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CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

GEOLOGICAL SURVEY OF CANADA

PRELIMINARY EDITION

CATALOGUE OF SCIENTIFIC PROJECTS

1979 - 1980

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GEOLOGICAL SURVEY
COMMISSION GÉOLOGIQUE

Compiled by M.A. Petre



OTTAWA
1979

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CATALOGUE OF SCIENTIFIC PROJECTS
1979-80

OTTAWA
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PREFACE

This catalogue of all scientific projects of the Geological Survey of Canada approved as of January 1979 has been compiled by M.A. Petre of the Geological Survey Program Office. It is arranged to indicate: 1) the total scientific program of the Survey for the period 1 April, 1979 to 31 March 1980, and 2) the field program for the summer of 1979.

As a catalogue it lists and briefly describes active scientific projects. These total 410 and are compiled from instructions issued to project leaders for 1979-1980 via forms GSC 227, 228 and 229. Thus it comprises the current authority on such matters as project numbers, titles and objectives and supersedes previous catalogues and documents concerning scientific projects. Projects are listed in numerical order and an index by project leader is provided at the end.

All projects are classified in the Program/Activity structure now in use throughout the Department, this classification appearing in the column "Departmental Classification". Details of this classification follow this preface.

The field program for the summer of 1979 comprises the field component of those active projects marked by an asterisk after the project number. These total 193. No distinction has been made between a minor field component, such as a few days, and a major component requiring the entire field season.

John E. Brindle
Chief Program Officer

Ottawa
1979

DEPARTMENT OF ENERGY, MINES AND RESOURCES
PROGRAM ACTIVITY STRUCTURE

1. ADMINISTRATION PROGRAM

ACTIVITIES

SUB-ACTIVITIES

- | | |
|--------------------------------|---|
| 1. Executive | 1.1 Minister's Office
1.2 Deputy Minister's Office
1.3 Corporate Planning and Evaluation
1.4 Departmental Secretariat |
| 2. Common and Special Services | 2.1 Personnel Management
2.2 Official Languages Implementation
2.3 Financial Management
2.4 Computer Science Services
2.5 Information Services
2.6 Administrative Services
2.7 Technical Field Support Services |

2. EARTH SCIENCE SERVICES PROGRAM

- | | |
|--------------------------|--|
| 1. Geodetic Service | 1.1 Geodetic Control Systems
1.2 Geodetic Data
1.3 Support Services |
| 2. Topographic Service | 2.1 New Topographic Mapping
2.2 Revision Mapping
2.3 Aerial Survey Data Base
2.4 National Topographic Data Bank
2.5 Support Services |
| 3. Land Boundary Service | 3.1 The Canadian Lands Surveys Act Administration
3.2 The International Boundary Commission
3.3 Territorial and Provincial Boundary Commission
3.4 Support Services |
| 4. Geological Service | 4.1 Geoscience Surveys
.1 Reconnaissance Bedrock Surveys
.2 Standard Bedrock Surveys
.3 Standard Surficial Surveys
.4 Offshore Bedrock Surveys
.5 Offshore Surficial Surveys
.6 Aeromagnetic Surveys
.7 Marine Multiparameter Geophysical
4.2 Regional Analyses and Syntheses
.1 Litho-Tectonic Studies
.2 Surficial Studies
.3 Regional Compilations |

3. ENERGY PROGRAM

1. Energy Sources; Supply, Demand and Substitution
 - 1.1 Oil and Gas
 - 1.2 Coal and Peat
 - 1.3 Radioactive Minerals
 - 1.4 Electrical Energy
 - 1.5 Renewable Resources
 - 1.6 Support Services
2. Energy Conservation
 - 2.1 Energy Industries
 - 2.2 Transportation Sector
 - 2.3 Domestic Farm Sectors
 - 2.4 Commercial Sectors
 - 2.5 Industrial Sectors
 - 2.6 Support Services
3. Energy Research and Technology Development
 - 3.1 Coordination
 - 3.2 Conservation Technology
 - 3.3 Oil and Gas
 - 3.4 Coal and Peat
 - 3.5 Nuclear Energy
 - 3.6 Electricity
 - 3.7 Renewable Resources
 - 3.8 Energy Transportation
 - 3.9 Support Services
4. Economic and Social Impact – ENERGY
 - 4.1 Regional and Social Impact
 - 4.2 Environmental Studies
 - 4.3 Economic Growth and Development
 - 4.4 Policy Analysis and Systems Planning
 - 4.5 Support Services
5. Oil Import Compensation
 - 5.1 Compensation Payments
 - 5.2 Support Services

4. MINERALS PROGRAM

1. Mineral Resource Determination
 - 1.1 Identification of Resource Base
 - 1.2 Estimation of Resources
 - 1.3 Technical Evaluation
 - 1.4 Support Services
2. Mineral Supply, Use and Conservation
 - 2.1 Economic Evaluation
 - 2.2 Exploration
 - 2.3 Development and Mining
 - 2.4 Processing
 - 2.5 Transportation
 - 2.6 Utilization
 - 2.7 Trade
 - 2.8 Conservation
 - 2.9 Support Services

LIST OF ABBREVIATIONS USED

DIRECTOR GENERAL'S OFFICE – DGO

DMS	-	Data Management Systems Group
SP	-	Special Projects

ATLANTIC GEOSCIENCE CENTRE – AGC

EPG	-	Eastern Petroleum Geology Subdivision
CG	-	Coal Geology
LBG	-	Labrador-Baffin Group
PBG	-	Paleozoic Basin Group
SGBM	-	Scotian Grand Banks Margin Group
EMG	-	Environmental Marine Geology Subdivision
CGD	-	Coastal Geodynamics
G	-	Geomorphology
IGC	-	Inorganic Geochemistry
MA	-	Methods & Analysis
OGC	-	Organic Geochemistry
PEc	-	Paleoecology
SD	-	Sediment Dynamics
RR	-	Regional Reconnaissance Subdivision
EAOG	-	Eastern Arctic Offshore Geology
GPS	-	Geophysical Surveys
LSS	-	Labrador Sea Studies
OBM	-	Ocean Basins and Margins
SBG	-	Surficial and Bedrock Geology
PS	-	Program Support
SD	-	Systems Development

CENTRAL LABORATORIES AND ADMINISTRATIVE SERVICES – CLAS

M	-	Mineralogy
AC	-	Analytical Chemistry

INSTITUTE OF SEDIMENTARY AND PETROLEUM GEOLOGY – ISPG

CG	-	Coal Geology Subdivision
CG	-	Coal Geology
CT	-	Coal Technology
RE	-	Resource Evaluation
E	-	Energy Subdivision
GC	-	Geochemistry
PR	-	Petroleum Resources
RM	-	Resource Methodology

RR	-	Resource (Radioactivity) Subdivision
	ADI	-Airborne Data Interpretation
	ANI	-Analytical & Nuclear Instrumentation
	EAO	-Experimental Airborne Operations
	LO	-Laboratory Operations
	RM	-Radiation Methods
	RSA	-Remote Sensing Operations
	TS	-Theoretical Studies
	UPCS	-Uranium Program Contract Surveys
TG	-	Terrain Geophysics Subdivision
	EM	-Electrical Methods
	SM	-Seismic Methods

TERRAIN SCIENCES DIVISION – TS

EG	-	Engineering Geology
GP	-	Geomorphic Processes
PG	-	Paleoecology and Geochronology
RP	-	Regional Projects
SMT	-	Sedimentology and Mineral Tracing

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
380077	Analysis of rocks and minerals	Abbey, S	CLAS	-	AC	-	-	2435
	Obj: To provide compositional data on geological materials as a contribution to the solution of geological problems.							
400006*	Preparation of collections of Canadian rocks and minerals for distribution to the public	Larose, JM	CLAS	-	M	BC Alta Sask Man Ont Que	-	248
	Obj: To make available for distribution to educational institutions and the Canadian public representative collections of Canadian rocks and minerals that will assist prospectors and promote interest in the mineral industry.							
480191	Monograph of the Canadian Buchia (=Aucella)	Jeletzky, JA	ISPG P	OP	-	-	-	2431
	Obj: To describe and to illustrate all hitherto known Canadian representatives of this biochronologically important genus and to clarify the zonal value of its species.							
490001	Mesozoic and Tertiary rocks of the west coast of Vancouver Island and in Quatsino Sound	Jeletzky, JA	ISPG P	OP	BC	92 E,F,L	-	2431
	Obj: A stratigraphical-paleontological study of the Mesozoic and Tertiary rocks of the area. Special attention is to be paid to the biochronological dating of volcanic units, the stratigraphy and paleontology of the Jurassic-Cretaceous contact, and the potential of Tertiary strata with respect to oil and gas.							
490038*	Miscellaneous field investigation by staff at Vancouver office	Leaming, S	REG	CPM	GR	BC	104 I,J,P	296
	Obj: Various objectives according to the particular investigations, which include supervision of Geological Survey field parties, examination of mining properties, assistance in various government engineering projects such as water power sites, dams, tunnels, and location of convenient deposits of industrial minerals and rock materials.							
500029*	Identification and biostratigraphic interpretation of referred fossils	Staff of Eastern & Western Paleontology Sections	ISPG REG AGC	CPM, CS	P	NS Nfld NB Yk Mack BC	95 B,C; 103 G; 82 E,K	2431
	Obj: 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.							

Asterisk in first column indicates project has a field component
 Brackets indicate seasonal employee or other non-staff
 Underscoring indicates province of 1978-79 field work

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
500038	Coal resources of Canada and studies of coal deposits in Canada	Irvine, JA	ISPG	CG	RE	-	27,62,72,82,83	312
	Obj: To prepare estimates on the coal reserves of Canada; to prepare for publication reports and illustrations concerning Canada's coal resources; to advise and prepare reports for other Branches or Departments when so requested; to have up-to-date knowledge of coal fields in Canada.							
540028	Isotopic age determinations of rocks and minerals	Wanless, RK	REG	CS	G	-	-	2432
	Obj: To determine the geological age of rocks, minerals and geological events using isotopic methods.							
550004	Cretaceous and Jurassic of Richardson Mountains, Porcupine Plains and Eagle Plains	Jeletzky, JA	ISPG	P	OP	Mack Yk	117,116,106	2431
	Obj: To study the stratigraphy, paleontology, paleogeography and depositional tectonics of Cretaceous and Jurassic formations of the region. To describe and to figure the most important elements of their macroinvertebrate faunas.							
550101*	Reference collections of minerals, rocks and ores	Stacey, HR	CLAS	-	M	Yk Ont Que	-	2435
	Obj: To develop, faster and curate reference collections of minerals, rocks, and ore specimens in support of Branch activities and in the national interest.							
570029*	Geology and evaluation of iron and manganese resources	Gross, GA	REG	EG	SP	Nfld Que Ont	-	2465
	Obj: To conduct comprehensive study and research on the geology of iron and manganese deposits to provide a geological basis for exploration, evaluation and development of iron and manganese resources in Canada.							
570119	Studies of meteorites and other extra-terrestrial material	Trail, RJ	CLAS	-	M	-	-	2435
	Obj: To study the mineralogy, petrology, and chemistry of Canadian meteorites, and of other extra-terrestrial material, and to apply the knowledge thus gained towards a better understanding of earth science processes; and to foster, develop and curate Canada's National Meteorite Collection.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
570148	Radiocarbon dating program Obj: To plan and co-ordinate the radiocarbon dating program of the Geological Survey.	Blake, W Jr	TS	-	PG	-	-	2433
580160	Catalogue of Canadian minerals Obj: To assist in the identification and inventory of potential mineral resources in Canada by compilation and publication of a Catalogue of Canadian Minerals that provides reference material for direct use by earth scientists, the mining industry and the general public.	Trail, RJ	CLAS	-	M	-	-	2435
580175	Analytical services and development in geochemistry Obj: To coordinate and supervise the sample preparation and analysis of sediment, soil, rock, mineral and water samples, collected by or for the geochemistry section program. These services are provided both in Ottawa and in the field either by G.S.C. staff with in-house facilities and to a lesser extent by commercial laboratories under standing offer agreements.	Hall, GEM	RGG	RIE	GC	Ont	52 A,H	2438
590457	Radiocarbon laboratory development and operation Obj: 1) To determine the age of carbonaceous matter using radiocarbon dating techniques; to ensure continuing and improving precision of existing techniques; and to keep abreast of current research on new techniques. 2) To conduct research on variations in the radiocarbon content of modern organic material and its application to age determinations on fossil material.	Lowdon, JA	TS	-	PG	-	-	2433
600307	X-ray emission analysis Obj: To contribute to the knowledge of Canadian mineralogy and mineral deposits through research and development of methods and concepts of X-ray emission analysis and application of these to the analysis of geological materials. To improve the quality and rate of production of X-ray fluorescence analyses that may be applied to geological research and to provide "custom" XRF analyses in support of G.S.C. research projects.	Lachance, GR	CLAS	-	AC	-	-	2435
600353	Dibranchiate volume of the Treatise on Invertebrate Paleontology Obj: To prepare an authoritative summary of the present state of knowledge of this sub-class of cephalopod mollusks. The final report is to be published as the Dibranchiate volume of the Treatise on Invertebrate Paleontology.	Jeletzky, JA	ISPG	P	OP	-	-	2431

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
610007*	Operation Porcupine	Norris, DK	ISPG	CG		Mack Yk	106 E,F,K-N; 116 F-K, N-P	2412
	Obj: Critical evaluation of the structural geometry and stratigraphy within the project area of northern Yukon Territory and western District of Mackenzie for the documentation of the nature, origin, and mechanics of the deformation and its bearing on the hydrocarbon and mineral potential of the region.							
610019*	Ordovician and Silurian Biostratigraphy of British Columbia, Alberta, Manitoba Yukon, Mackenzie & Franklin	Norford, BS	ISPG	P	MaP	Frank Mack Yk BC Alta	36, 37, 47-49, 54, 57-59, 67-69, 82 J, 83, 85, 94 E, 97, 104-106, 116, 117, 120, <u>340</u>	2431
	Obj: 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.							
610269*	Petrographic examination of coking coals from the Kootenay Formation, Alberta and British Columbia	Cameron, AR	ISPG	CG	CT	Alta BC	Prts 82 G, J, O	2462
	Obj: To determine the coking properties and to prepare seam profiles for correlation and environment of deposition studies on coals of the Kootenay Formation.							
620308	Electron beam microanalysis	Plant, AG		CLAS	-	M	-	-
	Obj: To conduct studies of geological materials using techniques of electron probe microanalysis and scanning electron microscopy, in support of Branch projects.							2435
630016*	Coast Mountains project	Roddick, JA	REG	CPM	GR	BC	<u>92 F NEK, G Wk, J,K,L</u> <u>NE K, M,N; 93 D; 102 P;</u> <u>103 A,G, I Wk, J,N,P Wk</u>	2412
	Obj: A geological reconnaissance of the Coast Mountains between southeast Alaska and Vancouver for publication on a scale of 1 inch equals 4 miles. The investigation is expected to reveal the main events in the geological history of the Coast Crystalline Belt and to develop an understanding of the processes governing the formation of plutonic rocks in such orogenic belts.							
630017	Operation Liard	Taylor, GC	ISPG	RG	-	BC	94 F,G,H,I,J,K,N,O,P	2412
	Obj: To establish the stratigraphic framework of the northern Rocky Mountains and in conjunction to establish a conceptual model of the structural deformation of these rocks.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
630031*	Multispectral Imagery	Slaney, VR	RGG	RIE	RM	-	-	2423
	Obj:	1) To increase the utilization and improve the usefulness of imagery acquired from aircraft (e.g. colour photography, sideloop radar, gamma-ray spectrometry) by the development and application of techniques for analysis of such data. 2) To study the feasibility of establishing a Canadian Training Centre in Remote Sensing.						
630037*	Geology of Canadian nickel and platinum group deposits	Eckstrand, OR	REG	EG	MDG	BC Sask Man Ont Que	23; 31; 32 A; 41 I, P; 42 A, B; 52; 53 E; 63 O, P; 64 C; 74 H; 35 G, H	2465
	Obj:	To carry out comprehensive research on the geology of the Canadian nickel and platinum group deposits in order to: 1) support or provide geologically based estimates of Canada's mineral resources; 2) provide guidelines for their discovery; 3) provide advice to government for mineral policy and related matters.						
640048	Study of mineral collecting areas of interest to collectors and tourists	Stenson, Mrs AP	CLAS -	M	-	-	-	248
	Obj:	To meet the needs of mineralogists and non-professional Canadian and foreign visitors for information on the accessibility, location, and nature of occurrences of minerals and rocks.						
640125*	General metallogeny of Canada	Leech, GB	REG	EG	MDG	-	-	2465
	Obj:	To study metallogenic concepts pertaining to the geological and tectonic regions of Canada as a whole in order to determine relationships in the distribution of economic minerals to their geological environments and thus to more completely understand Canada's present and potential mineral resources.						
640402	Certification of bedded and non-bedded mineral deposits	Leech, GB	REG	EG	MDG	-	-	296
	Obj:	To act on behalf of the Director-General of the Geological Survey in the certification of mineral deposits as bedded or non-bedded for income tax purposes.						
640420	Geological observations at shafts of potash mines in Saskatchewan	Price, LL	ISPG	RG	SM	Sask	62 K/5, 12; 72 0/16; 62 1/16; 72 P/13, 14; 73 B/1, 2, 3	2421
	Obj:	To record geological data and obtain fossil and rock specimens from the rocks exposed in large-diameter potash mine shafts in the eastern Plains; to interpret these observations and material within the stratigraphic framework.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
650007*	Ocean aeromagnetics	Bower, ME	RGG	RG	M.M.	Frank	360,540	2416
	Obj:	1. To conduct high resolution aeromagnetic surveys over the Canadian continental shelves for the purpose of delineating sedimentary basins. 2. To obtain and study magnetic data over the ocean basins in order to investigate theories of magnetic imprinting of oceanic rocks, ocean floor spreading and continental drift. 3. To develop and modify instrumentation and techniques for the improvement of airborne magnetometry, navigation, and data acquisition, processing and analysis.						
650008	Stratigraphy, sedimentology and correlation of Nonacho Group, N.W.T.	McGlynn, JC	REG	P	BS	Mack	75 E,F,K	2421
	Obj:	To define the sedimentology and stratigraphy of Nonacho Group and relationships of these rocks to surrounding igneous rocks as a contribution to regional correlation and geological history of the region.						
650013	Quaternary geology, Aishihik Lake	Hughes, OL	TS	-	RP	Yk	115 H; pts. 106 D,E; 115 A,B,G,I	2413
	Obj:	To map and explain the Quaternary geology and geomorphology of Aishihik Lake area with particular reference to the nature and distribution of surficial materials and Quaternary stratigraphy and history in order to 1) improve knowledge of the glacial history of southwestern Yukon; and 2) provide areal geological information for land use planning and engineering development.						
650023	Operation Bow-Athabasca	(Price, RA, Prot)	ISPG	RG	M	BC Alta	83 C,D, E ₂ 82 J E ₂ ,N,O	2412
	Obj:	To complete the systematic reconnaissance geologic study of the Rocky Mountains south of lat. 53° N; to obtain information on the character, structure, distribution, age, stratigraphic relationships, and origin of the bedrock and other geological data that are required to evaluate the mineral potential of the area and to assist exploration of oil, gas, coal and other mineral deposits in this and adjacent areas.						
650024*	Cambrian biostratigraphy of the Canadian Cordillera	Fritz, WH	REG	CS	EP	Mack Yk BC Alta	105 I; 106 B; 105 P ₂ 106 A; 94 C; 94 F, K, L; 83 C; 82 N,O	2431
	Obj:	To identify and describe Cambrian fossils from the Canadian Cordillera, ascertain their relative stratigraphic positions, and provide faunal correlations for their enclosing strata						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
650027*	Quaternary of southern Alberta	Stalker, AM	TS		RP	Alta Sask	<u>72, L,M; 73, 82, 83</u>	2422
	Obj: To gain knowledge of Quaternary Stratigraphy, chronology, environments and climates in southern Alberta.							
650056*	Geology of lead and zinc deposits in Canada	Sangster, DF	REG	EG	MDG	Que NS	<u>32 D,F,K;</u> <u>11 F,K</u>	2465
	Obj: To carry out comprehensive research on the geology of lead and zinc deposits in order to: 1) support or provide geologically based estimates of Canada's mineral resources; 2) provide guidelines for their discovery; 3) provide advice to government for mineral policy and related matters.							
660009	East Arm of Great Slave Lake, District of Mackenzie	Hoffman, PF	REG	P	BS	Mack	75 E, L,K; 85 H,I	2421
	Obj: To refine existing stratigraphic descriptions and relationships of the sedimentary and volcanic rocks; to determine source regions and dispersal patterns in the sedimentary fill; to determine depositional environments and reconstruct the Paleogeographic history of the sedimentary basin.							
660026	Stratigraphy and conodont zonation of Lower and Upper Devonian strata of southwestern Ontario	Uyeno, TT	ISPG	P	MP	Ont	30 L,M; 40 G,I,J,O,P	2431
	Obj: To establish conodont zonations of Devonian strata of southwestern Ontario, and to facilitate the more precise correlations of these strata with other sequences, such as the North America standard in New York State, and the mondial standards of France, Belgium and Germany. To give a brief history of the Devonian rocks of this area, to describe the rock units in modern terminology, and to provide a general geological setting to the discussion on conodont biostratigraphy.							
670016	S.W. Ellesmere - W. Devon Islands (Operation Grinnell)	Kerr, JW	ISPG	RG	AI	Frank	49 B,C; 59 A,B; 69 A	2412
	Obj: 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.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
670028*	Geology of rare earth deposits of Canada	Rose, ER	REG	EG	MDG	-	-	2465
	Obj: To carry out comprehensive research on the geology of rare earth deposits in order to: 1) support or provide geologically based estimates of Canada's mineral resources; 2) provide guidelines for their discovery; 3) to provide advice to government for mineral policy and related matters; 4) development of practical and inexpensive field tests for the detection of rare-earth elements.							
670068	Operation Norman	Cook, DG	ISPG	RG	M	Mack	86 W ₄ ; 96; 97; 106 E ₂ ; 107 E ₂	2411
	Obj: 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							
670576*	Canadian Triassic Ammonoidea and Bivalvia	Tozer, ET	ISPG	P	OP	Frank Yk BC Alta	103 C,F; 104 P; 106 D; 116 B,D	2431
	Obj: To describe and assess biochronological significance of Triassic Ammonoidea and Bivalvia in order to refine methods for dating Triassic rocks.							
680012	Paleomagnetic study of Proterozoic red beds of the western Canadian Shield	McGlynn, JC	REG	P	BS	Sask Kee	75 E,F; 74; 85; 86; 65; 66	2434
	Obj: To obtain paleomagnetic pole positions from various Proterozoic red bed sequences in the western Precambrian Shield for purposes of correlation.							
680017	Sedimentology-engineering geology laboratory development and operation	Podolak, WE	TS	-	SMT	-	-	244
	Obj: To standardize, develop, and/or bring into use various testing and/or analytical procedures available to the geoscientist; to develop new techniques and instrumentation; to ensure efficient operation of the sedimentology laboratories.							
680023	X-ray diffraction analyses and mineralogical studies	Traill, RJ	CLAS	-	M	-	-	2435
	Obj: To provide X-ray diffraction analyses and mineralogical studies in support of Branch projects.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
680027	Surficial geology, Tawatinaw area Alberta	Richard, SH	TS	-	RP	Alta	83 I	2413
	Obj: To map, describe and explain the unconsolidated deposits and landforms of the Tawatinaw map-area (83 I) in central Alberta in order to provide geology and terrain information pertinent to land use planning, agriculture, urban and industrial development, forestry, engineering construction and to determine the Quaternary history of the region.							
680031*	Quaternary stratigraphy of Old Crow Basin and Porcupine River Valley	Hughes, OL	TS	-	RP	<u>Yk</u> Mack	<u>106 E,F,N; 115 P;</u> <u>116 I,O,P; 117 A</u>	2422
	Obj: Through investigation of Quaternary deposits and associated organic remains, to gain knowledge of the Quaternary stratigraphy and history of the region and to provide a geological framework for current vertebrate paleontology and archaeology studies by National Museum scientists.							
680047*	Geomorphic processes, Mackenzie Valley-Arctic Coast	(Mackay, JR Prof)	TS	-	GP	<u>Mack</u> Yk	<u>85, 95, 96, 97 C,D 106,</u> <u>107 B,D, 117 D; 96 B-F;</u> <u>106-F, I,P; 116 I,N-P</u>	244
	Obj: To investigate the processes involved in the growth of permafrost and ground ice under present day conditions, in order to understand better the processes associated with the past growth of permafrost in northern Canada							
680060*	Geology of silver and gold deposits in Canada	Thorpe, RI	REG	EG	MDG	Que Ont NS BC	<u>52 K-N; 92 H,J;</u> <u>94 E, 103 G</u>	2465
	Obj: To carry out comprehensive research on the geology of silver and gold deposits in order to:							
	(1) support or provide geologically based estimates of Canada's mineral resources;							
	(2) provide guidelines for their discovery;							
	(3) provide advice to government for mineral policy and related matters.							
680064*	Stratigraphy and Paleontology of Upper Paleozoic rocks on parts of Ellesmere and Axel Heiberg Islands	Nassichuck, WW	ISPG	P	MaP	Frank	<u>49 B,C,F,G,H; 340 A, B,C,D;</u> <u>560 A</u>	2421
	Obj: (a) To improve the understanding of stratigraphy and facies relationships of the marginal and axial parts of the Sverdrup Basin;							
	(b) to establish a biostratigraphic framework for Carboniferous and Permian rocks; and							
	(c) to evaluate the economic potential of the area.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
680071*	Alkaline rocks in Canada Obj: To identify and examine occurrences of alkaline rocks in Canada, and to explain their origin, development made of emplacement and economic potential.	Currie, KL McGrath, PH	REG CS RGG RG	Pet	Nfld		<u>13 E,L</u>	2421
680073	Magnetic anomaly map of Canada Obj: To prepare and publish the fourth edition of the magnetic anomaly map of Canada (1:255A) in order to portray the major magnetic patterns and to interpret the resultant map and associated data in terms of the regional geology, tectonics, metamorphism and metallogeny of Canada.			M	-		-	2423
680081*	High resolution aeromagnetics (experimental surveys)	Olson, DG	RGG RG	MM	Que Man NB NS Ont Sask BC		<u>30 M; 52 L; 92 F,H; 93 E,L; 42 E; 31 B,K</u>	2416
	Obj: To execute, according to prescribed specifications, high resolution aero-magnetic and/or gravimeter surveys over areas selected and defined by Regional Geophysics program management.							
680082	Annual review, Exploration Techniques Obj: To provide an annual review of new mining geophysical, geochemical, data recording and compilation techniques for the mineral exploration industry.	Hood, PJ	RGG RG	MM	-		-	296
680084	Operation Smoky Obj: To establish the interdependent relationships of the structure, and stratigraphic succession between the contrasting areas of the southern Rocky Mountains and those of the northern Rocky Mountains.	Taylor, GC	ISPG RG	-	BC		<u>93 I,O,P</u>	2412
680090	Identification of unknown minerals by X-ray and chemical methods Obj: Quantitative and semiquantitative analysis of layer lattice silicates, mixed layer silicates, clays, minerals and elements in samples submitted by GSC staff.	Foscolos, AE	ISPG E	GC	Alta		-	2435

