.

14 Nil

15 Mr. Alain Dufresne
 964-4049
 Quebec Region.

01	087	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Nahanni Oldtimers	
04		Interview of previous residents of the Area.	
05	05	Human Sciences	
06	01	Fort Smith Region	
06	02	Fort Smith Region	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1976	1976
09	04	8.5	Total costs
10		Nil	
11		Nil	
12		Nil	
13		Report will be available in April 1976.	
14		Project transferred from 1976-1977 to Historical Research P.R.O. Parks Canada.	
15		Historical Research P.R.O., Parks Canada.	

01 088 Indian Affairs and Northern Development
02 Parks Canada, National Parks Branch
03 Nahanni Wildlife Management Study
04 Nil
05 01 Life Sciences
06 01 Nahanni National Park
06 02 The study encompassed most of Nahanni National Park
07 Nil
08 1975 1976
09 04 25. Total costs
10 Nil
11 Nil
12 Nil
13 Report will be available in April 1976 from Parks Canada, P.R.O.
14 Nil
15 Parks Canada, P.R.O.

01	089	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Nahanni Biophysical Land Classification	
04		Land Biophysical Classification of Nahanni National Park	
05	01	Life Sciences	Vegetation
05	02	Physical Sciences	Soils, geology, etc.
06	01	Nahanni National Park	
06	02	Nahanni National Park	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975	1978
09	04	92.5	Total costs
10		Nil	
11		Nil	
12		Nil	
13		Report will be available in March 1975 from Parks Canada, P.R.O.	
14		Nil	
15		Parks Canada, P.R.O.	

01	090	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Nahanni Impact Study Rabbitkettle Hotsprings	
04		Nahanni Impact Study Rabbitkettle Hotsprings	
05	01	Life Sciences	
06	01	Nahanni National Park	
06	02	Rabbitkettle Hotsprings (western end of Park)	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975	1978
09	04	15.	Total costs
10		Nil	
11		Nil	
12		Nil	
13		Initial report will be available in March 1976 from Parks Canada, P.R.O.	
14		Nil	
I			
15		Parks Canada, P.R.O.	

01	091	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Nahanni Impact Study Virginia Falls	
04		Impact Study and Monitoring Study	
05	01	Life Sciences	
06	01	Nahanni National Park	
06	02	Virginia Falls - Nahanni National Park	
07		Nil	
08		1974	1977
09	04	6	Total costs
10		Nil	
11		Nil	
12		Nil	
13		The initial impact study report is presently available at Parks Canada, P.R.O. The 1975-76 and 1976-77 years are monitoring studies.	
14		Nil	
15		Parks Canada, P.R.O.	

01	092	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Nahanni Impact Study Kraus Hotsprings	
04		Impact Study and Monitoring Study	
05	01	Life Sciences	
06	01	Nahanni National Park	
06	02	Kraus Hotsprings - Nahanni National Park	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1974	1977
09	04	6	Total costs
10		Nil	
11		Nil	
12		Nil	
13		The initial impact study report is presently available at Parks Canada, P.R.O. The 1975-76 and 1976-77 years are monitoring studies.	
14		Nil	
15		Parks Canada, P.R.O.	

01	093	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Kluane Biophysical Land Classification	
04		Biophysical Land Classification	
05	01	Life Sciences	Vegetation
05	02	Physical Sciences	Soil, geology, etc.
06	01	Kluane National Park	
06	02	Kluane National Park	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1974	1979
09	04	89	Total costs
10		Nil	
11		Nil	
12		Nil	
13		The final report will be available in March 1979 from Parks Canada, P.R.O.	
14		Nil	
15		Parks Canada, P.R.O.	

01	094	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Kluane Limnology Study (Inventory)	
04		Limnology Study (Inventory)	
05	01	Life Sciences	
06	01	Kluane National Park	
06	02	Most representative water bodies (flowing and static) in Kluane National Park.	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1974	1976
09	04	33	Total costs
10		Nil	
11		Nil	
12		Nil	
13		Report will be available in April 1976 from Parks Canada, P.R.O.	
14		Nil	
15		Parks Canada, P.R.O.	

01	095	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Kluane Climatological Monitoring	
04		Climatological Monitoring	
05	02	Physical Sciences	
06	01	Kluane National Park	
06	02	Climatology stations were located in selected areas in Kluane National Park.	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975	1980
09	04	5.5	Total costs
10	03	Transfer of \$5,500 to Atmospheric Environment Service who carried out the work.	
11		Nil	
12		Nil	
13		Data will be given to Atmospheric Environment Service yearly for compilation in climate reports.	
14		Nil	
15		Atmospheric Environment Service D.O.E.	

01	096	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Kluane Kathleen/Sockeye Lake Management Study (fish)	
04		Management Study (fish)	
05	01	Life Sciences	
06	01	Kluane National Park	
06	02	Kathleen and Sockeye Lakes, Kluane National Park	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975	1977
09	04	14	Total costs
10		Nil	
11		Nil	
12		Nil	
13		A final report will be available in April 1977 at Parks Canada, P.R.O.	
14		Nil	
15		Parks Canada, P.R.O.	

01	097	Indian Affairs and Northern Development		
02		Parks Canada, National Parks Branch		
03		Wood Buffalo Large Mammal Management Study (bison)		
04		Large Mammal Management Study (bison)		
05	01	Life Sciences		
06	01	Peace-Athabasca Delta and Wood Buffalo National Park in general		
06	02	Peace-Athabasca Delta and Wood Buffalo National Park in general		
07	01	Nil		
07	02	Nil		
07	03	Nil		
08		1975	1978	
09	04	25	Total costs	
10		Nil		
11		Nil		
12		Nil		
13		Reports will be available annually at Parks Canada, P.R.O. on the status of current research.		
14		Nil		
15		Parks Canada, P.R.O.		

01	098	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Wood Buffalo Biophysical Land Classification (geology)	
04		Biophysical Land Classification (geology)	
05	02	Physical Sciences	
06	01	Wood Buffalo National Park in general	
06	02	Wood Buffalo National Park in general	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975	1976
09	04	49	Total costs
10		Nil	
11		Nil	
12		Nil	
13		A report will be available from Parks Canada, P.R.O. in April or May 1976.	
14		Nil	
15		Parks Canada, P.R.O.	

01	099	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Wood Buffalo Game Harvest Survey and Management	
04		Game Harvest Survey and Management. Local residents will be answering surveys on harvest.	
05	01	Life Sciences	
06	01	Concentrated in Peace-Athabasca Delta Area of Wood Buffalo National Park.	
06	02	Concentrated in Peace-Athabasca Delta Area of Wood Buffalo National Park.	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975	1976
09	04	6	Total costs
10		Nil	
11		Nil	
12		Nil	
13		The project results will be available from Parks Canada, P.R.O. in April 1976.	
14		Nil	
15		Parks Canada, P.R.O.	

01	100	Indian Affairs and Northern Development	
02		Parks Canada, National Parks Branch	
03		Wood Buffalo Peace Athabasca Delta Monitoring Program	
04		Hydrology, muskrats, waterfowl	
05	01	Life Sciences	
06	01	Peace-Athabasca Delta Area of Wood Buffalo National Park	
06	02	Peace-Athabasca Delta Area of Wood Buffalo National Park	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1975	1980
09	04	45	Total costs
10		Nil	
11		Nil	
12		Nil	
13		Yearly reports will be available from Parks Canada, P.R.O. in April 1976.	
14		Nil	
15		Parks Canada, P.R.O.	

MANPOWER AND IMMIGRATION

01 481 Manpower and Immigration

02 Community Employment Strategy

03 Socio-economic, demographic and social characteristics overview of the communities of Gjoa Haven, Spence Bay, Pelly Bay, Cambridge Bay, in N.W.T.

04 Information used to provide a basis of determining the types of existing programs that are available to be used by the Community Employment Strategy in each community.

05 05 Human Sciences Sociology, Economics

06 01 The study was carried out in the Central Arctic Coast, N.W.T., in the areas described in (3) above.

07 01 Nil

07 02 Nil

07 03 Nil

08 1976 - January 1976 - April

09 03 4 Other costs

09 04 4 Total costs

09 08 2 Scientific man-months - Non-government

09 10 2 Total man-months - Non-government

10 01 Individual on contract for \$3,000.

11 No international component

12 A contracted individual lives in one of the communities. Local people participating in providing data.

13 A non confidential report will be compiled to be used by communities and government agencies concerned.

14 No additional comments.

15 Mr. Doug Robertson,
873-3575
Department of Manpower and Immigration,
5013 - 51 Street,
P.O. Box 995,
Yellowknife, N.W.T.

01 514 Manpower and Immigration
 02 Research Projects Group Branch
 03 Study of the testing and counselling services offered to the Canadian
 Natives by Canada Manpower Centres

04 This study aims at evaluating the quantity and the quality of the
 testing and counselling services offered by C.M.C. to Natives. It is
 part of the special projects undertaken by the Working Group on
 Improvement of Manpower Services Offered to Natives.

05 05 Human Sciences Psychology and psychometry

06 01 Held in Yellowknife
 06 02 Nil

07 01 Nil
 07 02 Nil
 07 03 Nil

08 21 April 1975 31 March 1976

09	01	4.3	Salaries and Wages
09	03	15.7	Other costs
09	04	20	Total costs
09	05	3	Scientific man-months-Government
09	06	1	Other man-months-Government
09	07	4	Total man-months-Government
09	08	6	Scientific man-months-Non-government
09	09	1	Other man-months-Non-government
09	10	7	Total man-months-Non-government

10 01 Contract cost \$11,700.

11 Nil

12 The local population did not participate in the project planning.
 Schedule I gives a list of the native organizations visited and
 Schedule II gives the list of the CMC's where the interviews were
 held. See Reference File.

13 A report, with limited distribution of 87 pages, was prepared. It
 can be consulted at the Documentation Centre, Research Projects
 Group, Union of Canada Building, 325 Dalhousie St., Room 402,
 Ottawa, K1A 0J9.

14 Inc. - List of native organizations visited (see question no. 12).

15 Mr. G. S. Swartz
 995-8952
 Research Projects Group
 Union of Canada Building
 325, Dalhousie St.,
 Room 421,
 Ottawa, Ontario
 K1A 0J9

01 515 Manpower and Immigration

02 Research Projects Group Branch

03 Survey on People of Native Origin

04 The Survey's aim is to enumerate the Non Status Indians and the Metis who live in many Canadian localities. It is also intended to present data on the state of the activities of the working population living in these communities. The survey is part of the special projects undertaken by the Working Group on Improvement of Manpower Services Offered to Natives.

05 05 Human Sciences Sociology

06 01 See Reference File.

06 02

07 01 The study is sponsored by both by the Department of Manpower and Immigration and by the Native Council of Canada. It is mainly financed by the Federal Labor Intensive Program (FLIP) of Treasury Board. FLIP gave \$14,000 for the North-West Territories in 1975-76.

07 02 Nil

07 03 Nil

08 1 December 1975 30 November 1976

09	01	14	Salaries and Wages
09	03	3	Other costs
09	04	17	Total costs
09	05	1	Scientific man-months-Government
09	06	20	Other man-months-Government
09	07	21	Total man-months-Government
10			Nil
11			Nil
12			The local native associations were consulted on the survey goals and the questionnaire used. They agreed and helped to choose the native interviewers.
13			Reports will be available starting in December 1976 at the Documentation Centre, Research Projects Group.
14			Nil
15			Mr. G. S. Swartz 995-8952 Research Projects Group Union of Canada Building, Room 421, Ottawa, Ontario K1A 0J9

Manpower and Immigration/Reference File

12 514

Schedule I

Native Organizations and Reservations Visited

Place	Name
Vancouver (B.C.)	"Native Courtworkers and Native Association"
Nanaimo (B.C.)	Members of P.E.P. ("People Employment Program")
Terrace (B.C.)	BCANSI ("British Columbia Association of Non Status Indians")
Montréal (P.Q.)	Caughnawaga Reservation
Baie-Comeau (P.Q.)	Bersimis Reservation
Sept-Iles (P.Q.)	Sept-Iles Reservation
Newcastle (N.B.)	Malioténam Reservation
	Eel Ground Reservation
	Red Bank Reservation
	Burnt Church Reservation
London (Ont.)	Friendship Center for Native People
	Chippewas of the Thames Reservation
	Munceys of the Thames Reservation
	Oneidas of the Thames Reservation
Sudbury (Ont.)	Friendship Center
	Chief and a few members of the Whitefish Reservation
	Chief and a few members of the Manitoulin Island Reservation
Kenora (Ont.)	Extension Program
	Confederation College
Prince Albert (Sask.)	"Federation of Saskatchewan Indians"
	"Saskatchewan Native Women Movement"
	Friendship Center
Regina (Sask.)	"Association of Metis of Saskatchewan"
Winnipeg (Man.)	"Manitoba Metis Federation Inc."
	Friendship Center ("The Pathfinder")
Portage la Prairie	Friendship Center and Chief of Long Plains Reservation
	"Native Employment Officers of Long Plains, Dakota Ti Pi, Dakota Plains"
	Director of the local government for the Dakota Chippewas Reservation and the
	"Treaty Lines" (representing 9 reservations of South-Western Manitoba)
	Friendship Center
Brandon (Man.)	Oo Se Wa Kan Reservation
	Community College (at Rivers)
Edmonton (Alb.)	"Alberta Native Association"
	"Alberta Native Communications Society"
	"Alberta Native Development Corporation"
Yellowknife (NWT)	Friendship Center ("Tree of Peace")

Schedule II

Manpower Centres Visited and Distribution of Native Populations

Province	C.M.C.	Status	Distribution	
				Non-Status & Metis
British Columbia	Vancouver	-		10,000
	Nanaimo	580		150
	Terrace	3,568		150
Quebec	Lachine	4,777		37
	Baie Comeau	1,708		-
	Sept-Iles	5,100		134
New Brunswick	Newcastle	1,265		-
Ontario	Toronto	9,800		7,500
	London	7,062		2,000
	Sudbury	2,507		8,085
	Kenora	3,171		3,475
Saskatchewan	Prince Albert	8,447		2,000

Manitoba	Brandon	200	100
Alberta	Edmonton	6,187	12,000
North-West Terr	Yellowknife	552	600

This includes the population for the whole district which is part of that region.

Due to unexpected delays in the work schedule, it was impossible to keep to the proportions established at the start for these regions.

01 463 National Defence
02 ADM (Mat)/CRAD
03 Arctic Underwater Surveillance System
04 No information. See Q. 13.
05 Nil
06 01 See Q.13.
06 02 See Q.13.
07 01 Nil
07 02 Nil
07 03 Nil
08 See Q.13 See Q.13
09 04 270 Total costs
10 Nil
11 Nil
12 See Q.13
13 Because of the security classification of this project, no further information is available regarding it.
14 Nil
15 Nil

01 464 National Defence

02 ADM (Mat)/CRAD

03 Defence Scientific Service (That part related to the North)

04 a) Research directed to protecting the soldier and his
equipment from the environment.
b) Research on the effects of the environment on CF systems
and capabilities.
c) Research on protecting the environment from military
operations.

05 01 Life Sciences File.
05 02 Physical Sciences
05 03 Engineering Sciences
05 04 Environmental Sciences
05 05 Human Sciences

06 01 See Reference File.
06 02 See Reference File.

07 01 Nil
07 02 Nil
07 03 Nil

08 Continuing

09 01	1,390	Salaries and wages
09 02	288	Capital
09 03	850	Other costs
09 04	2,528	Total costs
09 07	1,128	Total man-months - Government

10 See Reference File.

11 Nil

12 See Reference File.

13 Although some reports and data are and will be classified,
many are not, and can be made available.

14 See Reference File.

15 Mr. J.H. Arkwright
992-9311
ADM (Mat)/CRAD/DGPP 2-2
NDHQ
101 Col By Drive
Ottawa

01 465 National Defence

02 Air Transport Group of Air Command

03 Arctic Institute of North America's Icefield Ranges Research Project (IRRP)

04 DND interest was in the physiological studies of the project, and contributed to the project mainly by providing some air transportation.

05 01 Life Sciences multidisciplinary

05 02 Physical Sciences multidisciplinary

05 03 Engineering Sciences multidisciplinary

05 04 Environmental Sciences multidisciplinary

05 05 Human Sciences multidisciplinary

05 06 Mathematical Sciences multidisciplinary

06 01 Icefield Ranges in S.W. Yukon and adjacent part of Alaska

06 02 Icefield Ranges

07 01 Arctic Institute of North America

07 02 Nil

07 03 Nil

08 1961 continuing

09 03 18 Other costs

09 04 18 Total costs

10 Nil

11 Nil

12 Nil

13 Nil

14 Air transportation was provided to the AINA for this N.S.P. to an estimated value of \$18,000.

15 Nil

National Defence/Reference File

The attached questionnaires have been completed in answer to the request of the Secretary of the Ministry of State for Science and Technology dated 24th February, 1976.

All of the scientific activities of the Department which were concerned with the North are covered in four completed questionnaires, the name or short description of the four N.S.P.'s being:

1. Studies of Military Operations in the Canadian Arctic
2. Arctic Underwater Surveillance System
3. Defence Scientific Services (That part related to the North)
4. Arctic Institute of North America's Icefield Ranges Research Project (IRRP).

As the type of information contained in the questionnaires differs considerably between them, some explanation may be helpful. The following additional notes are therefore provided.

1. Studies of Military Operations in the Canadian Arctic

This first questionnaire covers the work performed by the Operational Research Analysis Establishment, and includes estimated portions of work done in studies not exclusively oriented towards the Arctic.

2. Arctic Underwater Surveillance System

The second N.S.P. is the only northern science project of the department separately identified in Estimates. Because of its security classification, however, the only question which can be answered with respect to it is its total cost for 1975-76.

3. Defence Scientific Services (That part related to the North)

All the rest of the northern scientific work performed by or for the department is covered by the third N.S.P. This "project" entitled "Defence Scientific Services" was an Activity of all of our research establishments and included a large number of research and development tasks. Some of the Northern aspects of these were quite small, but the total effort was appreciable. Beginning in 1976-77 this Activity will be included in a new Activity entitled "Scientific, Engineering and Supply Services".

The "project" as reported contains estimates of the total funds and man-years expended on the northern aspects of the many tasks. The funds expended on university grants and university and industrial contracts are also included in the totals.

To amplify and explain what is represented by the figures in this questionnaire, a copy is attached to it of the return prepared recently for the annual publication "Government Activities in the North" which is published by the Advisory Committee on Northern Development.

4. AINA's Icefield Ranges Research Project (IRRP)

DND provided air transportation to this project, the estimated cost of this assistance being quoted in the questionnaire. It was the only non-defence science project which was so aided.

