

CANADA  
DEPARTMENT OF ENERGY, MINES AND RESOURCES

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GEOLOGICAL SURVEY OF CANADA

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CATALOGUE OF SCIENTIFIC PROJECTS  
1977 - 1978

Compiled by M.A. Petre



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OTTAWA  
1978

**GEOLOGICAL SURVEY OF CANADA  
CATALOGUE OF SCIENTIFIC PROJECTS**

**1977-78**



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## PREFACE

This catalogue of all scientific projects of the Geological Survey of Canada approved as of 12 September 1977 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 1977 to 31 March 1978, and 2) the field program for the summer of 1977.

As a catalogue it lists and briefly describes active scientific projects. These total 475 and are compiled from instructions issued to project leaders for 1977-1978 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.

Two project classifications are in current use. One, the Geological Survey of Canada classification used within the G.S.C., appears in the column "Classification". All projects are also classified in the Program/Activity structure now in use throughout the Department, this classification appearing in the column "Departmental Classification". Details of both classifications follow this preface.

The field program for the summer of 1977 comprises the field component of those active projects marked by an asterisk after the project number. These total 219. 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  
1977

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. 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
3.	<u>MINERALS PROGRAM</u>	
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
3.	Mineral Technology Development	3.1 Discovery of Mineral Resources
		3.2 Development and Mining
		3.3 Processing
		3.4 Utilization
		3.5 Conservation
		3.6 Environment, Health and Safety
		3.7 Transportation
		3.8 Support Services
4.	Economic and Social Impact-Minerals	4.1 Social Impact
		4.2 Economic Development
		4.3 Policy Analysis and Coordination
		4.4 Support Services
5.	Administration of the Canada Explosives Act	5.1 Authorization and Testing
		5.2 Licensing and Inspection
		5.3 Support Services
4.	<u>EARTH SCIENCE SERVICES PROGRAM</u>	
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
  - 4.3 Standards and Correlations
    - .1 Paleontology
    - .2 Radiometric Dating
    - .3 Quaternary Geochronology
    - .4 Paleomagnetic Correlations
    - .5 Physical, Chemical, Mechanical & Engineering Properties of Geological Materials
    - .6 Petrology
  - 4.4 Sedimentary and Geomorphic Processes
  - 4.5 Environmental and Engineering Geology
    - .1 Environment Geology
    - .2 Urban Geology
    - .3 Engineering Geology
  - 4.6 Identification of Resources
    - .1 Oil & Gas Resources
    - .2 Coal & Peat Resources
    - .3 Radioactive Mineral Resources
    - .4 Geothermal Resources
    - .5 Metallic Mineral Resources
    - .6 Industrial & Construction Minerals Resources
  - 4.8 Support Services
  
- 5. Earth Physics Service
  - 5.1 Seismological Service
  - 5.2 Geothermal Service
  - 5.3 Geomagnetic Service
  - 5.4 Gravity Service
  - 5.5 Geodynamic Service
  - 5.6 Support Services
  
- 6. Remote Sensing Service
  - 6.1 Applications Development
  - 6.2 Data Acquisition, Processing and Dissemination
  - 6.3 Applied Research
  - 6.4 Scientific and Technical Support
  - 6.5 Management and Administration

- 7. Geographic Service
  - 7.1 National Geographic Mapping
  - 7.2 Toponymy
  - 7.3 Map Distribution
  - 7.4 National Air Photo Library
  - 7.5 Support Services
  
- 8. Polar Continental Shelf
  - 8.1 Logistics
  - 8.2 Glacier and Sea Ice Physics
  - 8.3 Scientific and Technical Cooperation
  - 8.4 Support Services
  
- 9. Support to Other Agencies
  - 9.1 Aeronautical Charting
  - 9.2 Property Surveys
  - 9.3 Mapping Support
  - 9.4 ICAS Secretariat
  - 9.5 Cartographic Support
  - 9.6 GSC Support – Other Programs
  - 9.7 Support Services