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
680091	Clay and clay minerals investigation	Foscolos, AE	ISPG	E	GC	Alta	-	2435
	Obj: To improve and develop techniques for routine mineralogical and chemical analyses of clays and Canadian coals; to develop better techniques for quantitative, semi-quantitative and qualitative analyses of clays and clay minerals in sedimentary rocks and coals to conduct research related to the crystal lattice structure of clay minerals. These studies also determine those parameters that affect;							
	(1) the degree of sediment diagenesis and oil generating potential;							
	(2) migration of fluids from source rocks which carry heavy metals.							
680093*	Upper Silurian and Devonian biostratigraphy western and northern Canada	Pedder, AEH	ISPG	P	MaP	Sask Man Alta BC Yk Frank, Mack	106 C; 84 P; 85 A,B,C,F; <u>94 B; 95 J</u>	2431
	Obj: 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. Paleoecological and biogeographic analyses of species and other taxonomic categories that have different time ranges in different geographic realms and ecologies.							
680101	Conodont biostratigraphy of Siluro-Devonian rocks of the Arctic Islands	Uyeno, TT	ISPG	P	MiP	Frank	49, 57, 58, 59, 68, 69, 78; 89	2431
	Obj: To set up conodont biostratigraphic framework for the Siluro-Devonian rocks of the Arctic Islands; to integrate this framework with zonations based on other fossil groups, such as graptolithes, palynomorphs and brachiopods; to fix time lines in areas where strata undergo complex facies changes over relatively short distances.							
680102*	Rank and petrographic studies of coal and organic matter dispersed in sediments	Haquebard, PA	AGC	EPG	-	NB Nfld NS Que PEI	12, 21, 11, 20	2462
	Obj: To obtain information on local and regional changes in organic metamorphism, with application towards economic geology, search for oil and gas, and evaluation of properties of coking coals.							
680109*	Palynological zonation of the Carboniferous and Permian rocks of Atlantic Provinces, Gulf of St. Lawrence and Northern Canada	Bars, MS	AGC	EPG	SS	NS NB Nfld PEI Yk Mack Frank	11 E; 1, 2, 11, 12, 95	2431
	Obj: To establish a comprehensive biostratigraphic framework of the Carboniferous and Permian succession and to reconstruct geological events and ecological environments, assist other disciplines to carry out stratigraphic, sedimentological and geophysical studies, facilitating a determination of the three dimensional geometry of the Carboniferous basins for resource evaluation.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
680114*	Development and supervision of mineral deposits data bank	Anderson, FD	REG	EG	MDB	-	-	2465
	Obj: To establish files of data on mineral deposits and to supervise their operation in ways effective for the needs of the Geological Survey of Canada and, as far as is practical, compatible with related files within the Department and with a National System for storage and retrieval of geological data. Two main types of files are involved:							
	(1) documentary files of reports, maps and other published and unpublished information and							
	(2) computer-related files.							
680119	Operation Stewart	Blusson, SL	REG	CPM	GR	Mack Yk	105 N, O, P, 106 A,B,C	2412
	Obj: To outline and interpret the regional stratigraphy and structure in a previously unmapped part of the Selwyn Basin and to relate these features to the search for mineral deposits analogous to the Keno Hill and Vangorda deposits on the west and south.							
690005	Structural geology of northern Yukon Territory and northwestern District of Mackenzie	Norris, DK	ISPG	CG	-	Yk Mack	117 A,B,C,D, 107 B,C	2421
	Obj: 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.							
690009	Smithers map-area	Tipper, HW	REG	CPM	GR	BC	93 L	2412
	Obj: To interpret the structure, stratigraphy, and geologic history of Smithers map-area and to provide a regional structural, stratigraphic and plutonic framework to which the mineral deposits can be related.							
690038*	Probability models for estimating mineral potential	Agterberg, FP	REG	EG	GM	-	-	412
	Obj: To develop a statistical method employing geological information to assess the probability of occurrence of specific types of mineral deposits in geographically-delimited areas.							
690043	Quaternary geology inventory, southern Labrador	Fulton, R.J	TS	-	RP	Nfld	12 P; 13 A-K; pts 13 L,N,O; 23 H	2413
	Obj: To map and explain Quaternary deposits and landforms in order to provide:							
	(1) areal geologic and geomorphic data; and							
	(2) knowledge of stratigraphy, age and history of Quaternary features.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
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690054 Erosion in a permafrost environment Heginbottom, JA TS - GP Mack 107 B, C (parts of) 244

Obj: To document the nature, extent, and rate of erosion in permafrost areas disturbed by activities of man, and to determine the importance of surface material, geomorphology, microclimate, snow cover, vegetation, depth of active layer, ground ice distribution and other factors on controlling erosion.

690061 Operation Penny Highlands Jackson, GD REG P NC Frank 16 E, K-M; 26 H-P; 27 A,B; 36 P; 37 A,B 2411

Obj: To provide a reconnaissance geological survey of a previously unmapped area and describe and interpret the geological framework and outline areas of potential economic interest.

690064* Quaternary palynology Mott, RJ TS - PG Ont Que BC NB 82 E,L; 92 G,H,I; 31 G,F; 21 G,H,I,J,N,Q,P 2433

Obj: To study the quaternary palynology of Canada and to provide a biostratigraphic and paleoecologic information service to other scientists within the Division, Branch, or Department as well as other Government Departments and agencies and non-government institutions.

690072* Federal-Provincial Aeromagnetic Survey contract No. 69-54 Labrador, Newfoundland Peninsula, Coppermine - Great Bear Lake Areas Ready, EE RGG RG CAS Nfld; Que; Frank; Kee 76 L,M; 86 A-C, E-P; 3 D,E; 13 A-L, M,N,O; 14 D-F, L,M; 23 A,B, G-J, O,P; 24 A,H,I,P; 25 A; 46 D-G, J-P; 47 A-D 2416

Obj: To provide the Provinces, the Geological Survey of Canada and the mining industry with aeromagnetic data as an aid to geological mapping and mineral exploration programs.

690075* Tertiary foraminiferal succession of Western Cordillera and Pacific Margin Cameron, BEB REG CPM MG BC 92 C; Pts 93; 102; 103 2431