CHIEF OF RESEARCH AND DEVELOPMENT BRANCH
RESPONSIBILITIES

The Chief of Research and Development (CRAD) is responsible for the overall conduct of the research and development activities of the Department. He directs and controls the research establishments, their resources and their programs; and conducts development programs leading to military hardware. He formulates and recommends research and development policies and plans and provides the necessary guidance and coordination for their implementation. CRAD ensures that knowledge of actual and anticipated advances in science and technology is used to support Departmental decisions concerning the development, engineering, design, procurement, installation, maintenance and operation of all new equipment, supplies and systems* and he provides an interface between defence research and development activities and the remainder of National Defence Headquarters and the Canadian Forces.

In the context of Northern activities, CRAD is responsible for providing to the Canadian Armed Forces scientific knowledge, experience and hardware options to solve problems associated with military operations in high latitudes. In discharging this responsibility CRAD sponsors and undertakes research and development projects aimed at acquiring relevant new knowledge and equipment.

LONG-TERM PLANS

Research is conducted both in the laboratory and in the field. Almost every aspect of science is involved, and for convenience the work is categorized as follows:

- 1) Research directed to protecting the soldier and his equipment from the environment.
- 2) Research on the effects of the environment on systems used by the Canadian Forces to generate and transmit information necessary for command and control, and on the effects of the environment on the Canadian Armed Forces' ability to conduct operations in the north.
- 3) Research directed to the protection of the environment from military operations.

REVIEW OF THE 1975/76 OPERATIONS

Research was conducted at CRAD's laboratories across the country* these studies are functional and multi-disciplinary. Because the broad work categories outlined above overlap in several of these laboratories the text that follows has been organized without continual reference and credit to the performing research establishment. The following list is therefore presented to give some idea of the number of these involved and the general field of interest of each.

Defence Research Establishment Atlantic - (Arctic Acoustics).

Defence Research Establishment Valcartier - (Military Engineering* Remote Sensing).

Defence Research Establishment Ottawa - (Effects of the environment on operations in the north* protection of the individual soldier* remote sensing* military radar and communications).

Defence and Civil Institute of Environmental Medicine - (Protection of the individual soldier* the effects of the environment on operations in the north* remote sensing from the human engineering point of view).

Defence Research Establishment Suffield - (Military Engineering* Protection of the individual soldier).

Defence Research Establishment Pacific - (Arctic Acoustics).

Research in the north has also been supported by means of contracts to universities, non-government research organizations and, to a small degree, to Canadian industry. Facilities and goods and services were provided to other government agencies and close collaboration was maintained with research and development agencies in other countries, especially the United States, Great Britain and Denmark.

RESEARCH DIRECTED TO PROTECTING THE SOLDIER AND HIS EQUIPMENT

The work covered under this heading was concerned with improving certain aspects of clothing and physiological and immunological research. As in previous years, scientific staff accompanied military exercises in the Canadian North to familiarize themselves with clothing and equipment problems under realistic conditions of use and to conduct trials of promising new protective items under severe winter conditions.

On Exercise Honky Tonk, held at CFS Churchill, Manitoba, field experiments with a new cold-weather head protector were conducted and a thermal imaging camera, modified for outdoor use, was used to provide information on heat distribution within tents and clothing systems. One scientist accompanied Exercise New Viking, Serial 87 at Fort Churchill and Coral Harbour to gain first-hand experience concerning environmental problems which influence military operations in the Arctic.

On Exercise Kool Stool II, held in February 1976 at CFS Churchill a large number of equipment items were tested, including such items as an arctic survival tent, downed airman power source and casualty bag, handwarmers, battery heaters and tent heaters.

During a previous exercise disturbances were detected in the quantity and quality of sleep of subjects who slept in sleeping bags inside tents at ambient temperatures of -30 to -40°F. Other researchers have found that similar sleep disturbances in other conditions have resulted in reduced mental performance of the subjects. An array of tests was done on six subjects during Exercise Kool Stool II to determine the magnitude of sleep disturbances as a function of environmental conditions, and also to determine the effects on the performance (memory, alertness, vigilance, etc.) caused by the combination of stresses encountered during arctic operations. There appears to be a

relationship between sleep and thermoregulation.

Evaluation of psychological tests for selection of personnel for arctic duty was also undertaken, together with assessment of cold stress and methods of measuring it. A sleeping bag using aluminized Mylar excelsior as an insulator instead of down has been developed. The excelsior provides about 20% more efficient insulation than down and is much cheaper. Also recently developed is an inflatable sleeping bag in which the thickness of the insulation can be varied by changing the air pressure. A casualty sleeping bag based on the same principles has also been developed, with access slots to permit treatment of injured or wounded areas without having to remove the casualty from the bag.

A human engineering evaluation of the Armoured Vehicle General Purpose (AVGP) for the Canadian Forces was carried out. A report presenting results and observations obtained during cold weather is in preparation.

A study of energy expenditure and calorie requirements in cold environments is attempting to determine the mechanism(s) responsible for the rapid depletion of body fat resulting from work or exercise in environments below 0°C. Both male and female subjects are being studied.

For the protection of personnel from biting flies repellent-impregnated jackets were tested and found promising.

EFFECTS OF THE ENVIRONMENT ON OPERATIONS IN THE NORTH

The work done under this heading is concerned with the effects of the environment on systems and machines used by the Canadian Forces as well as with the fundamental environmental parameters themselves.

Environmental Studies

In 1975 the final data-gathering phase of a study of ice drift in Robeson Channel and the phenomena influencing it was carried out. A three-man party spent five weeks obtaining additional oceanographic and especially tidal data. Five tide gauges were set up, two on each side of Robeson Channel and one farther south in Kennedy Channel, with a view to obtaining information on the propagation of the tidal wave as it progressed from the Arctic Ocean and also on relationships between one side of Robeson Channel and the other.

The tides in northern Nares Strait are principally diurnal and semi-diurnal, with difference between high and low water levels increasing with distance from the Arctic Ocean. The occurrence of high and low water on the Ellesmere Island side of Robeson Channel is roughly one hour earlier than on the Greenland side.

Processing of the 1974 data is almost complete and analysis based on the entire program will then be possible.

A study of the properties of snow as related to vehicle mobility was undertaken, with plans for a field investigation starting in early 1976. Plans were also formulated for a study of the low temperature operating limits of vehicles.

A reconnaissance investigation of currents and water structure in Fury and Hecla Strait was carried out in April and May 1975. One scientist with a locally employed assistant worked out of Igloolik, using snowmobiles for transportation. Accommodation, laboratory space and other facilities were arranged through the Eastern Arctic Research Laboratory.

A great deal of important information was obtained, which is proving invaluable in designing a larger program for 1976. Very strong tidal currents and rapid mixing of water in the strait make the study more complex than had at first been anticipated.

In July three strings of current meters were set up at the east end of Hudson Strait from CNAV Quest and left for two weeks. Only two of the strings were recovered and the data from them are now being processed.

Environmental conditions affecting underwater acoustics were investigated in Hudson Strait, Hudson Bay and Foxe Basin. Measurements included oceanographic parameters and acoustic noise and propagation, making use of shipboard equipment and maritime patrol aircraft dropping acoustic charges. Acoustic measurements were also made in Barrow Strait, in open water in September and under shorefast ice in April.

Geomagnetic data were collected in the vicinity of Resolute in the fall. A small continuing effort in this field is maintained at Resolute.

Remote Sensing

Work on Landsat (ERTS) data continued under contract with an attempt

to assess the cartographic applicability of the data. Imagery for selected areas was chosen, based on availability of ground truth, and various output formats evaluated. Computer-compatible tapes were then made and vegetation maps generated. Areas included Lac Saffrey in northern Quebec and Fort Simpson.

Plans are well advanced to apply optical processing methods to SLAR imagery of sea ice, but delays in construction of the necessary equipment prevented a start being made in 1975.

A low light level TV using an image intensifier was tested aboard CNAV Quest. It proved useful during pre-dawn and dusk periods, but provided no assistance in the absence of starlight or in fog.

Military Engineering

A trial was held near Inuvik to test the suitability of commercial explosives for use in permafrost. Excavations were made in various soil types including sand, silt-clay, and silt with high ice content. It is hoped over the next three years to investigate cratering in permafrost fairly thoroughly.

An experiment that has been going on for the last three years at Resolute and Alert was completed. Temperature-response data for ordnance stores by inert simulation was gathered over a three-year period and the equipment removed in September.

A nominal 75 W zinc/air primary battery capable of providing superior performance capability down to -40°C (over 50% of room temperature capacity is available) has been developed to the prototype stage for a radio navigational beacon application. Studies directed at improving the low temperature performance of the zinc electrode are beginning to show promising results.

Investigation of ways of improving the low temperature performance of the lead/acid battery has revealed the beneficial effect that addition of carbon to the positive plate has on increasing the low temperature electrical output. The practical implications of this approach are being investigated. Research directed at improving the charge acceptance at low temperatures has led to a better understanding of the charging process at the positive plate of the lead/acid battery. Experimental electrochemical data obtained at temperatures down to -50°C have been successfully analyzed using modified versions of kinetic models proposed elsewhere. Studies are in progress to confirm the validity of these models through independent measurements of the surface morphology and composition of the positive plate.

Lithium/organic electrolyte primary batteries have been evaluated for an Emergency Locator Transmitter (ELT) application and have been found to give good performance to extremely low temperatures (over 75% room temperature capacity at -40°C). Studies are under way to investigate some of the problems preventing the practical application of these batteries. These problems include reactant leakage and slow development of operating voltage under high drains at low temperatures. Other promising primary batteries are evaluated for possible use at low temperatures as they become available.

Studies are being conducted on the low temperature characteristics of a 12W hydrogen/air fuel cell and on the field production of hydrogen from metal hydrides at low temperatures.

Communications

The investigation on the feasibility of using the Anik satellite in communicating with the high Arctic is continuing at Eureka.

PROTECTION OF THE ENVIRONMENT FROM MILITARY OPERATIONS

Testing of the non-aggressive grouser for tracked vehicles continued. Various design modifications were made to facilitate commercial production, and studies are continuing to find a lighter substitute for polyurethane in its construction.

Trials of new pesticides and of improved spraying techniques were continued. Baygon OSC was adopted for biting fly control at most Canadian Forces bases in 1975. Studies of growth regulators for blackfly control were also undertaken.

PLANS FOR 1976/77

The research program carried out under the Chief, Research and Development is a continuing one and much of the work will be pursued in 1976/77. However, emphasis does change as results of research are adopted and new problems tackled under the broad headings we have used to describe

our research.

Research Contracts 1975/76

With McGill University for:

- a) Research on field mobility, correlation devices and contact mechanisms.
- b) Evaluation of terrain.
- c) Vehicle mobility and trafficability.

With B.C. Research Foundation for:

- a) Research on juvenile hormone analogue as an insect regulator.

With Queen's University for:

- a) Revision of Canadian Forces Pest Control Manual.

With Goostudios Ltd for:

- a) Evaluation of LANDSAT imagery in cartography.

With Bombardier Company for:

- a) Evaluation of optimum tractive elements for marginal terrain vehicles.

Extramural Grants

Military Land Transportation and Vehicle Engineering

Kavanagh, R.J., New Brunswick, Couples Electrohydraulic Suspension System
Lavkulich, L.M., British Columbia, Evaluation of Terrain Classification
Reid, L.D., Toronto, ACV Guidance and Control
Sullivan, P.A., Toronto, Skirted Air Cushion Suspension
Wong, J.Y., Carleton, Characteristics of ACV-Terrain Interaction
Ferguson, R.J., RMC, Geared variator analysis
Graham, J., RMC, Stabilization of Compressible Terrain

Geotechnical Aspects of Defence Operations

Benedict, C.D., Memorial, Iceberg cross-section echo
Brandenberger, A.J., Laval, Détection sur des Images ERTS et sur Photographies
Ariennes
Collins, S.H., Guelph, Orthophoto
Dempster, R.T., Memorial, Prediction of Iceberg drift off Eastern Canada
Michael, B., Laval, Interaction de la Glace avec les Ouvrages Offshore
Osler, J.C., McGill, Thaw stability of Permafrost
Pounder, E.R., McGill, Electrical Properties of Sea Ice
Pounder, E.R., McGill, Water Stress on the Ice Flow
Reddy, D.V., Memorial, Dynamic Analysis of Ice-Structure Interaction
Seguin, M.K., Laval, Permafrost Discontinuity dans le Nord du Québec
Strangway, D.W., Toronto, Natural and Artificial Electro-magnetic Fields in the
Audio Frequency Range
Watanabe, T., British Columbia, Prediction of Geomagnetic Micropulsation Activiti
Coulter, D.M., RMC, Thermal Effects in Permafrost
Duffus, H.J., Royal Roads, Remote Sensing Surveillance

Military Preventive Medicine

Brust, R.A., Manitoba, Colonization and egg diapause in Aedes mosquitoes
Downer, R.G.H., Waterloo, Juvenile hormone for mosquito control
Sherebin, M.H., Western Ontario, Neural processing in the olfactory system of
biting flies
Thorsteinson, A.J., Manitoba, Cold aerosols and ULV mists for insecticides
Iverson, J.O., Saskatchewan, Arboviruses in tundra area

Chemical Energy Sources

Weir, R.D., RMC, Low Temperature calorimetry

Physiological and Metabolic Stress in Military Environments

Baigent, M.J., Toronto, The Influence of Diet Composition and Feeding Pattern
on Cold Tolerance in Rats
Chin, A.K., York, Physical Fitness and Tolerance to Environmental Stresses

Cooper, K.E., Calgary, Respiratory and Cardiovascular Responses to Cold Water Immersion
Goode, R.C., Toronto, Physiological Responses to Sudden Immersion in Cold Water
LeBlanc, J., Laval, Assessment of Cold Reactivity by Autonomic Nervous System Responses
Wang, L., Alberta, Physiological and Endocrinological Effects of Heloc-Induced Hypothermia

Defence Aspects of Social Research
Hodgson, G.W., Calgary, Waste management for cold climates

Military Engineering Research
Gillott, J.E., Calgary, Microstructural investigation of frost action in building materials and soils
Glockner, P.G., Calgary, Temporary enclosures for the North
Johnston, C.D., Calgary, Development of engineering materials for construction in northern Canada
Lock, G.S.H., Alberta, Fundamentals of shipboard icing
Odgers, J., Laval, Small space heaters for use under Arctic conditions

NATIONAL HEALTH AND WELFARE

01 393 National Health and Welfare

02 Medical Services Branch

03 Tympanoplasty - repair of eardrums

04 Assessment of efficacy of past program of Tympanoplasty repair in
Inuvik and North Mackenzie Zone.

05 01 Life Sciences Medicine

06 01 Mackenzie Delta

06 02 Central Arctic

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - June 1975 - June

09 02 8 Capital

09 03 6 Other costs

09 04 14 Total costs

09 09 3 Other man-months - Non-government

09 10 3 Total man-months - Non-government

10 01 Individual Survey Team Members. Contracts for Aerial Transportation.
Total cost \$6,000.

11 Nil

12 Dependent on local employees for records.

13 Report published - August 1975

14 Nil

15 Dr. F.J. Covill,
425-5690
Regional Director,
Medical Services,
Health and Welfare Canada,
14th Floor, Baker Centre,
10025-106th Street,
Edmonton, Alberta.

01 394 National Health and Welfare

02 Medical Services Branch

03 Paranatal and Infant Mortality and Morbidity Study

04 To investigate all factors contributing to paranatal and infant mortality and morbidity in the N.W.T. and to formulate ways of reducing these.

05 01 Life Sciences Medicine

06 01 Northwest Territories

06 02 Edmonton

07 01 Nil

07 02 Nil

07 03 Nil

08 1971 - March 31 1976 - March 31

09 01 12 Salaries and wages

09 03 50 Other costs

09 04 62 Total costs

09 06 12 Other man-months - Government

09 07 12 Total man-months - Government

09 08 6 Scientific man-months - Non-government

09 09 24 Other man-months - Non-government

09 10 30 Total man-months - Non-government

10 01 MacMaster Computers - design and keypunch; University of Alberta
- computer analysis; Nurses (Data coding, no outside grants);
Personal Service contracts, total cost of \$50,000.

11 Nil

12 Data gathering by Nursing Station nurses and by locally employed residents.

13 Preliminary reports due March 31, 1976.

14 Nil

15 Dr. F.J. Covill,
425-5690
Regional Director,
Medical Services,
Health and Welfare Canada,
14th Floor, Baker Centre,
10025-106th Street,
Edmonton, Alberta.

01 395 National Health and Welfare

02 Medical Services Branch

03 Investigation of primary and secondary lactose intolerance in
Indians and Eskimos.

04 To investigate the incidence, severity and clinical implications
of lactose intolerance.

05 01 Life Sciences Medicine

06 01 Charles Camsell Hospital, Edmonton, Northern Alberta (NWT Patients)

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - May 1975 - August

09 03 2.5 Other costs

09 04 2.5 Total costs

09 08 5 Scientific man-months - Non-government

09 10 5 Total man-months - Non-government

10 01 Contract for \$2,500.

11 Nil

12 Nil

13 Interim report completed October, 1975.

14 Nil

15 Dr. O. Schaeffer/Dr. C. Harley,
425-8770
Charles Camsell Hospital,
Edmonton, Alberta.

01 396 National Health and Welfare

02 Medical Services Branch

03 Clinical Assessment of the arsenic hazard in Yellowknife.

04 To determine whether and to what extent Arsenic Trioxide generated by the gold mining operation in Yellowknife form a hazard to human health.

05 01 Life Sciences Medicine

06 01 Yellowknife

06 02 Yellowknife

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - February 1975 - September

09 01 7 Salaries and wages

09 03 7 Other costs

09 04 14 Total costs

09 05 3 Scientific man-months - Government

09 06 5 Other man-months - Government

09 07 8 Total man-months - Government

09 09 .5 Other man-months - Non-government

09 10 .5 Total man-months - Non-government

10 01 With Bondar Clegg for assay work - \$6,700.

11 Nil

12 Youth of Yellowknife, physician, cooperation of Mine and Mill.

13 Complete September 31, 1975. Some of medical data confidential. Summary data already released.

14 Nil

15 Dr. O. Schaeffer/Dr. R.D.P. Eaton,
425-8770
Charles Camshell Hospital,
Edmonton, Alberta.

NATIONAL MUSEUMS OF CANADA

01 403 National Museums of Canada

02 Archaeological Survey of Canada, National Museum of Man

03 Kingnait Fjord Burial Cairn Project

04 Emergency archaeological salvage excavations at a series of burial cairns. Part of ASC programme designed to minimize loss of archaeological resources on federal construction projects and potentially destructive land use changes in federally administered regions.

05 05 Human Sciences Archaeology

06 01 Button Island, N.W.T.
06 02 Nil

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - April 30 1976 - April 30

09 03 3.3 Other costs
09 04 3.3 Total costs
09 08 12 Scientific man-months - Non-government
09 09 3 Other man-months - Non-government
09 10 15 Total man-months - Non-government

10 01 NMM Contract with E. Salter, Calgary, Alta. for \$3,300

11 Nil

12 Nil

13 Reports and data in Archives, NMM - no publication anticipated.
Specimens after analysis to be returned to ASC, NMM.

14 Nil

15 Dr. R. Wilmeth,
996-5250,
Archaeological Survey of Canada,
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 404 National Museums of Canada

02 Archaeological Survey of Canada, National Museum of Man

03 Dempster Highway and Mackenzie Highway Survey

04 Survey of a section of the Dempster Highway for prehistoric archaeological sites; also Mackenzie Highway.
This project in support of inventorying and conserving sites threatened with destruction on federal lands or federally administered or funded projects.