GEOLOGICAL SURVEY OF CANADA  
ACTIVITY CLASSIFICATION

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**1 National Geoscience Base**

**11 Systematic Surveys**

- 111 Geological Mapping
  - 1111 Standard bedrock
  - 1112 Reconnaissance bedrock
  - 1113 Standard surficial
  - 1114 Reconnaissance surficial
  - 1115 Offshore bedrock and surficial
- 112 Geophysical surveys
  - 1121 Aeromagnetic
  - 1122 Marine multidisciplinary
- 113 Geochemical surveys
  - 1131 Airborne radioactivity-reconnaissance
  - 1132 Ground geochemistry-reconnaissance

**12 Regional Analyses and Syntheses**

- 121 Sedimentary Basins
- 122 Geological Provinces
- 123 Geographic Regions (landmass attributes)

**13 National Compilations and Syntheses**

- 131 National topical maps
- 132 National Geological Atlas
- 133 Crustal Tectonic Framework
- 134 Participation in Internal Geoscience Map Compilation

**14 Standards, Properties and Control Studies**

- 141 Nomenclature and Classification
- 142 Geochronology
  - 1421 Paleontology
  - 1422 Radiometric Dating
  - 1423 Paleomagnetic Dating
- 143 Physical, Chemical and Mechanical Property Measurements
  - 1431 Rocks
  - 1432 Unconsolidated sediments
  - 1433 Minerals and Ores
- 144 Geological Processes
- 145 Petrology
- 146 Reference Collections and Catalogues
  - 1461 Collections
  - 1462 Catalogues

**2 Geoscience Resource Guidelines and Technology (Resource Identification)**

**21 Guidelines**

- 211 Fossil Fuels
- 212 Mineral Deposits
- 213 Surficial Materials
- 214 Geoscience Attributes – Resource Development or Natural Hazards

- 22 Technology (Development and Evaluation)
  - 221 For Description of the Resource Base
  - 222 For Resource Identification
  - 223 Ancillary Geoscience Techniques

### 3 Determination of Resource Endowment

- 31 Analysis, Appraisal and Measurement
  - 311 Oil and gas
  - 312 Coal
  - 313 Uranium
  - 314 Geothermal energy
  - 315 Non-energy Minerals
  - 316 Industrial Minerals
  - 317 Construction Materials
  - 318 Terrain Capability
  - 319 Terrain Hazards
- 32 Methodology

### 4 Information Management

- 41 Acquisition, Storage and Cataloguing
  - 411 Geological Library and Map Collection
  - 412 Technical and Scientific Files
    - 4121 Central Technical Files
    - 4122 Well Log Files
    - 4123 Project-oriented Files
    - 4124 Archival Files
- 42 Output
  - 421 Inter- and Intra-departmental Reports
  - 422 Lectures, Workshops and Consultations
  - 423 Open Files
  - 424 Branch Publications
  - 425 Publications in Scientific Journals
  - 426 Notification and Distribution of Publications
- 43 Public Relations
  - 431 Written and Oral Replies to Enquiries
  - 432 Geology for the Public
    - 4321 Mineral and rock sets
    - 4322 Identification of Specimens
    - 4323 Guides to Rock and Mineral Collecting
- 44 Information Services
  - 441 CAN/SDI (Computerized)
  - 442 Library Search and Reference
  - 443 Loans of Books
  - 444 Notification of Acquisitions
- 45 Data-Base Management Group
  - 451 Auto Cartography
  - 452 Liaison in Data-base Management

- 46 Scientific Liaison
  - 461 National Committees
  - 462 International Collaboration
    - 4621 C.G.L.O.
    - 4622 I.U.G.S.