Obj: To determine the foraminiferal succession within the Tertiary sedimentary rocks of the Western Cordillera and Pacific Margin in order to establish a biostratigraphic standard of reference.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
690086	1:1 million Geological Atlas Projects	Douglas, R.J.W	DGO	-	SP	-	-	2423
	Obj: As scientific adviser and editor, to make recommendations to a steering committee concerning technical and scientific matters required to ensure publication of a suitable 1:1 million geological atlas of Canada by 1986, including recommendations on coordination, scheduling, guidelines, legend and format; and to ensure, through scientific editing of all manuscripts, that approved standards are met.							
690089	Analysis of international reference samples	Abbey, S	CLAS	-	AC	-	-	2435
	Obj: To participate in world-wide collaborative analysis of reference samples prepared by geologically-related institutions thereby contributing to the establishment of such samples as calibration and reference standards.							
690090	Development of methods for the analysis of geological materials	Abbey, S	CLAS	-	AC	-	-	2435
	Obj: To develop, modify and improve methods for the analysis of geological materials, using chemical and instrumental methods.							
690095*	Properties and provenance of till	Shultz, W.W	TS	-	SMT	Que Kee Frank	56 D; 55 L; 21 E; 38 B,C,- 48 D	244
	Obj: (1) To build a data bank comprising chemical, petrologic, and geotechnical properties of till in Canada. (2) To define till provenance regions based on data from objective 1. (3) To clarify mechanisms and scale of glacial dispersal of rocks, minerals and trace elements. (4) To relate regional chemical and petrologic properties of till to engineering, geomedical, and biological problems that can be defined areally.							
700014	Mineral indicator tracing, southern Keewatin	Shultz, W.W	TS	-	SMT	-	-	244
	Obj: (1) To develop methods of utilizing drift composition for prospecting in perennially frozen terrain; (2) to define glacial and postglacial processes that affect regional and local variations in till mineralogy and chemistry; (3) to define the relationship of till compositions to compositions of bedrock or to those of higher order derivations (eskers, modern lake sediment, marine sediment etc).							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
700018	Paleomagnetism and rock magnetism instrumentation and technological development	Christie, KW	REG	P	PMag	Ont	-	2434
	Obj: To contribute to the development of paleomagnetism as a geophysical method:							
	(a) by designing, building, testing and calibrating instrumentation required for the measurement of magnetic properties of rocks and minerals;							
	(b) by developing new techniques or systems for the routine measurement of magnetic parameters of standard samples and for the processing of data resulting from such measurements;							
	(c) by improving on the design of existing instrumentation or techniques in order to improve the efficiency of the laboratory and/or the quality of the data emanating from the laboratory.							
700034	Devonian biostratigraphy of the northern Yukon Territory and adjacent District of Mackenzie	Norris, AW	ISPG	P	MaP	Alta Mack Yk	116, 117, 106, 74 M; 84 P; 85 B,C	2421
	Obj: (a) delineation of facies distribution of Devonian rocks in northwestern Canada;							
	(b) identifying and determining ranges of fossils for refining zonation and correlation with other areas;							
	(c) determining distribution of faunal provinces and paleogeography of Devonian seas; and							
	(d) obtaining more information on the Upper Silurian Lower Devonian and Lower/Middle Devonian boundaries.							
700037*	Geology of the southern Alberta Foothills, Highwood River to Athabasca River	Ollerenshaw, NC	ISPG	CG	CG	Alta	82 O,J; 83 B,C,F	2421
	Obj: To provide an improved basis for mineral evaluation and oil and gas development of the region, through the publication of new and revised geological maps and cross sections, on a scale of 1:50,000; integrated analyses of surface and sub-surface geology; the description, correlation and facies relationships of all major rock units; and the description, genetic analysis and relationships of the major structural elements; to provide data for 1:250,000 scale map compilations and regional structural syntheses.							
700045	Belcher Channel and Ballantyne Strait (NTS 59,69,79,89,99) map-area. 1:1 million Geological Atlas Program	Nassichuk, WW	ISPG	P	MaP	Frank	59; 69; 79; 89; 99	2423
	Obj: 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 as April 1, 1969 of File 116-6-4.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
700047	Operation Finlay	Gabrielse, H	REG	CPM	GR	BC	94 C E&F W&E	2412
	Obj: To establish the stratigraphy, structure and geologic history; to establish the geological framework to which the mineral deposits may be related as an aid to regional development.							
700048	Petrology and structure of the Daly Bay Complex and environs	Gordon, TM	REG	CS	Pet	Kee	56 A South half parts of 55 P and 46 D	2421
	Obj: To determine the petrology and structure of the anorthosite-gabbro-gneiss-granulite complex in the Daly Bay region in order to understand its origin, age, and stratigraphic relations.							
700055	Obj: not available	Dawson, KR	REG	EG	MDG			2465
700059*	Geology of copper and molybdenum deposits in Canada - I	Kirkham, RV	REG	EG	MDG	-	-	
	Obj: To carry out comprehensive research on the geology of copper and molybdenum deposits in order to:							
	(1) support or provide geologically based estimates of Canada's mineral resources;							
	(2) provide guidelines for their discovery;							
	(3) provide advice to government for mineral policy and related matters.							
700061*	Seismic-Precambrian Shield	Overtton, A	RGG	RIE	SM	Que NB	<u>21 E 32 C G</u>	2421
	Obj: To apply seismic refraction and reflection methods to solution of geological problems in the Precambrian Shield. To apply sonic methods to downhole environments. To apply sonic methods to such problems as subsurface structure, boundaries between geological provinces, interfaces between geological formations, definitions of orebodies, delineation of Conrad discontinuity, etc.							
700073	Operation Northern Melville Peninsula	Heywood, WW	REG	P	NC	Frank	Pts. of 47 A-D	2412
	Obj: To determine the general structure, historical and economic geology of a previously unmapped terrain in order to aid future economic development of northern Canada.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
700092	Surficial geology and geomorphology, Mackenzie Bay - Continental Shelf	Blasco, SM	AGC	EMG	G	Frank, Yk	87, 97, 107, 117	2415
	Obj: To resolve the stratigraphic and structural relationships of the unconsolidated surficial marine sediments of the Beaufort continental shelf to provide the geological framework necessary for the delineation of permafrost; the assessment of offshore aggregate supplies, the establishment of engineering design, criteria for offshore structures for petroleum exploration and production, the resolution of the Quaternary history of the shelf area, the identification of sedimentary and geomorphic processes operating on the shelf; and to continue development of the technology necessary to conduct surficial marine geological surveys in ice covered areas of the arctic and in shallow coastal waters.							
710013	Northern Basin Analyses Program: Peel River map-area	Pugh, DC	ISPG	RG	M	Mack Yk	106; 116	2421
	Obj: 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.							
710016	Geological and Tectonic Compilations	Douglas, R.J.W	DGO	-	SP	Ont Que	pts 31, 41, 52	2421
	Obj: 1) Maintain a continuing compilation of data received from 1:1 million Geological Atlas (project 690086) for revision of Geological and Tectonic Maps at 1:2 1/2 million and 1:5 million scale. 2) Maintain data available for use as a base for compilations of other data-magnetic, gravity, mineral deposits, etc.							
710018	Alberta Foothills	Douglas, R.J.W	DGO	-	SP	Alta	82 H; 83 C,F	2421
	Obj: 1) standard 1 mile mapping with emphasis on stratigraphy and structure; revision of mapping by B.R. Mackay; oil, gas, coal potentialities.							
710020	Surficial geology and land classification, Mackenzie Valley Transportation Corridor	Hughes, OL	TS	-	RP	Mack Yk	96 C-F; 106 H-N, O,P; 107 A; 97 C; 116 N,O,P	2413
	Obj: To map, describe and explain the unconsolidated deposits, landforms, permafrost, ground ice, and organic (muskeg) cover of the Mackenzie Valley Transportation Corridor in order to: (1) provide areal knowledge of geology and terrain, bearing particularly in mind the needs of government for terrain information in connection with land use planning, pipeline proposals and other aspects of petroleum development, and engineering construction; and (2) determine the Quaternary history of the region.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Depr'l Classification
710022*	Carboniferous and Permian biostratigraphy and coral faunas, western and northern Canada	Bamber, EW	ISPG	P	MaP	Frank Mack Yk BC Alta	49; 59; 69; 78; 79; 82 G,H,J,M,N,O; 83 B,C,D,F,G; 92; 93; 94-95; 103-106; 115-117; 340; 560	2431
	Obj: Establishment of faunal sequence within stratigraphic framework previously described for Upper Paleozoic of Alberta, British Columbia, Yukon, District of Mackenzie, for use as biostratigraphic reference succession in surface and subsurface exploration of these areas. Description of coral and other faunas from these areas to document the above succession and facilitate its use by other workers in industry and in other government organizations.							
710023	Granite studies in the Slave Province (Phase 1)	Davidson, A	REG	P	SG	Mack	85 I,P	2421
	Obj: To classify the granitic rocks according to age, geological and chemical nature, using geophysical parameters where available, and to relate them to the regional geology and to mineral deposits.							
710033	Northern Basin Analysis Program: Great Bear, Redstone and Great Slave map-areas	Williams, GK	ISPG	RG	M	Mack	85, 95, 96	2421
	Obj: 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 mineral potential of the region.							
710036	Northern Basin Analysis Program: Firth River and Horton River map-areas	Dixon, J	ISPG	RG	SM	Mack Yk	107; 117; 87; 97	2421
	Obj: 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.							
710038	Juniper (east half) map-area, NB	Skinner, R	REG	P	-	NB	21 J/11 E%	2421
	Obj: To determine the stratigraphy, structure and igneous, metamorphic and tectonic history of a part of the Central Mineral Belt of New Brunswick as an aid to the economic development of the region.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
710048*	Geological and geophysical studies of the Pacific Continental Margin	Tiffin, DL	REG	CPM	MG	BC	pts 92; 102; 103	2417
	Obj: To establish the geological framework of the Pacific Continental Margin; determine the hydrocarbon potential of its contained sedimentary basins, and to determine the tectonic development of the Pacific Continental Margin especially its interaction with the Pacific ocean floor.							
710049*	Geological and geophysical studies in the Beaufort Sea	Currie, RG	REG	CPM	MG	Mack	87, 97	2417
	Obj: To produce a magnetic anomaly map and selected shallow seismic profiles of the Beaufort Sea.							
710059	Stratigraphy and sedimentology of the Mesozoic and Tertiary rocks of the Atlantic continental margin	Jansa, LF	AGC	EPG	SS	-	-	2421
	Obj: To determine stratigraphy and sedimentology of the Mesozoic and Tertiary rocks of the Atlantic continental margin and the basin delineate distribution of clastic, carbonate, evaporite sequences, their thickness, composition, provenance, current patterns, depositional environment and porosity development as an aid to the resource evaluation of this region.							
710061*	Compilation of geoscientific data in the Upper Paleozoic basins of southeastern Canada	Howie, RD	AGC	EPG	-	NS NB Nfld PEI	1, 2, 10, 11, 14, 20	2423
	Obj: Compile data for a detailed study of the petroleum potential of the Magdalen and Sydney basins.							
710062	Palynostratigraphy and Paleoecology of the Mesozoic and Cenozoic rocks of the Atlantic Continental Margin	Williams, GL	AGC	EPG	SS	NS NB, Nfld PEI	1, 2, 10, 11, 14, 20 E	2431
	Obj: Application and refinement of the Palynological zonation now established for the Mesozoic and Cenozoic of the Scotian Shelf, Grand Banks and Labrador Shelf. Correlation with coeval assemblages from European stratotypes, and DSDP coreholes in the Atlantic Ocean, and eastern U.S. surface sections. Determine paleoecological value, paleoclimatological fluctuations of the dinocysts. Undertake visual kerogen analysis for resource evaluation. Produce (four issues of) Geolog.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
710065	Biostratigraphic zonation (Foraminifera-Ostracoda) of the Mesozoic and Cenozoic rocks of the Atlantic Shelf	Ascoli, P	AGC	EPG	SS	NS, Nfld		2431
	Obj: To determine the biostratigraphic zonation (Foraminifera and Ostracoda) of the Mesozoic and Cenozoic in offshore wells of the Atlantic Shelf, to form the basis of local, regional and world wide correlation, and to accurately reconstruct geological events and ecological environments, to aid in the economic evaluation of the region.							
710091	Palynological studies of Mesozoic and Tertiary coal measures in western and northern Canada	Sweet, AR	ISPG	P	MiP	BC Alta Yk	82; 83; 92 1; 106; 117	2462
	Obj: (1) To establish palyno-stratigraphic zonations of coal measures and contiguous strata as an aid to petrological, sedimentological and structural interpretations of coal basins. (2) Where applicable to correlate coal seams by means of spore and pollen histograms.							
710098*	Data Systems Group	Hutchison, WW	DGO	-	DSG	-	-	248
	Obj: 1) To act as specialist consultants to Divisions as required; 2) to undertake general feasibility studies; 3) as advisers to Branch Management on computer use in GSC; 4) continuing administration of operation of Branch Systems.							
720041	Upper Paleozoic rocks of western Canadian Cordillera	Monger, JWH	REG	-	CPM	BC Yk	pts. of 92, 93, 94, 115; 103 H; 104 A,G,I,J,K, N,P; 115 B,C,F,G	2421
	Obj: To determine the stratigraphy, facies, structural style and external relationships of Upper Paleozoic rocks in the western Canadian Cordillera and to establish reference sections typical of the various facies belts.							
720044	Reconnaissance of Mesozoic Foraminifera of Arctic Islands	Wall, JH	ISPG	P	MiP	Frank	49, 59, 69, 79, 88, 89, 98, 340	2431
	Obj: 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.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Deprt Classification
720057	Terrain mapping in mountainous areas	Fulton, RJ	TS	-	RP	BC	pts of 82 M,N,K,L	2413
	Obj:	(1) To devise terrain mapping units which can be used to adequately define mountainous country. (2) To map the terrain in several small, mountainous, pilot areas.						
720062	Volcanic rocks of the Prince Albert Belt	Schau, M	REG	P	NC	Frank Kee	47 A,D; 56 J,K	2421
	Obj:	To determine the structure, stratigraphy and petrology of the volcanic rocks of the Prince Albert Group and relationship to the adjacent gneisses and the enclosed basic and ultrabasic rocks; to evaluate the mineral potential of the belt.						
720066	Evaluation of Canada's petroleum potential	McCrossan, RG	ISPG	E	PR	-	-	311
	Obj:	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 hydrocarbon deposits in Canada.						
720067*	Ground water geochemistry applied to uranium exploration	Dyck, W	RGG	RIE	GC	Ont Que Sask NB Yk BC	31 F,G; 21 H,I; 11 E,L; 72 F,K; 74 H; 32 D; <u>104 N,O,P; 105 B,F; 21 J</u>	2463
	Obj:	(1) To determine the effectiveness of dissolved constituents in ground waters in detecting uranium mineralization. (2) To determine the geochemical relationships of dissolved constituents in ground waters to overburden, bedrock, and mineralization.						
720071*	Airborne Gamma-Ray Spectrometry (Experimental Surveys)	Holman, PB	RGG	RIE	RM	Ont Mack NB NS	11 D,E,F,K; 21 A,G,H,J, N,O; <u>31 C,D,F; 74 E,I,M;</u> <u>72; 82; 83; 52 A,L; 75 K,N</u>	2463
	Obj:	(1) Provide acceptable standards for the acquisition and compilation of airborne gamma-ray spectrometric data. (2) Demonstration of suitability of airborne gamma-ray spectrometry methods in various parts of Canada by: i) conducting orientation surveys in advance of U.R.P. contract surveys. ii) conducting reconnaissance surveys maps. iii) conducting detailed follow-up surveys of areas of interest located by U.R.P program (3) Have available the technology and personnel to respond to nuclear accidents where aircraft monitoring is required.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
720072*	Paleozoic ostracodes of Canada	Copeland, MJ	REG	CS	EP	Ont Que NB NS Nfld	11 E,F,K; 12 B,L; 21 A,P; 22 A,B; 30 L,M; 40 I,P;	2431
	Obj: By means of microfaunas and non-trilobite Arthropoda to determine the zonation and correlation of strata among the Paleozoic sedimentary basins of Canada and thus aid in assessing the economic potential of these rocks.							
720075	Paleomagnetism of the Hopeland diabase dykes	Christie, KW	REG	MAG	P	Nfld	13	2434
	Obj: To determine the paleomagnetism of three swarms of unaltered diabase dykes in the Hopeland area, Labrador.							
720078	Diatom analysis and paleoecological studies of Quaternary sediments	Fedorovich, S	TS	PG	-	-	-	2433
	Obj: (1) To develop diatom analysis as a paleoecological tool in conjunction with palynological and plant megafossil analyses. (2) To provide paleoecological interpretation and biostratigraphic correlations of Recent and Quaternary sediments.							
720080*	Interpretation of aeromagnetic surveys	Kornik, LJ	RGG	RG	MM	Ont Man Sask	31 F,C; 55, 56, 64 N, 65, 66, 74, 75, 76	2416
	Obj: To express the significance of aeromagnetic data in terms of lithological structural and metamorphic patterns in support of mineral exploration, geological mapping and radioactive waste disposal programs and to integrate this information with other types of geoscience data.							
720081	Surficial geology and geomorphology of Central Ellesmere Island	Hodgson, DA	TS	-	RP	Frank	Pts 49 C,D,E,G,H; 340 B	2413
	Obj: To provide an inventory of surficial materials, landforms, geomorphic processes (active and inactive) and permafrost conditions, with particular reference to terrain information pertinent to the implementation of territorial Land Use Regulations and to the effects of the terrain on petroleum exploration and related activities.							
720084*	Gamma-Ray Spectrometry (Technique Development)	Grasty, RL	RGG	RIE	RM	Ont Alta	31 C	2463
	Obj: To develop improved methods of airborne gamma-ray spectrometry data collection, analysis and presentation.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
720089*	Quantification of geological variables and geomathematical estimation of mineral potential	Fabbri, AG	REG	EG	GM	-	-	412
	Obj: To prepare a computer-oriented data base for selected areas of Canada by the compilation, pre-coding, and coding of geological data to be obtained from maps of scales 1 inch to 4 miles and larger and other sources of information. To compile and code basic parameters for mineral deposits in the same areas. To perform geomathematical analyses in order to assess regional mineral potential.							
720098	Lower Paleozoic stratigraphy, southern Rocky Mountains	Aitken, JD	ISPG	RG	M	BC Alta	82, 83	2421
	Obj: To determine the nature, thickness, distribution and origin of Lower Paleozoic formations of the region.							
720101	Bottom studies of the Beaufort Sea	Pelletier, BR	TS	-	SP	Frank Mack Yk	97 C,F,G; 107 A,B,C,D,F; 117 A,B,C,D	2453
	Obj: To obtain information on bottom sediments and their dispersal trends, and to describe bottom morphology with reference to ice-scour and pingo-like features in order to provide data for engineering works and environmental programs, and to provide maps and other illustrative material to support such programs.							
720102	Marine Science Atlas of the Beaufort Sea	Pelletier, BR	TS	-	SP	Mack Frank Yk	97 C,F,G; 107 A,B,C,D,E; 117 A,B,C,D	2423
	Obj: To compile known marine aspects of the Beaufort Sea including oceanography, biology, bathymetry, geology, geophysics, etc., in order to present a marine science atlas of the Beaufort Sea that will include maps, sketches, photographs and graphs. This atlas will serve the public, universities, industry and various agencies of government on engineering, environmental and resources-development programs.							
720103	Hydrocarbon inventory of the sedimentary basins of Eastern Canada	Wade, JA	AGC	EPG	RSBS	-	-	311
	Obj: To prepare and maintain a geological appraisal of the potential oil and gas resources of the sedimentary basins of Eastern Canada, including those on the Atlantic continental margin and in Baffin Bay, the Atlantic Provinces and Gulf of St. Lawrence and the St. Lawrence and Hudson Platforms.							
720104	Regional subsurface geology of Mesozoic and Cenozoic rocks of the Atlantic continental margin	Wade, JA	AGC	EPG	RSBS	NS	21 A,H	2461
	Obj: To provide a regional subsurface geological interpretation of the Atlantic continental margin of Canada as a basis for (1) the Departmental Hydrocarbon Inventory, (2) to establish a framework for other specific studies such as lithostratigraphy, biostratigraphy, geochemistry, plate tectonics, etc.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
730001*	Primary halos and metallogenetic distribution of the elements	Boyle, RW	RGG	RIE	SP	Ont BC	-	2465
	Obj:	(1) To demonstrate that data of trace and major element profiles transversal and vertical to primary halos and zonation of ores about intrusive centres may be used as a guide to prospecting for various types of epigenetic mineral deposits. (2) To demonstrate the effective use of metallogenetic and geochemical data in regional prospecting for mineral deposits.						
730008*	Satellite Imagery Evaluation	Slaney, VR	RGG	RG	RM	-	-	2423
	Obj:	1) To identify the potential geological applications of satellite imagery. 2) To maintain on file, a collection of Landsat imagery for use by GSC staff. 3) To provide advice and assistance to geologists in the use of Landsat imagery.						
730012*	Federal Provincial aeromagnetic Surveys-Quebec	Knappers, WA	RGG	RG	CS	Que		2416
	Obj:	To provide GSC and Quebec Department of Natural Resources with aeromagnetic data as an aid to geological mapping programs and to provide a data base for the Magnetic Anomaly Map of Canada. To provide the mining industry with aeromagnetic survey data for use in mineral exploration programs.						
730013	Quaternary geology inventory - Southern Keewatin	Shultz, WW	TS	-	SMT	Kee		244
	Obj:	(1) To produce a map of southern Keewatin showing surficial geology at a scale of 1:500,000 from Chesterfield Inlet south to Manitoba and east of J'97°00'. (2) To produce maps for open filing at scales of 1:125,000 based on 1:250,000 NTS sheets. (3) To collect regional samples of till to describe its sedimentology, geotechnical properties, and geochemistry. (4) To elucidate the history of the south and central portions of the Keewatin Ice Divide.						
730019	Permafrost drilling and sampling service	Veillette, JJ	TS	-	RP	-	-	2413
	Obj:	To carry out a shallow drilling and sampling program in permafrost areas in support of various Division projects and to provide the Division with a developmental and operational capability in light drilling equipment.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
730027	Late Cenozoic fossil insects and Late Cenozoic paleoecology	Matthews, JV Jr.	TS	-	PG	Mack Frank Yk BC Ont Que	116 A,B,I,J,N,O,P; 115 B,G,I,J,O,P; 107; 106; 105 D,E,K,L,M; 97 G; 98; 69 H; 56 D,B; 68 H; 31 G,H,I; 11 N	2433
	Obj: To provide biostratigraphic and paleoecologic information on late Cenozoic terrestrial sediments as an aid to interpretation of their age and environment of deposition.							
730035*	Operation Mt. St. Elias	Campbell, RB	REG	CPM	GR	Yk BC	114 P,O; 115 A-C,F,G	2412
	Obj: To determine the stratigraphy, structure, metamorphism, and relationship of intrusive and volcanic rocks, and to assess the mineral potential of the area.							
730036*	Geology of Victoria map-area, Vancouver Island	Muller, JE	REG	CPM	GR	BC	92 B,C	2421
	Obj: To map the geology and study stratigraphy and structure, metamorphism and petrology of the region.							
730039	Sloan River map-area (86K), District of Mackenzie	Hoffman, PF	REG	P	BS	Mack	86 K	2412
	Obj:	(1) To establish the stratigraphic and intrusive relations of the Aphebian plutonic, volcanic, and sedimentary rocks; (2) to rationalize observed variations in chemistry, mineralogy, texture and hydrothermal alteration (including mineralization) of the igneous rocks in the form of genetic models of epizonal plutonism and volcanism; (3) to reconstruct the magmatic and structural history in light of its location in the internal part of the Coronation Geosyncline; (4) to ascertain modalities in the evolution of the crust by comparing the area with older and younger volcano-plutonic belts; (5) to provide a descriptive and conceptual framework for assessment of the mineral resources of the area.						
730040	Archean volcanic studies in the Slave-Bear Province	Lambert, MB	REG	P	BS	Mack	76 B,C,F,G	2421
	Obj: To determine 1) stratigraphic and structural relations; 2) location of volcanic centres; 3) sequence and types of volcanic eruptions and their environment of deposition; 4) relationships of mineral deposits to volcanic stratigraphy and volcanic processes.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
730041	Calder River map-area, (8F) District of Mackenzie	McGlynn, JC	REG	P	BS	Mack	86 F	2412
	Obj: (1) To define the stratigraphic and relative age relations of Aphebian (Snare, Cameron Echo Bay (Groups) sedimentary rocks and associated Aphebian plutonic rocks; (2) to determine the nature and environment of the volcanicogenic-plutonic complex of the western Bear Province; (3) to define the various tectonic environments present in the Bear Province and to place them in the context of the Coronation geosyncline and its associated Aphebian orogen; (4) to develop models of relationship of mineral deposits with tectonic, plutonic and supercrustal history thereby providing data for resource assessment and exploration.						2465	
730042	Study of certain accessory elements in Canadian Sulphide assemblages and minerals.	Sangster, DF	REG	EG	MDG	-	-	2421
	Obj: To determine the concentration ranges and averages of certain elements in selected Canadian Sulphide ores and sub-ores.							
730043*	Volcanic rocks of the Appalachian region	Bostock, HH	REG	CS	A	NB NS Nfld	Pts 2 E/12, 5; 12 H	2421
	Obj: To determine the physical volcanology, petrology, chemistry, environment, age and tectonic relations of the volcanic rocks of the Appalachian Orogen in order to relate them to the evolution of the orogen and to the formation of associated mineral deposits.							
730044*	Granite studies in the Appalachians	Currie, KL	REG	CS	Pet	NS Nfld NB	2 E; <u>12 E</u>	2421
	Obj: (1) To establish a set of criteria based on field, petrographic and chemical observations, by which granitoid rocks in the Appalachian region can be assigned to a limited number of well defined classes; (2) to establish the physical conditions of emplacement, fractionation trends, solidification history, and subsequent deformation of each of these classes; (3) to relate these classes to the tectonic development of the Appalachian region; (4) to evaluate the economic possibilities of each class, and possible factors enhancing these possibilities.							
730046*	Geochronological research and control studies	Wanless, RK	REG	CS	G	Yk Mack Kee Man, Frank BC Ont	27 A,B; 55 M,N; 56 C,D; <u>66 A</u>	2432
	Obj: To precisely establish the chronological order of rocks and events, thereby providing the fourth dimension -- time--to geological mapping.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
730047*	Development of techniques for geochronological studies	Wanless, RK	REG	CS	G	-	-	2432
	Obj: To develop methods and apparatus required to remain at the forefront of geochronological research and applications.							
730051*	Completion of reconnaissance geology, northern Ellesmere Island	Trettin, HP	ISPG	RG	AI	Frank	340 A-H; 120 C-G; 49 H; 560 D,E	2412
	Obj: To prepare terminal reports accompanied by maps of the region at the scale of 1:250,000 or more detailed.							
730054	Comparative Study of Campbell, White and Barn Uplifts	Dyke, LD	TS	-	GP	Yk Mack	117 A, 116 P	2421
	Obj: The definition of Campbell, White and Barn Uplifts in terms of their stratigraphic framework, Structural style and evolutionary history.							
730055	Comparative field seminar – structural prototypes	Taylor, GC	ISPG	RG	-	-	-	2421
	Obj: The objective is to familiarize the participants with the types of observations that may characterize specific models of structures to enable the participants to both recognize such features and to critically evaluate the models proposed.							
730057*	Helikian and Hadrynian stratigraphy Eastern Cordillera and Interior Platform	Aitken, JD	ISPG	RG	M	Mack Yk	95 L; <u>106</u> A,B,C,F,G,H	2421
	Obj: 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 exploitable mineral and/or hydrocarbon deposits.							
730060	Mineralogy and Chemistry of fine-grained rocks in central Sverdrup Basin	Foscolos, AE	ISPG	E	GC	Frank	59 E; 69 F; 79 B,C	2435
	Obj: To compare the clay mineralogy and inorganic geochemistry of the same formation from outcrop samples and from subsurface samples.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
730062	Development of extraction, identification and correlation systems for organic compounds from sedimentary rocks and crude oils	Snowdon, LR	ISPG	E	GC	-	-	2461
	Obj: (1) To develop, improve and adapt analytical techniques in organic geochemistry in order to facilitate the identification of petroleum source rocks and to assist in source rock-oil correlations.							
	(2) To develop and/or apply statistical methods to the geochemical data generated in the GSC labs and from outside organizations in order to correlate crude oils into genetic families or groups and to improve data handling and storage systems.							2436
730063	An automated system for petrologic analysis of metamorphic mineral assemblages	Gordon, TM	REG	CS	Pet	-	-	
	Obj: To develop a set of computer programs to expedite the analysis of metamorphic mineral assemblages.							
730065	Palynological study of the Tertiary coals and associated clastic rocks of the Ravenscrag and Frenchman formations, Saskatchewan	Sweet, AR	ISPG	P	MiP	Sask	72 F,G,H; 62 E,F	2462
	Obj: To give a biostratigraphic support to the Saskatchewan lignite project.							
730067*	Geothermal Energy Resources in Canada	Southier, JG	REG	CPM	GR	BC	<u>92 J</u>	2464
	Obj: To make an inventory of the distribution, nature and geological setting of hot springs in Canada and the chemistry of their waters. To provide a base of geological information and expertise for geothermal results.							
730072*	Bedrock and surficial geology- Grand Banks	King, LH	AGC	RR	SBG	Nfld	<u>1, 2, 11</u>	2414
	Obj: To contribute to our knowledge and understanding of the surface and subsurface geology, geologic history, and broad tectonic setting of the Grand Banks; and to aid in the economic evaluation of the region.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
730081*	East coast Offshore surveys	Folinsbee, RA	AGC RR	GPS	-	-	-	2414
	Obj: A detailed, systematic mapping of hydrographic and geophysical parameters on the continental shelf and margin off the Canadian east coast.							
	(a) To measure and describe the sea floor topography and the gravity and magnetic fields in the offshore;							
	(b) to define the broad patterns of sediment composition and distribution;							
	(c) to disseminate this information through a variety of media; charts, reports, digital magnetic tape files, publications, etc.							
730085	Classification of dinocysts	Williams, GL	AGC EPG	SS	-	-	-	2431
	Obj: 1) A revised generic and specific index.							
	2) A generic key. A study of provincialism in fossil dinocysts.							
	Examination of extant cyst populations of continental shelves.							
730160*	Paleomagnetism of the Circum-Ungava Belt	Schwarz, EJ	REG P	PMag	Ont Que	<u>23, 24, 33, 34, 43</u>	2434	
	Obj: To determine:							
	(1) whether the curved nature of the belt is due to differential rotation, and if so, to movements of parts of the Shield (i.e. Churchill and Superior Provinces) and							
	(2) to arrive at time-stratigraphic correlations between various parts of the Belt.							
740003	Geological interpretation of geophysical data as an aid to basin synthesis and hydrocarbon inventory	Grant, AG	AGC EPG	RSBS	Nfld Frank	1-16, 27, 28, 30,39	2417	
	Obj: To define the geological structure and history of the sedimentary basins in the offshore regions of Eastern Canada.							
740004	Biostratigraphic history of the Mesozoic-Cenozoic sediments of the Grand Banks, Northeast Newfoundland and Labrador Shelves (based on Foraminifera and Ostracoda)	Gradstein, FM	AGC EPG	SS	NS Nfld	1, 2, 3, 11, 12	2431	
	Obj: To establish and maintain a comprehensive biostratigraphic and depositional environmental framework of the Mesozoic-Cenozoic sediments of Grand Banks and Labrador. Utilize North Atlantic Basin control to move clearly establish the relationship of the Eastern Canadian margin.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
740017	Metamorphism in the Canadian Shield	Fraser, JA	REG	P	NC	Que, Ont Man Sask Nfld, Mack Frank Kee	-	2421
	Obj: 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 resource potential of the Canadian Shield.							
740019	Archean felsic volcanic complex near Regan Lake, District of Mackenzie, NWT	Lambert, MB	REG	P	BS	Mack	Pts of 76 B,C,F,G	2421
	Obj: (1) To map in detail the felsic volcanic belt; (2) to establish criteria for the identification and interpretation of metamorphosed felsic volcanic in the Slave Province; (3) to establish a model for the history, environment and processes of volcanism that relate to this part of the Slave Province to provide a basis for resource exploration in this area.							
740020*	Geology of the Foxe Fold belt, Baffin Island, District of Franklin	Morgan, WC	REG	P	NC	Frank	<u>27 pts A,B,C; 37 A, pts C,D Pts. of 25 H</u>	2421
	Obj: To establish the stratigraphy, structure and metamorphism of the Aphebian sedimentary, volcanic and plutonic rocks in the Piling Group and their relationship to the rocks of the Mary River Group. The structural evolution of Archean "gneiss domes" in the area is also to be studied, and the economic mineral resource potential of the region evaluated.							
740030	Boothia Peninsula and Somerset Island (Operation Boothia)	Kerr, JW	ISPG	RG	AI	Frank	57 B,C,F,G; 58 C,D	2412
	Obj: 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 two fold: (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.							
740035	Petroleum Exploration Analog Study	Procter, RM	ISPG	E	PR		-	311
	Obj: To study the geological setting and characteristics of hydrocarbon accumulations on a worldwide basis to establish valid analog and their attendant parameters that may be applicable to the Canadian basins. This will help in the evaluation and understanding of the petroleum potential of Canada.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
740041	Comparative studies of geological types	Taylor, GC	ISPG	RG	-	Alta	-	2421
	Obj: To examine field occurrences of local geological phenomena in order to familiarize the staff of the Institute with the local geology and the interpretation thereof, so that general principles so elucidated may inform and communicate the role of the Institute to all levels of staff.							
740042	GSC Workshop travel - Micropaleontology Section	Wall, JH	ISPG	P	MiP	-	-	2431
	Obj: To exchange information on current projects and techniques relating to palynology, foraminifers and other microfossils, during workshops of GSC's specialists; to plan programs in these fields and generally improve communication between the specialists in different Divisions.							
740054	Geological variability of marine deposits, Ottawa-St. Lawrence Lowland	Gadd, NR	TS	-	RP	Ont, Que	31 G,F	2453
	Obj: To evaluate the stratigraphic, geomorphic and historical factors affecting the natural and engineering behaviour of marine clays, with special reference to landslides.							
740062*	Fraser Delta sedimentation	Luternauer, JL	REG	CPM	MG	BC	92 G	244
	Obj: To provide a geological/sedimentological knowledge base about the active delta of the Fraser River for general land and waterfront planning and environmental management.							
740065	Surficial geology inventory, Banks Island	Vincent, J-S	TS	-	RP	Frank 98 A-F	88 B,C,D,F; 97 G,H;	2413
	Obj: To map, describe and explain the unconsolidated deposits, landforms, permafrost, ground ice and organic cover, and undertake geomorphic process studies in order to provide areal knowledge of geology and terrain that will:							
	(a) aid in the implementation of the Territorial Land Use Regulations;							
	(b) be pertinent to engineering construction, petroleum exploration and related activities;							
	(c) provide data relative to terrain sensitivity rating; and							
	(d) elucidate the Quaternary history of the region.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
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740067	Surficial geology-terrain inventory, Bathurst-Cornwallis and eastern Melville Islands	Dredge, LA	TS	-	RP	Frank	68 E-H; 69 A,B; 78 E-G; 79 A,B,	243
Obj: Map, describe and explain the surface materials, landforms, ground ice and vegetation in order to provide areal knowledge of geology, geomorphology and terrain as background information suitable for land use management and various aspects of engineering construction and to determine the Quaternary history of the region.								
740068	Surficial geology, Ottawa Valley lowlands	Richard, SH	TS	-	RP	Ont, Que	31 B,F,G	2413
Obj: To map, describe and explain the unconsolidated deposits and landforms of the Ottawa Valley lowlands (31 G, 31 F (parts of) and 31 B (parts of) in order to provide geology and terrain information pertinent to land use planning, agriculture, urban and industrial development, forestry and engineering construction and to determine the Quaternary history of the region.								
740072*	Surficial geology of Newfoundland	Grant, DR	TS	-	RP	Nfld	1; 2 D; 11; 12 A	2413
Obj: To map, describe and explain the unconsolidated deposits and landforms in order to provide areal knowledge of geology and terrain as background information relative to land use planning, mineral exploration, location of granular deposits, community water supply problems, forestry, urban and industrial development, and various aspects of engineering construction, and to determine the Quaternary history of the region.								
740081*	Environmental Geochemistry	Jonasson, IR	RGG	RIE	GC	Ont, Que Frank NB NS	<u>31 B-P; 42 A,B;</u> <u>Pts 68 G,H; 69 A,B,C,F;</u> <u>78 F,G,H; 79 E,F,H;</u> <u>88 E,G,H; 89 A; 340 C,D,E,F;</u> <u>560 A; 59 E,F,G,H; 21 A,I,P</u>	2451
Obj: (1) To understand the nature of physical and chemical processes which influence the dispersion of elements in the surface environment. (2) To ensure that the geochemical data obtained by the Geochemistry Section are disseminated in appropriate form to environmental scientists. (3) To coordinate Section activities relating to environmental matters								