05 05 Human Sciences Archaeology

06 01 Dempster Highway; Mackenzie Highway

06 02 Between Peel River Crossing and Yukon-Alaskan Border; From Mackenzie River between Two Mountains and Fort Norman and between Inuvik and Tuktoyaktuk.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - July 1975 - September

09 01 12.5 Salaries and wages

09 03 20.7 Other costs

09 04 33.2 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Reports and data on file in Archives at Archaeological Survey of Canada, NMM

14 Because of the limited extent of this survey it was completed by staff rather than the usual contract method. It proved relatively unproductive in terms of sites located.

15 Dr. R. Wilmeth,
996-5250
Archaeological Survey of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 405 National Museums of Canada

02 Archaeological Survey of Canada, National Museum of Man

03 Thule Archaeology Conservation Project

04 To conduct an archaeological survey of Canadian Thule sites
 threatened by mining of whalebone for native carving
 industry - to assess damage and anticipate further destruction.
 Project designed to minimize loss of archaeological resources
 and information resulting from federal construction projects and
 potentially destructive land use changes in federally administered
 regions.

05 05 Human Sciences Archaeology

06 01 North and Eastern Baffin Island, Spence Bay area

07 01 DINA

07 02 DINA support in amount of \$45,000

07 03 Nil

08 1975 - June 1 1976 - April 30

09 03 34 Other costs

09 04 34 Total costs

09 08 9 Scientific man-months - Non-government

09 09 15 Other man-months - Non-government

09 10 24 Total man-months - Non-government

10 01 NMM Contract \$34,000; DINA Contract \$45,000

11 Nil

12 3 Inuit assistants for 3 months

13 Reports and data in Archives of NMM and will eventually be included
 in a Mercury Series NMM publication.

14 Nil

15 Dr. J.B. Shaeffer,
 996-5250
 Archaeological Survey of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 406 National Museums of Canada

02 Archaeological Survey of Canada, National Museum of Man

03 Button Point Salvage Project

04 To recover as much information as possible before a major site on North Baffin Island is completely destroyed by wave action along the shoreline.
 This project supports long range studies of the prehistory of the Canadian Arctic region.

05 05 Human Sciences Archaeology

06 01 Eastern Arctic
 06 02 Button Point
 Baffin Island

07 01 Canada Council
 07 02 amount unknown
 07 03

08 1975 - June 1 1976 - April 30

09 03 1.4 Other costs
 09 04 1.4 Total costs
 09 08 6 Scientific man-months - Non-government
 09 09 24 Other man-months - Non-government
 09 10 30 Total man-months - Non-government

10 01 Salvage contract for 3 months with NMM. for \$1,400.
 Canada Council Contract.

11 Nil

12 Employment of 4 Inuit assistants

13 Specimens, data and field notes forwarded to ASC, NMM for cataloguing and Archives.

14 This project is under the direction of Father Guy-Marie Rousselière, priest of the Catholic Mission, Pond Inlet, N.W.T. Fr. Rousselière has been recovering perishable material from the permafrost for the past 7 years using NMM funds to pay for transportation and equipment. Labour and other supplies are provided through a Canada Council grant.

15 Dr. J.B. Shaeffer,
 996-5250
 Archaeological Survey of Canada
 National Museum of Man
 Ottawa, Ontario
 KIA 0M8

01 407 National Museums of Canada

02 Archaeological Survey of Canada, National Museum of Man

03 Yukon Refugium Project

04 Archaeological and palaeoenvironmental studies in unglaciated
refugium of Yukon Territory.
Part of a long-range interdisciplinary study of connections
between Asia and North America and of man's early entry into the
New World.

05 05 Human Sciences Archaeology

06 01 Old Crow Flats, N.W.T.

06 02 Porcupine River Drainage

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - June 1 1975 - August 29

09 01 8 Salaries and wages

09 03 26.5 Other costs

09 04 34.5 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

09 08 6 Scientific man-months - Non-government

09 10 6 Total man-months - Non-government

10 01 Dr. Schweger, University of Alberta \$1,000
Dr. Bonnicksen, University of Maine \$1,000

11 Nil

12 Nil

13 Reports, data and specimens - archaeological specimens to be returned
to NMM, geological specimens to Geological Survey of Canada, and
botanical specimens to NMNS. Eventually a report will be published
in Mercury Series, NMM.

14 This is a long-term interdisciplinary study and is conducted in
coordination with a large project in this area sponsored by Canada
Council to study the Beringia land bridge and glacial refugium area
of the Pleistocene period.

15 Dr. Richard Morlan,
996-5250
Archaeological Survey of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 408 National Museums of Canada

02 Archaeological Survey of Canada, National Museum of Man

03 Taltson & Dubawnt River Surveys, N.W.T.

04 To survey by canoe for sites along the Taltson and Dubawnt River drainages, N.W.T. The purpose is to increase knowledge of prehistoric occupation in the Barrenlands.

05 05 Human Sciences Archaeology

06 01 Barrenlands, N.W.T.

06 02 Taltson & Dubawnt River drainages

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - June 15 1975 - August 15

09 01 8.8 Salaries and wages

09 03 6.8 Other costs

09 04 15.6 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

09 08 9 Scientific man-months - Non-government

09 10 9 Total man-months - Non-government

10 Nil

11 2 U.S. citizens

12 Nil

13 Reports and data deposited at ASC, NMM and will be published as part of a report in Mercury Series, NMC.

14 This is part of a continuing inventory of prehistoric sites being made of the Barrenlands by ASC staff archaeologists.

15 Dr. Bryan Gordon,
996-5250
Archaeological Survey of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01	409	National Museums of Canada	
02		National Museum of Natural Sciences	
03		Survey of the Benthic Marine Algae of the Canadian Arctic	
04		Floristic Inventory of Algae pertinent to Environmental Baseline Studies	
05	04	Environmental Sciences	
06	01	Area between Resolute and The Royal Geographical Society Islands and from Jones Sound to Byam Martin Channel	
06	02	As above	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1968	1980
09	01	3	Salaries and wages
09	02	4.1	Capital
09	03	60.8	Other costs
09	04	67.9	Total costs
09	05	2	Scientific man-months - Government
09	07	2	Total man-months - Government
10	01	Contract with 3 people for \$7,200	
11		Nil	
12		Nil	
13		Various Popular and Scientific Publications	
14		Nil	
15		T.A. Russell 996-9281 National Museum of Natural Sciences Director's Office 3rd Floor East, Victoria Memorial Museum Bldg. Metcalf & McLeod Streets Ottawa, Ontario K1A 0M8	

01	410	National Museums of Canada	
02		National Museum of Natural Sciences	
03		Faunal Survey	
04		Behavioural Adaptions of Arctic Animals and Monitoring of Animal Populations.	
05	01	Life Sciences	
06	01	Bathurst Island & Vicinity	
06	02	As above	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1968	Ongoing
09	01	12	Salaries and wages
09	02	8.5	Capital
09	03	21.7	Other costs
09	04	42.2	Total costs
09	05	13	Scientific man-months - Government
09	07	13	Total man-months - Government
10	01	Contract with 11 people for \$26,150	
11		Nil	
12		Nil	
13		Various Popular and Scientific Publications	
14		Nil	
15		T.A. Russell 996-9281 National Museum of Natural Sciences Director's Office 3rd Floor East Victoria Memorial Building Metcalf and McLeod Streets Ottawa, Ontario K1A 0M8	

01 411 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Shamattawa Cree, Northeastern Manitoba

04 Between 20 May 1975 and 20 September 1975 to study patterns of kinship, marriage, and social organization among the Shamattawa Cree of northeastern Manitoba and to submit a final report by 31 May 1976

05 05 Human Sciences Ethnology

06 01 Eastern SubArctic

06 02 Shamattawa, Northeastern Manitoba

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - May 20 1976 - May 31

09 03 3.2 Other costs

09 04 3.2 Total costs

09 08 5 Scientific man-months - Non-government

09 10 5 Total man-months - Non-government

10 01 Mr. David H. Turner (UE10-38-75)
 Department of Anthropology
 University of Manitoba
 Winnipeg, Manitoba
 Contract cost for 75/76 was \$3,200

11 Nil

12 Informants

13 Final report suitable for publication
 Fieldnotes confidential

14 Amendment to contract
 Commencement - 15 June 1975
 Completion - 31 December 1976

15 Canadian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 412 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Inlander Cree - Northern Quebec

04 Between 15 March 1974 and 15 September 1974 to undertake an urgent ethnology project on the culture of the Inlander Cree of Northern Quebec and to submit a report by 1 February 1975.

05 05 Human Sciences Ethnology

06 01 Eastern SubArctic - Northern Quebec

06 02 Miquelon, Waswanipi River, Lake Mistassini and Lake Albanel, Northern Quebec.

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - March 15 1975 - February 1

09 03 .1 Other costs

09 04 .1 Total costs

10 01 Nicholas N. Smith (UE10-179-74)
Ogdensburg, New York
U.S.A.
Contract cost for 75/76 was \$100.

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential

14 Received report entitled:
"Mistassini Man - A SubArctic Trapping Society" on 21-3-75

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 413 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Lexicological Study of Eskimo

04 Between 1 March 1974 and 1 March 1976 to undertake an urgent ethnology project on a lexicological study of the Eskimo language and to submit a report by 1 May 1976.

05 05 Human Sciences Linguistics

06 01 Arctic

06 02 Carleton University, Ottawa, Ontario and Memorial University, St. John's, Newfoundland

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - March 1 1976 - May 1

09 03 1 Other costs

09 04 1 Total costs

09 08 11 Scientific man-months - Non-government

09 10 11 Total man-months - Non-government

10 01 Jean-Pierre Paillet (UE10-142-73)
 Department of Linguistics
 Carleton University
 Ottawa, Ontario
 Contract cost for 75/76 was \$1,000

11 Nil

12 Informants for verification

13 Final report suitable for publication
 Fieldnotes confidential

14 Date for submission of final report extended to 1 March 1977.

15 Canadian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 414 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Lexical Inventory of Cumberland Peninsula and North Baffin Island

04 Between 1 September 1974 and 1 March 1975 to undertake an urgent ethnology project on a lexical inventory of Cumberland Peninsula and North Baffin Island dialects and to submit a report on 1 May 1975.

05 05 Human Sciences Linguistics

06 01 Arctic

06 02 North Baffin Island and Cumberland. Peninsula, N.W.T. - Broughton Is. - Pangnirtung - Kivitoo - Padloping Is. - Arctic Bay - Pond Inlet - Igloodik - Hall Beach - Clyde River.

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - September 1 1975 - May 1

09 03 1.4 Other costs

09 04 1.4 Total costs

10 01 Kenn Harper (UE10-69-74)
 Arctic Bay
 N.W.T.
 Contract cost for 75/76 was \$1,400.

11 Nil

12 Informants

13 Final report suitable for publication
 Fieldnotes confidential

14 Received 18 boxes of 100 cards each comprising a lexical inventory of Eskimo dialect from Cumberland Peninsula and North Baffin Island.

15 Canadian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 415 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 The translation into Inuit of "Le Vêtement des Inuit d'Iglulik".

04 Between the starting date of the contract and the 31st March 1975:
to translate from French to Inuit, " Le Vêtement des Inuit d'Iglulik"
and to submit the finished manuscript by March 31, 1975.

05 05 Human Sciences Linguistics

06 01 Arctic

06 02 Laval University, Quebec and Iglulik, N.W.T.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - February 12 1975 - October 31

09 03 1 Other costs

09 04 1 Total costs

10 01 Sylvie Pharand (UE10-86-73)
Laval University
Quebec, Quebec
Contract cost for 75/76 was \$1,000.

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential
Report entitled "Iglulingmiut Tununirmiullu Aivilingniullu
Annuraaqausingit" received.

14 Nil

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 416 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Itivimiut Inuit Dialects of Northern Quebec

04 Between 15 November 1974 and 1 February 1977 to undertake an urgent ethnology project on derivational process in the Itivimiut Inuit dialect of Northern Quebec and to submit a report by 1 May 1977.

05 05 Human Sciences Linguistics

06 01 Northern Quebec

06 02 Manitou Community College

07 01 Nordic School Commission, Ministry of Indian Affairs and the North.

07 02 Nil

07 03 Grants paid to University of Chicoutimi to finance DRF Collis' position at Manitou Community College during the contract period.

08 1974 - November 15 1977 - May 1

09 03 1 Other costs

09 04 1 Total costs

09 08 12 Scientific man-months - Non-government

09 10 12 Total man-months - Non-government

10 01 Dermot-Roman F. Collis (UE10-199-74)
University of Quebec
Chicoutime, Quebec.
Contract cost for 75/76 was \$1,000.

11 Nil

12 Informants, Northern Quebec Inuit Association approval and support

13 Final report suitable for publication
Fieldnotes confidential.

14 Date for submission of final report extended to 1 February 1978.

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario.
K1A 0M8

01 417 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Northern Cree Ethnography

04 Between 1 May 1974 and 1 September 1975 to undertake an urgent ethnology project on the northern Cree ethnography contained in the Hudson Bay Co. records, in the Public Archives of Canada and to submit a report by 1 February 1976.

05 05 Human Sciences Ethnography

06 01 Eastern SubArctic - Northern Ontario

06 02 National Archives - Ottawa, Ontario; Hudson's Bay Co. Archives - London, England

07 01 Nil

07 02 Nil

07 03 Nil

08 01 1974 - May 1 1976 - February 1

09 03 .5 Other costs

09 04 .5 Total costs

09 08 5 Scientific man-months - Non-government

09 10 5 Total man-months - Non-government

10 01 Charles A. Bishop (EU10-58-74)
State University of New York
Oswego, New York
U.S.A.
Contract cost for 75/76 was \$500.

11 Nil

12 Nil

13 Final report suitable for publication
Fieldnotes confidential

14 Date for submission of final report extended to 30 September 1976.

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 418 National Museums of Canada
02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme
03 Eskimo social relations
04 Between 1 March 1974 and 1 April 1975 to undertake an urgent ethnology project on the cultural basis of Eskimo social relations and to submit a report on 1 September 1975
05 05 Human Sciences Ethnology
06 01 Arctic
06 02 Repulse Bay, N.W.T.
07 01 Nil
07 02 Nil
07 03 Nil
08 1974 - March 1 1975 - September 1
09 03 .5 Other costs
09 04 .5 Total costs
10 01 Joseph Maxwell (UE10-80-73)
University of Chicago
Chacago, Illinois
U.S.A.
Contract cost for 75/76 was \$450.
11 Nil
12 Informants
13 Final report suitable for publication
Field notes confidential
14 Date for submission of report extended to 31 August 1976
15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 419 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Athapaskan Quill Work and Technology

04 Between 20 February 1974 and 1 January 1975 to undertake an urgent ethnology project on the quill work and related technology of the Athapaskan Indians about Great Slave Lake, N.W.T. and to submit a report by 1 October 1975.

05 05 Human Sciences Ethnology

06 01 Athapaskans, N.W.T.

06 02 Great Slave Lake vicinity

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - February 20 1975 - October 1

09 03 .4 Other costs

09 04 .4 Total costs

10 01 Robin Odle (UE10-85-10)
 Bloomfield Hills
 Michigan
 U.S.A.
 Contract cost for 75/76 was \$350.

11 Nil

12 Informants

13 Final report suitable for publication
 Fieldnotes confidential

14 Cancelled 22-4-76:
 Forfeiture of final payment
 No report received to date

15 Canadian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 420 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Hare language study

04 Between 15 February 1974 and 1 January 1975 to undertake an urgent ethnology project on the language of the Hare Indians of the N.W.T. and to submit a report by 1 July 1975.

05 05 Human Sciences Linguistics

06 01 Arctic

06 02 Fort Good Hope and Fort Franklin, N.W.T.

07 01 Canada Council

07 02 Nil

07 03 doctoral fellowship for contractor

08 1974 - February 15 1975 - July 1

09 03 .4 Other costs

09 04 .4 Total costs

10 01 Karen Rice (UE10-33-74)
Department of Linguistics
University of Toronto
Toronto, Ontario
Contract cost for 75/76 was \$350.

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential
Report entitled "Language Change in Hare"

14 Nil

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 421 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Ross River Athapaskans

04 Between 15 February 1974 and 31 March 1975 to undertake an urgent ethnology project on the ritual life of the Ross River Indians people and to submit a report by 1 October 1975.

05 05 Human Sciences Ethnology

06 01 Athapaskan, N.W.T.

06 02 Ross River, N.W.T.

07 01 Boreal Institute for Northern Studies; Arctic Institute of North America

07 02 Nil

07 03 \$3,000.00 for contractor (not verified)

08 1974 - February 15 1975 - October 1

09 03 .9 Other costs

09 04 .9 Total costs

10 01 Roger F. McDonnell (UE10-83-73)
University of Calgary
Calgary, Alberta
Contract cost for 75/76 was \$900.

11 Nil

12 Informants

13 Final report suitable for publication.
Fieldnotes confidential

14 Date for submission of final report extended to 30 September 1976.

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 422 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Carrier Language and Writing System

04 Between 30 February 1974 and 30 February 1975 to undertake an urgent ethnology project on the language and writing system of the Carrier Indians of B.C. and to submit a report by 1 February 1976.

05 05 Human Sciences Linguistics

06 01 Athapaskans - B.C.

06 02 Hagwilgate and Moricetown, B.C.

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - February 30 1976 - February 1

09 03 .8 Other costs

09 04 .8 Total costs

10 01 James Kari (UE10-73-73)
Soldatna, Alaska
Contract cost for 75/76 was \$800.

11 Nil

12 Informants. Project requested by Chief Charles Austin of Hagwilgate band.

13 Final report suitable for publication
Fieldnotes confidential.
Report entitled "Babine, A New Athapaskan Linguistic Grouping"

14 Nil

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 423 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Central Mackenzie River Athapaskans

04 Between 15 March 1974 and 30 December 1974 to undertake an urgent ethnology project on the language of the Central Mackenzie River Athapaskans and to submit a report by 1 May 1975.

05 05 Human Sciences Linguistics

06 01 Athapaskans - Central Mackenzie River
06 02 Fort Rae, Fort Norman, Fort Franklin, N.W.T.

07 01 National Science Foundation
07 02 Nil
07 03 Grant GS-3057 to contractor

08 1974 - March 15 1975 - May 1

09 03 .2 Other costs
09 04 .2 Total costs

10 01 Robert Howren (UE10-71-74)
University of Iowa,
Iowa City, Iowa, U.S.A.
Contract cost for 75/76 was \$200.