5 Supporting Services

- 51 Branch Administration
  - 511 Managerial
  - 512 Administration
  - 513 Clerical
- 52 Branch Scientific Support
  - 521 Analyses of Rocks, Minerals and Ores
  - 522 Geochronological Determinations
  - 523 Mineral Identification
  - 524 Palèomagnetic Determinations
  - 525 Identification and Interpretation of Referred Fossils
  - 526 Scientific Editing for Publication
- 53 Branch Technical Services
  - 531 Cartographic
  - 532 Instrument Development and Maintenance
  - 533 Lapidary
  - 534 Preparation of Fossils and Fossil Collections
  - 535 Photographic
- 54 Geoscience Services to Other Agencies





## LIST OF ABBREVIATIONS USED

### DIRECTOR GENERAL'S OFFICE – DGO

DS – Data Systems Group  
SP – Special Projects

### ATLANTIC GEOSCIENCE CENTRE – AGC

EPG – Eastern Petroleum Geology Subdivision  
RSBS –Regional Stratigraphy Basin Synthesis  
SS –Stratigraphy Sedimentology

EMG – Environmental Marine Geology Subdivision  
CGD –Coastal Geodynamics  
IGC –Inorganic Geochemistry  
OGC –Organic Geochemistry  
PEc –Paleoecology

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  
DRC –Data Retrieval and Compilation

### 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

P – Paleontology Subdivision  
MaP –Macropaleontology  
MiP –Micropaleontology  
OP –Ottawa Paleontology

RG – Regional Geology Subdivision  
AI –Arctic Islands  
CTS –Curation and Technical Services  
M –Mainland  
SM –Sverdrup-Mackenzie

## REGIONAL AND ECONOMIC GEOLOGY DIVISION – REG

- CPM – Cordillera and Pacific Margin Subdivision
  - MG –Marine Geology
  - GR –Geological Research
  
- CS – Correlation and Standards Subdivision
  - A –Appalachian
  - EP –Eastern Paleontology
  - G –Geochronology
  - PET –Petrology
  
- EG – Economic Geology Subdivision
  - GM –Geomathematics
  - MDB –Mineral Data Bank
  - MDG –Mineral Deposits Geology
  - URE –Uranium Resources Evaluation
  - SP –Special Projects
  
- P – Precambrian Subdivision
  - BS –Bear-Slave
  - NC –Northern Churchill
  - PMag –Paleomagnetic
  - SG –Superior-Grenville
  - SP –Special Projects

## RESOURCE GEOPHYSICS AND GEOCHEMISTRY – RGG

- R – Radiation
  - ANI –Analytical and Nuclear Instrumentation
  
- RG – Regional Geophysics
  - CS –Contract Surveys
  - DC –Digital Compilation
  - EAO –Experimental Airborne Operations
  - MM –Magnetic Methods
  - SM –Seismic Methods
  
- RIE – Resource Identification and Evaluation
  - GC –Geochemistry
  - RM –Radiation Methods
  - SM –Seismic Methods
  - SP –Special Projects
  
- TG – Terrain Geophysics
  - EM –Electrical Methods
  - SM –Seismic Methods

## TERRAIN SCIENCES DIVISION – TS

- EEG – Engineering and Environmental Geology
- MC – Marine and Coastal
- PG – Paleoecology and Geochronology
- RP – Regional Projects
- SMT – Sedimentology and Mineral Tracing
- SP – Special Projects

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	MTS	GSC Classification	Dept'l Classification
380077	Analysis of rocks and minerals Obj: To provide compositional data on geological materials as a contribution to the solution of geological problems.	Abbey, S	CLAS	-	AC	-	-	521	4435
400006*	Preparation of collections of Canadian rocks and minerals for distribution to the public 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.	Larose, JM	CLAS	-	M	NB NS Nfld Ont. Que	-	4321	447
480191	Monograph of the Canadian <u>Buchia</u> (=Auceolla) 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.	Jeletzky, JA	ISPG	P	OP	-	-	141	4431
490001	Mesozoic and Tertiary rocks of the west coast of Vancouver Island and in Quatsino Sound 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.	Jeletzky, JA	ISPG	P	OP	BC	92 E,F,L	121	4431
490038*	Miscellaneous field investigation by staff at Vancouver office 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.	Leaming, S	REG	CPM	GR	BC	104 I,J,P	54	496
500029*	Identification and biostratigraphic interpretation of referred fossils 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.	Staff of Eastern & Western Paleontology Sections	ISPG REG AGC	P CPM, EPG	CS	YK Mack BC	95 B,C 103C, 82E,K	525	4431