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
740084	Silurian-Ordovician macro-biostratigraphy of Anticosti Island, Quebec	Bolton, TE	DGO	-	SP	Que, NB NS Kee Ont	22 H; 12 E,F,L; 18; 22 A,B; 11 F; 45, 46; 31 G,H	2431
	Obj: To obtain data on the Silurian and Ordovician rocks of Anticosti Island, St. Lawrence platform and Maritime regions to provide:							
	(1) precise descriptions for all appropriate stratigraphic units of their succession, thickness, lithology, facies change, faunal content;							
	(2) descriptions of significant fauna for each stratigraphic unit; and							
	(3) local and regional correlations consistent with the data.							
740085*	Borehole Geophysics (Nuclear Techniques)	Killeen, PG	RGG	RIE	RM	BC Alta Sask Ont Que NB	21 L, G; 11 D; 12 L; 31 F,G; 30 M; 41 I, J; 82 O,E, G; 74 N	2463
	Obj: To contribute to geophysical exploration technology by maximizing the useful information obtained from boreholes by:							
	(1) investigation, implementation and evaluation of new developments and improvements in nuclear borehole logging, and							
	(2) establishment of calibration and standardization as a routine procedure in nuclear logging operations.							
740090	Palynological study of the Shell Anglo Harlequin D-86, Murrelet L-15, Auklet G-14, and Osprey D-36 wells, offshore British Columbia	Hopkins, WS, Jr	ISPG	P	MiP	BC	102 O; 103 B	2431
	Obj: To establish preliminary biostratigraphic subdivision of the offshore continental Tertiary and to tie the palynological subdivisions into the marine foraminiferal zones that have been established farther south.							
740095	Quaternary geology - terrain inventory, Kananakis Lakes	Jackson, LE	TS	-	GP	Alta	82 J	2413
	Obj: To map, describe, and explain the unconsolidated deposits and the landforms and their susceptibility to modern processes in order to provide areal knowledge of surficial geology and terrain as background information relative to mineral exploration and exploitation, land use planning, forestry, agriculture, urban and industrial development and various aspects of engineering construction and to determine the Quaternary history of the area.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept' Classifi- cation
740098*	Metallogeny of the northern Canadian Cordillera	Dawson, KM	REG	EG	MDG	BC Yk Mack	<u>94, 95, 96, 104, 105, 106,</u> <u>116, 115, 116, 117</u>	2465
	Obj: To integrate present mineral commodity and regional geological studies in order to:							
	(1) examine the large scale geological controls and distribution of known mineral deposits;							
	(2) assist in planning of future geological mapping;							
	(3) assess the area with regard to its mineral potential.							
740100	Preparation of popular earth science education literature	Copeland, MJ	REG	CS	EP	-	-	248
	Obj: To present to the Canadian public, particularly students, information dealing with earth science topics of general interest and of educational importance.							
740104*	Paleomagnetism of Proterozoic to Devonian Strata across Boothia Arch	Fahrig, WF	REG	P	-	Frank	48 A,D	2434
	Obj: To measure the paleomagnetism of Upper Proterozoic, Ordovician, Silurian and Devonian strata across the Boothia Arch.							
740106*	Geological assistance with provincial coal drilling project in Nova Scotia	Haquebard, PA	AGC	EPG	-	NS	<u>11, 21</u>	296
	Obj: In co-operation with provincial authorities to prepare an inventory of remaining coal resources in Nova Scotia.							
740107*	Trace Elements in sulphides	Jonasson, IR	RGG	RIE	GC	Ont Que	<u>31 B-P</u>	2465
	Obj: (1) To determine the typical contents and ranges of trace elements, including metals metalloids and non-metals in ores and ore minerals.							
	(2) To assess the value of such data with regard to classification of ores, estimation of ore reserves of rare elements, definition of geochemical and metallogenic provinces, establishment of environment baseline levels.							
	(3) To provide a systematic geochemical inventory for N.G.R. and U.R.P. surveys.							
740110	Carboniferous and Triassic strata of Appalachian region	Geldsetzer, HHJ	REG	CS	A	Nfld NS PEI NB Que	<u>11 D,E,F,G,J,K,N,O;</u> <u>21 A,H; 12 A,B,H; 22</u>	2421
	Obj: To determine the stratigraphy, sedimentology, variations in facies and external and internal basinal geometry of the Middle Devonian of Triassic strata; to reconstruct the tectonic development, provenance, current direction and environment of deposition; and to determine the distribution, controls and origin of the associated mineral deposits, all with a view to elucidating the mineral resource potential.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750001*	A geophysical investigation of the submarine extension of geological zonation of Newfoundland	Haworth, RT	AGC	RR	GPS	-	-	2417
	Obj: An interpretation of the offshore extension of the zonation of Newfoundland, to include (1) tracing offshore all recognizable onshore features; (2) building a developmental model for the tectonic pattern observed; (3) assessing the compatibility of that model with others proposed for the same and adjacent regions.							
750004	Geology of the Tulemala Lake map-area	Eade, KE	REG	P	NC	Kee	65 J	2421
	Obj: To interpret the Precambrian geology of the area to modern 4-mile standards and to interpret the economic potential of the area.							
750005	MacQuoid Lake (W 1/2), Thirty Mile Lake (E 1/2) Map-Areas	LeCheminant, AN	REG	P	NC	Kee	55 M w/ 1/2; 65 P e/ 1/2	2412
	Obj: To interpret the geology and mineral potential of the Precambrian rocks of the area to a standard of 1:250,000 mapping.							
750006	Stratigraphy and petrology of the Naukusiak Basalts, Victoria Island	Baragar, WRA	REG	P	SP	Frank	Pts 77 G; 78 B; 87 E,F,G,H; 88 A,B	2421
	Obj: To determine the variation in chemical composition and petrography of the lavas with stratigraphic level, to obtain representative bulk compositions of the flows, to determine relationships between the composition of the flows and associated copper prospects and between the flows and accompanying sills, and to obtain contributory information towards and understanding of late Precambrian tectonic history in the northwestern Canadian Shield.							
750007*	Correlation and geochronological studies in the Canadian Shield	Frary, MJ	REG	P	SP	Ont Man Que	<u>41 H/14, I/3</u>	2421
	Obj: To identify, date and correlate depositional, thermal and orogenic events within the various provinces of the Canadian Shield. To integrate Shield province histories. To extend and improve the present scheme of Precambrian time-classifications.							
750008	Geology of the Hackett River - Nose Lake and Beechey Lake	Frith, RA	REG	P	BS	Mack	76 F (E½); 76 G (W½)	2412
	Obj: To establish the geology of the intrusive, extrusive and sedimentary rocks of the area, to provide a base for mineral prospecting, and to correlate geological and geochemical patterns and anomalies to the geological and mineral deposit data.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750010*	Geology of Uranium and Thorium Resources in Canada	Ruzicka, V	REG EG	URE	Ont Que NB NS PEI Nfld Kee Sask Man <u>Mack</u>	41 I,J,P; 42 D,J; 51 K-N; 31 C-F; 33 F; 13 I-K; 66 H; 65 H <u>52-53</u> ; <u>74 J-P</u> ; <u>64 K-N</u>	313	
	Obj: To carry out comprehensive research on the geology of uranium and thorium deposits in order to:							
	(1) support or provide geologically based estimates of Canada's uranium and thorium resources;							
	(2) provide guidelines for their discovery;							
	(3) provide advice to government for nuclear energy policy and related matters.							
750011*	Geology, petrology and economic potential of the anorthosite suite in southern Labrador	Emslie, RF	REG CS	Pet	Nfld	13 B,C,E,F,G	2421	
	Obj: (1) Comparison of rock types, rock and mineral chemistry, and structures with similar features north of the Grenville Front;							
	(2) Estimation of the grade of regional metamorphism in this part of Grenville Province;							
	(3) Determination of age of the anorthosite suite of rocks;							
	(4) Investigation of the economic mineral potential of the anorthositic rocks.							
750012	Salt basins in Canada	Sanford, BV	REG CS	A	NS NB Ont Sask	11, 21, 40, 41, 62, 72, 73	2466	
	Obj: To provide general information on all onshore-offshore salt basins including their regional distribution, thickness, age stratigraphic relationships, depth and tectonic setting. To also determine additional parameters (economic potential, geochemistry, hydrology and geometry) of selected basins.							
750014*	Stratigraphy and sedimentation of the Proterozoic Rapitan Group and related rocks, Mackenzie, Werneck and Ogilvie Mountains	Eisbacher, GH	REG CPM	GR	BC Mack Yk	84 E,K; 94 E,K; 95 L,M; 105 P; <u>106 A,B,C,F</u> ; <u>116</u>	2421	
	Obj: To determine sedimentology, structural framework and metallogenetic significance of the various facies of Hadrynian clastic successions to derive a qualitative model of relative mineral potential in Mackenzie, Werneck and Ogilvie Mountains.							
750015*	Stratigraphy of the Takla Group, northwestern B.C.	Monger, JWH	REG CPM	GR	BC Yk	94 C,D,E; 104 B,G,H,I,J,K; 105 D; <u>115 A</u>	2412	
	Obj: To determine the sedimentology, stratigraphy, structural style, and metallogeny of the Lower Mesozoic rocks as a basis for evaluating the tectonic evolution and the relationship of the metal deposits to stratigraphy.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750016	Geology and Mineral Deposits of McConnell Creek map-area, B.C.	Richards, TA	REG	CPM	GR	BC	94 E,D; 104 A,N	2412
	Obj: To determine the geological framework of the map-area as a basis for estimating the potential abundance and probable distribution of mineral and fuel resources and as an aid to future development of the region.							
750017	Stratigraphy and correlation, lower Paleozoic subsurface Arctic Islands	Mayr, U	ISPG	RG	AI	Frank	49 C; 58 D-H; 68 D,F,G,H; 78 E-H; 88 E-H; 89 B,C	2421
	Obj: (1) Comparison and correlation of different sets of nomenclature; (2) Outline of regional facies changes and paleogeography; (3) outline areas with hydrocarbon potential in lower Paleozoic rocks.							
750018	Stratigraphic and sedimentological studies of Lower Cretaceous rocks, Rocky Mountain Foothills and Front Ranges, Alberta and British Columbia	Gibson, DW	ISPG	CG	CG	BC Alta	82 G,J,O; 83 C	2462
	Obj: To describe the Lower Cretaceous stratigraphic succession, to collect samples for laboratory studies, and to collect fossil flora and fauna; to provide data on the distribution and continuity of coal seams throughout the region; to attempt to determine criteria useful in determining the sub-environments in which deltaic sediments were deposited; and to eventually provide a regional geological model that will be of assistance in determining the potential coal resources of these and other regions.							
750020	Carboniferous biostratigraphy in the northern Yukon, British Columbia, and Alaska	Nassichuk, WW	ISPG	P	MaP	Yk BC	116 H,I; 92 F	2431
	Obj: 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.							
750021	Development of programs for Kremp File and Dinofile GSC palynological data files	Sweet, AR	ISPG	P	MiP	-	-	2431
	Obj: Assist in the development and execution of the Kremp and other palynological computer files.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750023	Methodology of petroleum resource evaluation	Dahberg, EC	ISPG	E	PR	-	-	311
	Obj: To provide a reliable, realistic, statistically valid methodology for estimation of resource abundance.							
750024	Petroleum geology of Tertiary, Mesozoic and Paleozoic strata north of 70°	Recruit	ISPG	E	PR	Frank	37-39; 47-49; 57-59; 67-69; 77-79; 87-89; 97-99; 120; 340; 560	2461
	Obj: To provide a reliable and adequate data base for assessment by the Energy Subcommittee of the area's hydrocarbon potential and to document proven and potential hydrocarbon occurrences in the area.							
750025	Petroleum Geology of Tertiary and Mesozoic and Paleozoic north of 68° on the NWT and Yukon mainland and offshore	Koch, NG	ISPG	E	PR	Mack, YK	97, 107, 117	2461
	Obj: To provide a reliable and adequate data base for assessment by the Geological Potential Subcommittee of the area's hydrocarbon potential and to document proven and potential hydrocarbon occurrences in the area.							
750027	Diagenesis of organic matter and clay minerals in sediments in relation to petroleum generation	Powell, TG	ISPG	E	GC	Frank, Mack BC	94 M,N; 107 E; 97 B,C	2461
	Obj: To correlate the various methods of determining the 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 examine the relationship between clay diagenesis, oil migration and cementation of petroleum reservoirs.							
750031*	Aeromagnetic Surveys: General	Hood, PJ	RGG	RG	CS	-	-	2416
	Obj: To provide general support services for the GSC aeromagnetic survey program and those overseas aeromagnetic surveys undertaken on behalf of and funded by CIDA.							
750032	Digital Compilation Software Development	Holroyd, MT	RGG	RG	DC	-	-	2416
	Obj: To improve the computational and user efficiency and increase the generality of software for the compilation and mapping of aerogeophysical data.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750034*	Mineralogy of nickel deposits in serpentized ultramafic rocks	Duke, JM	REG	EG	MDG	Que Ont Man	<u>31 E; 32 C; D; 52 B</u> <u>21 E; 63 D; 64 C</u>	2465
	Obj: To supplement the study of the geology of nickel deposits by carrying out comprehensive research on the mineralogy and petrology of serpentized ultramafic rocks known to contain low grade nickel deposits.							
750035*	Biostratigraphic study of Mesozoic rocks in the Intermontane and Insular Belts of the Canadian Cordillera	Tipper, HW	REG	CPM	GR	BC Yk	<u>92 H; I; 93 E; 94 D; 103 C,</u> <u>F; G; 104 I; 105; 115</u>	2421
	Obj: To determine the biostratigraphic succession of the Mesozoic strata, particularly Jurassic, and to define a geological history and paleogeography in the evolution of the Mesozoic model.							
750036*	Silurian and Devonian spores of Canada	McGregor, DC	REG	CS	EP	Alta NS	-	2431
	Obj: To refine palynological methods of dating and correlating Silurian and Devonian rocks of Canada, by a (a) identifying and describing Silurian and Devonian spores, (b) determining their value in terms of regional and world-wide biostratigraphy and (c) establishing stratigraphic reference sections and zonations for spores in Silurian and Devonian sedimentary basins in Canada.							
750038*	Pleistocene-Holocene Basin sedimentation	Vilks, G	AGC	EMG	PEC	NS	21 B	244
	Obj: (1) Describe the Pleistocene-Holocene sedimentary history of the continental shelves of eastern Canada using paleontological and geochemical evidence of sedimentary basins. (2) Improve the understanding of the genesis of gaseous hydrocarbons in sediments. (3) Establish geological environments favorable for the preservation of microfossils.							
750039*	Geochemical Data Systems	Ellwood, DJ	RGG	RGC	MD	-	-	2465
	Obj: To provide a liaison between the available data processing facilities and scientists within the geochemistry sub-division, to design, implement and document systems to facilitate the expeditious computer processing of machine readable geochemical data, and to manage the archiving of such data.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750040	Uranium Reconnaissance Program (Gamma-Ray Spectrometry)	Carson, JM	RGG	RIE	RM	Mack Kee Sask Man Ont Frank Que NB	21; 31 M; 32 D; 41 O,P; 42 A,B; 43; 46-48; 52 I,O,P; 53 A,B,G; 54; 55; 56 C,D; 57; 58; 62; 63 L-P; 64 A,B,H; 65; 66 A,B,C,F,G,H; 67; 68; 73-76; 77 G; 78 B; 82; 86 I-P; 87 B; 88; 96; 97 A,D; 98	2463
	Obj: To provide for industry high quality reconnaissance exploration data to indicate areas of highest potential for new uranium deposits, and to provide for government nationally consistent systematic data to serve as basis for uranium resource appraisal.							
750043*	Consulting advice on conservation and restoration of coastal environments	Reinson, GE		AGC	EMG	CGD	-	296
	Obj: To provide consultation and expertise on environmental problems in the coastal zone of the Maritimes. This advice is to be provided in response to specific requests.							
750046	Geochemical transformations and reactions of organic compounds in recent marine sediments	Rashid, MA		AGC	EMG	OGC	-	244
	Obj: a) To determine the influence of depositional environment in the quantitative and qualitative distribution of organic compounds so as to decipher the physical and chemical history of sedimentation. b) To isolate, identify and characterize various chemo-taxonomic constituents so as to develop guide lines for the interpretations of major geological events. c) To determine and correlate early diagenetic transformations with long-term diagenesis resulting in the evaluation of oil and gas. d) To understand the role and influence of organic compounds on solubility, mobility and recycling of trace metals, e) To collect and compile geochemical data on sedimentary organic matter to write a book for the benefit of geologists, geochemists and other disciplines related to organic geochemistry.							
750048	Multidisciplinary environmental marine geological analysis of the Miramichi Estuary and Bay	Buckley, DE		AGC	EMG	NB	21 P	244
	Obj: To examine, understand and portray the links between physical, biological and chemical processes in the marine geological setting of a coastal environment; to compile this information in a format which provides a basis for environmental assessment and planning of resource development to develop interdisciplinary research methods which contribute to improved scientific methods and technology.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750049	Milliken Lake - Goldfields mining area, Saskatchewan	Davison, WL	REG	P	SG	Sask	74 N	2421
	Obj: To fill in gaps outstanding in map--coverage of the Beaverlodge uranium area.							
750051*	National geochemical reconnaissance	Hornbrook, EH W	RGG	RIE	GC	NB NS Nfld Ont Sask BC Yk Frank	Pts 1-16; 23; 27; 37; 41; 42; 74; 104; 105; 117	2463
	Obj: To provide for industry high quality, multi-element, reconnaissance exploration data to indicate areas of highest potential for uranium and other mineral commodities; to provide governments with nationally consistent, systematic data to assist in resource appraisal for uranium and other minerals; to provide information on the natural abundance of elements, including toxic elements, in the environment.							
750053	EDP systems and applications	Holtroyd, MT	RGG	RG	DC	-	-	2463
	Obj: To carry out or supervise the design, development and documentation of various computer software for use by the division or branch, in order to efficiently and fully utilize the available computer facilities.							
750055	Structural studies in the Mackenzie Arc, Franklin and Coteville Hills	Cook, DG	ISPG	RG	M	Yk Mack	82 N,O; 94 N; 96; 106 A,B; 95 C	2421
	Obj: To conduct detailed examinations of typical structures and thus obtain a clearer understanding of the geometry and kinematics of deformation within the study area. To remap those areas within the Mackenzie Arc and Franklin Mountains that are considered to have been inadequately mapped in initial reconnaissance stages.							
750058*	Geology of Uranium Resources of Canada-2	Tremblay, LP	REG	EG	URE	Sask Que	31 J,K; 12 K,L; 32 I,P; 64L; 74 A-B; 24 B,C,F,G,J,K; 23 J	313
	Obj: To carry out comprehensive research on the geology of uranium deposits in order to:							
	(1) support or provide geologically based estimates for Canada's uranium resources;							
	(2) provide guidelines for their discovery;							
	(3) provide advice to government for uranium policy and related matters.							
750061*	Lower Paleozoic geology of Eastern Canada	Sanford, BV	REG	CS	A	Ont Que	31 F,G	2421
	Obj: (1) To continue detailed and regional studies of Lower Paleozoic terrain of eastern Canada,							
	i) in northern and eastern offshore regions, reconnaissance mapping on an opportunity basis and							
	ii) in the southern regions, detailed mapping when required for terrain studies.							
	(2) To study all data that become available from petroleum exploration for purposes of hydrocarbon evaluation of the frontier basins.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750063*	Quaternary geochronology, Arctic Islands	Blake, W, JR	TS	-	PG	Frank	25-29; 35-38; 39 E,F; 47-49; 57-59; 67-69; 77-79; 87-89; 97-99; 120; 340; 560	2433
	Obj:	(1) To establish a chronostratigraphic framework for Quaternary time in the Arctic Archipelago. (2) To investigate the suitability of other methods of age determinations, especially those beyond the range of ^{14}C . (3) To determine rates of crustal movement. (4) To reconstruct environments and events for as much of Quaternary time as possible.						
750064	Regional synthesis, southern Superior Province and eastern Southern Province, Project I	Frayre, MJ	REG	P	SP	Ont Que	31, 32, 41, 42	2421
	Obj:	To provide a single comprehensive source for all relevant data on the region; to prepare and have available for presentation broad regional and tectonic syntheses; and to have a designated "expert" who will be thoroughly familiar with the geological data and economic aspects of the region.						
750067*	Mesozoic biostratigraphy and Jurassic paleontology of Northern Yukon and adjacent District of Mackenzie	Poulton, TP	ISPG	P	MaP	Yk Mack	106; 116 N,O,P,K,J; 107 A,B,C,D; 107 B	2431
	Obj:	A detailed and comprehensive biostratigraphic, lithostratigraphic, paleoecologic, and paleogeographic scheme of the Triassic to Lower Oxfordian (Upper Jurassic) rocks of the 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.						
750068	CIDA Liaison and Project Coordination	Manistre, BE	RGG	-	-	-	-	296
	Obj:	Execution of requests from CIDA under two EMR-CIDA Memoranda of Understanding.						
750069*	Geology of uranium resources of Canada 3	Bell, RT	REG	EG	URE	BC Yk Mack Alta Sask Man	82-83; 92-95; 104-106; 114-117	313
	Obj:	To carry out comprehensive research on the geology of uranium deposits in sedimentary basins in Canada west of the Canadian Shield in order to (1) provide or support geologically based estimates of Canada's uranium resources; (2) provide guidelines for discovery of deposits; (3) provide advice to government for uranium policy and related matters.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750070	Synthesis of Quaternary geology, Great Plains of Canada	Stalker, AM	TS	-	RP	BC Alta Sask Man	62, 63, 64, 72, 73, 74, 82 83, 84, 93, 94	2422
	Obj: To coordinate and oversee publication of a project to synthesize present knowledge of the Quaternary of the Great Plains of Canada, including surficial deposits, geomorphology, historical geology, chronology and stratigraphy, invertebrate and vertebrate paleontology, tephra, soils, pollen, archeology.							
750071*	Quaternary geology-terrain inventory, Boothia Peninsula northeast Keewatin, and Somerset and Prince of Wales Islands	Dyke, AS	TS	-	RP	Kee Frank	<u>27 A,B,C, D,F,G; 67 E,H;</u> Pts 58 A,B,C,D,F; 68 A-E	2413
	Obj: To map, describe, and explain the unconsolidated deposits, landforms, permafrost, ground ice and organic cover in order to provide areal knowledge of geology and terrain as background information relative to land use planning and various aspects of engineering construction, to gather information pertinent to the Quaternary history of the area.							
750072*	Quaternary geology, northeastern Manitoba	Dredge, LA	TS	-	RP	Man	<u>54 E,F,K,L, M; 64 I,J,O,</u> P,K,N	2413
	Obj: To map, describe and explain the unconsolidated deposits, landforms, permafrost, ground ice and organic cover in order to provide areal knowledge of geology and terrain as background information relative to land use planning and engineering construction, to provide data relative to terrain sensitivity rating and to determine the Quaternary history of the region.							
750074	Uranium drift prospecting techniques, lower Kazan River area	Klassen, RA	TS	-	SMT	Kee	55 L,M,N; 56 C,D; 65 P,I, O; 66 A	244
	Obj: To study glacial and postglacial processes that can affect the geochemical properties of till and other sediments and to investigate the use of till in mineral exploration for uranium and other metals.							
750076*	Quaternary geology of the Canadian Cordillera	Fulton, RJ	TS	-	RP	BC Yk Alta, Mack	<u>82-92</u>	2422
	Obj: To gather and synthesize information regarding Quaternary deposits, stratigraphy, geomorphology and chronology of the Canadian Cordillera.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750077*	Hydraulic, morphologic and morphometric studies of selected rivers along the Mackenzie Highway	Egginton, PA	TS	-	SMT	Mack	95 Q; 96 C; 107 B	244
	Obj: To identify and assess natural change through time in the channel and hydraulic characteristics of selected gravel streams along Mackenzie Highway, and to identify and assess the impact of Mackenzie Highway construction on the channel and hydraulics characteristics of the same rivers.							
750078	Quaternary geology—terrain inventory, Prince Rupert—Terrace, Smithers area	Clague, JJ	TS	-	RP	BC	Pts 93 L,M; 103 F,K,G,I,J,P	2413
	Obj: To map, describe and explain the unconsolidated deposits and landforms in order to provide areal knowledge of geology and terrain as background information relative to forestry, land use planning, urban and industrial development and various aspects of engineering construction and to determine the Quaternary history of the region.							
750079	Fluvial and mass wasting processes, Banks Island	Day, TJ	TS	-	GP	Frank	88, 97, 98	244
	Obj: To undertake fluvial process studies in northern areas, with supporting studies in southern rivers where data bases are more extensive. Specific topics include long term bank erosion studies, hydraulic and geomorphic variability of homogeneous river reaches, and historical effects on river channel behaviour.							
750080	Gravel stream beds	Day, TJ	TS	-	GP	-	-	244
	Obj: To study the formation of an armour, or surface pavement, on coarse sediment mixtures under known flow conditions, to define the relationships between the imposed hydraulics and parent sediment properties to the morphology, fabric and size distribution of the armour layer, and to evaluate the hydraulic resistance properties of the stabilized channel bed.							
750082*	Structural analysis of the Fernie Basin	Ollerenshaw, NC	ISPG	CG	CG	BC	Pts 82 G	2462
	Obj: To establish a detailed structural model of the Fernie Basin, and in particular to elucidate the structural behaviour of coal as an element of the sedimentary succession as an aid to the evaluation of the coal resources of the Fernie Basin.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750083	Mesozoic stratigraphy and Basin analysis of the Western Queen Elizabeth Islands, Arctic Archipelago	Embry, AF	ISPG	RG	SM	Frank	69, 78 G, 79, 89 G, 99	2421
	Obj:	1. To determine regional stratigraphic relationships within the Mesozoic strata. 2. To determine environments of deposition of the strata. 3. To determine the geologic history of the western Sverdrup Basin during the Mesozoic. 4. To assess the economic potential of the Mesozoic strata.						
750085	Stratigraphy, sedimentology and diagenesis of Paleozoic rocks in the southern Mackenzie Mountains and northern Rocky Mountains	Morrow, DW	ISPG	RG	M	Yk BC Mack	94; 95; 96; 105; 106 A,B,G,H	2421
	Obj:	Revision of Silurian, Devonian and Carboniferous stratigraphy of this area leading to an understanding of the regional sedimentologic and tectonic setting. Analysis of diagenetic events that have affected this sequence and how these may have affected mineralization and the production of hydrocarbons.						
750088*	Investigations concerning the optical properties of coals and dispersed organic materials	Creaney, S	ISPG	CG	CT	-	-	2462
	Obj:	To provide information on metamorphism and petrographic properties of coal and dispersed organic matter for the GSC geologists, the data to be used for establishing metamorphic regimes for correlation of coal seams and other rock bodies and for estimating paleotemperatures and burial depths. Largely a service project.						
750089	Planning, directing and coordinating coal resource evaluation programs	Latour, BA	ISPG	CG	RE	-	-	312
	Obj:	To develop and maintain resource evaluation systems for Canadian coal deposits upon which authoritative advice and information can be based, and to perform administrative duties as Head of the Resource Evaluation Section						
750092*	Mesozoic stratigraphy and basin analysis of Eastern Sverdrup Basin, Arctic Archipelago	Embry, AF	ISPG	RG	SM	Frank	29; 39; 49; 59; 62; 79 E,H; 120; 340; 560 D	2421
	Obj:	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.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750093*	Compilation and evaluation of geologically oriented data on industrial mineral resources of Canada	Moyd, P	REG	EG	-	-	-	2466
	Obj: To marshal and appraise in-house data on industrial minerals; to keep abreast of current activity in the field of industrial minerals for the purposes of improving the bank of technical information; to maintain a watching brief and to detect subjects on which the GSC may expect demands for information and advice.		-	-	-	-	-	
750094*	Development of computer-based statistical techniques applicable to regional geological and mineral deposit data	Chung, CF	REG	EG	GM	-	-	412
	Obj: Develop and apply statistical techniques as an input to methods for regional resource evaluation of geological data and mineral deposit data.		-	-	-	-	-	
750095	Microscopic study of pyrite in main seams of Sydney coal-field, Nova Scotia	Hacquebard, PA	AGC	EPG	CG	NS	II G,K	2462
	Obj: Determine the mode and distribution of pyrite in coal, and if possible, establish geological trends that may permit prediction of high sulphur areas ahead of present (submarine) workings.		-	-	-	-	-	
750096	To advise the Cape Breton Development Corporation on coal geology for its operations in the Sydney coalfield	Hacquebard, PA	AGC	EPG	NS	II K,G	296	
	Obj: To provide geological information as an input in the planning of new mines, and to interpret geological features in present underground workings as an aid to continued mining developments.		-	-	-	-	-	
750097	Engineering geology in Canada	Owen, EB	TS	-	EG	-	-	2453
	Obj: To provide engineering and environmental geology consultation and service as requested by other government or outside agencies; to undertake topical studies in engineering or environmental geology for the Geological Survey of Canada and to synthesize and compile existing information which is contained in preliminary reports prepared in the past.		-	-	-	-	-	