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential
Report entitled "The Position of Slave in the Northeastern Athapaskan Languages" submitted 31 March 1976 for payment.

14 Nil

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 424 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Slavery Athapaskans

04 Between 1 May 1974 and 1 October 1974 to undertake an urgent ethnology project on cognitive concepts of the Slavery speaking Athapaskans of Fort Liard, Fort Simpson and Fort Nelson, N.W.T. and to submit a report by 1 August 1975.

05 05 Human Sciences Linguistics

06 01 Athapaskans N.W.T.

06 02 Fort Liard, Fort Simpson and Fort Nelson, N.W.T.

07 01 U.S. National Institutes of Health

07 02 U.S. National Science Foundation

07 02 Nil

07 03 15 1/2 month period (15 May 1974 to 31 August 1975) subsistence for contractor. Not verified

08 1974 - May 1 1975 - August 1

09 03 .5 Other costs

09 04 .5 Total costs

10 01 Peter M. Gardner (UE10-65-74)
University of Missouri
Columbia, Missouri, U.S.A.
Contract cost for 75/76 was \$450.

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential

14 Date of final payment extended from 1975-76 to 1976-77
(31 August 1976)

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 425 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Eskimo kayaks

04 Between 1 May 1974 and 1 October 1974 to undertake an urgent ethnology project on traditional kayaks and their construction and to submit a report on 1 February 1975.

05 05 Human Sciences Ethnology

06 01 Caribou Eskimo - Eastern Canada

06 02 Nil

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - May 1 1975 - April 27

09 03 1.2 Other costs

09 04 1.2 Total costs

10 01 Eugene Y. Aroema, (EU10-1-74)
Port Renfrew
Victoria Island, Vancouver
Contract cost for 75/76 was \$1,200.

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential
Report entitled "How to Build Kayaks of the Canadian Arctic."

14 Nil

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 426 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Athapaskan biographies

04 Between 30 May 1975 and 1 December 1975 to collect biographies of Athapaskan women between the ages of forty and eighty-five living in villages in the Yukon Territory and to submit a final report by 1 May 1976

05 05 Human Sciences Ethnology

06 01 Athapaskan - Yukon Territory

06 02 Tagish, Fort Selkirk, Moosehide, etc.

07 01 Canada Council

07 02 Nil

07 03 Explorations grant to contractor for 1 October 1974 and 30 March 1975

08 1975 - May 30 1976 - May 1

09 03 3.2 Other costs

09 04 3.2 Total costs

09 08 5 Scientific man-months - Non-government

09 10 5 Total man-months - Non-government

10 01 Julie Cruikshank (UE10-12-75)
Yukon Archives
Government of the Yukon Territories
Whitehorse, Yukon
Contract cost for 75/76 was \$3,200

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential

14 Nil

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 427 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Hare Language - Fort Good Hope, N.W.T.

04 Between 1 May 1975 and 1 July 1975 to continue an age graded comparative linguistic study and to complete a bilingual dictionary of the Hare language as spoken in Fort Good Hope, N.W.T. and to submit a final report by 15 June 1976.

05 05 Human Sciences Linguistics

06 01 Athapaskan - N.W.T.

06 02 Fort Good Hope, N.W.T.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - May 1 1976 - June 15

09 03 2 Other costs

09 04 2 Total costs

09 08 2 Scientific man-months - Non-government

09 10 2 Total man-months - Non-government

10 01 Keren Rice (UE10-33-75)
 Department of Linguistic Studies
 University of Toronto
 Toronto, Ontario
 Contract cost for 75/76 was \$2,000.

11 Nil

12 Informants

13 Final report suitable for publication
 Fieldnotes confidential - Hare - English Dictionary

14 Submission of final report extended to 15 August 1976

15 Canadian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 428 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Netsilik Eskimo Music

04 Between 15 May 1975 and 15 June 1975 to study Netsilik Eskimo music from the communities of Gjoa Haven, Spence Bay and Pelly Bay and to submit a final report by 1 February 1976.

05 05 Human Sciences Ethnomusicology

06 01 Arctic - N.W.T.

06 02 Gjoa Haven, Spence Bay and Pelly Bay, N.W.T.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - May 15 1976 - February 1

09 03 2.4 Other costs

09 04 2.4 Total costs

09 08 1 Scientific man-months - Non-government

09 10 1 Total man-months - Non-government

10 01 Beverly Cavanagh (UE10-7-75)
Faculty of Music
McGill University
Montreal, Quebec
Contract cost for 75/76 was \$2,400.

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential

14 Amendment to Contract
Commencement - 15 May 1975
Completion - 1 October 1976

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 429 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 The legends of the Montagnais of Romaine and Saint-Augustin.

04 Between July 1, 1975 and September 1, 1975 to translate and analyse the legends of the Montagnais of Romaine and Saint-Augustin and to collect historical facts on this subject and to present a final report by no later than February 15, 1976.

05 05 Human Sciences Ethnology

06 01 Eastern SubArctic

06 02 Romaine and Saint-Augustin, Quebec

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - July 1 1976 - February 15

09 03 3.6 Other costs

09 04 3.6 Total costs

09 08 2 Scientific man-months - Non-government

09 10 2 Total man-months - Non-government

10 01 Mr. Rémi Savard (UE10-35-75)
 Department of Anthropology
 University of Montreal
 Montreal, P.Q.
 Contract cost for 75/76 was \$3,625.

11 Nil

12 Informants

13 Final report suitable for publication
 Fieldnotes confidential

14 Nil

15 Canadian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 430 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Eskimo Subsistence Techniques

04 Between 1 May 1975 and 1 May 1976 to film modern Eskimo Subsistence techniques in the vicinity of Coral Harbour, N.W.T. and to submit a detailed camera report by 15 June 1976.

05 05 Human Sciences Ethnology

06 01 Arctic - N.W.T.

06 02 Coral Harbour - N.W.T.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - May 1 1976 - June 15

09 03 4.1 Other costs

09 04 4.1 Total costs

09 08 12 Scientific man-months - Non-government

09 10 12 Total man-months - Non-government

10 01 Jenny Gilbertson (UE10-18-75)
Coral Harbour
N.W.T.
Contract cost for 75/76 was \$4,084.

11 Nil

12 Informants and camera subjects

13 Reference use only

14 Submission of camera report extended to 15 August 1976

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 431 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Tahltan Athapaskans of Telegraph Creek and Watson Lake, British Columbia

04 Between 1 August 1975 and 30 January 1976 to conduct ethnographic field studies among the Tahltan Athapaskans in the vicinity of Telegraph Creek and Watson Lake, B.C. and to submit a final report by 30 June 1976.

05 05 Human Sciences Ethnography

06 01 Athapaskan - British Columbia

06 02 Telegraph Creek, Watson Lake, B.C.
(Nass Valley, Atlin, Cassiar, Dease Lake and Klappan River)

07 01 Arctic Institute of North America

07 02 Nil

07 03 Approximately \$1,000.00 to contractor

08 1975 - August 1 1976 - June 30

09 03 3.1 Other costs

09 04 3.1 Total costs

09 08 5 Scientific man-months - Non-government

09 10 5 Total man-months - Non-government

10 01 Howard C. Higgins (UE10-21-75)
Department of Anthropology
University of New Mexico
Albuquerque, New Mexico, U.S.A.
Contract cost for 75/76 was \$3,120.

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential

14 Final report due 31 August 1976

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 432 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Eskimo Ethnopsychology

04 Between 1 April 1975 and 1 September 1975 to undertake a study of Eskimo ethnopsychology and emotional expression in Cumberland Sound, N.W.T. and to submit a final report by 1 February 1976.

05 05 Human Sciences

06 01 Arctic - N.W.T.

06 02 Cumberland Sound, N.W.T. (Qipisa)

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - April 1 1976 - February 1

09 03 2.6 Other costs

09 04 2.6 Total costs

09 08 5 Scientific man-months - Non-government

09 10 5 Total man-months - Non-government

10 01 Jean L. Briggs (UE10-4-75)
 Department of Anthropology
 Memorial University of Newfoundland,
 St. John's, Newfoundland
 Contract cost for 75/76 was \$2,600.

11 Nil

12 Informants

13 Final report suitable for publication
 Fieldnotes confidential

14 Nil

15 Candian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 433 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Chipewyan at English River, Saskatchewan

04 Between 1 June 1975 and 30 July 1975 to document and analyse the effects of recent technological changes upon the traditional economic cycle of the Chipewyans at English River, Saskatchewan and to submit a final report on 15 February 1976.

05 05 Human Sciences Ethnology

06 01 Athapaskan - Saskatchewan

06 02 English River, Saskatchewan

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - June 1 1976 - February 15

09 03 1.5 Other costs

09 04 1.5 Total costs

09 08 2 Scientific man-months - Non-government

09 10 2 Total man-months - Non-government

10 01 Robert Jarvenpa (UE10-23-75)
 Department of Anthropology
 State University of New York at Albany
 Albany, New York, U.S.A.
 Contract cost for 75/76 was \$1,500.

11 Nil

12 Informants

13 Final report suitable for publication
 Fieldnotes confidential
 Report entitled "The Patuanak Chipewyan in Adaptation:
 Problems of Technological Stress and Response in a
 Modernizing Sub-Arctic Community"

14 Nil

15 Urgent Ethnology Programme
 Canadian Ethnology Service
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 434 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 The Montagnais of Natashquan

04 Between July 1, 1975 and September 15, 1975, to study the history and oral traditions of the Montagnais of Natashquan and present a final report by March 15, 1976.

05 05 Human Sciences Linguistics

06 01 Eastern Sub-Arctic

06 02 Natashquan, Quebec

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - July 1 1976 - March 15

09 03 3.7 Other costs

09 04 3.7 Total costs

09 08 2.5 Scientific man-months - Non-government

09 10 2.5 Total man-months - Non-government

10 01 Sylvie Vincent. (UE10-40-75)
Longueuil
Quebec
Contract cost for 75/76 was \$3,700.

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential

14 Date for submission of final report extended to 31 August 1976.

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 435 National Museums of Canada

02 National Museum of Man Canadian Ethnology Service, Urgent Ethnology Programme

03 Eastern James Bay Cree

04 Between 1 December 1975 and 1 December 1977 to undertake an urgent ethnology project on eastern James Bay Cree social organization and subsistence strategies and to submit a final report by 1 May 1978.

05 05 Human Sciences Ethnology

06 01 Eastern Sub-Arctic

06 02 Rupert's House and Fort George, Quebec

07 01 Canada Council

07 02 Nil

07 03 \$4,000.00 per year for 2 years under a scholarship to contractor

08 1975 - December 1 1978 - May 1

09 03 4.8 Other costs

09 04 4.8 Total costs

09 08 4 Scientific man-months - Non-government

09 10 4 Total man-months - Non-government

10 01 Mr. Brian Craik (UE10-11-75)
 Department of Anthropology
 McMaster University
 Hamilton, Ontario
 Contract cost for 75/76 was \$4,800.

11 Nil

12 Collection of autobiographies
 Ruperts House Band Council approval

13 Final report suitable for publication
 Fieldnotes confidential

14 Amendment to contract
 Commencement date 1 April 1976
 Completion date 1 November 1978

15 Canadian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 436 National Museums of Canada

02 National Museum of Man - Canes, Urgent Ethnology Programme

03 Cultural Ecology of the Chilcotin Athapaskans

04 Between 1 July 1975 and 30 September 1975 to conduct a field study on the cultural ecology of the Chilcotin Athapaskans with special emphasis on traditional patterns of subsistence ethnobotany, ethnozoology, land use and territoriality and to submit a final report by 15 February 1976.

05 05 Human Sciences ~~ST~~ ETHNOLOGY

06 01 Athapaskans - British Columbia

06 02 Alexandria, Toosey, Stone, Anaham, Redstone and Nemaiak, B.C.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - July 1 1976 - February 15

09 03 2.1 Other costs

09 04 2.1 Total costs

09 08 3 Scientific man-months - Non-government

09 10 3 Total man-months - Non-government

10 01 Robert F.S. Tyhurst (UE10-39-75)
Vancouver, British Columbia
Contract cost for 75/76 was \$2,080.

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential
Report entitled "Report on Fieldwork of July to September 1975:
Notes on Chilcotin Ethnobiology" received.
Submission of final report extended to 15 December 1976.

14 Nil

15 Urgent Ethnology Programme - Canes
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 437 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Caribou-Eater Chipewyan of Wollaston Lake

04 Between 1 August 1975 and 30 November 1976 to undertake a cultural-ecological field investigation of the Caribou-Eater Chipewyan of Wollaston Lake, northern Saskatchewan and to submit a final report by 15 February 1977.

05 05 Human Sciences Ethnology

06 01 Athapaskan - Saskatchewan

06 02 Wollaston Lake, Northern Saskatchewan

07 01 Simon Fraser University

07 02 Burnaby, British Columbia

07 03 Nil

07 03 \$1,200 President's Research Fund (not verified)

08 1975 - August 1 1977 - February 15

09 03 4.6 Other costs

09 04 4.6 Total costs

09 08 8 Scientific man-months - Non-government

09 10 8 Total man-months - Non-government

10 01 Takashi Irimoto (UE10-22-75)

Department of Sociology and Anthropology

Simon Fraser University

Burnaby, B.C.

Contract cost for 75/76 was \$4,600.

11 Nil

12 Informants

13 Final report suitable for publication

Fieldnotes confidential

14 Nil

15 Canadian Ethnology Service

Urgent Ethnology Programme

Pam Fretwell - Programme Assistant

996-4540

National Museums of Canada

National Museum of Man

Ottawa, Ontario

K1A 0M8

01 438 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Chilcotin and Carrier Athapaskans of British Columbia

04 Between 1 July 1975 and 1 November 1975 to undertake a study of phonology and linguistic variation among the Chilcotin and Carrier Athapaskans of British Columbia and to submit a final report on 1 September 1976.

05 05 Human Sciences Linguistics

06 01 Athapaskan, British Columbia

06 02 Various locations in interior British Columbia

07 01 Canada Council

07 02 Nil

07 03 \$1,500.00 leave fellowship to contractor

08 1975 - July 1 1976 - September 1

09 03 3 Other costs

09 04 3 Total costs

09 08 4 Scientific man-months - Non-government

09 10 4 Total man-months - Non-government

10 01 Dr. Eung-Do Cook (UE10-8-75)
 Department of Linguistics
 University of Calgary
 Calgary, Alberta
 Contract cost for 75/76 was \$3,000.

11 Nil

12 Informants

13 Final report suitable for publication
 Fieldnotes confidential

14 Nil

15 Canadian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 439 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 A dictionary of the Atikameku (Tête-de-Boule) language.

04 Between June 1, 1975 and September 1, 1975, to gather material to draft a dictionary of the Atikameka language as spoken in Manounane, Obedjiwan and Weymontachie and present a final report before May 1, 1976.

05 05 Human Sciences Linguistics

06 01 Eastern Sub-Arctic

06 02 Manounane, Obedjiwan and Weymontachie

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - June 1 1976 - May 1

09 03 3.7 Other costs

09 04 3.7 Total costs

09 08 3 Scientific man-months - Non-government

09 10 3 Total man-months - Non-government

10 01 Jean-Pierre Béland (UE10-2-75)
 Faculté des sciences de l'éducation
 Université Laval
 Québec, Québec
 Contract cost for 75/76 was \$3,700.

11 Nil

12 Informants

13 Final report to be suitable for future publication
 Fieldnotes confidential
 Possible - Atikameku (Tête-de-Boule) dictionary

14 Nil

15 Canadian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 440 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Wood Burning Techniques

04 Between 15 May 1975 and 1 November 1975 to undertake an ethnological field study of aboriginal and contemporary patterns of Indian wood burning techniques in northern British Columbia, Alberta and the southern Yukon and to submit a final report by 15 April 1976.

05 05 Human Sciences Ethnology

06 01 Athapaskan

06 02 Jasper Park to Southern Yukon

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - May 15 1976 - April 15

09 03 3.4 Other costs

09 04 3.4 Total costs

09 08 5.5 Scientific man-months - Non-government

09 10 5.5 Total man-months - Non-government

10 01 Henry T. Lewis (UE10-27-75)
 Department of Anthropology
 University of Alberta
 Edmonton, Alberta
 Contract cost for 75/76 was \$3,360.

11 Nil

12 Informants

13 Final report suitable for publication
 Fieldnotes confidential
 Report entitled "Maskuta:
 The Ecology of Indian Fires in Northern Alberta"

14 Nil

15 Canadian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 441 National Museums of Canada

02 National Museum of Man - Canes, Urgent Ethnology Programme

03 Chipewyan of Black Lake, Saskatchewan

04 Between 1 May 1975 and 31 December 1975 to investigate the material culture, social organization and magico-religious beliefs of the Chipewyan of Black Lake, Saskatchewan and to submit a final report by 15 September 1976.

05 05 Human Sciences Ethnology

06 01 Athapaskan - Saskatchewan

06 02 Black Lake, Saskatchewan

07 01 Simon Fraser University
Burnaby, British Columbia

07 02 Nil

07 03 President's research fund grant of \$1,006.00 to contractor.

08 1975 - May 1 1976 - September 15

09 03 3.9 Other costs

09 04 3.9 Total costs

09 08 8 Scientific man-months - Non-government

09 10 8 Total man-months - Non-government

10 01 Henry S. Sharp, (UE10-36-75)
Dept. of Soc./Anthro.,
Simon Fraser University
Barnaby, British Columbia
Contract cost for 75/76 was \$3,850.

11 Nil

12 Informants

13 Final report suitable for publication,
Fieldnotes confidential

14 Nil

15 Urgent Ethnology Programme - Canes
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 442 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Fort Ware Athapaskans

04 Between 1 June 1975 and 1 September 1975 to initiate an ethnographic study of the Athapaskans of Fort Ware with an emphasis on technology, ecology and social organization and to submit a final report by 15 October 1975.

05 05 Human Sciences

06 01 Athapaskan

06 02 Fort Ware, British Columbia

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - June 1 1975 - October 15

09 03 2.1 Other costs

09 04 2.1 Total costs

09 08 3 Scientific man-months - Non-government

09 10 3 Total man-months - Non-government

10 01 Frans Lamers (UE10-25-75)
Department of Sociology and Anthropology
Simon Fraser University,
Burnaby, British Columbia
Contract cost for 75/76 was \$2,100.

11 Nil

12 Informants

13 Final report suitable for publication
Fieldnotes confidential
Pilot study only.
Final report entitled - "Fort Ware: An Ethnographic Study"

14 Nil

15 Canadian Ethnology Service
Urgent Ethnology Programme
Pam Fretwell - Programme Assistant
996-4540
National Museums of Canada
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 443 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service, Urgent Ethnology Programme

03 Cree Indians of Point Hills, Quebec

04 Between 1 September 1975 and 1 June 1976 to study the development of operation of all-male winter hunting groups among the Cree Indians of Point Hills, Quebec and to submit a final report by 15 December 1976.