Asterisk in first column indicates project has a field component  
 Brackets indicate seasonal employee or other non-staff  
 Underscoring indicates province of 1976-77 field work

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
500038	Coal resources of Canada and studies of coal deposits in Canada 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.	Irvine, JA	ISPG	CG	RE	-	27,62,72,82,83	312	212
540028	Isotopic age determinations of rocks and minerals Obj: To determine the geological age of rocks, minerals and geological events using isotopic methods.	Wanless, RK	REG	CS	G	-	-	523	4432
550004*	Cretaceous and Jurassic of Richardson Mountains, Porcupine Plains and Eagle Plains 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.	Jeletzky, JA	ISPG	P	OP	Mack Yk	117,116,106	122	4431
550101*	Reference collections of minerals, rocks and ores Obj: To develop, faster and curate reference collections of minerals, rocks, and ore specimens in support of Branch activities and in the national interest.	Steady, HR	CLAS	-	M	Ont Que	-	1461	4435
570029*	Geology and evaluation of iron and manganese resources 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.	Gross, GA	REG	EG	SP	Nfld Que Ont	-	315	4465
570119*	Studies of meteorites and other extra-terrestrial material 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.	Truill, RJ	CLAS	-	M	-	-	1461	4435
570148	Radiocarbon dating program Obj: To plan and co-ordinate the radiocarbon dating program of the Geological Survey.	Blake, W Jr	TS	-	PG	-	-	1422	4433

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
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	-	-	1462	4435
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 or by commercial laboratories working under contract	Lynch, JJ	RGG	RIE	GC	Yk	105 M; 116 B	524	447
590194	Monograph of the Canadian belemnites Obj: To describe and figure all hitherto known Canadian belemnite species, genera and higher taxa. The zonal value of the individual taxa concerned is to be appraised and the results incorporated in the preliminary and final reports	Jeletzky, JA	ISPG	P	OP	-	-	141	4431
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	-	-	522	4433
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	-	-	523	4435
600353	Dibranchiate volume of the Treatise on Invertebrate Paleontology Obj: To prepare an authoritative summary of the present state of knowledge of this subclass 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	-	-	141	4431