Project Number	Title	Project Leader	Div	Subdiv	Sec.	Prov	NTS	Dept'l Classification
750098*	Metallogeny of the southwestern part of the Canadian Shield	Franklin, JM	REG	EG	MDG	Man Sask Ont Frank Kee Mack	<u>42, 43; 52,</u> <u>53, 54,</u> <u>62, 63,</u> <u>64, 73, 74</u>	2465
	Obj: To provide a regional synthesis of the geology of a large part of the Canadian Shield south of Lat. 60° and west of Long. 25°, in order to determine the origin, setting and distribution of mineral deposits as an aid to prospecting and to the economic development of the region.							
750099	Regional Synthesis, western Superior Province, northwestern Ontario	Skinner, R	REG	P	-	Ont	52; pts. of 42, 43, 53	2421
	Obj: To provide a single comprehensive source for all relevant data on the region to prepare and have available for presentation broad regional and tectonic syntheses; and to have a designated "expert" who will be thoroughly familiar with the geological data and related economic aspects of the region.							
750100	Regional Synthesis - Baffin Island Project II	Morgan, WC	REG	P	NC	Frank	Pts 25, 26, 36, 16, 27, 37, 47, 38, 48, 39, 49	2421
	Obj: To provide a single comprehensive source for all relevant data on the region; to prepare and have available for presentation broad regional and tectonic syntheses; and to have a designated "expert" who will be thoroughly familiar with the geological data and related aspects of the region.							
750102	Regional syntheses, southern Keewatin, Project I	Eade, KE	REG	P	NC	Kee	-	2421
	Obj: To provide a single comprehensive source for all relevant data on the region; to prepare and have available for presentation broad regional and tectonic syntheses; and to have a designated "expert" who will be thoroughly familiar with the geological data and related economic aspects of the region.							
750103*	Regional Synthesis - Bear and Slave Province, Project I	Firth, RA	REG	P	BS	Mack	Pts 75, 76, 83, 86	2421
	Obj: To provide a single comprehensive source for all relevant data on the region; to prepare and have available for presentation broad regional and tectonic syntheses; and to have a designated "expert" who will be thoroughly familiar with the geological data and related aspects of the region.							
750107	Acquisition of an ocean bottom seismometer	Barrett, DL	AGC	RR	OBM	-	-	2417
	Obj: To acquire an ocean bottom seismometer for seismic refraction studies of the earth's crust and upper mantle.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750108*	Marine surficial geology and sedimentation, British Columbia	Bornhold, BD	REG	CPM	MG	<u>BC</u>	-	2415
	Obj: In order to provide the sedimentological framework and geological perspective for environmental concerns and landmass description:							
	(1) map, describe and explain in a systematic manner the physiography, surficial deposits, processes and history of the Pacific continental shelf, slope, deep sea, straits, and fiords of British Columbia;							
	(2) determine the composition, distribution, transport mechanisms and flux of suspended particulate matter in the marine waters off the British Columbia coast.							
750110*	Federal-Provincial mineral evaluation liaison and co-ordination	Findlay, DC	REG	EG	-	<u>Man Sask</u>	-	296
	Obj: To provide technical advice and liaison on the Geological Survey's involvement in the design and monitoring of joint federal-provincial actions in mineral resource evaluation and development; to participate, as required in the co-ordination, implementation, and management of such projects and specifically in the Non-Renewable Resource Evaluation Program (NREP).							
760004	Mineral and geochemistry of the unconsolidated cover—central Arctic	Adshead, JD	TS	-	SMT	-	-	244
	Obj: 1) To use mineralogical and chemical criteria to define weathering in the active layer of surficial deposits in Arctic regions. 2) To relate information on weathering products and processes to problems in i) geochemical prospecting, ii) northern construction, and iii) waste disposal.							
760005	Geological zonation of central Arctic Coasts	McLaren, P	AGC	EMG	CGD	Frank	<u>48 C-F</u>	244
	Obj: To investigate and describe central Arctic coasts based on consideration of bedrock stratigraphy and structure, Quaternary deposits and events, physiography and bathymetry, sediment input, sea ice dynamics, ocean tides, currents and waves, and other pertinent factors in order to establish a system for coastal description as baseline information for proposed energy/mineral resource development.							
760008*	Geologie du Quaternaire, région de Bathurst-Campbellton, Nouveau Brunswick	(Gauthier, RC)	TS	-	RP	<u>NB</u>	<u>210,P</u>	2413
	Obj: Cartographier, décrire et expliquer les dépôts meubles et formes de terrain, en intégrant des informations reliées à la planification territoriale, l'exploration minérale, la localisation des ressources granulaires, les eaux sous-terraines, la foresterie, le développement urbain et industriel. Le travail final comportera une synthèse de l'histoire quaternaire régionale.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760010	Surficial geology, geomorphology and terrain inventory of the Ringnes and adjacent Islands	Hodgson, DA	TS	-	RP	Frank	59 C,F; 69 C,D,E,F; 79 E; pts 59 B	2413
	Obj: To map, describe and explain surficial materials, landforms and active processes, in order to provide base data necessary for land management, for engineering studies and to determine the Quaternary history of the region.							
760012	Surficial geology-terrain inventory, north-central Keewatin	Thomas, RD	TS	-	RP	Kee	65 E,F,K,L,M,N; 66 I; pt. 66 H	2413
	Obj: To map, describe and explain the surficial materials, landforms, permafrost and ground ice to provide areal knowledge of geology and terrain as background information relevant for land management and engineering studies and to determine the Quaternary history of the area.							
760014*	Geology of uranium resources of Canada-4	Dunsmore, HE	REG	EG	URE	NS NB PEI Nfld Frank	11 D,F,K,L; 21 A,G-J,Q,P; 59; 68; 69; 49	313
	Obj: Comprehensive research on the geology of uranium deposits in order to: (1) support or provide geologically based estimates of Canada's uranium resources; (2) provide guidelines for their discovery; (3) provide advice to government for uranium policy and related matters.							
760015	Eastern Baffin Island shelf bedrock and surficial geology mapping program	MacLean, B	AGC	RR	EAO	Frank	Pts 15, 16, 17, 25, 26, 27, 28, 38	2414
	Obj: To investigate and map the geology and near surface structure of the rocks occurring at the pre-Pleistocene unconformity on the eastern Baffin Island shelf and adjoining areas. To obtain geophysical data to put bedrock and surficial data in a regional context and to check the validity of geophysical interpretation against bedrock sample data. To investigate the distribution and geological history of the unconsolidated sediments on the eastern Baffin Island shelf and adjoining shelf areas.							
760016*	Geochemical technology development	Bristow, Q	RGG	RIE	GC	Ont	31 F	2465
	Obj: The adaptation and development of advanced technology both in-house and under contract for more rapid and accurate acquisition of conventional forms of geochemical data and the measurement of new parameters, hitherto difficult or impossible by conventional techniques. — the publication and/or licencing of technology so developed for rapid and effective transfer to industry.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760018*	Stratigraphy and sedimentology of Blairmore Group and equivalent strata in Alberta and northeastern B.C.	McLean, JR	ISPG	CG	CG	Alta BC	Pts 83 B,C,E,F,I; 93; 94	2462
760021*	Evaluation of the regional lithostratigraphy and sedimentology of the Blairmore Group with emphasis on the correlation and origin of coal seams and their relationship to associated sediments. The project is being expanded into northeastern British Columbia to include similar studies of the Bullhead Group and lower Fort St. John.	Thorsteinsson, R	ISPG	RG	AI	Frank	48 F,G; 58 F,G,E,H; 59 A; 49 A	2412
760023	Structure and stratigraphy of western Devon Island and Vendum Fiord map-area, Ellesmere Island	Frisch, T	REG	P	NC	Frank	Pts. 38 B; 39 B-H; 48 E-H; 49 A,B,D,E,H	2411
760024	To delineate the stratigraphical and structural history of Devon Island with a view to helping: (1) To delineate the stratigraphical and structural history of Devon Island with a view to helping: (2) Assess the size, grade, mode of occurrence, origin and potential of fuel or mineral deposits that may occur there.	Frisch, T	REG	P	NC	Frank	Pts. 38 B; 39 B-H; 48 E-H; 49 A,B,D,E,H	2411
760025	To complete the reconnaissance geological mapping of the northern Churchill Province.	Henderson, JB	REG	P	BS	Mack	36 H/2,3,6,7	2421
	Keskarrah Bay map-area, District of Mackenzie, NWT							
	Obj: To determine the extent and significance of Archean basement rocks in the area; to identify stratigraphic control of base metal mineralization to improve understanding of iron formations and their significance in the region; and to obtain a better understanding of the evolution of an Archean basin in the Slave Province.							
	Geology of Amer Lake map-area District of Keewatin, NWT	Heywood, WW	REG	P	NC	Kee	66 H	2412
	Obj: To provide a comprehensive study of the Amer Lake map-area in order to refine and update the 16-mile reconnaissance mapping of that area.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760026	Geology of Penrhyn Fold Belt, Melville Peninsula, NWT	Okulitch, AV	REG	CS	Pet	Frank	46 O,P; 47 A	2421
	Obj: To determine the structural, metamorphic, stratigraphic and age relations between basement gneisses and migmatites, and the covering Penrhyn Group metasedimentary gneisses and schists. To elucidate the structural development of polyphase folds in an area of high-grade metamorphic rocks. To provide structural-stratigraphic and isotopic age bases for regional correlation.							
760027	Redbed sequences in Canada	Chandler, FW	REG	CS	A	-	-	2421
	Obj: To determine the origin and sedimentological and tectonic processes that yield redbed sequences; to determine the influences of climate, topography, weathering, sedimentation and diagenesis on their origin; and to determine the processes which contribute to the concentration of economic minerals in redbed sequences.							
760028	The geology of southeast Baker Lake, NWT	Schau, M	REG	P	NC	Kee	56 C/4, D/1	2421
	Obj: To provide information on the origin and relationships of a heterogeneous group of plutonic and metamorphic rocks.							
760029	Huntec Seabed Project	Ross, DI	AGC	RR	-	-	-	2415
	Obj: Development and application of high resolution vertical incident acoustic reflection data for the quantitative classification of marine sediments.							
760030	Surficial geology and paleoglaciology of Saglek Bank, Labrador Shelf	Fillon, RH	AGC	RR	LSS	-	-	2415
	Obj: To understand recent sedimentary processes and hydrodynamic regime, and iceberg movement across bank; to learn pattern of glacial movement across onto bank and history of sedimentary processes (post-glacial); to delineate separate phases of glacial cycles as recorded in cross sectional structures; to relate findings to glacial history of Canada, and findings to worldwide glacial-deglacial cycle; to relate findings to the problem of whether an ice sheet-ice shelf complex ever existed in Baffin Bay-Labrador Sea and when, and to paleo-oceanography of Labrador Sea, North Atlantic and Arctic Ocean.							
760037	Regional subsurface geology, continental shelf and slope, offshore Labrador, Baffin Island and related areas	Umpleby, DC	AGC	EPG	RSBS	Nfld Frank	2, 3, 13, 14, 15, 16, 27 28, 29, 30, 39, 120	2421
	Obj: To investigate the geological framework of the Labrador Sea-Baffin Bay areas; to analyse the sedimentary sequences off Labrador and Baffin Bay; to assess the hydrocarbon potential of this area.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760038*	Biostratigraphy and paleoecology (palynology) of Mesozoic and Cenozoic of the Atlantic Shelf	Buijik, J	AGC	EPG	SS	NS Nfld	1, 2, 3, 10, 11, 12	2431
	Obj: Refinement of the Mesozoic-Cenozoic palynological zonation, already established for the Scotian Shelf Grand Banks, and Labrador Shelf. Comparison of palynomorphs from offshore Eastern Canadian wells with coeval assemblages from other Atlantic margins, the Atlantic Basin and other related areas. Determination of the environmental significance of dinoflagellate cyst distributions and the biogeography through time. Studies of organic type (kerogen) and maturation where relevant.							
760039	Study of the structures and origin of Baffin Bay	Falconer, RKH	AGC	RR	EAOG	-	-	2417
	Obj: Analysis of bathymetric, gravity, magnetic, seismic reflection and refraction, bedrock samples and sediment sample data from offshore and geological and geophysical data from onshore to determine the structure and origin of Baffin Bay.							
760042*	Jurassic biostratigraphy of selected areas of western and Arctic Canada	Poulton, TP	ISPG	P	MaP	BC Alta Yk Frank	82; 83; 92-94; 103 C, F, G; 104; 10; 49; 59; 69; 79 F 89 E; 99; 340; 560	2431
	Obj: (1) To provide detailed biostratigraphic and lithostratigraphic data on Jurassic rocks of selected parts of British Columbia, Alberta, Yukon Territory and Arctic Islands; to collect samples for lithologic and paleontologic study. (2) This project is intended to support and complement the work of regional mapping geologists in the areas concerned, by field studies. In this context, the scope and objectives of the project will vary somewhat from year to year.							
760043*	Regional geochemistry-Eastern Canadian Shield	Maurice, YT	RGG	RIE	GC	Que Nfld Frank	3 E; 13 B, F, G, H, I, O	2463
	Obj: (1) To assess, through regional orientation surveys, the use of various geochemical sample media, as a fundamental step in the development of geochemical survey procedures appropriate to the project area; (2) to illustrate through detailed surveys, interpretation and follow-up activities, the effectiveness of such survey apparatus, as a means of stimulating mineral exploration within the project area; (3) to provide a data base for the compilation of a Geochemical Reconnaissance Map as a contribution to the mineral potential inventory of the nation.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760044*	Regional geochemistry-Southern Canadian Shield	Coker, WB	RGG	RIE	GC	Sask Man Ont	<u>31 C,F; 42 D,E; 52 A,H;</u> <u>64 J,K,N,O</u>	2463
	Obj:	(1) To assess, through regional orientation surveys, the use of various geochemical procedures media, as a fundamental step in the development of geochemical survey (2) to illustrate through detailed surveys, interpretation and follow up activities, the effectiveness of such survey apparatus, as a means of stimulating mineral exploration within the project area; (3) to provide a data base for the compilation of a National Geochemical Reconnaissance Map as a contribution to the mineral potential inventory of the nation.						
760045*	Evaluation of Uranium Reconnaissance Data	Charbonneau, BW	RGG	RIE	RM	Man Ont Que BC Alta	<u>31 C-F,J,L; 41 H,I;</u> <u>52 I,N,O; 53 A,B,C;</u> <u>64 N,O; 93 J; 82; 83</u>	2463
	Obj:	(1) To develop guidelines for interpretation of Uranium Reconnaissance Program data; (2) to identify features in reconnaissance data that are diagnostic of mineralization; (3) to maximize the usefulness of URP data; (4) to correlate URP data with uranium resource potential.						
760047*	Regional geochemistry-Northern Canadian Shield	Maurice, Y	RGG	RIE	GC	Mack Kee Frank	<u>76 H,I; 75 F-K;</u> <u>46 N,O,P; 47 A,B</u>	2463
	Obj:	To determine the factors affecting the distribution of trace elements within bedrock, overburden and stream and lake waters and sediments, etc. in order to: (1) determine a set of guidelines for the organization, support and operation of geochemical reconnaissance surveys (NGR) for use in mineral appraisal; (2) evaluate the effectiveness of the NGR (project 750051) program and improve the operating techniques and specifications; (3) provide a basis for interpreting NGR reconnaissance results in order to explain to industry how to use NGR data for resource evaluation purposes.						
760048*	Radiation instrumentation	Bristol, Q	RGG	RIE	R	Ont Que NB	<u>31 C,E,J; 21 G,I</u>	2463
	Obj:	The adaptation and development of advanced technology, both in house and under contract for more rapid and comprehensive acquisition of radiometric data in various portions of the electromagnetic spectrum, in both laboratory, airborne, surface and subsurface situations. The publication and/or licencing of technology so developed for rapid and effective transfer to industry.						
760049	Gamma-Ray Laboratory Operations	Cameron, GW	RGG	RIE	RM	-	-	2463
	Obj:	To provide analytical facilities for the determination of K, U, and Th in geological samples, and sor the determination of radioactive disequilibrium in rock samples; to provide adequate standards for calibration of the lab as well as standards for the various calibration facilities, constructed to provide a data storage and retrieval system related to the analytical results produced by the laboratory.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760053	Hydrocarbon geochemistry of Arctic Archipelago	Powell, TG	ISPG	E	GC	Frank	98, 88, 78, 68, 58, 99, 89, 79, 69, 59, 49, 560, 340	2461
	Obj: To determine presence or absence and quality of petroleum source rocks and petroleum product type so that reasonable gas/oil ratios may be determined; to calculate probable or maximum maturation levels so that maturation isopleths can be plotted and used to map probable petroleum regions; to quantitatively evaluate hydrocarbons dispersed in fine grained rocks in order to estimate relative amounts of petroleum in various regions or plays.							
760054	Hydrocarbon geochemistry of Canadian East Coast offshore	Powell, TG	ISPG	E	GC	Nfld NB NS	14, 3, 10, 11, 20	2461
	Obj: To determine presence or absence and quality of petroleum source rocks and petroleum product type so that reasonable gas/oil ratios may be determined; to calculate probable or maximum maturation levels so that maturation isopleths can be plotted and used to map probable petroleum regions; to quantitatively evaluate hydrocarbons dispersed in fine grained rocks in order to estimate relative amounts of petroleum in various regions or plays.							
760056	Evaluation of coal deposits of western Canada	Graham, PS	ISPG	CG	RE	Alta BC	82 J; 92 O; 93 B,C,G; 83 A	312
	Obj: To establish a coal resource base in the coal deposits of western Canada from which quantitative, qualitative, mineability and environmental studies can be made.							
760057*	IUGS Secretariat	Hutchison, WW	DGO	-	IUGS	-	-	296
	Obj: 1) To maintain communication among the 82 member countries in IUGS and the Executive Committee, Council, 6 Commissions, 5 Committees, 19 major Subcommissions and 14 Affiliated Organizations. 2) To promote the general scientific objectives of IUGS and to foster and co-ordinate activities designed to attain these objectives. 3) To co-ordinate co-operative activities or establish liaison among international organizations such as UNESCO, ICSU and other Unions and joint programs (such as ICPGP). 4) To carry out directives of the Executive Committee of IUGS. 5) To compile and produce the quarterly publication, <u>EPISODES</u> and all other official IUGS publications and brochures.							
760058*	Vegetation distribution and relationships to surficial materials-Arctic	Edlund, SA	TS	-	RP	Frank Kee Man	-	2413
	Obj: To map and describe vegetation distribution and plant communities as they relate to selected areas of the Arctic Islands.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760059	Study of large landslides in the Western Cordillera	Eisbacher, GH	REG	CPM	GR	Mack Yk BC	93 D; 106 C,F; 95 L,M; 94 F,K; 105; 116	244
	Obj: To determine the setting and mechanisms of major slope failures in selected parts of the Cordillera to establish criteria for assessing potential landslide regions and specific localities.							
760060	Mineral and energy resource evaluation: Probabilistic Methods	Agterberg, FP	REG	EG	GM	-	-	412
	Obj: Preparation of a book to bring together and provide a perspective for those mathematical methods which, in one way or another, aim to predict the places and modes of occurrence of undiscovered mineral resources.							
760061*	Regional synthesis of the Grenville Province in Ontario and western Quebec	Davidson, A	REG	P	SG	Ont Que	<u>Pts 31, 32, 41</u>	2421
	Obj: To effect a regional synthesis of the geology of the Grenville Province and western Quebec and to interpret the synthesis in terms of the geological evolution of the area, and in cooperation with project 750062, of the Grenville Province as a whole.							
760062*	Geology of bedded phosphate deposits in Canada	Christie, RL	ISPG	RG	AI	-	-	2466
	Obj: To identify Canadian phosphate resources and to develop an understanding of the regional geology relationships: patterns of occurrences, associations, facies, paleogeography, etc.							
760063	Hydrocarbon geochemistry of northern interior plains and Beaufort Sea	Snowdon, LR	ISPG	E	GC	Yk Mack	106, 107, 117	2461
	Obj: To determine presence or absence and quality of petroleum source rocks and petroleum product types so that reasonable gas/oil ratios may be determined; to calculate probable or maximum maturation levels so that maturation isopleths can be plotted and used to map probable petroleum regions; to quantitatively evaluate hydrocarbons dispersed in fine grained rocks in order to estimate relative amounts of petroleum in various regions or plays.							
760064*	Geology of Mineral Resources in the Ocean	Gross, GA	REG	EG	SP	-	-	2465
	Obj: (1) To provide a base of geological information for identifying and determining the kinds, distribution and possible extent of ocean mineral resources, and for evaluating their significance to Canada. (2) To provide a direct and independent national competence for evaluating these resources and for appraising implications of their development with respect to Canadian mineral policy and the use and marketing of Canadian mineral products.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760065	Digital Compilation of Queen Air Aeromagnetic Data	Dods, SD	RGG	RG	DC	-	-	2416
	Obj:	(1) To compile with the existing software system or adaptation thereof the digitally recorded data resulting from the Queen Air survey operations, including the backlog data accumulated over the past.						
		(2) To provide user's guides to programs within the software system to allow their effective application by other personnel.						
		(3) To maintain the digital data bank catalog to Queen Air data.						
770001*	Study of the Cenozoic Evolution of the Western Cordillera	Souther, JG	REG	CPM	GR	<u>BC Yk</u>	pts. of 82, 92, 93, 103, 94, 104, 95, 105, 115 A-C, 106, 116, 117, 114 O-P	2421
	Obj:	(1) To compile and publish a review of existing data on the Cenozoic geology of the Cordillera.						
		(2) To obtain data from selected areas where additional data are required or which illustrate typical relationships.						
		(3) To publish a series of topical papers based on selected field studies leading to a synthesis of the Cenozoic evolution of the Cordillera.						
770004	Reconnaissance field study of the Mesozoic sequences outcropping on the Iberian Peninsula	Jansa, L	AGC	EPG	SSG	-	-	2421
	Obj:	To provide evidence that the sedimentary sequences of the Iberian Peninsula are co-eval with similar sequences beneath the Grand Banks.						
770006*	Stratigraphy and structure of the Pacific Continental Slope Shelf using manned and unmanned submersibles	Yorath, CJ	REG	CPM	MG	<u>BC</u>	92 C,D,E,L; 102 H,I,O,P; 103 B,C,F,G,K	2414
	Obj:	(1) To describe the stratigraphy, biostratigraphy, sedimentology, structure and geochemistry of the stratigraphic successions exposed on the continental slope.						
		(2) To map the distribution, structure, facies and stratigraphic relationships of rock units beneath the continental shelf.						
		(3) To incorporate (1) & (2) in the interpretation of geophysical information to obtain an understanding of the tectonic history of the offshore Pacific continental margin.						
		(4) To determine the petroleum potential of the region.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Depr'l Classification
770010*	Development of Analytical and Theoretical Techniques for Refraction Seismology Interpretation	Keen, CE	AGC	RR	OBM	-	-	2421
	Obj:	(1) To analyze refraction data by the inversion of travel time data. (2) To analyze refraction data using synthetic seismograms. (3) To interpret refraction record sections particularly the converted S phases using synthetic travel time plots.						
770012	Geology of the Coronation Gulf area	Campbell, FHA	REG	P	BS	Mack Frank	77 A,B,D,E; 76 G,J,K,M N,O (parts of); 86 O,P	2421
	Obj:	To establish the geology of the extrusive and sedimentary rocks of these areas; to compile a detailed stratigraphic-sedimentologic analysis of the Parry Bay and Kanuyak Formations, and the Coppermine River Group, and to relate these rocks to the underlying Tinney Cove and Elllice River Formations; to correlate, if possible, the Hornby Bay dolomite and sandstone with the Parry Bay, Elllice and Tinney Cove; to relate tectono-depositional events in other post-Coronation Geosyncline sequences. To determine the extent of copper mineralization in the Coronation lavas, and uranium content in the Parry Bay and other sedimentary rocks.						
770013*	Operation Borden	Jackson, GD	REG	P	NC	Frank	parts of 37 G; 38 B,C; 48 A-D	2411
	Obj:	A study of the stratigraphy, sedimentology, and economic potential of the upper Proterozoic rocks (EQALULIK and ULUKSAN GROUPS) of northern Baffin and Bylot Islands, and of the relationships between these strata and the underlying basement gneisses. A basin analysis will supply data for comparison and possible correlation strata of west Greenland and Arctic Canada.						
770014	Conference and Publication on The Coast of Canada; littoral processes and shore morphology	McCann, SB	AGC	MG	CG	NS	-	2444
	Obj:	(1) To provide a forum for Canadian scientists studying the morphology, sediments and dynamics of the coastal zone in Canada. (2) To present in a series of formal sessions, results of recent research on the Canadian coastline. (3) To publish the collected papers as a single volume to provide the first overall synthesis of the coastline of Canada.						
770015	High Resolution Aeromagnetics (Instrumentation Development)	Sawatzky, P	RGG	RG	EAO	-	-	2416
	Obj:	To improve the performance of the GSC experimental high resolution/gradiometer survey system, in terms of sensitivity, precision, reliability, efficiency and endurance.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770016*	Operation Dease	Gabrielese, H	REG	CPM	GR	<u>BC</u>	<u>104 I,J</u>	2412
	Obj:	i) To complete and update the 1:250,000 geological mapping of Cry Lake and Dease Lake map-areas and NW Spatzizi. ii) To publish reports of field activities and papers on specific aspects of the geology of the region. iii) To complete and publish a final map and memoir on Cry Lake map-area and a final map and paper on Dease Lake map-area.						
770017*	Stratigraphy, structure and metallogeny of the northern part of the Intermontane Belt (Whitehorse trough) in the Canadian Cordillera	Tempelman-Kluit, DJ	REG	CPM	GR	<u>Yk</u>	<u>105 C,E,L; 115 I</u>	2421
	Obj:	To provide data on, and extend our understanding of, the relationships between stratigraphy, structure, sedimentary facies and mineral deposit on the northern Intermontane Belt of central Yukon.						
770018*	Regional Seismic Surveys	Overton, A	RGG	RG	SM	-	-	2421
	Obj:	To determine the thickness, attitude and seismic velocities of sedimentary formations comprising the Lomonsou Ridge, using seismic methods.						
770019*	Hepburn Batholith, Hepburn Lake map-area, District of Mackenzie	Hoffman, PF	REG	P	BS	<u>Mack</u>	<u>86 J,O</u>	
	Obj:	To provide an analysis of the deposition and deformation within a eugeosyncline, and describe the plutonic and metamorphic character of the batholith, in order to reconstruct the tectonic history and understand the significance of the batholithic-eugeosynclinal belt as a whole, including its mineral deposits.						
770020*	Kemano Project	Woodsworth, GJ	REG	CPM	GR	<u>BC</u>	<u>93 E</u>	2412
	Obj:	To produce a report and geological map of Whitesail Lake (W%) map-area, on a scale of 1:250,000, with one or more 1:50,000 maps of the most critical areas.						
770023*	Development and/or adaptation of mineral exploration approaches in clay covered areas.	Snee, BW	RGG	RIE	GC	<u>Ont Que</u>	<u>52 F; 42 E; 42 B; 32 D</u>	2465
	Obj:	To develop and/or adapt effective exploration methods and approaches which will aid industry in the discovery of anomalous base metal and uranium concentrations in clay covered areas.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770024*	Geology of uranium resources of Canada-V	Gandhi, SS	REG EG	URE	BC Mack		<u>86 C,F,K,G,J,L; 85 I,M,N;</u> <u>75 C,D,E,K,L; 82 M; 46 N;</u> <u>76 J,N,O</u>	313
	Obj: To carry out comprehensive research on the geology of uranium deposits in order to:							
	(1) support or provide geologically based estimates of Canada's uranium resources;							
	(2) provide guidelines for their discovery;							
	(3) provide advice to government for uranium policy and related matters.							
770025*	Regional Geochemistry - Yukon	Goodfellow, WD	RGG	RIE	GC	Yk BC Mack	<u>105 A,B,H,I,F; 106 E;</u> <u>116 B,I,M,N;</u> <u>115 G,I,J; 117 A,B,C,D</u>	2463
	Obj: (1) To determine through U.R.P. geochemical surveys the mineral potential of 20,000 mi ² of the Yukon;							
	(2) To assess through regional orientation surveys the use of various geochemical sample media as a fundamental step towards the development of geochemical methodology appropriate to the project area;							
	(3) To illustrate through detailed interpretation surveys the effectiveness of such surveys as a means of evaluating the mineral potential;							
	(4) To provide a data base for the compilation of a National Geochemical Reconnaissance Map as a contribution to the mineral potential inventory of the nation.							
770026*	Geology of Red Indian Lake, west half, Newfoundland	Herd, RK		REG CS	A	Nfld	<u>12 A</u>	2421
	Obj: (1) To revise the geology and evaluate the economic mineral potential of Red Indian Lake, west half 12 A, W/2 by mapping at 1:50,000 scale and by compilation where needed.							
	(2) To monitor, assess and absorb results of geological mapping of insular Newfoundland under the Canada-Newfoundland Mineral Development Subsidiary Agreement.							
770027	Proterozoic red beds of Richmond Gulf	Chandler, FW	REG CS	A	Que		<u>33 N/15</u> <u>34 C/1,8</u>	242
	Obj: (a) To determine the processes of formation of Proterozoic red beds and associated metallogenesis;							
	(b) To correlate Richmond Gulf sequence with sequences elsewhere on Canadian Shield.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770028	Regional Synthesis - Baffin Island: Project I	Jackson GD	REG	P	NC	Frank	56-59; 45-49; 34-38; 24-27; 14-16	2423
	Obj: Regional synthesis of all aspects of the Precambrian geology of Baffin, eastern Devon and southeastern Ellesmere Islands in the District of Franklin, N.W.T.							
770030*	Geologie du Quaternaire, region de l'Outaouais superieur, Quebec	Veillette, JJ	TS	-	RP	Que Ont	31 M,N,W; 31 N,NW	2413
	Obj: Cartographier, decrire et expliquer les depots meubles formes de terrain, avec objectifs secondaires de: (1) Fournir des donnees relatives a l'utilisation du sol, a la prospection et localisation de sable et gravier, aux reserves d'eaux souterraines, a la prospection geochemique. (2) Determiner les proprietes physiques et mechaniques de certain depots.							
770031*	Surficial geology and terrain evaluation, southern Yukon	Klassen, RW	TS	-	RP	Yk BC	94 M; 104 P; 105 A-D,E; 115 A,H,I; 114 F	2413
	Obj: To map, describe and explain the surficial materials and landforms and to provide areal geologic-geomorphic data and knowledge of the stratigraphy, age and history of surficial deposits to provide background information for land-use planning and engineering development.							
770032*	Geological characterization of Arctic lakes: sediment properties and sedimentary processes	Adshead, JD	TS	-	SMT	Kee	66 A,H; 65 A,P,I,H; 55 E,F,M; 56 D,E,N,K	2444
	Obj: To characterize Arctic lakes by providing a framework of mineralogical and compositional data on lake sediments and watersheds, and to evaluate postglacial sedimentation and diagenetic processes to assist 1) potential construction activities, 2) environmental impact studies, and 3) mineral exploration programs.							
770035*	Periglacial processes and slope movement, central Keewatin	Egginton, PA	TS	-	SMT	Kee	55 L; 65 I, Q,P,	244
	Obj: (1) To determine the rates of slope mass movement; (2) to determine the processes involved in mudboil development and their rate of development; (3) if possible relate slope movement to mudboil development and morphology. The study area straddles the proposed Polar Gas pipeline route and hence will provide terrain data for the assessment of that route as well as information that could be used for future development projects.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Deptl Classification
770036*	Geotechnical study of rock heave, central Arctic	Dyke, LD	TS	-	GP	Frank Kee	<u>77 G; 58 B,C,F,G; 65 O,P;</u> <u>68 C, H; 78 G,H;</u> <u>79 B</u>	2453
	Obj: To study and describe the process of rock heave in massive rocks in the central Arctic along the proposed route of the Polar Gas pipeline and its effect on the pipeline.							
770037*	Slope processes and cryogenic movements, Arctic Islands	Heginbottom, JA	TS	-	GP	Frank	<u>58 F; 68 G,H; 79 B</u>	244
	Obj: To document the nature, extent and rate of slope processes and cryogenic movements in a high-arctic, permafrost environment, and to determine the importance of surficial material, geomorphology, ground ice distribution, soil thermal and moisture regime, and other factors on them.							
770038*	A text on Canadian Geology and Natural Resources	Neale, ERW	ISPG	GI	-	-	-	248
	Obj: To prepare a text, at about the senior high school or introductory college level, which will summarize our present knowledge of Canada's rock and minerals and relate them to recent hypotheses of the earth's evolution. It will be designed to provide factual background for intelligent laymen interested in world resource crises.							
770041*	Compositional Characteristics of Coals from Hat Creek, British Columbia	Marchioni, DL	ISPG	CG	CT	BC	<u>92 I,P</u>	2462
	Obj:	i) To determine the petrographic character of the coals of the hat Creek deposit ii) To determine the suitability of vitrinite reflectance as a rank parameter in these low rank coals (lignite to sub-bituminous) and if suitable, to use this parameter as the basis of determination of the relative timing of coalification and deformation iii) To examine the nature, vertical and lateral variation of associated clastics in boreholes and to combine these data with those of the petrographic study and a literature survey to interpret the depositional and post depositional environment of the deposit.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770042	Surface oxidation of variously ranked coals	Marchioni, DL	ISPG	CG	CT	BC Alta	-	2462
	Obj:	<ul style="list-style-type: none"> i) To determine the effects of oxidation, due to natural weathering processes, on the optical (macro- and microscopic), chemical and physical properties of variously ranked coals. ii) To examine the relationships between the properties of naturally oxidized coals and unaltered equivalents. iii) To determine relationships between degree of oxidation effects and coal rank. 						
770044*	Lower Paleozoic basin-to-platform relationships in the Cordillera.	Cecile, MP	ISPG	RG	M	Mack BC	106 A,B,F,G; 94 B,F,G	2421
	Obj:	To contribute to the subdivision, mapping and understanding of important Lower Paleozoic basinal sequences through:						
		<ul style="list-style-type: none"> (a) Tracing of time-rock units from platform to basinal sequences, (b) Correlation of events on the platform with responses in the basin, (c) Identification of mappable units in basinal sequences, on lithological, paleontological, geochemical or other criteria, (d) Estimation of basinal water depths, (e) Elucidation of the composition and movement of basinal fluids, as deduced from diagenetic events. 						
770045	Taxonomy and biostratigraphic distribution of Mesozoic and Paleogene megaspores	Sweet, AR	ISPG	P	MiP	Frank, Ont, NS	107 B; 88 C; 98 E; 79 B,D; 69 D; 49; 42 N; 11 E	2431
	Obj:	<ul style="list-style-type: none"> 1) To describe and classify megaspores from northern Canada and when necessary for comparative purposes, from southern localities. 2) To establish biostratigraphic zonations based on the described megaspores. 						
770046*	Resource Evaluation of coal deposits of western and northern Canada	Hughes, JD	ISPG	CG	RE	Alta, Yk	83 H/2 and 83 H/7; 105 A,B,F,G,J,K,M; 115 I,O,P; 116 B,C	312
	Obj:	To establish a coal resource base from which quantitative, qualitative, mineability and environmental studies can be made by other government scientists. To advise scientists and engineers in industry on geological conditions relating to the coal deposits of Canada in order to assist them in the exploration for coal. To collaborate, on behalf of the Department, with geologists and engineers from various provincial government agencies as part of coal resource studies. To provide basic data required for the evaluation of the coal resources of these deposits.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770047*	Studies of coal deposits of western and northern Canada	Long, DGF	ISPG	CG	GC	Yk	<u>106 E; 105 A,B,F,G, H,I,K,L,M; 115 N,O,P; 116 A,B,C</u>	2462
	Obj: To provide basic data required for the evaluation of the coal resources of western and northern Canada; to prepare suitably illustrated geological reports either for publication or for internal use; advise scientists and engineers in industry and government on geological conditions relating to the coal deposits of Canada in order to assist them in the exploration and exploitation of coal.							
770048*	Brachiopods of the lower Upper Devonian Waterways Formation of northeastern Alberta	Norris, AW	ISPG	P	Map	Alta	<u>74 D,E,L,I; 84 P</u>	2431
	Obj: To describe and illustrate the rich brachiopod fauna of early Frasnian (early Late Devonian) age that occurs in the Firebag, Calumet, Christina, Moberly and Mildred Members of the Waterways Formation outcropping along the Clearwater and Athabasca Rivers of northeastern Alberta (see GSC Memoir 313 by Norris).							
770049*	Stratigraphy and sedimentology of the Tertiary sediments of the eastern Arctic	Miall, AD	ISPG	RG	AI	Frank	<u>38; 49, 59, 120, 340</u>	2421
	Obj: Determine the stratigraphic and sedimentary history of the Eureka Sound and Beaufort Formations and their relationship to the tectonic evolution of the eastern Arctic fold belt. An analysis of coal resources will be performed.							
770050	Cenozoic geology of the Beaufort-Mackenzie Basin	Dixon, J	ISPG	RG	SM	Mack Frank	<u>107 B,C,D,E, parts of; 117 A,D parts of</u>	2421
	Obj: To develop an understanding of the geologic framework and hydrocarbon potential of the Beaufort-Mackenzie Basin through the establishment of biostratigraphic subdivisions, a stratigraphic correlation framework and appropriate nomenclature depositional models, tectonic and burial histories, and the study of kerogen maturation.							
770051	The relationship between kerogen type (known petrographic rank) and chemical extract data, for the purpose of source rock evaluation	Creatney, S	ISPG	CG	CT	Kee Mack	<u>107; 117; 99; 89; 79; 69; 59; 49; 56; 340</u>	2461
	Obj: To assess kerogen type and degree of maturation by three microscopical methods and correlate the results with organic chemical data in order to define the most efficient microscopic method of source rock evaluation.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770053	Heavy Oil and Oil Sand Resources	Recruit		ISPG	E	PR	Alta Sask	-
	Obj: To determine the extent of in-place oil resources; the recoverable portion of that resource; and, to make projections of the impact of this resource on Canada's oil supply.							2411
770054	Sample preparation and mineral separating	Paris, JC	CLAS	-	M	-	-	-
	Obj: To provide sample preparation and mineral-separating services in support of Branch projects.							2448
770055*	Metallogeny of the northwestern part of the Canadian Shield	Roscoe, SM	REG	EG	MDG	Mack Kee Man Sask	55, <u>56</u> , 64, 65, <u>66</u> , <u>75</u> , <u>76</u> , <u>85</u> , <u>86</u>	2465
	Obj: To provide a metallogenetic basis for the evaluation of the mineral resources of the northwestern part of the Canadian Shield.							
770057*	Collection and analyses of borehole fracture data in potential radioactive waste disposal areas.	(Lau, JSO)	TS	-	EG	Ont Man	<u>31 K/3</u> , <u>61 I/1</u>	2453
	Obj: To determine from boreholes the geometrical characteristics of the fracture systems; to provide the basic data for the calculation of the directional permeabilities of the geological systems; and to establish a data system to record, store and process all field data and computer programs to update, retrieve and analyse the data and programs to present the data in appropriate formats.							
770058*	Drilling investigations of test areas and potential radioactive waste storage areas.	(Dugal, JJB)	TS	-	EG	Ont Man	-	2453
	Obj: To meet the drilling needs of the geotechnical, geological, geophysical and, in parts, the hydrogeological components of the EMR Radioactive Waste Disposal Program. To ensure that control will be maintained on the type and quality of the data obtained from drilling. To provide information on the subsurface occurrence structural features of bedrock. To develop field and laboratory techniques for analysis of structural geological information obtained from drill core.							
770059*	Geological (hard rock) investigations of potential areas for the disposal of radioactive wastes	(Brown, PA)	TS	-	EG	Ont	<u>31 K/3</u>	2453
	Obj: To develop a rationale for the selection of potential areas, to investigate various plutonic bodies with particular emphasis on the geologic history and the geologic controls on fracturing and faulting and to assess and differentiate potential areas with a view of the selection of a prime site.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770060	Environmental assessment of coal resource development, Canadian Cordillera.	Jackson, LE	TS	-	GP	Alta BC	-	2451
	Obj: Assessment of the geologic and hydrologic impact of open pit coal mining and emplacement of coal spoil and the investigation of geotechnical problems attendant with the reclamation of lands disturbed by coal mining operations in the Canadian Cordillera.							
770061*	Mineralogy of uranium deposits in granitic rocks in the Grenville Structural Province	Rimsaite, JYH	REG	EG	URE	Ont Que	<u>31</u>	2463
	Obj: To determine the mineralogy of selected uranium deposits in pegmatitic and other granitic rocks as an input to the evaluation of uranium resources in these deposits and in related terranes.							
770063*	Geology of Lead and Zinc resources of Canada - II	Lydon, JW	REG	EG	MDG	Yk Mack NS Nfld Que	<u>11 DE,F; 63 J,K,L; 64 B,C; 12 A,H,I; 21 P,D; 32 D; 34 C; 85 B; 105 I,K,M,O</u>	2465
	Obj: (1) support or provide geologically based estimates of Canada's resources of these commodities; (2) provide guidelines to their discovery; (3) provide advice to government for mineral policy and related matters.							
770067	Western Canada Oil and Gas Pool File	Skibo, DN	ISPG	E	PR	Alta Sask BC Man	-	311
	Obj: Compilation of all parameter values considered relevant to the accumulation and exploitation of oil and gas pools in western Canada for basis of statistical methods in evaluation of undiscovered resources, resource estimates for heavy oils and unconventional gas.							
770070*	Regional Geological Synthesis, Central Superior Province	Card, KD	REG	P	SG	Ont Que	<u>41, 42, 32</u>	2421
	Obj: To compile and synthesize in the form of maps and reports, all geological work to date in NTS map-areas 42 and parts of 32 and 41. To outline areas requiring more coverage or updating and to evaluate what problem-oriented work can be undertaken: (a) to improve regional correlation in Superior Province; and (b) to further understanding of Superior-Grenville boundary. To produce geological maps for publication at 1:1,000,000 scale.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Depr'l Classification
770071*	Geology of copper and molybdenum resources of Canada - II	Sinclair, WD	REG	EG	MDG	Yk BC NS NB Que Ont Man Sask Nfld	115 F-K; 104 N; 11; 21; 22; 12; 31; <u>32</u>	2465
	Obj: The project is one of comprehensive research on the geology of copper and molybdenum deposits in order to: (1) support or provide geologically based estimates of Canada's resources of these commodities; (2) provide guidelines to their discovery; (3) provide advice to government for mineral policy and related matters.							
770072	Geological Survey representative on Steering Committee of the Kremp Palynologic Computer Research Project.	Baess, MS	AGC	EPG	-	-	-	2431
	Obj: To represent the Geological Survey and present the views of GSC palynologists to the KPCRP Steering Committee with regard to the operation and management of the project.							
770073	Study of the Boundaries of Lithospheric Plates	Loncarevic, BD	AGC	RR	-	-	-	2421
	Obj: To determine the crustal structure of the Reykjanes Ridge by seismic refraction gravity and magnetic methods in order to extend our understanding of the magmatic processes which lead to the accretion of new material to the edges of the lithospheric plates and possible metallogeny of sulphide ore bodies.							
770074	Display, Analysis, and Management of Spatially Referenced Geological Data	Gordon, TM	REG	CS	PET	-	-	2448
	Obj: (1) Determine requirements for, and develop, a library of computer programs for the scientific analysis and display of geological data. (2) Develop a prototype computer processable data base of spatially referenced geological data to manage the data needed for various applications.							
770076*	The geochemistry of uranium in natural waters	Coker, WB	RGG	RIE	GC	BC Yk Kee Frank Mack Sask Man Ont Que Nfld	31 C,F; 42 D,E; 52 A,H	2463
	Obj: To provide a set of guidelines for the collection, preservation, storage and analysis for uranium of waters in relation to the National Geochemical Reconnaissance Program(Project 750051).							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770077*	Paleozoic conodonts of eastern Canada	Nowlan, GS	REG	CS	EP	Que Ont Man Kee NB NS <u>Nfld</u>	<u>12 L; 11 E,F,K; 22 A,B;</u> <u>21 P</u>	2431
	Obj: To determine biostratigraphic zonal standards of conodonts in eastern Canada, to determine provincialism and environmental effects and to describe the faunas as an aid to correlation and assessment of economic potential of strata.							
780001	Coal Resource Data Management	Stevens, CF	ISPG	CG	RE	-	-	312
	Obj: To establish and maintain coal resource data computer files of various coal deposits in Canada and to apply, adapt or develop computer programs for the analysis and display of geological data and the compilation of coal resource estimates.							
780002	Glacial erosion of the Canadian Shield	Shultz, WW	TS	-	SMT	Kee Ont	55 E,L,K; 41 I	2441
	Obj: A - To define and summarize ways of quantifying rates, depths and volumes of glacial erosion; B - Define parameters that are most influential in controlling glacial erosion on the Shield; C - To measure glacial erosion in selected test areas; D - To evaluate recently developed differences of opinion on efficacy of glacial erosion on the Shield.							
780003	Petroleum Evaluation of hydrocarbon Resources of the Western Canada Sedimentary Basin South of 60°	Recruit	ISPG	E	PR	Alta BC Sask Man	62 E,F,L,K; 72 E-P; 73 C,D, E,F,K,L,M; 74 D,E; 82 H,I, J,O,P; 83 I,P; 94 A,B, G-K,N,O,P	2461
	Obj: To evaluate the hydrocarbon resource potential for hydrocarbons in western Canada. This includes a knowledge of reserves discovered, appreciation of reserves, degree to which those reserves may be conducive to enhanced recovery, the determination of parameters required to estimate the cost and timing of future supply, the probable extent of undiscovered resources.							
780004	Evaluation of Unconventional Gas Resources in the Deep Basin of Western Canada	Verhoeff, FH	ISPG	E	PR	Alta BC	82 H,J,O,P; 83 B,C,E,F,L; 93 I,P; 94 A,B,G,J,K,N,O	311
	Obj: To determine the quantities of gas that may be recoverable from low quality, relatively low permeable sandstone reservoirs in the Deep Basin of western Canada							