05 05 Human Sciences Ethnology

06 01 Eastern Sub-Arctic

06 02 Point Hills, Quebec

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - September 1 1976 - December 15

09 03 4.5 Other costs

09 04 4.5 Total costs

09 08 7 Scientific man-months - Non-government

09 10 7 Total man-months - Non-government

10 01 Mr. Nathan Elberg (UE10-14-75)
 Programme in the Anthropology of Development
 McGill University
 Montreal, Quebec
 Contract cost for 75/76 was \$4,480.

11 Nil

12 Informants participation

13 Final report suitable for publication
 Fieldnotes confidential

14 Nil

15 Canadian Ethnology Service
 Urgent Ethnology Programme
 Pam Fretwell - Programme Assistant
 996-4540
 National Museums of Canada
 National Museum of Man
 Ottawa, Ontario
 K1A 0M8

01 444 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service

03 Traditional Athapaskan ethnography

04 Collection and analysis, collation and dissemination of comparative cultural information on Northern Athapaskans.

05 05 Human Sciences Ethnography

06 01 Yukon, Northwest Territories and Alaska

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1960 Ongoing

09 01 3 Salaries and wages

09 04 3 Total costs

09 05 2 Scientific man-months - Government

09 07 2 Total man-months - Government

10 Nil

11 Nil

12 Interviewed on Northern Athapaskan Studies by CBC, Frobisher Bay and CTV, Ottawa.

13 Proceedings of Northern Athapaskan Conferences, 2 vol. 797 PP
A. McFadyen Clark, ed., 1975, Mercury No. 27.
Introduction to Mercury No. 27 pp 1-5
"Upper Koyukuk River Koyukon Athapaskan Social Culture: An Overview" Mercury No. 27, Volume 1 pp. 146-180.

14 Nil

15 A. McFadyen Clark
996-4540
Athapaskan Ethnologist
Canadian Ethnology Service
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 445 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service

03 Traditional Arctic Kayaks

04 The continual study of kayaks from Greenland to Canada to Siberia elucidating developmental history, design parameters and use.

05 05 Human Sciences Ethnology

06 01 Arctic

06 02 From Greenland to Canada to Alaska to Siberia

07 01 Nil

07 02 Nil

07 03 Nil

08 1972 Ongoing

09 01 11 Salaries and wages

09 03 3 Other costs

09 04 14 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Local informants

13 Collected kayaks for the National Museum of Man, a large collection of photographs of kayaks, full size drawings of kayaks, 16 mm film of kayak construction "An Illustrated Glossary of Kayak Terminology" CMA Gazette, Vol. 9, No. 2, 1976 pp 27-37.

14 Nil

15 Dr. D.W. Zimmerly
996-4540
Arctic Ethnologist
Canadian Ethnology Service
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 446 National Museum of Canada

02 National Museum of Man, Canadian Ethnology Service

03 Labrador Eskimo traditional ethnography

04 Reconstruction of Labrador Eskimo ethnography and culture history;
part of Canadian Ethnology Service research activities.

05 05 Human Sciences Ethnography

06 01 Coastal Labrador

06 02 Archives in Ottawa, Boston and Salem

07 01 Nil

07 02 Nil

07 03 Nil

08 1964 Ongoing

09 01 6 Salaries and wages

09 04 6 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 01 Archival notes.

13 02 "Demography and Adaptations of Eighteenth Century Eskimo Groups
in Northern Labrador and Ungava". In W. Fitzhugh, ed., Prehistoric
Maritime Adaptations of the Circumpolar Zone. Mouton Publishers,
The Hague, pp. 269-278.

13 03 Moravian Mission Influence On Labrador Inuit Subsistence: 1776-1830.
In D. Muise, ed., Approaches to Native History in Canada, National
Museum of Man, History Division, Mercury Series.

14 Nil

15 Dr. J.G. Taylor
996-4540
Eastern Sub-arctic Ethnologist
Canadian Ethnology Service
National Museum of Man
Ottawa, Ontario
K1A 0M8

01 447 National Museums of Canada

02 National Museum of Man - Canadian Ethnology Service

03 Documentation of changing Eskimo adaptations in the North.

04 Documentation of the cultural heritage of the Eskimos including research, material culture collection, and analysis and dissemination of information on their social, linguistic and material culture.

05 05 Human Sciences Ethnology

06 01 Arctic

06 02 Rankin Inlet

07 01 Nil

07 02 Nil

07 03 Nil

08 1972 Ongoing

09 01 11 Salaries and wages

09 02 2 Capital

09 03 3 Other costs

09 04 16 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Local informants

13 Audio-visual material including super 8 film footage and sound tapes of songs, life history material and legends.

14 Nil

15 Dr. D. Zimmerly
996-4540
Arctic Ethnologist
Canadian Ethnology Service
National Museum of Man
Ottawa, Ontario
K1A 0M8

NATIONAL RESEARCH COUNCIL OF CANADA

01 502 National Research Council of Canada

02 Division of Building Research

03 Rheology and Strength of Saline Ice

04 To investigate the structural, rheological and mechanical properties
of saline ice.
 Increasing interest in operations in the Canadian Arctic has
demonstrated the need for a systematic study of the strength,
structure and rheological response of sea ice. Preliminary studies
have been made on the structure of sea ice from ice platforms and
natural first year ice. Thin sectioning techniques have been
developed.

05 02 Physical Sciences Physics
05 03 Engineering Sciences Engineering

06 01 Melville Island (samples)
06 02 Laboratory at Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 01 1975 Ongoing

09 01 32 Salaries and wages
09 03 4 Other costs
09 04 36 Total costs
09 05 12 Scientific man-months - Government
09 06 6 Other man-months - Government
09 07 18 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Nil

14 Nil

15 N.K. Sinha (Dr.)
993-1466
Geotechnical Section,
Division of Building Research,
National Research Council of Canada,
Ottawa, Ontario,
K1A 0R6

01 503 National Research Council of Canada

02 Division of Building Research

03 Structures in Permafrost Areas

04 See Reference File.

05 03 Engineering Sciences Civil engineering

06 01 Near Inuvik, N.W.T.

06 02 Staff Ottawa based

07 01 Dept. of Indian & Northern Affairs - Mackenzie Highway Study, Inuvik,
and Permafrost Engineering Manual Ministry of Transport - Mackenzie
Highway Study.

07 02 DINA - \$50,000

MOT - \$15,000

07 03 Nil

08 1950 Ongoing

09 01 32 Salaries and wages

09 03 16 Other costs

09 04 48 Total costs

09 05 12 Scientific man-months - Government

09 06 15 Other man-months - Government

09 07 27 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 1) Hnatiuk, J., and G.H. Johnston. 1975. Environmental Conditions
Influencing Arctic Decisions and Design Criteria. In: Arctic Oil
and Gas: Problems and Possibilities. Proc. of Fifth International
Congress of the Foundation Francaise d'Etudes Nordiques held at
Le Havre, France 2-5 May, 1973. Contributions du Centre d'Etudes
Arctiques XII, Vol. 1, pp.11-35.

2) Penner, E., G.H. Johnston and L.E. Goodrich. 1974. Thermal
conductivity laboratory studies of some Mackenzie Highway Soils.
Canadian Geotechnical Journal, Vol. 12, No. 3, pp.271-288.
(NRCC 14707)

Note: All studies are published in the open literature by DBR either
in in-house papers or appropriate Canadian and International
Journals. A list of papers published since the studies were
initiated is available from Division of Building Research,
National Research Council of Canada.

14 Nil

15 G.H. Johnston
993-1466
Geotechnical Section,
Division of Building Research,
National Research Council of Canada,
Ottawa, Ontario,
K1A 0R6

01 504 National Research Council of Canada

02 Division of Building Research

03 Mackenzie Highway Embankment Study

04 To determine the changes in the seasonal temperature pattern and thermal properties in permafrost resulting from the construction of a road embankment in a section of the Mackenzie Highway.
 To determine n - factors (ratios of air temperature and road services) for this area.
 The study is intended to provide information for the design of roads and similar engineering structures in permafrost conditions. Emphasis in the study will be to determine change in the temperature pattern and changes in the thermal properties of the underlying permafrost resulting from the newly constructed road.

05 02 Physical Sciences Physics
 05 03 Engineering Sciences Engineering

06 01 Between Ft. Simpson and Wrigley on the Mackenzie Highway road allowance
 06 02 Staff Ottawa based

07 01 Dept. of Indian & Northern Affairs
 07 02 DINA - \$40,000
 07 03 Nil

08 1975 Ongoing

09 01 14 Salaries and wages
 09 04 14 Total costs
 09 05 4.8 Scientific man-months - Government
 09 06 1.2 Other man-months - Government
 09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Nil

14 Nil

15 L.E. Goodrich
 993-1466
 Geotechnical Section,
 Division of Building Research,
 National Research Council of Canada,
 Ottawa, Ontario,
 K1A 0R6

01 505 National Research Council of Canada

02 Division of Building Research

03 Ice Engineering

04 To establish the criteria for the design of structures subject to forces due to ice and for the assessment of the load carrying capacity of ice covers.
 The performance of large ice platforms for offshore oil exploration drilling has been monitored and compared with theoretical calculations. A preliminary analysis technique has been developed for determining the safe bearing capacity of an ice cover for long term loads.
 Very little information on the nature and magnitude of wharf facilities is available. Measurements and observations are underway on a recently constructed wharf at Strathcona Sound.

05 03 Engineering Sciences Engineering

06 01 a) Off Melville Island - ice platforms
 06 02 b) Strathcona Sound, Admiralty Bay, Baffin Island
 06 03 Staff Ottawa based

07 01 Department of Indian and Northern Affairs
 07 01 Department of Public Works
 07 02 DINA - all direct cost for ice platform studies
 07 02 DPW - \$15,000 for ice pressures at Strathcona Sound Wharf.
 07 03 Nil

08 01 1973 - Ice Platforms Ongoing
 08 02 1975 - Strathcona Sound

09 01 26 Salaries and wages
 09 03 6 Other costs
 09 04 32 Total costs
 09 05 12 Scientific man-months - Government
 09 06 6 Other man-months - Government
 09 07 18 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 1) Frederking, R. 1974. Downtag loads developed by a floating ice cover: field experiments. Canadian Geotechnical Journal, Vol. 11, No. 3, 9p. (NRCC 14013).
 2) Frederking, R. and L.W. Gold. 1975. Experimental study of edge loading of ice plates. Canadian Geotechnical Journal, Vol. 12, No. 4, 9p. (NRCC 14951).
 Note: All studies are published in the open literature by DBR either in in-house papers or appropriate Canadian and International Journals. A list of papers published since the studies were initiated is available from the Division of Building Research, National Research Council of Canada.

14 Nil

15 R. Frederking (Dr.)
 993-1466
 Geotechnical Section,
 Division of Building Research,
 National Research Council of Canada,
 Ottawa, Ontario,
 K1A 0R6

01 506 National Research Council of Canada

02 Division of Building Research

03 Permafrost distribution and environmental studies

04 To determine the distribution and characteristics of permafrost in the continuous and discontinuous zones, e.g. by terrain surveys and subsurface observations. To determine the effect of climatic and terrain factors on the formation, existence and stability of permafrost.
See reference file.

05 03 Engineering Sciences Engineering
05 04 Environmental Sciences Geography

06 01 Thompson, Man., Churchill, Man., Rankin Inlet, N.W.T., Plateau Mountain, Alta., Mount Garibaldi, B.C.
06 02 staff Ottawa based

07 01 Nil
07 02 Nil
07 03 Nil

08 1953 Ongoing

09 01 46 Salaries and wages
09 03 24 Other costs
09 04 70 Total costs
09 05 9 Scientific man-months - Government
09 06 18 Other man-months - Government
09 07 27 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 See Reference File.

14. Nil

15 R.J.E. Brown (Dr.)
993-1466
Geotechnical Section,
Division of Building Reserach,
National Research Council of Canada,
Ottawa, Ontario,
K1A 0R6

01 507 National Research Council of Canada

02 Herzberg Institute of Astrophysics

03 Monitoring of Cosmic Rays

04 To monitor intensity variation of cosmic rays incident at high latitudes.
The data is used to study the modulation of cosmic rays in interplanetary space.

05 02 Physical Sciences Physics

06 01 Canada

06 02 Data collected at Alert and Inuvik.

07 01 Nil

07 02 Nil

07 03 Nil

08 1960 Continuing

09 01 15 Salaries and wages

09 02 0 Capital

09 03 19 Other costs

09 04 34 Total costs

09 06 12 Other man-months - Government

09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Data stored in World Data Centres and is available from these Centres.

14 Nil

15 I.B. McDiarmid
992-7884
National Research Council,
100 Sussex Drive,
Ottawa, Ontario,
K1A 0R6

National Research Council/Reference File

- 04 503 To develop criteria for the design of foundations in permafrost and for construction of engineering facilities and structures in permafrost. Studies stressed during the 1975/76 period were:
- (1) The behaviour of an insulated test road near Inuvik, N.W.T.
 - (2) Ground temperatures at the Eagle River bridge site, Yukon Territory.
 - (3) A Permafrost Engineering Manual is under preparation to which consultants and academics have contributed. A large portion of it is being written by DBR and editing is also being done by DBR.
- Good engineering site investigation in advance of construction on permafrost is of paramount importance. Failures and poor performance of structures can normally be traced to lack of information on subsurface conditions. The emphasis in these studies has been to relate the foundation design and the performance of existing structures to ground conditions. One factor of great importance is to know the ground ice content at the site before the foundation type is selected. Heat loss to the ground in areas of high ice content must be prevented if serious settlement is to be avoided.
- Other studies were initiated to determine the influence of particular structures on the ground thermal regime, e.g. influence of flooding on ground thermal regime, influence of airport runways and subsequent asphalt resurfacing on ground thermal regime, thermal recovery around steamed piles, thaw settlement measurements of structures; influence of dykes on permafrost, etc.
- 04 506 To determine the distribution and characteristics of permafrost in the continuous and discontinuous zones, e.g. by terrain surveys and subsurface observations.
- To determine the effect of climatic and terrain factors on the formation, existence and stability of permafrost. Studies of permafrost distribution were required for the exploration and development of the resources in Canada's northern regions particularly because of the problems that permafrost imposes with regard to engineering design and construction. The published information dating back to the late "forties" and the expertise acquired have become invaluable in recent years with the upsurge in activities related to route selection of highways and pipelines, increased exploration for mineral resources and site selection for various engineering structures and the establishment of communities.
- The more difficult engineering problems arise in the discontinuous permafrost where frozen ground distribution is sporadic. There is a need also to be able to predict the existence and location of areas of permafrost. The current studies are directed towards an understanding of the complex interaction between climatic and terrain factors that will serve as a means of predicting reliably subsurface conditions from surface observations.
- 13 506 Note: All studies are published in the open literature by DBR either in in-house papers or appropriate Canadian and International Journals. A list of papers published since the studies were initiated is available from Division of Building Research, National Research Council of Canada.
- Brown, R.J.E. 1975. Permafrost investigations in Quebec and Newfoundland (Labrador). 36 p., 49 figures (NRCC 14966).
- Brown, R.J.E., and W.O. Kupsch. 1974. Permafrost Terminology. Technical Memorandum No. 111, Associate Committee on Geotechnical Research. (NRCC 14274).
- Brown, R.J.E. 1975. Permafrost-Truelove Lowland Devon Island. International Biological Program (IBP), Canadian Tundra Biome Study, ed. L.C. Bliss (Dept. of Botany, U. of Alberta), Publisher U. of Alberta Press.
- Brown, R.J.E. 1975. Permafrost Map. Hydrological Atlas of Canada, Dept. of Environment. (In press).
- Brown, R.J.E. 1975. Muskeg and permafrost. Muskeg and the northern environment in Canada, ed. C.O. Brawner, University of Toronto Press. (In press).

Brown, R.J.E. 1975. Surface parameters which influence the permafrost thermal regime in the Arctic, their temporal and spatial variability - present state of knowledge. Procs. Seminar on Arctic Ground Surface Energy Exchange, Earth Physics Branch, Department of Energy, Mines and Resources, Ottawa. (In press).

PUBLIC WORKS

01 456 Public Works

02 Design & Construction Branch; Technological Research & Development Branch.

03 Muskwa River Bridge

04 To study the short and long term behaviour of the steel-concrete composite box girder bridge. Stress caused by creep, shrinkage, differential temperature and northern climatic conditions, as well as dead and live loads are also being investigated. Data from this project to be used for future design of Northern bridges.

05 03 Engineering Sciences

06 01 Fort Nelson, B.C.

06 02 Muskwa River Bridge

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - May 1977 - May

09 01 4 Salaries and wages

09 02 3 Capital

09 03 27 Other costs

09 04 34 Total costs

09 05 2.4 Scientific man-months - Government

09 07 2.4 Total man-months - Government

09 08 6 Scientific man-months - Non-government

09 10 6 Total man-months - Non-government

10 01 Civil Engineering Consultants of Calgary, \$27,000 in 75/76

11 Nil

12 Nil

13 Preliminary Report, January 1976

14 Short term strain/stress measurements (stresses during various construction stages) have been completed. Long term strain/stress measurements by consultants are still in progress. A Technical Report based on current testing results will be issued shortly.

15 M.S. Cheung (Dr.)
998-8277
or
J.C. Beauchamp
998-4510
Sir Charles Tupper Building,
Confederation Heights,
Riverside Drive,
Ottawa, Ontario,
K1A 0M2.

01 457 Public Works

02 Design & Construction Branch; Technological Research & Development Branch.

03 Measuring temperature gradients in soil to determine the design pile capacity for the Eagle River Bridge.

04 To determine depths of the active and permafrost layers at the proposed bridge site. This information will be used to determine the safe soil bearing and friction capacities.

05 03 Engineering Sciences

06 01 Dempster Highway, Y.T., Mile 236.8

06 02 Eagle River Bridge

07 01 Nil

07 02 Nil

07 03 Nil

08 1974 - February Ongoing

09 01 2.5 Salaries and wages

09 03 1 Other costs

09 04 3.5 Total costs

09 05 1.2 Scientific man-months - Government

09 07 1.2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Data re temperature readings provided by National Research Council.

14 Initial costs for installing instrumentation occurred in previous years. Costs for 1975/76 involved travel and living expenses to the National Research Council, who are developing a temperature profile.

15 G.H. Johnson
993-1466
National Research Council
or
J.C. Beauchamp
998-4510
or
M.S. Cheung (Dr.)
998-8277
Sir Charles Tupper Building,
Confederation Heights,
Riverside Drive,
Ottawa, Ontario,
K1A 0M2.

01 458 Public Works

02 Design & Construction Branch; Building Design Unit

03 Project No. 16376 - Nursing Station Design Study

04 The objective is to design a building system that meets the special requirements, including humanitarian, engineering and logistical, of arctic and sub-arctic locations.