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
610007	Operation Porcupine 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.	Norris, DK	ISPG	CG		Mack YK	106 E, F, K-N; 116 F-K, N-P	1111	4412
610011	Taseko Lakes map-area Obj: To interpret the structure, stratigraphy and geological history of the Taseko Lakes area and to evaluate the mineral potential.	Tipper, HW	REG	CPM	GR	BC	92 0	1111	4412
610014	Cretaceous stratigraphy, Peace River to 600 Obj: To describe the stratigraphic successions, to collect samples for laboratory studies and to collect fossil flora and fauna; to provide data on the correlation of Cretaceous strata, their lateral variations, their potentialities as sources of oil and gas and their suitability as reservoirs for those fuels; to establish the relationships with equivalent successions studies between Peace and Smoky Rivers and in the region of Liard and Mackenzie Rivers.	Stott, DF	ISPG	-	-	BC	94 A, B, 6, J, K, O, P	121	4421
610019*	Ordovician and Silurian Biostratigraphy of British Columbia, Alberta, Manitoba Yukon, Mackenzie & Franklin 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.	Norford, BS	ISPG	P	-	Frank Mack Yk BC Alta Man	36, 37, 47-49, 54, 57-59 67-69 82 J, 83, 85, 94-97, 104-106, 116, 117, 120, 340	1421	4431
610269*	Petrographic examination of coking coals from the Kootenay Formation, Alberta and British Columbia Obj: To determine the coking properties and to prepare seam profiles for correlation and environment of deposition studies on coals of the Kootenay Formation.	Cameron, AR	ISPG	CG	CT	Alta BC	Pts 82 G, J, O	211	4462
620012	Volcanology of the Yellowknife Group Obj: To survey possible sites in the Yellowknife volcanic belts for future work and while in Yellowknife to log and sample a very long drill hole that was recently completed within Yellowknife Group volcanics by Giant Yellowknife Mines Ltd.	Baragar, WRA	REG	P	-	Mack	85J, Parts of 76SE, SW, NW and 86 NE.	121	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
620018*	Geological survey of NTS 82 J W $\frac{1}{2}$ (Kanasakis Lakes, W $\frac{1}{2}$ ) Obj: To determine and interpret the stratigraphic structural and economic geological features of the region for publication.	Leech, GB	REG	EG	-	BC	82 J	122	4412
620308	Electron beam microanalysis Obj: To conduct studies of geological materials using techniques of electron probe microanalysis and scanning electron microscopy, in support of Branch projects.	Plant, AG	CLAS	-	M	-	-	523	4435
630003	Operation Grant Land - NE Ellesmere Island and N Greenland Obj: To obtain a better understanding of the geological features of an orogenic belt extending across northeastern Ellesmere Island into adjacent Greenland.	Christie, RL	ISPG	RG	AI	Frank	120 C-G; 340 C-G	1111	4412
630016	Coast Mountains project 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.	Roddick, JA	REG	CPM	GR	BC	92 F NE $\frac{1}{2}$ , G W $\frac{1}{2}$ , J, K, L NE $\frac{1}{4}$ , M, N; 93 D; 102 P; 103 A, G, I W $\frac{1}{2}$ , J, N, P W $\frac{1}{2}$	1111	4412
630017	Operation Liard 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.	Taylor, GC	ISPG	RG	-	BC	94 F, G, N	1111	4412
630037*	Geology of Canadian nickel and platinum group deposits 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. The work entails: development of systematic records and appraisals of geological data; use of these to classify types of deposits of economic commodities and to determine criteria for their recognition; development of understandings of the relationships between deposit types and their geological environments; development of concepts on genetic processes that govern these relationships; application of the foregoing to determine regions and geological units favourable for the occurrence of each type of deposit, and estimates of mineral resources therein. The work further entails transmitting information and advice through consultations, reports and maps to government agencies and others.	Eckstrand, OR	REG	EG	MDG	Sask Man Ont Que	32 A; 41 I, P; 42 A, B; 53 E; 630, P; 64 C; 74 H; 35G, H	315	4465



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
630049*	Electrical Rock Properties Obj: To determine the frequency spectral characteristics of the electrical properties related to rock, mineral and soil types, and to rock texture, dissemination, pore structures and pore water structures, for development of new electrical and electromagnetic sounding methods, to solve specific problems of mineral exploration and/or geotechnical engineering.	Katsube, TJ	RGG	-	EM	Ont NB	<u>41 I, 31 F, 21 P</u>	143	4435
640032	Devonian biostratigraphy of Lake Manitoba-Lake Winnipegosis region Obj: (a) more precise correlations of the Manitoba Devonian sequence with other areas; (b) delineation of reefs in the Winnipegosis Formation and assessment of hydrocarbon potential; (c) more precise facies relationship between the Winnipegosis Formation and the, in part, laterally equivalent Prairie Evaporites which contains valuable deposits of potash; and (d) to show the extent of intermingling of faunal elements of Cordilleran and Appalachian faunal provinces.	Norris, AW	ISPG	P	MaP	Man	62 I, J, O; 63 B, C, F	121	4421
640036	Lake Panache and Collins Inlet areas, Ontario Obj: To revise the stratigraphy and structure of the Huronian succession as previously shown (GSC maps 220A and 221A); to determine the nature of the Grenville Front within the area and the effect of metamorphism on the Huronian formations; and to determine the metamorphic and structural history and the mineral potential of the map areas.	Frarey, MJ	REG	P	SP	Ont	41 I/3, 41 H/14	122	4421
640048*	Study of mineral collecting areas of interest to collectors and tourists 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.	Stenson, Mrs AP	CLAS	-	M	Ont Que	<u>31 C, F, G</u>	4323	447
640125	General metallogeny of Canada 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.	Leech, GB	REG	EG	-	-	-	131	4465