Project Number	Title	Project Leader	Div	Subdiv	Sec.	Prov	NTS	Dept'l Classification
780005*	Geology of Mine Sites	(Bustin, M)	ISPG	CG	CG	Alta BC	<u>82 G,O; 83 E</u>	2462
	Obj:	1) To examine the stratigraphy, sedimentology and structure of the Jurassic and Lower Cretaceous coal measures of southwestern Alberta and southeastern British Columbia on the scale of active and potential underground and/or surface mines. 2) To evaluate the structural fabric of the coal measures, their petrography, and mechanical properties and the petrographic make up of the coal. 3) To produce suitable geological maps of the coal measures with appropriate text and other illustrative materials.						
780006*	Mineral Matter and Trace Element Content of Canadian Coals	Marchioni, DL	ISPG	CG	CT	Alta	<u>82 G,O,P; 83 A</u>	2462
	Obj:	1) To determine if coal basins and seams within basins are specific in terms of mineral matter and trace element content. 2) To enlarge the data base for the interpretation of the depositional regimes within coal basins. 3) To relate mineral matter and trace element content to other compositional parameters. 4) To provide a data bank on environmental and utilization aspects of these coals.						
780007	Operation Hyde	Fraser, JA	REG	P	NC	Kee	<u>55 D; 55 E SW; 65 A E</u>	2412
	Obj:	To interpret the Precambrian geology and economic potential of the area mapped to a standard of 1:250,000 mapping.						
780008*	Geology of Thirty Mile Lake 65 P ($\frac{W}{2}$) and Tebesjuaq Lake 65 O ($\frac{W}{2}$) map-areas	LeCheminant, AN	REG	P	NC	Kee	<u>65 P ($\frac{W}{2}$); 65 O ($E\frac{1}{2}$)</u>	2412
	Obj:	To interpret the geology of the area to a standard of 1:250,000 mapping, and thereby update the geological data base to improve regional tectonic syntheses. To investigate the structure and metamorphism of Archean and Archean gneisses and their relation to the Dubawnt group cratonic cover.						
780009*	Healey Lake map-area, District of Mackenzie	Henderson, JB	REG	P	BS	Mack	<u>76 B</u>	2412
	Obj:	To determine the general structural metamorphic and age relations of rocks on each side of the Thelon Front in order to better understand the nature of the boundary between Slave and Churchill provinces. To evaluate the economic potential of the area and to map it at the scale of 1:250 000.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780010	A study of Bear Batholith rocks and basement to the Bear Batholith	McGlynn, JC	REG	P	BS	Mack	86 D, 85 N (pts. of)	2421
	Obj: To define basement rocks of the Bear Batholith, and to establish the stratigraphy and distribution of the lowest parts of the Bear Batholith supracrustal rocks.							
780011	A survey of Metamorphism in the Canadian Shield	Froese, E	REG	CS	Pet	-	-	2436
	Obj: To write a concise selective field oriented introduction to metamorphic petrology directed to geologists working in the precambrian Shield.							
780012	Geology of Ottawa Islands, Farmer Island, and Sleeper Islands, N.W.T.	Baragar, WRA	REG	P	SP	Kee	<u>41 I,P; 34 E</u>	2421
	Obj: To map at a scale of 1:50,000 and to sample for geochemical purposes, rocks composing the Ottawa Islands, Farmer Island and Sleeper Islands.							
780013	Compilation of 1:1 million maps of the Canadian Shield	Eade, K	REG	P	SG	-	-	2423
	Obj: To compile, synthesize and publish a series of 1:1 million geological maps of the Canadian Shield.							
780014*	Regional Geological Synthesis, Western Superior Province	Taylor, FC	REG	P	SP	<u>Ont Man</u>	<u>52, 53</u>	2421
	Obj: To compile and synthesize in the form of maps and reports, all geological work to date in NTS map-areas 52 and 53.							
780015*	Material balance of uranium series in a natural environment	Dyck, W	RGG	RIE	GC	<u>Ont Que</u>	<u>31 G,F</u>	2463
	Obj: To establish the usefulness of studying the material balance of uranium and its decay products as a means of estimating uranium ore potential of a region.							
780016*	Drift prospecting methods and models	DiLabio, RNW	TS	-	SMT	Ont NS Man Frank	<u>41 O; 42 A,B,E; 52 G; 11 D,E; 31,C,F; 92 I; 93 F,K; 64 N; 38 B,C; 48 D</u>	244
	Obj: 1) To model glacial dispersal from known sources. 2) To develop drift prospecting methods for use in clay belts.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780017*	Correlation of Quaternary geology; Great Lakes – St. Lawrence Valley region	Gadd, NR	TS	-	RP	Ont Que	<u>31 B,C,F,G</u> (parts of)	2422
	Obj: To resolve apparent age discrepancies in Pleistocene stratigraphic sequences of the lower Ottawa – upper St. Lawrence valleys and adjacent Lake Ontario basin.							
	To provide a basis for regional compilation and synthesis of Quaternary geology in southeastern Ontario and southwestern Quebec.							
780018*	Surficial geology and Quaternary stratigraphy of north Baffin-Bylot Islands	Klassen, RA	TS	-	SMT	Frank	<u>38 B,C; 48 A-Q</u>	2413
	Obj: To provide information on the history and mode of deposition and the distribution and origin of Quaternary sediments in the northern part of Baffin Island and of Bylot Island, for use by environmental and development groups that may require knowledge of the area, and to provide data applicable to drift prospecting techniques.							
780019	Ocean Dumping Consultation and Study	Buckley, DE	AGC	EMG	-	-	-	296
	Obj:	a) To provide to government concerning the feasibility of ocean dumping or disposal of waste materials. b) To test various techniques and procedures for detecting and monitoring the impact of ocean dumping.						
780021	Landsat Calibration for Suspended Sediment Concentration in Marine Coastal Environments	Amos, CL	AGC	EMG	CG	BC NS	-	244
	Obj:	1) To initiate cooperative research between A.G.C., C.C.R.S. and other marine agencies abroad, with a view to extending a calibration of Landsat radiance vs. suspended sediment concentration. Originally applied to the Minas Basin. 2) To extend the Minas Basin calibration. 3) To relate the available Seasat program to Landsat measures.						
780022*	Sediment Dynamics at the Head of the Bay of Fundy	Amos, CL	AGC	EMG	CG	NS, NB	<u>21, 11</u>	244
	Obj:	1) To determine the mass input, transfer and removal of sediments to Chignecto Bay, inclusive of Shepody Bay and Cumberland Basin. 2) To develop a numerical model to assess the affects of a Fundy Tidal Power Development on the distribution and accretion of sediments. 3) To formulate a methodology of assessing the implications of marine constructions on sediments in macrotidal regions.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780023	Aeromagnetic interpretation Obj: To establish a comprehensive capability for the interpretation of aeromagnetic survey data in order to support geological mapping and resource assessment programs.	Teskey, D	RGG	RG	MW	-	-	2416
780024	Coordination of Geochemical Sample preparation and analytical services Obj: The objective of this project is to specify, arrange and co-ordinate all aspects of geochemical analysis and sample preparation activities on behalf of the Resource Exploration (Geochemistry) Program. These activities involve both GSC staff and equipment as well as those of various commercial laboratories in Canada and possibly elsewhere.	Lynch, JJ	RGG	RIE	G	-	-	248
780025*	Archean Rocks of the Nain Province in Hopetdale (13N), Snegarnook Lake (13K), and Makarovik (13O) maps-areas, Labrador Obj: 1. To produce maps (suitable for publications at 1:100,000) and comprehensive reports on the geology and economic mineral potential of the Archean rocks in these areas. 2. To monitor, compile and synthesize results of the geological mapping of Labrador to be carried out under the Canada - Newfoundland Mineral Development Subsidiary Agreement.	Ermakovics, I	REG	P	SG	Nfld	<u>13 NK,O</u>	2412
780026	Quaternary paleo-sealevel map of Canada Obj: To produce a synthesis of sealevel phenomena for the Quaternary period.	Pelletier, BR	TS	-	SP	NS NB PEI Nfld Que Ont Man BC Yk Mack Kee Frank	1-2, 11, 13-16, 20-22, 24-29, 32-39, 42-43, 45-49, 54-59, 66-69, 76-79, 86-89, 92, 98-99, 102-103, 107, 114, 117, 120, 340, 350, 360	2422
780027*	Coastal Geology - British Columbia Obj: To carry out both inventory and process studies of coastal and nearshore geology in British Columbia in order to: provide a data base for coastal management; be able to respond to requests for information and advice from other government agencies; and understand better the Quaternary evolution of the west coast of Canada.	Bornhold, BD	REG	CPM	MG	<u>BC</u> <u>92 BC,F,G,K,L,M; 93 D;</u> <u>102 I,P; 103 A,B,C,F,G,H;</u> <u>I,J,K,O,P</u>	244	