05 03 Engineering Sciences

06 01 Northern Canada

06 02 Design and Construction Branch/HQ, Ottawa

07 01 Department of National Health and Welfare

07 02 Nil

07 03 Nil

08 1974 - December 1976 - July

09 01 2.5 Salaries and wages

09 04 2.5 Total costs

09 06 1.2 Other man-months - Government

09 07 1.2 Total man-months - Government

10 Nil

11 Nil

12 Interviews held with Nursing Staff working in Northern Stations. Also, staff of the National Research Council interviewed.

13 A Report will ultimately be in the form of a Design Drawing for the Department of National Health & Welfare.

14 Nil

15 R.J. Clark
998-9152
Sir Charles Tupper Building,
Confederation heights,
Riverside Drive,
Ottawa, Ontario,
K1A 0M2

01 459 Public Works

02 Design and Construction Branch

03 Revegetation Study

04 To find seed species best suited to revegetate disturbed lands during and after road and pipeline construction.

05 02 Physical Sciences
05 03 Engineering Sciences

06 01 Mackenzie Highway

07 01 Nil
07 02 Nil
07 03 Nil

08 1973 - September 1978

09 01	2	Salaries and wages
09 03	15	Other costs
09 04	17	Total costs
09 06	1	Other man-months - Government
09 07	1	Total man-months - Government
09 08	2	Scientific man-months - Non-government
09 10	2	Total man-months - Non-government

10 01 Lombard North Group of Calgary for \$15,000.

11 Nil

12 Nil

13 Lombard North Group "Evaluation Report" - to have limited circulation.

14 Nil

15 H. Hageraats
998-8901
Sir Charles Tupper Building,
Confederation Heights,
Riverside Drive,
Ottawa, Ontario,
K1A 0M2

01 460 Public Works

02 Design & Construction Branch (Marine) and Technological Research and Development Branch

03 Strathcona Sound Wharf - Project No. 70050
"Ice Force Measurement Program"

04 Instrumentation installed to measure both lateral and uplift ice pressures on a steel sheet pile cell located in a tidal Arctic location. The wharf is currently the most northerly permanent marine structure. Data on ice forces will affect the selection of design criteria for future structures in the high arctic.

05 02 Physical Sciences
05 03 Engineering Sciences
05 04 Environmental Sciences

06 01 Strathcona Sound, Borden Peninsula, Baffin island
06 02 Strathcona Sound Wharf

07 01 Ministry of Transport
07 02 \$18,000
07 03 Nil

08 1975 - September 1976 - July (At this time a decision, based on data obtained, will be made on the value of more extensive instrumentation and further data gathering.)

09 01 2.5 Salaries and wages
09 04 2.5 Total costs
09 05 1.2 Scientific man-months - Government
09 07 1.2 Total man-months - Government

10 01 Irad Gage Inc. (Equipment Supply)
National Research Council (Supervision and Data Gathering)
Total Cost \$18,000

11 Data obtained will be included in the "Canada/Japan Joint Technical Study Program", DPW Project #70321.

12 Some site support being provided by Strathcona Minerals Ltd.

13 Report and data available through:
National Research Council,
Division of Building Research.
Ref File M43-13-11-1

14 Data gathered to date indicates ice pressures much lower than originally anticipated. Similar instrumentation has been installed at the Kingston Marina to measure ice force in the non-tidal Lake Ontario environment.

15 M.W. Mulcahy
998-4175
Sir Charles Tupper Building,
Confederation Heights,
Riverside Drive,
Ottawa, Ontario,
K1A 0M2

REGIONAL ECONOMIC EXPANSION

01 199 Regional Economic Expansion

02 Canada/Manitoba Interim Manitoba Northlands Sub-Agreement

03 Waste Management Projects

04 To identify and test waste management system that appears appropriate for mid-latitudes to improve sanitation conditions, and thereby improve the socio-economic conditions of Northern Manitoba residents.

05 04 Environmental Sciences Waste Management

06 01 Northern Manitoba
06 02 various locations

07 01 Province of Manitoba
07 02 \$80,000 - provincial share of fed/prov cost-share (60/40 fed/prov) for total project
07 03 Nil

08 1974 - July 1976 - March 31

09 03 63 Other costs
09 04 63 Total costs

10 01 Contract cost to DREE in 75/76 was \$63,000

11 Use of Scandanavian Technology, American Technology

12 Testing of system installations

13 Internal progress reports

14 Total fed. - prov. expenditures in 75/76 was \$105,000.

15 Doug Davison
Northlands Co-ordinator
Manitoba Department of Northern Affairs
204-944-2517
932-405 Broadway Avenue
Winnipeg, Manitoba

01 400 Regional Economic Expansion

02 Canada/Manitoba Interim Manitoba Northlands Sub Agreement

03 To provide housing design for a housing construction program that will, in the future, be more adaptive to the cultural and physical needs of the northern resident.

04 To develop alternative modifications to housing design that will improve performance with respect to energy use, energy supply, water and waste disposal, as well as developing a sound self built housing prototype using either local materials or imported technology, all of which could assist housing programs to improve socio-economic conditions of Northern residents.

05 03 Engineering Sciences Energy, sanitation, construction
05 05 Human Sciences Housing

06 01 Northern Manitoba
06 02 Nil

07 01 Province of Manitoba
07 02 \$60,000 - note: Provincial share of cost-sharing (60/40 Fed/Prov) for total project.
07 03 Nil

08 1974 - July 1976 - March 31

09 03 10.8 Other costs
09 04 10.8 Total costs

10 01 From Province to University of Manitoba to examine design and construction; contract to private architect to study existing designs for modification. Contract cost to DREE in 75/76 was \$10,800.

11 Nil

12 Consultation with northern family who lived in the house

13 None to date; internal research evaluation being done

14 Total fed.-prov. expenditure in 75/76 was \$18,000.

15 Doug Davison
Northlands Co-ordinator
Manitoba Dept. of Northern Affairs
204-944-2517
932-405 Broadway
Winnipeg, Manitoba

SCIENCE COUNCIL OF CANADA

01 454 Science Council of Canada

02 Study on Northern Development

03 Northern Development Decision-Making Systems - A Comparative Analysis of Development Projects

04 a) To conduct a comparative analysis of Science Council Case Studies on Northern Development
b) This project was designed with the intention that it would identify possible areas of concern for Science Council recommendations.

05 05 Human Sciences

06 01 Northern Canada

06 02 Studies carried out in Waterloo, Toronto, Ottawa, Edmonton, Calgary and Quebec

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - September 1 1976 - March 31

09 03 15.2 Other costs

09 04 15.2 Total costs

09 08 8 Scientific man-months - Non-government

09 10 8 Total man-months - Non-government

10 01 University of Waterloo Research Institute (Prof. D. Fischer and R. Keith). Contract cost \$15,200.

11 Nil

12 Nil

13 Northern Development Decision-Making Systems (Not published)

14 Nil

15 Lewis Auerbach,
995-0806
Science Adviser,
Science Council of Canada,
150 Kent Street,
Ottawa, Ontario,
K1P 5P4

01 501 Science Council of Canada

02 Study on Northern Development

03 An Essay on the role of Canadian Control of Technology in Northern Development

04 a) Identification of required technologies
b) Political and economic policies for enhancing Canadian control of these technologies

05 05 Human Sciences

06 01 Northern Canada
06 02 Toronto

07 01 Nil
07 02 Nil
07 03 Nil

08 1976 - January 20 1976 - April 4

09 03 20.7 Other costs
09 04 20.7 Total costs
09 08 4 Scientific man-months - Non-government
09 10 4 Total man-months - Non-government

10 01 Hedlin Menzies and Associates Ltd., contract for \$20,665.

11 Nil

12 Nil

13 The Role of Canadian Control of Technology in Northern Development.

14 Nil

15 Lewis Auerbach,
995-0806
Science Adviser,
Science Council of Canada,
150 Kent Street,
Ottawa, Ontario,
K1P 5P4

STATISTICS CANADA

01 461 Statistics Canada

02 Business Statistics

03 Isolated Post Allowance Indexes

04 Production of comparative indexes of retail prices and living costs in support of the administration of the Isolated Posts Regulations by the Treasury Board Secretariat and employing departments.

05 05 Human Sciences

06 01 All locations designated as "isolated" for purposes of the I.P. Reg. See Section No. 14 for details

06 02 At each isolated post either by visit or through mail surveys.

07 01 Treasury Board Secretariat and employing departments.

07 02 None

07 03 Occasional loan of vehicles, provision of air transportation (R.C.M.P.), assistance in arranging on-site meetings and accommodations.

08 01 Ongoing

09 01 115 Salaries and wages

09 03 17 Other costs

09 04 132 Total costs

09 05 36 Scientific man-months - Government

09 06 36 Other man-months - Government

09 07 72 Total man-months - Government

10 Nil

11 Nil

12 Canadian Government employees at Isolated Posts complete questionnaires outlining their purchasing and consumption sources and patterns. Retail prices are reported from local retail outlets.

13 Index results are not published. Results are advised to the Treasury Board approval, provincial governments and certain other non-government users are advised of survey results pursuant to special arrangements.

14 STUDY AREAS - 1975-1976

May/June - 1975 - B.C. Coast including locations on Vancouver Island	36 locations
Oct/Nov. - 1975 - Yukon Territories	14 locations
Feb/March - 1976 - Northern Manitoba and Northeastern Saskatchewan	44 locations

15 Mr. F. Byrne,
994-5782
Statistics Canada,
Prices Division,
Room 2176,
No. 5 Temporary Building,
520 Preston Street,
Ottawa, Ontario,
K1A 0V5
ATTENTION: Government Allowance Indexes Section

TRANSPORT

01 466 Transport

02 Arctic Transportation Agency

03 Mackenzie River Dredging Study

04 To determine the technical and economic feasibility of deepening the shipping channel in the Mackenzie River.

05 02 Physical sciences

06 01 Mackenzie District, N.W.T.
06 02 Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1974 - June 1976 - February

09 01 15 Salaries and wages
09 04 15 Total costs
09 06 6 Other man-months - Government
09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Report issued February 1976.

14 Treasury Board submission to conduct studies on social and environmental impact forwarded May 7, 1976.

15 D.E. Evans,
996-9766
Transport Canada,
24B, Transport Canada Building,
Ottawa, Ontario,
K1A 0N5

01 467 Transport

02 Arctic Transportation Agency

03 Mackenzie Delta Harbour Study

04 To determine the technical and economic feasibility of constructing
a moderate draft harbour in the Western Arctic.

05 02 Physical sciences

06 01 Mackenzie Delta Harbour
06 02 Ottawa

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - June 1976 - June

09 01 12 Salaries and wages
09 04 12 Total costs
09 06 6 Other man-months - Government
09 07 6 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Report being finalized.

14 Nil

15 D.E. Evans,
996-9766
Transport Canada,
24B, Transport Canada Building,
Ottawa, Ontario,
K1A 0N5

01	468	Transport	
02		Arctic Transportation Agency	
03		Community Re-supply - Airlift vs. Sealift	
05	02	Physical sciences	
06	01	Arctic (N.W.T.)	
06	02	Ottawa	
07	01	Nil	
07	02	Nil	
07	03	Nil	
08		1974 - April	1976 - April
09	01	8	Salaries and wages
09	03	30	Other costs
09	04	38	Total costs
09	06	3	Other man-months - Government
09	07	3	Total man-months - Government
10	01	Bureau of Management Consulting (\$30,000)	
11		Nil	
12		Nil	
13		Report has been issued.	
14		Nil	
15		Julian Hawryszko, 996-9766 Transport Canada, 24B, Transport Canada Building, Ottawa, Ontario, K1A 0N5	

01 469 Transport

02 Arctic Transportation Agency.

03 Air Route Network Analysis

04 To determine cost/effective airport/air service solutions for the transport of goods and passengers in the remote areas of the Arctic.

05 02 Physical sciences

06 01 Yukon and Northwest Territories

06 02 Ottawa

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - February 1976 - April

09 01 19 Salaries and wages

09 04 19 Total costs

09 06 9 Other man-months - Government

09 07 9 Total man-months - Government

10 Nil

11 Nil

12 Meetings with air carriers.

13 Draft report prepared.

14 Nil

15 J.L. Courtney,
996-9766
Transport Canada,
24B, Transport Canada Building,
Ottawa, Ontario,
K1A 0N5

01	470	Transport	
02		Highway Branch	
03		Insulated Road Study - Mackenzie Highway, Inuvik, N.W.T.	
04		To test under field condition the insulation of permafrost under a road by insulation board.	
05	03	Engineering sciences	
06	01	Inuvik, N.W.T.	
07	01	Indian & Northern Affairs, Public Works, National Research Council.	
07	02	INA are sponsoring department.	
07	03	Nil	
08		1971	continuing
09	03	15	Other costs
09	04	15	Total costs
10	03	The \$15,000 was a transfer of funds to N.R.C. to cover their expenditures.	
11		Nil	
12		Nil	
13		Nil	
14		Nil	
15		H.G. Dutz, 996-2318, 29th Floor, Transport Tower, Place de Ville, Ottawa, Ontario, K1A 0N5	

01 471 Transport

02 Railway Transportation Directorate

03 Yukon Railway Study

04 To look at the financial viability and costs and benefits related to alternative railway extensions into and within the Yukon Territory.

05 03 Engineering sciences
05 05 Human sciences

06 01 Southern Yukon area
06 02 Co-ordination and responsibility - Ottawa consulting work - Montreal (CNR & CP)

07 01 DINA; Govt. of Yukon Territory
07 02 DINA - \$61,800; Govt. of Yukon Territory - \$32,500; Total - \$94,300
07 03 DINA personnel 0.5 man years.

08 1974 - January 1976 - February

09 01	10	Salaries and wages
09 03	94.3	Other costs
09 04	104.3	Total costs
09 05	3	Scientific man-months - Government
09 07	3	Total man-months - Government
09 08	42	Scientific man-months - Non-government
09 09	12	Other man-months - Non-government
09 10	54	Total man-months - Non-government

10 01 "Other costs" in 9(03) were M.O.T. costs for outside consulting services. (Total consulting costs were \$188,600).

11 Nil

12 Local industries including White Pass and Yukon Corporation, major mining companies and Territorial Government.

13 "A study of Railway Extension Alternatives in the Yukon Territory based on Traffic Requirements to year 2004" prepared by Cannalog Logistics Ltd. (CN) and CP Consulting Services. Final and Summary reports dated December 1975.

14 The initial study was a preliminary study which is presently being assessed by agencies involved and depending on various initiatives further work may be carried out.

15 W. Briggs,
992-9194
Railway Transportation Directorate,
Transport Canada,
Transport Canada Building,
27th Floor,
Ottawa, Ontario,
K1A 0N5

01 472 Transport

02 Telecommunications and Electronics, Navigational Aids and Avionics

03 Arctic Omega Evaluation

04 To determine the quality and coverage of the Omega Navigation System, Study Propagation Phenomena Relating to Special Characteristics found in Northern Canada, to provide information for eventual use as a Northern Long Range Navigation Capability.

05 03 Engineering sciences Electronic Navigation

06 01 Arctic and Sub-Arctic

06 02 Frobisher, Resolute Bay, Corral Harbour, Inuvik

07 01 Nil

07 02 Nil

07 03 Nil

08 1973 1978

09 01	50	Salaries and wages
09 02	15	Capital
09 03	1	Other costs
09 04	66	Total costs
09 05	36	Scientific man-months - Government
09 07	36	Total man-months - Government

10 Nil

11 United States Coast Guard (ONSOD) provided some equipment on loan basis for Frobisher Monitor.

12 Nil

13 Upon completion of study a report will be compiled and available for reference at this department. Data accumulated during the test is available to interested agencies.

14 The Northern sites are used as monitor sites which are generally fully automated. Construction of Equipment and Evaluation of results is performed at Lab facilities in Ottawa.

15 G.J. Taylor,
(613) 992-1291
Transport Canada,
Transport Canada Building,
Navigational Aids and Avionics,
Place de Ville,
Ottawa, Ontario,
K1A 0N5

01 473 Transport

02 Transportation Development Agency - Systems Branch

03 A.C.V. - Icebreaking Capabilities (File No. D500-174-72)

04 To increase understanding of icebreaking mechanisms under air cushion vehicle moving within the range of critical velocities. This may contribute to generation of design criteria for an ACV designed specifically for ice-breaking missions.

05 03 Engineering sciences

06 01 Data from Great Lakes with potential for application north 60°

06 02 Theoretical study carried out in Quebec City

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - January 1975 - June

09 01	3	Salaries and wages
09 03	6.2	Other costs
09 04	9.2	Total costs
09 05	1	Scientific man-months - Government
09 07	1	Total man-months - Government
09 08	3	Scientific man-months - Non-government
09 10	3	Total man-months - Non-government

10 01 Glacio-marine contract for \$6,200.

11 Nil

12 Nil

13 Limited Circulation: Icebreaking Mechanism under an Air Cushion Operating at or Near the Critical Velocity.

14 Nil

15 Walter Jancewicz,
283-5917
Transportation Development Agency,
1000 Sherbrooke Street West,
P.O. Box 549,
Montreal, Quebec,
H3A 2R3

01 474 Transport

02 Transportation Development Agency - Systems Branch

03 Semi-Empirical Model of Ice Loads on Propellers (File: D 500-243)

04 To derive a semi-empirical model model to be used as a design tool
for current and future propulsion equipment.

05 03 Engineering sciences

06 01 Canada

06 02 Model testing - Montreal

07 01 Steering Committee consisting of members from: MOT, DND, NRC, DSS

07 02 Nil

07 03 Expertise of above mentioned committee.

08 1975 - February 1976 - April 30

09 01 15 Salaries and wages

09 02 6 Capital

09 03 46 Other costs

09 04 67 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

09 08 12 Scientific man-months - Non-government

09 10 12 Total man-months - Non-government

10 01 Arctec Canada Ltd. - \$46,000.

11 Nil

12 Nil

13 Final Report published April 30, 1976. Confidential to MOT.

14 Nil

15 Mr. J.D. Hearnshaw,
283-4082
Transportation Development Agency,
1000 Sherbrooke Street West,
P.O. Box 549,
Montreal, Quebec,
H3A 2R3

01 475 Transport

02 Transportation Development Agency - Systems Branch

03 ACV Icebreaking Bow Development Program (File D 500-266)

04 To assess, by trials, improvements to ice-breaking capability of conventional ice-breaker by attaching an air cushion platform to the bow of the ice-breaker "Montcalm".

05 03 Engineering sciences

06 01 Potential application north of 60°

06 02 Full-scale trials - Thunder Bay; Model testing - Montreal

07 01 Steering Committee consisting of members from: MOT, PND, MOSST, DOE, NRC, ITC, DSS

07 02 Nil

07 03 Expertise of above mentioned Steering Committee

08 1975 - June 1976 - September

09 01 55 Salaries and wages

09 03 838 Other costs

09 04 893 Total costs

09 05 18 Scientific man-months - Government

09 06 12 Other man-months - Government

09 07 30 Total man-months - Government

10 01 a) Marine Logistics Inc. - \$4,370;
b) Arctec Canada Ltd. - \$81,282, \$47,936 - Total: \$129,218
c) Arctic Systems Ltd. - \$492,583, \$134,320 - Total: \$626,903
Total cost in 1975/76 was: \$760,491.