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	MTS	Dept. Classification	Dept. Classification
640402	Certification of bedded and non-bedded mineral deposits 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.	Leech, GB	REG	EG	-	-	-	54	496
640420	Geological observations at potash mines, Saskatchewan 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.	Price, LL	ISPG	RG	CTS	Sask	Pts 62 I/16, K/5, 12; 72 O/16, P/13, 14; 73 B/1, 2, 3	121	4421
650003	Cornwallis and adjacent smaller Islands Obj: Improve the understanding of the age, structure, sequence, relationship, thickness of bedrock formations with a view to helping; assess the size, grade, mode of occurrence, origin, and potentialities of any fuel or mineral deposits that may occur; and improve the knowledge and understanding of the morphology of the Silurian and Devonian ostracoderms of Cornwallis Island, thus aiding in the establishment of a more useful stratigraphic framework for the region, and contributing to	Thorsteinsson, R	ISPG	RG	AI	Frank	58 F, G; 68 E, H 59 B	1111	4412
650007*	Ocean aeromagnetics 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.	Bower, ME	REG	RG	MM	Ont Que	31 H, F	121	4416
650008	Stratigraphy, sedimentology and correlation of Nonacho Group, N.W.T. 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.	McGlynn, JC	REG	P	BS	Mack	Pt. of 75 E, F, K	122	4421
650010	Operation Selwyn Obj: To establish the stratigraphic sequence and determine the nature of abrupt facies changes in lower Paleozoic rocks of western Mackenzie and Selwyn Mountains, and to study the relationship and distribution of formations that are host to large base metal deposits, as a contribution to the economic development of the north.	Blusson, SL	REG	CPM	GR	Mack Yk BC	105 A, H, I, P; 104 O; 95D	1111	4412

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
650015	Geology of the Mt. Edziza volcano Obj: A detailed investigation of the geology, petrology and petrochemistry to determine the history and processes of evolution and relationship to contemporaneous plutons in the Stikine region.	Souther, JG	REG	CPM	GR	BC	104 G, J	1431	4421
650023	Operation Bow-Athabasca 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.	(Price, RA, Prof)	ISPG	RG	M	BC Alta	83 C, D, E½; 82 J E½, N E½, O W½	121	4412
650024*	Cambrian biostratigraphy of the Canadian Cordillera Obj: To identify and describe Cambrian fossils from the Canadian Cordillera, ascertain their relative stratigraphic positions, and provide faunal correlations for their enclosing strata	Fritz, WH	REG	CS	EP	<u>Mack YK</u> <u>BC Alta</u>	<u>105 P; 106 A; 94 C; 94 F</u>	1421	4431
650027*	Quaternary of southern Alberta Obj: To gain knowledge of Quaternary Stratigraphy, chronology, environments and climates in southern Alberta.	Stalker, AM	TS	SP	SP	<u>Alta Sask</u>	<u>72, 73, 82, 83</u>	122	4422
650056*	Geology of lead and zinc deposits in Canada 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. The work entails: development of systematic records and appraisals of geological data; use of these to classify types of deposits of economic commodities and to determine criteria for their recognition; development of understandings of the relationships between deposit types and their geological environments; development of concepts on genetic processes that govern these relationships; application of the foregoing to determine regions and geological units favourable for the occurrence of each type of deposit, and estimates of mineral resources therein. The work further entails transmitting information and advice through consultations, reports and maps to government agencies and others.	Sangster, DF	REG	EG	MDG	<u>Que NS</u>	<u>32 D, F, K</u>	315	4465