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780028*	Detailed Geological Investigation of selected areas within the Foothills and Rocky Mountains of the Monkman Pass map area - with emphasis on the structure	Thompson, RI	ISPG	RP	M	BC Alta	<u>93 HJ 83 E</u>	2421
	Obj: (i) To assist in the completion of reconnaissance studies within the Monkman Pass map sheet; (ii) to proceed with selected, more detailed studies aimed at a clearer understanding of structural relationships across this part of the Rocky Mountain Belt; and to begin a preliminary analysis of fracture fabrics within some upper Paleozoic and Mesozoic stratigraphic units.							
780029	Mesozoic and Cenozoic Foraminifera of the Arctic Western mainland of Canada	McNeil, DH	ISPG	P	MiP	Yk Mack	95, 96, 97, 105, 106, 107, 115, 116, 117	2431
	Obj: To systematically describe and interpret Mesozoic and Cenozoic Foraminifera of the Arctic western mainland of Canada.							
780030*	Taxonomy, biostratigraphic and paleoecology of Mesozoic and Tertiary microspore and micoplankton assemblage from the Mackenzie Delta, Beaufort Sea regions	Ioannides, NS	ISPG	P	MiP	Mack	-	2431
	Obj: To establish a biostratigraphic zonation scheme for the Mesozoic and Tertiary of the Mackenzie Delta - Beaufort Sea regions.							
780031*	The Newfoundland Continental Slope at 49°N to 50°N: Nature and magnitude of contemporary marine geologic processes	Schafer, CT	AGC	EMG	PEC	NS <u>NHd</u>	-	244
	Obj: (1) To discover the nature and magnitude of contemporary marine geologic processes based on sedimentologic, geochemical neontologic and <u>in situ</u> sensor data. (2) To develop process and environmental models for biostratigraphic, paleoecologic and environmental impact studies.							
780032	Lead isotopic studies on genesis of ore deposits	Thorpe, RI	REG	EG	MDG	-	-	2465
	Obj: 1) To do lead isotopic studies of ore deposits in order to improve our understanding of the age and genesis of these deposits. 2) To derive a lead isotope model that will be useful in refining genetic models for many types of ore deposits. 3) To coordinate the obtaining of lead isotope analyses for the member of the Mineral Deposits Geology Section and the assignment of priorities for such analyses. 4) To aid members of the section in interpretation of analyses that have been carried out for other projects.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept ¹ Classification
780033	Quaternary paleoecology, Great Lakes	Anderson, TW	TS	-	PG	-	-	2433
	Obj: To describe, analyze and explain unconsolidated deposits and associated organic remains in the Great Lakes in order to: 1) determine Quaternary stratigraphy, history and paleoecology; 2) identify processes operative in the lakes during the Quaternary and the factors controlling them; 3) to provide background geological information for other scientific studies in the Great Lakes.							
780035	Remote sensing applied to Quaternary geology and mineral tracing	Belanger, JR	TS	-	SMT	Yk Kee	55 E,I,M; 65 H; 115 A-C,F,G,J,K	2422
	Obj: To evaluate the potential use of remotely sensed, multispectral data for terrain evaluation, terrain mapping, Quaternary geology and mineral tracing. To apply appropriate processing techniques for remotely sensed data to Quaternary geology and related terrain studies in selected test areas in Canada.							
780037*	Structural geology-geomorphology, southwest Yukon	Claque, JJ	TS	-	RP	YK	105 C,D,E; 115 A,B; F,G,H,I,J,K	244
	Obj: To determine the nature and scope of late Quaternary tectonic activity along the Denali Fault and to identify and interpret landslides and other potential terrain hazards in southwest Yukon Territory in order to provide information pertinent to industrial development, including pipeline and road construction and maintenance, and to determine the history of faulting in the region.							
780038	Cambro-Ordovician facies and correlation, Arctic Canada and Greenland	Christie, RL	ISPG	RG	AI	Frank	-	2421
	Obj: To improve understanding of the sedimentation and paleogeography of the Franklin Geosyncline, specifically of Cambro-Ordovician stratigraphic sections in Canada and in northern Greenland; to provide a better understanding of Cambrian and Ordovician events along the platform and platform-miogeosyncline junction along the edge of the Franklinian geosyncline.							
780039	Jurassic and Cretaceous Minnes Group, Alberta and British Columbia	Stott, DF	ISPG	-	-	Alta BC	83 E,L; 93 I,O,P; 94 B,G,J	2421
	Obj: To describe the stratigraphic succession and petrography to document fossil flora and fauna; to provide data on correlation of these strata, their lateral variation, their potentialities as sources of oil and gas, and their suitability as reservoirs for those fuels.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780040	Stratigraphy and composition of surficial materials, proposed Polargas pipeline route	Podolak, WE	TS	-	SMT	Ont Kee Frank	-	2423
	Obj: To carry out laboratory study of samples supplied by Polargas in order to determine stratigraphic relationships and vertical and lateral compositional parameters of surficial material along the route, Melville Island to Longiac.							
780041	Coastal environments of the Groswater Bay-Ayron Bay-Hamilton Inlet Region, Central Labrador	Reinson, GE	AGC	EMG	CGD	Nfld	13 HJ,O	244
	Obj: 1) To map the coastal environments of central Labrador for use in oil-spill contingency planning, ports and harbour development and land-use resource planning. 2) To monitor coastal processes during spring ice break-up and determine the role of sea-ice in shaping geomorphology of coastal features. 3) To determine the morphology and sediment dynamics operative on a high energy sub-arctic depositional shoreline (Beach-Dune complex at Michael's River-Byron Bay area).							
780042*	Comparative studies of the continental margins of the Labrador Sea and of the North Atlantic	Srivastava, SP	AGC	RR	LSS	-	-	2421
	Obj: 1) To delineate subsurface structure across Labrador and west Greenland margins. 2) To determine the transition from the continental to oceanic crust across the margins 3) To discuss the subsidence history of the margin as obtained from well data and to relate it to the subsurface structures.							
780043*	Coastal Reconnaissance of the Sverdrup Basin, N.W.T.	Taylor, RB	AGC	EMG	G	Frank	<u>69 B,C,D,E,F; 59 C; 79 A</u>	244
	Obj: To map and analyze the coastal environments of the Sverdrup Basin, N.W.T. To provide information on the shore types, processes and the effects of massive shore ice piles which will serve as background information for the evaluation of potential marine terminal sites and the impact of such installations on the coastal zone.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780045	Debris flow hazard assessment methodology, alpine and northern upland areas	Jackson, LE	TS	-	GP	BC, Alta	82 G,J,N,O; 83 C,D,E	2451
	Obj: To identify and determine the relative importance of the environmental factors favouring the development of debris flows in the Rocky Mountains (49°N-54°N), and to develop a methodology for assessing the hazards to transportation and utility facilities from this process.							
780046	Metamorphic Map of the Canadian Cordillera	Woodsworth, GJ	REG	CPM	-	BC Yk	116, 115, 105, 95, 114, 104, 94, 103, 93, 83, 92, 82	2421
	Obj: To compile a metamorphic map of the Cordillera on a scale of 1:2,000,000 depicting areas underlain by rocks representing particular grades of regional metamorphism.							
780047	Computer Methods and Calibration	Carson, JW	RGG	RR	RM	Alta, Ont, NB	-	2463
	Obj:	1) To develop computer methods for compilation of radiometric data. 2) Develop data base for airborne, ground, laboratory and borehole gamma ray spectrometric data. 3) To standardize and coordinate the calibration of radiometric systems.						
780048*	Surficial Geology of Lomonosov Ridge, Arctic Ocean	Blasco, SM	AGC	EMG	-	-	-	2415
	Obj:	1) To describe the morphology, structure and history of the surficial sediments of the Lomonosov Ridge in the vicinity of the EMR LOREX site (near North Pole). 2) To contribute to Earth Physics Branch's LOREX to define continental ? origin of Lomonosov Ridge. 3) To adapt technology and to gain experience in working on frozen seas. 4) To establish working contacts with other groups concerned with Arctic Ocean geology.						
780049*	FRAM I Seismic Refraction and Reflection Experiment	Falconer, RKH	AGC	RR	EAOG	-	-	2421
	Obj:	To collect seismic refraction and reflection data and study natural seismicity during the drift of the U.S. ice camp FRAm I adjacent to the Nansen Ridge in order to determine representative crustal sections of the Arctic Ocean Basin as an indicator of its development.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790001	Advanced Cartographic Systems	Vernay, A	RGG	RG	GDP	-	-	2416
	Obj: To provide new forms of display for the existing geophysical-geochemical data banks.							
790002*	Geochemical data processing	Lund, NG	RGG	RG	RS	-	-	2465
	Obj:	1) Develop and maintain geochemical data compilation, data management and digital storage services;						
	2) Provide data processing support; and							
	3) Compile, monitor and prepare data from National Geochemical Reconnaissance surveys.							
790003*	Regional Geochemistry - Southern Cordillera	Ballantyne, SB	RGG	RG	RS	BC <u>Yk</u>	-	2465
	Obj:	1) To develop and test geochemical exploration methods for concealed ore deposits in a variety of geological and surficial environments.						
	2) To assess the effective performance of geochemical reconnaissance surveys.							
790004*	Geochemical Sampling and Resource Evaluation Studies	Garrett, RG	RGG	RG	MD	-	-	2465
	Obj:	To develop and document methods of utilizing geochemical data in mineral resource evaluation studies. Particular attention will be paid to assessing the reliability of such studies through measurement of the variabilities associated with all stages of sample and data acquisition and processing.						
790005*	Quaternary geology, Mayo-McQuesten British Columbia	Hughes, OL	TS	-	RP	<u>Yk</u>	<u>105 M, 115 P</u>	2413
	Obj:	To map, describe and explain the surficial materials and landforms and to provide areal geologic-geomorphic data and knowledge of stratigraphy, age and history of surficial deposits to provide background information for land use planning, engineering and mineral development.						
790006*	Marine Delta Sedimentation, British Columbia	Luternauer, JL	REG	CPM	MG	BC	<u>92 B, G; 103 G, H, I, J</u>	244
	Obj:	To provide geological/sedimentological data base for delta systems in coastal British Columbia for general land and waterfront planning and environmental management.						
790007*	Geology of Nahanni map-area (105I) Yukon Territory	Gordley, SP	REG	CPM	-	<u>Yk</u>	<u>105 I</u>	2412
	Obj:	To update geological mapping in Nahanni map-area with emphasis on the distribution of stratigraphic units of the economically important Road River Formation and Earm Group.						