11 Nil

12 Nil

13 Final Report on Phase I to be published summer 1976. Available from MOT. No data confidential.

14 The "other cost" figure in 9(03) also includes a transfer of \$61,000 to Coast Guard (M.O.T.)

15 Mr. J.D. Hearnshaw,
283-4082
Transportation Development Agency,
1000 Sherbrooke Street West,
P.O. Box 549,
Montreal, Quebec,
H3A 2R3

01 476 Transport

02 Transportation Development Agency - Systems Branch

03 Voyageur Air Cushion Vehicle Lower North Shore (File No. D500-196-7) Demonstration Program.

04 To assess the performance of an ACV in transporting cargo to remote areas of the Lower North Shore of the St. Lawrence in Quebec.

05 03 Engineering sciences
05 05 Human sciences

06 01 Canada
06 02 Lower North Shore of Quebec

07 01 Program Committee consisted of: MOT Canada; MOT Quebec; Agence Maritime Inc.; Bell Aerospace Canada
07 02 Nil
07 03 Expertise given by above mentioned committee.

08 1974 - October 1975 - August

09 01	15	Salaries and wages
09 03	293	Other costs
09 04	308	Total costs
09 05	6	Scientific man-months - Government
09 07	6	Total man-months - Government

10 01 1975/76: German and Milne (\$4,000); Maritime Agency Inc. (\$289,000)

11 Nil

12 Nil

13 Final report to be available in June. Data not confidential.

14 Nil

15 J.D. Hearnshaw,
283-4082
Transportation Development Agency,
1000 Sherbrooke Street West,
P.O. Box 549,
Montreal, Quebec,
H3A 2R3

01 477 Transport

02 Transportation Development Agency - Technology Branch

03 Environmental Assessment of Voyageur ACV (File No. D500-93)

04 Environmental tests of impacts on Arctic terrain resulting from the use of an air cushion vehicle (Bell Aerospace Canada Voyageur 002) on Richards Island carried out in 1973 were followed by 1975 observations to determine degree of environmental degradation.

05 04 Environmental sciences

06 01 Richards Islands, N.W.T.

06 02 Edmonton, Alberta

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - July 1975 - December

09 01 2.5 Salaries and wages

09 03 5 Other costs

09 04 7.5 Total costs

09 05 1 Scientific man-months - Government

09 07 1 Total man-months - Government

10 03 Transfer of funds to Department of Environment (\$5,000)

11 Nil

12 Nil

13 Voyageur Air Cushion Vehicle Trials on the Mackenzie Delta: Environmental Effect two years later.

14 Nil

15 J. Laframboise,
283-4075
Transportation Development Agency,
1000 Sherbrooke Street West,
P.O. Box 549,
Montreal, Quebec,
H3A 2R3

01 478 Transport

02 Transportation Development Agency - Technology Branch

03 Air Cushion Raft Transport System (File No. D500-293)

04 To define objectives and methodology for development of air
cushion raft transportation systems for use in Canada's northern
boreal regions.

05 03 Engineering sciences

06 01 Applicable north 60°

06 02 Montreal and Toronto

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - January 1978 - May

09 01 6 Salaries and wages

09 03 1 Other costs

09 04 7 Total costs

09 05 3 Scientific man-months - Government

09 07 3 Total man-months - Government

09 08 1 Scientific man-months - Non-government

09 10 1 Total man-months - Non-government

10 01 D. Caple (Letter Contract) for \$1,000.

11 Nil

12 Nil

13 Nil

14 Nil

15 J. Laframboise,
283-4075
Transportation Development Agency,
1000 Sherbrooke Street West,
P.O. Box 549,
Montreal, Quebec,
H3A 2R3

01 479 Transport

02 Transportation Development Agency - Technology Branch

03 Icebreaking Bow Form Assessment (CCGS "Wolfe") (File No. D500-285-1)

04 to try and assess performance of a new bow form fitted to CCGS "Wolfe" to confirm its applicability to the intended polar ice-breaker. A quantitative evaluation is to be carried out by TDA in collaboration with Canadian Coast Guard.

05 03 Engineering sciences

06 01 Canada

06 02 Gulf of St. Lawrence

07 01 Coast Guard

07 02 \$50,000

07 03 Provide the icebreaker "Wolfe"

08 1975 - January 1976 - June

09 01 35 Salaries and wages

09 03 38 Other costs

09 04 73 Total costs

09 05 2 Scientific man-months - Government

09 06 36 Other man-months - Government

09 07 38 Total man-months - Government

10 01 Arctec Canada Ltd. for \$38,000.

11 Nil

12 Nil

13 Final Report due June 1976.

14 9(06) includes the 60-man crew of the "Wolfe".

15 J. Laframboise,
283-4075
Transportation Development Agency,
1000 Sherbrooke Street West,
P.O. Box 549,
Montreal, Quebec,
H3A 2R3

01 480 Transport

02 Transportation Development Agency - Technology Branch

03 UHF Passive Remote Sensing of Sea Ice Thickness (File No. D500-230-1)

04 To develop airborne equipment using UHF radiometers to remotely measure sea ice thickness and to verify experimentally the findings of the completed analytical study.

05 03 Engineering sciences

06 01 Possible application to sea ice navigation
06 02 Saskatoon, Saskatchewan

07 01 Communication Research Centre was involved in previous studies.
07 02 Nil
07 03 Loan of radiometers.

08 1972 1976 - June

09 01	2	Salaries and wages
09 03	60	Other costs
09 04	62	Total costs
09 05	1	Scientific man-months - Government
09 07	1	Total man-months - Government
09 08	24	Scientific man-months - Non-government
09 10	24	Total man-months - Non-government

10 01 Contract - SED Systems Ltd. for \$60,000.

11 Nil

12 Lab. controlled experiment only.

13 Final report being published. Experimental Study of the Application of UHF Radiometry for the Remote Measurement of Sea Ice Thickness.

14 Nil

15 M. Audette,
283-2880
Transportation Development Agency,
1000 Sherbrooke Street West,
P.O. Box 549,
Montreal, Quebec,
H3A 2R3

SECTION II

TERRITORIAL GOVERNMENTS

01 382 Government of N.W.T.

02 Department of Planning and Program Evaluation, Planning

03 Mackenzie Delta Gas Plant Assessment.

04 To determine the socio/economic/cultural impacts of three (3) proposed gas plants on the Mackenzie Delta communities. Study is designed to indicate terms and conditions required to ensure that plants are constructed and operated in a manner beneficial to local residents.

05 05 Human Sciences

06 01 Mackenzie Delta

06 02 Yellowknife, N.W.T.

07 01 DINA, Ottawa

07 02 \$280,000

07 03 Nil

08 1975 - February 1 1976 - April 16

09 01	97	Salaries and wages
09 03	183	Other costs
09 04	280	Total costs
09 06	60	Other man-months - Government
09 07	60	Total man-months - Government
09 09	12	Other man-months - Non-government
09 10	12	Total man-months - Non-government

10 01 One contract for employment studies \$32,000.

11 Nil

12 Four meetings held with residents of all communities to discuss impacts and suggest possible solutions.

13 Report will be available about May 1976.

14 Nil

15 P. Dixon
873-7652
Chief, Planning,
Dept. of Planning and Program Evaluation,
Government of N.W.T.,
Yellowknife, N.W.T.

01 383 Government of N.W.T.

02 Department of Planning and Program Evaluation, Planning Division

03 Long Range Communications Plan for N.W.T.

04 a) To provide a measure of rationality and co-ordination to the provision of communication services in the North.
b) To provide a basis for the assertion of jurisdictional responsibilities and authority by GNWT in the area of communications planning.

05 03 Engineering Sciences Communications
05 05 Human Sciences

06 01 Northwest Territories
06 02 Yellowknife

07 01 Nil
07 02 Nil
07 03 Nil

08 1975 - October 1976 - April

09 01 7 Salaries and wages
09 03 3 Other costs
09 04 10 Total costs
09 06 4 Other man-months - Government
09 07 4 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Results confidential

14 The study consisted of the consolidation of information previously available through disparate agencies such as Departments of Communication in Ottawa - Winnipeg; CNT in Yellowknife; Bell Canada in P.Q., and various other Federal Government Departments.

15 Pat Dixon
873-7652
Chief, Planning Division,
Dept. of Planning and Program Evaluation,
Government of N.W.T.,
Yellowknife, N.W.T.

01 384 Government of the N.W.T.

02 Department of Social Development, Social Assistance Program

03 Good cost survey to rationalize social assistance allowances.

04 To determine the rate of change in food costs during 1975-76 in communities in the N.W.T. with a view to adjusting social assistance allowances to a level compatible with the current cost of living.

05 05 Human Sciences Socio-Economic

06 01 Northwest Territories

06 02 Data gathered in N.W.T. Compiled and analysed in Edmonton.

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - 24 November 1976 - 31 March

09 03 9 Other costs

09 04 9 Total costs

09 07 Nil Total man-months - Government

09 08 3 Scientific man-months - Non-government

09 10 3 Total man-months - Non-government

10 01 Entire project is operated under a \$9,000 contract between the Department and Market Information Services, University of Alberta.

11 Nil

12 Nil

13 Report from Market Information Services will be submitted to Department of Social Development, Government of the N.W.T., Yellowknife.

14. Nil

15 A.W.M. McManus
873-7313
Department of Social Development,
Government of the N.W.T.,
Yellowknife, N.W.T.

01 385 Government of N.W.T.

02 Department of Planning & Program Evaluation, Program Evaluation Division

03 Financial Aid to N.W.T. Students Program

04 To assess effectiveness of the program, develop and plan for future student aid requirements and evaluate recent changes in federal program of providing a higher schedule of financial assistance to Treaty Indians and Registered Inuit. - Results used to improve existing program of providing financial assistance to N.W.T. students.

05 05 Human Sciences Education

06 01 Northwest Territories

06 02 all major centres

07 01 Executive and Department of Education

07 02 Nil

07 03 Assistance from Department of Education in collection and analysis of information.

08 1975 - December 1976 - February

09 01	4.8	Salaries and wages
09 03	.5	Other costs
09 04	5.3	Total costs
09 05	3	Scientific man-months - Government
09 07	3	Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Confidential

14 Nil

15 A.R. Zariwny
873-7240
Chief, Program Evaluation,
Department of Planning & Evaluation,
Government of the N.W.T.,
Yellowknife, N.W.T.,
X1A 2L9

01 386 Government of N.W.T.

02 Department of Planning and Programme Evaluation, Program Evaluation Division

03 Evaluation of the Government of the N.W.T. Management Reporting System (MRS)

04 To determine if the MRS is informing the Executive Committee of major policy issues, providing lateral communication among various departments and serving as a management and decision-making tool. - Results used to modify MRS so as to make it a more effective and efficient management reporting system.

05 05 Human Sciences Management

06 01 Northwest Territories

06 02 Yellowknife (Government Headquarters)

07 01 Executive Committee

07 02 Nil

07 03 Nil

08 1975 - December 1976 - January

09 01 3.3 Salaries and wages

09 04 3.3 Total costs

09 05 2 Scientific man-months - Government

09 07 2 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Confidential

14 Nil

15 A.R. Zariwny
873-7240
Chief, Program Evaluation,
Department of Planning & Program Evaluation,
Government of the N.W.T.,
Yellowknife, N.W.T.,
X1A 2L9

01 387 Government of N.W.T.

02 Department of Planning and Program Evaluation, Program Evaluation Division

03 Evaluation of Recreation Workshops and Clinics

04 To develop a system for measuring the effectiveness of leadership workshops and sports clinics in achieving their objectives, and the effect these workshops and clinics have on participants and community residents. Results of trial (pre-test) evaluations of 5 workshops/clinics will be used to develop an evaluation system for all GNWT recreation workshops/clinics and to provide participants with information they can use to assist them in planning and/or organizing community recreation activities.

05 05 Human Sciences Recreation

06 01 Northwest Territories

06 02 selected communities throughout the NWT (Ft. Simpson, Ft. Norman, Ft. Franklin, Rankin Inlet, Yellowknife)

07 01 Recreation Division, Department of Natural and Cultural Affairs

07 02 Nil

07 03 Assistance in collection of data

08 1976 - February 1976 - April

09 01 5.3 Salaries and wages

09 03 1.1 Other costs

09 04 6.4 Total costs

09 05 4 Scientific man-months - Government

09 07 4 Total man-months - Government

10 Nil

11 Nil

12 Personal interview and mail questionnaire

13 Confidential (some results will be released to Workshop participants and local government officials)

14 Nil

15 A.R. Zariwny
873-7240
Chief, Program Evaluation,
Department of Planning & Program Evaluation,
Government of the N.W.T.,
Yellowknife, N.W.T.,
X1A 2L9

01 388 Government of the N.W.T.

02 Department of Education, Programme Development Division

03 Mathematical concepts - Eskimo

04 Attempt to provide list of mathematical concepts and Eskimo words so
that teacher can use proper terms in teaching mathematics using Eskimo
language

05 06 Mathematical Sciences

06 01 Northwest Territories

06 02 Rankin Inlet

07 Nil

08 1975 - September 1975 - October

09 01	1	Salaries and wages
09 03	.5	Other costs
09 04	1.5	Total costs

10 Nil

11 Nil

12 School staff at Rankin Inlet

13 Incorporated into Mathematics curriculum 1976

14 Nil

15 Peter Denny (Dr.)
Department of Psychology
University of Western Ontario
London, Ontario.

01 189 Government of N.W.T.

02 Department of Education, Programme Development Division

03 Loucheux vocabulary lists and orthography

04 Make available literacy material, language description to support
bilingual education programmes.

05 05 Human Sciences Linguistics

06 01 Kutchin culture - Mackenzie Delta

06 02 MacPherson

07 01 Peabody, Museum, COPE, DINA

07 02 DINA - \$5,000

07 03 Nil

08 1975 - September 1976 September

09 04 5 Total costs

09 05 12 Scientific man-months - Government

09 07 12 Total man-months - Government

09 08 12 Scientific man-months - Non-government

09 10 12 Total man-months - Non-government

10 01 Contract for \$5,000

11 Nil

12 Two local teachers who are bilingual. Also informants hired on L.I.P.
and O.F.Y. grants

13 Nil

14 Nil

15 Brian Lewis
873-7529
Department of Education
Government of N.W.T.
Yellowknife, N.W.T.

GOVERNMENT OF THE YUKON TERRITORY

01 448 Government of the Yukon Territory
02 Alcohol and Drug Services
03 Cultural explanations of Indian drinking: are they valid?
04 Dealing with natives - alcohol problems - evaluation and analysis
based on current material and research.
05 05 Human Sciences
06 01 Yukon Territory
07 01 Nil
07 02 Nil
07 03 Nil
08 1975 - November 1975 - December
09 03 .7 Other costs
09 04 .7 Total costs
09 08 1 Scientific man-months - Non-government
09 10 1 Total man-months - Non-government
10 01 Contract to local research person - for \$700.
11 Nil
12 Various local groups concerned with alcohol consumption
13 Report produced - available
14 Nil
15 Bill Cline,
(403) 667-7536
Supervisor,
Government of Yukon,
Alcohol and Drug Services,
Box 2703,
Whitehorse, Yukon.

SECTION III

GRANTS

01 449 Government of the Yukon Territory

02 Alcohol and Drug Services

03 An Epidemiological Investigation of Alcohol Consumption in Yukon Territory

04 Collection of consumption data - Evaluation and analysis. Deals with alcohol problem in territory.

05 05 Human Sciences

06 01 Yukon Territory

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - June 1975 - October

09 01 .8 Salaries and wages

09 04 .8 Total costs

09 05 1 Scientific man-months - Government

09 07 1 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 Report is published and available.

14 Project carried out by Supervisor of Alcohol & Drug Services over a period of several months. On and off basis.
Project was not a specific budget item but was carried out in course of Departmental program.

15 Bill Cline,
(403) 667-7536
Supervisor,
Government of Yukon,
Alcohol and Drug Services,
Box 2703,
Whitehorse, Yukon.

01 450 Government of the Yukon Territory

02 Game Branch

03 Waterfowl Research Project: Old Crow Flats

04 Provide inventory, data, information for purposes of Game Management in Old Crow flats.

05 04 Environmental Sciences Game Management

06 01 Yukon Territory

06 02 Old Crow Flats

07 01 Nil

07 02 Nil

07 03 Nil

08 1975 - June 1979

09 01 10 Salaries and wages

09 03 30 Other costs

09 04 40 Total costs

09 05 6 Scientific man-months - Government

09 07 6 Total man-months - Government

09 09 4 Other man-months - Non-government

09 10 4 Total man-months - Non-government

10 01 Local natives were hired to assist. Cost unknown.

11 Nil

12 Local natives were hired for the summer months to assist the research person.

13 Reports made annually (winter) for five years. Reports are not published but can be made available on request. At end of five year project extensive report of data, recommendations, etc. will be published.

14 It is intended at the end of this project, to expand research in Old Crow area to fur-bearing animals, moose, etc.

15 Manfred Hoefs,
(403) 667-7228
Assistant Director,
Game Branch,
Government of Y.T.,
Box 2703,
Whitehorse, Y.T.

01 451 Government of Yukon Territory

02 Tourism and Information Branch

03 Yukon Visitor Exit Survey

04 Collect basic data (demographics, travel patterns, expenditures, preferences) on visitors to Yukon. This project supports the YTG tourism program.

05 05 Human Sciences Travel

06 01 Yukon Territory

06 02 Various points in Yukon

07 01 Parks Canada

07 02 Parks Canada \$25,000.
CGOT \$ 2,500.

07 03 Parks Canada is responsible for computer support and production of final report.

08 1975 - May 1 1976 - May 31

09 01 18 Salaries and wages

09 02 0 Capital

09 03 12 Other costs

09 04 30 Total costs

09 05 12 Scientific man-months - Government

09 06 0 Other man-months - Government

09 07 12 Total man-months - Government

10 Nil

11 Nil

12 Nil

13 To be produced by Parks Canada May, 1976.

14 Nil

15 R.D. Graham,
(403) 667-5340
Chief of Tourism,
Government of the the Yukon,
P.O. Box 2703,
Whitehorse, Yukon.

NRC GRANTEES IN THE FIELD OF
NORTHERN STUDIES
1975-76

Name Department University Field Code <u>Comm. Code</u>	<u>Title of Research Project</u>	<u>Amount Awarded</u>
Aleksiuik, M. Zoology Manitoba 51000003 101	1) Seasonal energetics in cold climate mammals 2) Environmental physiology and ecology of cold climate reptiles (north generally)	11,410 Nil(E)
Aziz, K. Chemical Eng. Calgary 9999 104	Flow of oil, gas and water mixtures in porous media and in pipes	15,115
Baadsgaard, H. Geology Alberta 3320 110	Isotope geology of Western Canadian geologic events (N.W.T., N.E. Alberta)	14,205
Bajzak, D. Engineering Memorial 4216 118	Automatic analysis of pictorial patterns (N.W.T.)	Nil
Bayliss, P. Geology Calgary 3320 110	Geothermometry by order-disorder relationships (N.W.T.)	5,850
Bell, R.T. Geological Sci. Brock 3320 110	Stratigraphy and sedimentology of early proterozoic sediments of the Belcher Islands	4,390
Benedict, C.P. Fa. of Eng. Memorial 4524 113	Iceberg cross-section echo (north but not Arctic)	6,275
Bergan, A.T. Civil Eng. Saskatchewan 4216 106	Development of fatigue design procedures for cold climates	10,265 16,540(E)
Bliss, L.C. Botany Alberta 58001000 118	Plant communities and physiological ecology of high arctic regions	21,105

Booth, T. Botany Manitoba 50001000 118	Ecologic and taxonomic studies of aquatic and semi-aquatic fungi (Devon Island)	9,125
Brassard, G.R. Biology Memorial 50001000 118	Bryological studies in Newfoundland and Arctic Canada	5,705
Braun, W.K. Geological Sci. Saskatchewan 3320 110	Microfaunas and biostratigraphy of western Canada (N.W.T.)	10,725
Brooks, R.J. Zoology Guelph 58088000 118	Population biology of microtine cycles	7,410
Bryan, R.B. Geography Toronto 3340 110	Interaction of surface flow and intense rainfall in entrainment of soil particles (Mackenzie Delta)	6,825
Bunting, B.T. Geography McMaster 3340 110	Changes in soil fabrics in relation to applied environmental or man-induced stress with particular reference to septic pollution of compacted hydromorphic soils	Nil
Chant, D.A. Zoology Toronto 51000000 118	Generic concepts, distribution and ecology of family Phytoseiidae (Acarina) in Canada	21,675
Cheng, K.C. Mechanical Eng. Alberta 4513 113	Studies in free and forced convection heat transfer under arctic (or cryogenic) conditions	28,520
Church, M.A. Geography Br. Col. 3390 110	Studies of the hydraulics of gravel rivers	9,265 Nil(E)
Clarke, D.B. Geology Dalhousie 3320 110	Petrogenesis of igneous rocks (Baffin Bay)	11,215
Clarke, G.K.C. Geophysics Br. Col. 3340 110	Research in earth mechanics, applied geophysics and communication theory	12,925

Clifford, H.F. Zoology Alberta 68000001 118	1) Ecology of crustacea in Alberta 2) Limnology of muskeg streams (Keewatin)	7,985
Courtin, G.M. Biology Laurentian 9999 118	Adaptation of the sedge, <i>Carex stans</i> , to growth in the cold shallow active layer of peat soils on Devon Island N.W.T.	2,440
Crampton, C.B. Geography Simon Fraser 3370 110	Shear patterns in permafrost terrain soils	5,365
Cumming, G.L. Physics Alberta 3330 110	Geophysical investigations in western Canada (Yellowknife, N.W.T.)	19,165
Dagg, A.I. Biology Waterloo 51080003 101	Locomotion in northern mammals	4,565
Danks, H.V. Biolog. Sci. Brock 52000000 101	Modes of seasonal adaptation in the chironomidae (Arctic chironomidae)	4,875
Denford, K.E. Botany Alberta 66001000 103	A chemotaxonomic study of North American plant species with respect to their biochemical evolution and adaptability (N.W. Canada, Alaska)	7,800
Dixon, O.A. Geology Ottawa 3320 110	1) Ordovician-Silurian faunas and sedimentary facies, Somerset and Prince of Wales Islands (Boothia Arch) 2) Ordovician-Silurian faunas and paleoecological studies, Anticosti Island	9,355 5,300(T)
Donaldson, J.A. Geology Carleton 3320 110	Comparative studies of Precambrian sedimentary rocks (Keewatin, Mackenzie District)	6,340
Dunbar, M.J. Marine Sci. Ctr. McGill 000000 118	Studies on plankton, other invertebrates and fish, Gulf of St. Lawrence, eastern seaboard, and Arctic	29,660
Fletcher, W.K. Geolog. Sci. Br. Col. 3320 110	Development and utilization of regional geochemical techniques (Yukon)	14,065 Nil(E)

French, H.M. Geography Ottawa 3340 110	Thermokarst processes, Eastern Banks Island, western Arctic	5,535
Fuller, W.A. Zoology Alberta 58000000 118	1) Demography and winter ecology of taiga mammals 2) Competitive interactions in small rodents	14,830
Gallup, D.N. Zoology Alberta 68000001 118	Plankton species distribution, composition and secondary production in the Yukon. Secondary production of benthic animals and zooplankton (littoral, planktonic) in laboratory and selected Alberta Lakes	2,925
Gill, D. Geography Alberta 3340 118	Positive and negative aspects of artificial disturbances in the northern environment	7,800 2,400(T)
Heinke, G.W. Civil Eng. Toronto 4214 106	1) Water supply and waste disposal problems in cold climate regions 2) Physical-chemical waste treatment	10,835
Hickman, M. Botany Alberta 68001001 118	1) Standing crop, primary productivity, ecological and physiological studies of algae 2) Algal species distribution and composition in the Yukon	6,845
Hills, L.V. Geology Calgary 3320 110	Palynological and pleistocene research (Banks Island, N.W.T.)	12,355
Hogarth, D.D. Geology Ottawa 3320 110	1) Igneous and metamorphic history of S. Gatineau region 2) Metamict minerals 3) Genesis and nature of sodalite group minerals 4) Petrology of soapstone, S. Baffin Island	7,800
Hohn, E.O. Physiology Alberta 65000003 101	Hormonal control of seasonal colour change in snow-shoe hares and ptarmigan	2,280
Howarth, P.J. Geography McMaster 3340 110	Remote sensing in geomorphological and hydrological studies (N.W.T.)	7,645
James, W. Civ Eng./Eng Mech McMaster 4210 106	Arctic flood and water supply hydrology	9,695

Johnson, P.G. Geography Ottawa 3340 110	Mass movement and degradation processes in a mountain environment (St. Elias Mountains)	5,930
Klaff, J. Biology McGill 68008000 118	The ecology of algal and aquatic macrophytes (includes work at Resolute, N.W.T.)	13,690 Nil(E)
Keen, M.J. Geology Dalhousie 3330 110	Seismic studies and earth tides (Baffin Bay)	21,620 1,750(T)
Kershaw, K.A. Biology McMaster 58001001 118	The ecology of sub-arctic plant systems	18,250
Klovan, J.E. Geology Calgary 3320 110	Morphometric applications to paleozoic fossils (Canadian Arctic)	3,900
Krajina, V.J. Botany Br. Col. 58001001 118	1) Ecology of the Pacific Northwest and Canadian Arctic and Subarctic 2) Primary productivity and biogeochemical cycling of coastal forests in British Columbia	3,900
Kretz, R. Geology Ottawa 3320 110	Petrology of metamorphic rocks (from Yellowknife, N.W.T.)	5,850 Nil(T)
Krouse, H.R. Physics Calgary 3390 110	Stable isotope fractionation studies (St. Elias Mountains)	20,475 27,700(E) 5,000(T)
Kuhlemeyer, R.L. Civil Eng. Calgary 3370 106	1) Soil-pile interaction 2) Optimization of machine foundation design for northern pipelines	7,985
Laba, J.T. Civil Eng. Windsor 4211 106	Forces exerted on rigid retaining walls by a Confined frozen soil layer	4,875
Lambert, R.S.J. Geology Alberta 3320 110	Isotopic and geochemical researches applied to continental margin plate tectonics and Archean continental structure (N.W.T.)	19,500 Nil(ME)

Langloebon, M.P. Physics McGill 3360 110	Drift and thermal regime of sea ice (Ellesmere Island, N.W.T.)	11,215
Lenz, A.C. Geology Western 3320 110	Lower and middle paleozoic paleontology, biostratigraphy and fossil community analyses (Northern Canada)	12,675
Lerbekmo, J.F. Geology Alberta 3320 110	1) Composition and fall characteristics of White River Ash, Yukon 2) Sedimentation models and correlation of Edmonton Formation, Alta 3) Genesis of petroleum reservoir rocks, Alta	6,615
Levinson, A.A. Geology Calgary 3320 110	Exploration and environmental geochemistry. (Mackenzie Basin, N.W.T.)	7,315 Nil(T)
Longton, R.E. Botany Manitoba 50001000 118	Plant growth and reproduction in relation to boreal and arctic environments	11,410 2,682(T)
Lunardini, V.J. Mech. Eng. Ottawa 4513 110	Thermal regime and properties of permafrost ¹	Nil
Mackay, J.R. Geography Br. Col. 3340 110	Permafrost and the growth of ground ice, western Arctic Coast and Western Canadian Cordillera	10,265
Mamet, B.-L. Geology Montreal 3320 110	Paleozoic carboniferous microfacies Study of microfauna and microflora (Yukon)	17,170
McCann, S.B. Geography McMaster 3340 110	1) Beach and nearshore environments in the Eastern Arctic archipelago (N.W.T.) 2) Barrier Islands and sand spits in the Southern Gulf of St. Lawrence	9,580
McLaren, I.A. Biology Dalhousie 58000000 118	Population and evolutionary ecology of animals (Frobisher Bay and Cambridge Island, N.W.T.)	13,120
Medioli, F. Geology Dalhousie 3320 110	Study of recent microfossils in the North Atlantic and in the Canadian Arctic	Nil

Mereu, R.F. Geophysics Western 3330 110	Deep and shallow seismic sounding research (Hudson Bay)	16,090
Morgenstern, N.R. Civil Eng. Alberta 3370 110	1) Geotechnical behaviour of frozen ground and ice 2) Geotechnical behaviour of Athabasca tar sand 3) Geotechnical behaviour of stiff clays and shales (Inuvik, Mackenzie Valley)	29,250
Morton, R.D. Geology Alberta 3320 110	Studies on uraniferous deposits in Saskatchewan and the N.W. Territories	11,065
Muller, F. Geography McGill 3390 1110	Glaciological research on Axel Heiberg Island (N.W.T.)	5,850
Nelson, J.S. Zoology Alberta 51000000 118	A) Pelvic skeletal deficiency in sticklebacks B) Hybridization and isolating mechanisms in northern fishes C) Ecology of Alberta and N.W.T. fishes D) Systematic studies of fishes	7,985
Nicholson, F.H. Geography McGill 3340 110	Permafrost studies in the Schefferville area - thermal amelioration, supra permafrost groundwater, and effects of snowcover	2,925
Nursall, J.R. Zoology Alberta 51000002 118	Fish behaviour: studies in freshwater ecosystems (Kasika Lake, N.W.T.)	9,125
Oechel, W.C. Biology McGill 58001000 118	Factors controlling photosynthesis in arctic and subarctic bryophytes	9,750
Oliver, D.R. Biology Carleton 52000001 118	Comparative study of taxonomy and ecology of arctic and north temperate chironomidae	3,415
Packer, J.G. Botany Alberta 66001000 118	Taxonomic studies in the flora of Western Canada and the Arctic	8,775
Pawluk, S. Soil Sci. Alberta 67009002 103	1) Heavy metal and trace elements in groundwater, plants and soils 2) Micromorphological investigations of Arctic and alpine soils 3) Weathering of mixed layer clays	18,250

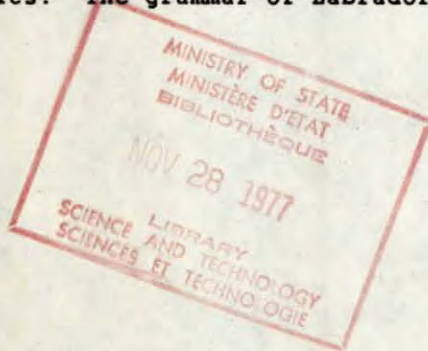
	4) Unique melanic brunisols in the ombroass portage region	
Payette, S. Phytotechny Laval 58001002 118	1) Vegetal ecology and pedology of the forest tundra and Hudson tundra. 2) Ecological study on alpine and sub-alpine strata of Mont Jacques-Cartier, Gaspé Park, Quebec.	5,705
Perron, J.-M. Biology Laval 52000003 101	Study of Aphids' neuro-endocrinological system and growth regulators action on insects.	9,125
Pounder, E.R. Physics McGill 3360 110	Ice drift	16,600
Radforth, N.W. Biology New Brunswick 3390 110	Classification of muskeg (peat and peatlands) as related to geotechnical properties and user requirements as based on environmental influences	14,430
Ramprashad, F. Zoology Guelph 51000004 101	Comparative morphology of the ear of some arctic mammals	4,565
Raymond, G.P. Civil Eng. Queen's 3370 110	1) Stability and settlements of buried footings in clay; 2) Stability and settlements of surface footings on sands (north generally)	12,675
Ritchie, J.C. Life Sci. Toronto 58001001 118	Paleoecological studies in selected Canadian regions (Yukon, N.W.T.)	14,260 1,200(T)
Ronald, K. Zoology Guelph 51000003 101	The physiological basis of migration in the harp seal	17,110 Nil(ME)
Rouse, G.E. Botany Br. Col. 3320 110	Palynology of late cretaceous and cenozoic sediments from British Columbia and Arctic Canada	12,640
Sarjeant, W.A.S. Geological Sci. Saskatchewan 3320 110	Dinoflagellates and acritarchs of the mesozoic: stratigraphical application in Western and Arctic Canada and use in intercontinental correlation	11,065
Schroeder, J.-M. Geography	Geomorphological cartography and cave speleogenesis of the First Canyon of South Nahanni (NWT).	5,590

Moncton 3340 110		
Scott, S.D. Geology Toronto 3320 110	Physical geochemistry of sulfide ores (Includes work in N.W.T.)	11,785
Sheard, J.W. Biology Saskatchewan 50001000 118	1) Revision of the lichen genus rinodina in North America 2) Studies on the ecology of Arctic lichens	8,555
Sinclair, A.J. Geological Sci. Br. Col. 3320 110	Mineral deposits in the Canadian cordillera geology and geostatistics (includes Yukon)	7,315
Svoboda, J. Botany Toronto 58001001 118	Plant communities and plant production in the central Arctic and islands of the Canadian Arctic Archipelago	5,850 Nil(E)
Veizer, J. Geology Ottawa 3320 110	1) Variations in chemical composition of carbonate rocks during geologic history 2) Geochemistry and sedimentology of the lower paleozoic carbonate sequences of Somerset and Cornwallis Islands.	8,775
Vitt, D.H. Botany Alberta 50001003 118	The ecology, floristics, and systematics of bryophytes in Arctic and Boreal Regions of Western Canada	7,985
Wagenaar, E.B. Biolog. Sci. Lethbridge 55008006 102	1) Mitosis 2) Cold adaption in plants 3) Evolutionary studies of diploid and polyploid speciation in plants	18,250
Wardlaw, N.C. Geology Calgary 3320 110	1) Reservoirproperties of sedimentary rocks 2) Petrology and geochemistry of sedimentary rocks (lower Mackenzie Region)	11,410
Wilson, R.G. Geography McGill 3310 110	Micrometeorological studies of snowmelt and evaporation in a sub-arctic environment	5,850
Wood, A.J. Biochem/Bacteriol Victoria 53082009 101	Bacterial flora of migratory birds (Includes Canadian Arctic generally)	7,415

Canada Council Research Grants
given for Studies on the North
1975 - 1976

John Widdup Berry, Queen's University; Psychology/Anthropology: Psychological and cultural impact of technological change on the North: the case of the James Bay Cree	\$29,850
Donald G. Cartwright, University of Western Ontario; Geography: Ecclesiastical territorial organization and French Canadian colonization in northern Ontario, 1880-1938	2,389
Louis-Jacques Dorais, Laval University; Ethnolinguistics: The Iglulingmuit dialect	9,070
John Forbes Helliwell, University of British Columbia; Economics: A comparative assessment of the two principal Mackenzie Valley pipeline proposals	7,325
Jan Kupp, University of Victoria; History: Dutch documents relating to the early North American fur trade and cod fisheries and Labrador and the Strait of Davis	1,500
Urve Linnamea, University of Saskatchewan; Archaeology: Archaeological Survey and excavations in the Rankin Inlet area of western Hudson Bay	5,031
Guy Mary-Rousselière, Pond Inlet, N.W.T. (res.); Archaeology: Research in the Pond Inlet - Eclipse Sound Region	1,500
Bronwen Chris Nash, Ontario Institute for Studies in Education; Psychology: Thinking styles of Ojibwa Indian children and elementary school curriculum development: a preliminary investigation	9,813
Bernard Saladin d'Anglure, Laval University; Anthropology: Ethnography of the Eskimos of Nouveau-Quebec	1,145
Peter Schliedermann, University of Calgary; Archaeology: The prehistory of Northern Banks Island, N.W.T.	5,015 4,740
James G.E. Smith, University of Waterloo; Anthropology: Changing socio-cultural adaptations of the Caribou eater Chipewyan	3,020
Lawrence R. Smith, Memorial University of Newfoundland; Linguistics: The grammar of Labrador Inuttut affixation	7,952

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Program Grants given for
Northern Studies - 1976-76

University of Toronto	\$140,000 for a research program on the archaeology, biogeography and anthropology of the Northern Yukon. (Total grant over a five-year period is \$640,000).
University of Quebec at Montreal	\$127,732, being first instalment of a \$572,614 grant for a five-year research program entitled "Modes of prehistoric patterns of settlement in Ungava, viewed through an archaeological, ethnohistoric, paleogeographic and paleoecologic perspective."

FEDERAL NORTHERN SCIENCE PROJECTS 1975-1976

- 01 * Department or Agency.
- 02 Program or Branch.
- 03 Name or short description of this N.S.P.
- 04 List briefly the scientific objectives of this N.S.P., and describe the way in which these objectives relate to, or support, departmental programs or tasks in and for the north.
- 05 Science - Field(s) Discipline(s)
- 06 01 Location - area or region being studied.
02 Location - where study is being carried out.
- 07 01 Sponsor(s) of this N.S.P. (if other than your Department)
02 Financial support from sponsor(s) to your Department.
03 Any other support from sponsor(s).
- 08 Starting date of N.S.P. Completion date of N.S.P.
- 09 Dollar Costs in 1975-76
- 01 Salaries and wages
02 Capital
03 Other costs
04 Total cost
- Manpower
- 05 Scientific man-months - Government
06 Other man-months - Government
07 Total man-months - Government
08 Scientific man-months - Non-Government
09 Other man-months - Non-Government
10 Total man-months - Non-Government
- 10 Contracts (01), Grants (02), Transfers (03)
- 11 International component of N.S.P.
- 12 Local involvement in N.S.P.
- 13 Reports, data and publications.
- 14 Other comments.
- 15 Enquiries to be directed to:
- * Location of project number.