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790008	Stratigraphy, sedimentation, structure and tectonic setting of the Windermere Supergroup	Eisbacher, GH	REG	CPM	-	Yk, Mack, BC, Alta	115, 105, 95, 94, 93, 83, 82, 116, 106	2421
	Obj: To establish the stratigraphic succession, origin and correlation and determine the role played by these rocks in the evolution of the Cordillera. To relate mineral deposits to the stratigraphic, sedimentological and structural framework of these rocks.							
790009*	Kamiliukuak Lake Map-area, District of Keewatin, N.W.T.	Eade, KE	REG	P	NC	Kee	<u>65 K</u>	2412
	Obj: To map the bedrock geology of the area at a standard of modern 1:250 000 scale mapping. Emphasis will be placed on the Dubawnt Group rocks, their extent, lithology, and relationship to the basement rocks.							
790010*	Limestone and shale as potential host rocks for storage/disposal of radioactive wastes.	Sanford, BV	REG	CS	A	-	-	2453
	Obj: At the request of the Atomic Energy of Canada, Ltd., to evaluate limestone, shale and other sedimentary rock types as potential host rocks for storage/disposal of radioactive wastes.							
790011*	Fort Smith-Hill Island Lake region District of Mackenzie	Bostock, HH	REG	CS	A	Mack	<u>75 B,C,D; 85 A</u>	2411
	Obj: To reconnoitre geology of map-areas 75B, C, D and Precambrian part of 85A in order to plan regional study.							
790012	China-Canada Exchange - Hydrocarbon Geochemistry	Powell, TG	ISPG	E	GC	-	-	2461
	Obj: To exchange information on methods of geochemical investigations of oil, gas and organic matter and application of their results to exploration and resource assessment. To gain a broader knowledge of geochemical criteria for petroleum generation and accumulation in various geological settings.							
790013*	Relationship of reflectance to chemical rank parameters for western Canadian coals	Cameron, AR	ISPG	CG	CT	Sask Alta BC	-	2462
	Obj:							
	1) To establish reference curves relating rank as determined by reflectance to rank as determined by chemical means.							
	2) To determine the relationship of varying maceral compositions on rank as determined chemically.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790014*	Triassic Foraminifera of the Sverdrup Basin	Wall, JH	ISPG	P	MIP	Frank	<u>49, 59, 69, 79, 88</u> <u>89, 340, 560</u>	2431
	Obj: To investigate the feasibility of using foraminifera as a means of refining biostratigraphic zonation within the Triassic System and of establishing criteria for the dating and correlation of potentially petrolierous sequences within and adjacent to the boundaries of the system.							
790015*	Surficial geology and paleo-glaciology of the central Labrador Shelf Nain, Makkovik and Harrison Banks	Fillion, RH	AGC	RR	-	-	-	2415
	Obj: To gain insight into recent sedimentary processes and hydrodynamic regime; the pattern of glaciation on the banks; the history of glaciation locally and an integration of results with those of previous Labrador Shelf projects to develop a regional picture.							
790016*	Geology of the Heilikian Sediments and Adjacent Gneisses, Fury & Hecla Strait Area	Chandler, FW	REG	CS	A	Frank	<u>47 C,D,E,F</u>	2421
	Obj: 1) To determine the internal stratigraphy, sedimentology, structure, age, geological history of the sediments. 2) To map the gneisses underlying the sediments to the north, concentrating on those gneisses coincident with strong radiometric anomalies.							
790017*	Shelf Environments of Central Labrador and Ungava Bay	Reinson, GE	AGC	EMG	CGD	Nfld	<u>13 H,I,O</u>	244
	Obj: 1) To determine the nature and magnitude of sediment transport processes on the inner shelf. 2) To delineate Holocene stratigraphy of Inner Shelf and relate to the depositional framework of the bank-basin areas under study by Vilks and Fillion.							
790018	Ice Scouring Lewis, CFM	AGC	EMG	-	-	-	-	244
	Obj: Describe the geomorphology of ice scour tracks and their relationship to bathymetry, sediments and drift ice with a view to interpreting the dynamics and history of ice impact on the seabed.							
790019	Environmental Geology of Deep Ocean	Vilks, G	AGC	EMG	PE	-	-	244
	Obj: 1) To investigate the capacity of the deep ocean environment to maintain normal processes under stress imposed by exploration of waste disposal. 2) Participate with the seabed working group of NEA in order to maintain awareness with the progress in feasibility studies for the disposal of high level nuclear waste in the seabed and DOMES project.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790020*	An investigation of the semi-inert constituents of W. Canadian coals	Creamey, S	ISPG	CG	CT	BC, Alta	-	2462
	Obj: To investigate the degree of participation of semi-inert macerals, of Western Canadian coals, in a heat-treatment process and to establish a reliable microscopic method for predicting the coking properties of these coals.							
790021*	Surficial geology, Lac Kipawa Region	Vincent, JS	TS	-	RP	Que	<u>31 L</u>	2413
	Obj: To map, describe and explain the surficial materials and landforms and to provide geological-geomorphic data and knowledge of stratigraphy, age and history of surficial deposits, to provide background information pertinent to land use planning, forestry, agriculture, urban and industrial development and engineering construction.							
790022*	Stratigraphy and sedimentology of the Lower Cretaceous Gething Formation, Rocky Mountain Foothills, Alberta and British Columbia	Gibson, DW	ISPG	CG	GC	Alta, BC	<u>83 L; 93 I, J, O; 94 B, G</u>	2462
	Obj: To describe the Lower Cretaceous stratigraphic succession; to collect samples for laboratory studies, and to collect fossil flor and fauna; to provide data on the origin distribution and continuity of coal seams throughout the region; to attempt to determine criteria useful in determining the sub-environments in which the fluvial-deltaic sediments were deposited, and to eventually provide a regional geological model that will be of assistance in determining the potential coal resources of this and other regions.							

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680017	750093*	610019*	780037*	780018*
680023	750094*	650013	780040	780040
680071*	750097	650016*	780049*	780049*
680082*	750107	680029*	780044	770076*
680088	760004	610007*	780035	770016*
680114*	760027	610019*	780037*	780018*
690038*	760029	650013	780040	780040
690086*	760030	650024*	790003*	780043*
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690090	760049	680031*	790008	790016*
690095*	760057*	680047*	750098*	730016*
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710059	760062*	680119	760024	740017
710062	760064*	690005	760047	740020*
710065	760065	700034	760059	740030
710098*	770003	700071	760063	740065
720066	770004	710007	770012	740067
720078	770010*	700092	770019*	740081*
720089*	770015	710013	770024*	740104*
720103	770038*	710020	770025*	750006
730008*	770053	710022*	770044*	750017
730019	770054	710036	750012	750048*
730042	770072	710091	750019*	750047
730047*	770073	720041	750055*	750022*
730055	770074	720101	750068	750051*
730062	780001	730027	750076*	750057
730063*	780006	730035*	780009*	750063
730081*	780011	730046*	780010	750071*
730085	780013	730054	780029*	750079
740003	780019	730057*	780034	750083
740004	780023	740098*	780046	750102
740035	780042	750014*	790008	750098*
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650024*				
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670068				
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690005				
690024*				
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740030				
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730046*	790008		760058*	750064	750036*	750036*	780025*
730057*	790013*		770055*	750098*	750017	750038*	780031*
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740062*			770058*	760016*	740068	750096	
740090			770063*	760044*	740081*	760014*	
<u>Alberta</u>			640420	650027*	770067	760045*	
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	750015	610269*	680081*	770077*	76001*	750007*	500029*
	750016	650023	680093*	780003	770011	750010*	630037*
	750018	750069*	680090	750012	780014	770023*	630081*
	750020	650024*	720067*	720080*		770030*	680102*
	750027	650027*	730065	730017		770045	680109*
	750035*	670576*	750049	750017		770057*	680109*
	750051*	680027	700034	750051*		750058*	690064*
	750078	750082*	700037*	750058*		780016*	700061
	750085	710018*	750058*	750059		770045	710038
	750108*	710022*	750059	750059		750037*	710061*
	760018*	710091	750069*	660026		760043*	710062
	760042*	720071*	750070	680060*		760045*	720071*
	760056	720084*	750098*	680081*		760048*	
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	770006*	740041	770040	710016		780014*	730044*
	770016*	740095	770055*	720071*		780015*	740085*
	770020*	750018	770067	720072*		770070*	750045*
	770024*	750036*	770066*	720080*		770071*	740110
	770025*	750069*	780003	720084*		780002	730043*
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	770041*	750076*	760018*	730004*		770039*	730045*
	770042	760042*	770042*	730027		770046*	730046*
	770044*	760056	610019*	730160*		770051*	730047*
	770060	770042	630037*	740017		730072*	730072*
	770067	770046*	680081*	740054		740017	780041
	770071*	770048*	680093*	740068		740072*	780047
	770076*	770060	720080*	74008*		760065	770071*
	780003	770067	730046*	740046		750062	770071*
	780004	780003	740017	740083*		750071*	780042*
	780005*	780004	750007*	750007*		750072*	780041
	780016*	780005*	750040	750010*		720104	760014*
	780021	780028*	780042*	750069*		700061	730043*
	780027*	780039	750070	750034*		710016	760038*
	780028*	780045	750072*	750098*		740084	760043*
	780039	780045	780047	750040		720072*	750010*
	780045	780046	750110*	750051*		740110	760014*
	780046	790008	790013*	760044*		730001*	770026*
	790003*					750012*	770076*

P.E.I.