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
650466	Isotopic study of mica-bearing rocks yielding anomalous K-Ar 'ages' Obj: To undertake detailed isotopic investigations in regions where 'anomalous' K-Ar age relationships have been found in order to establish the true age of the rocks, the time when the isotopic systems were disturbed, and to gain an understanding of the natural processes responsible for the disturbance.	Manless, RK	REG	CS	G	-	-	522	4432
660006	Granite studies in the Ennadai-Rankin Inlet region Obj: To classify the granitic rocks according to age, geological and chemical nature, geophysical parameters where available and to relate them to the regional geology and mineral deposits.	Davidson, A	REG	P	SG	Kee	55 E,F,K,L, 65 H,I	144	4436
660009*	A stratigraphic sedimentological and structural study of the Wilson Island Group, Union Island Group, Great Slave Supergroup and Et-Then Group, East Arm of Great Slave Lake, District of Mackenzie 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 to reconstruct the Pateogeographic history of the sedimentary basin.	Hoffman, PF	REG	P	BS	Mack	75 E,L,K; 85 H,I	121	4421
660013	Operation Torngat Obj: To determine and interpret the overall geological environment of the area east of longitude 68° and north of latitude 55° in order to ascertain its geological history and assess its mineral potential.	Taylor, FC	REG	P	SP	Que Nfld	13 M,N,O; 14 C,D,E,F,L, M,W; 24 A,B,G-J,O,P; 23 P; 25 A	1112	4411
660026	Conodont biostratigraphy of Lower to Upper Devonian strata of southwestern Ontario Obj: To establish condont zonations of Devonian strata of southwestern Ontario, and to facilitate the more precise correlations of these strata with other sequences, such as the North American standard in New York State, and the mondial standards of France, Belgium and Germany.	Uyeno, TT	ISPG	P	MiP	Ont	30 L,M; 40 G,I,J,O,P	1421	4431
670002	Operation Bylot Obj: A reconnaissance geological survey of a previously unmapped area to describe and interpret the broad geological framework and outline areas of potential economic interest.	Jackson, GD	REG	P	NC	Frank	37; 38, 47; 48	1112	4411

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
670003	Anorthosite study Obj: To examine three large anorthosite intrusions between Michikamau Lake and Nain, Coast of Labrador for purposes of comparison with Michikamau Intrusion (including mineral potential).	Emslie, RF	REG	CS	Pet	Que Nfld	13 L,M,N; 23 I	122	4421
670016	S.W. Ellsemere - W. Devon Islands (Operation Grinnell) 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.	Kerr, JW	ISPG	RG	AI	Frank	49 B,C; 59 A,B; 69 A	1111	4412
670019	Stratigraphy, structure, and carbonate petrology of the Marble Canyon Formation Obj: To clarify the understanding of the stratigraphy, structure, and carbonate petrology of the Marble Canyon Formation.	Trettin, HP	ISPG	RG	AI	BC	92 P/4	122	4421
670028	Geology of rare earth deposits of Canada 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. The work entails: development of systematic records and appraisals of geological data; use of these to classify types of deposits of economic commodities and to determine criteria for their recognition; development of understandings of the relationships between deposit types and their geological environments; development of concepts on genetic processes that govern these relationships; application of the foregoing to determine regions and geological units favourable for the occurrence of each type of deposit, and estimates of the mineral resources therein. The work further entails transmitting information and advice through consultations, reports and maps to government agencies and others.	Rose, ER	REG	EG	MDG	-	-	315	4465
670041*	Electrical mapping techniques Obj: To assess the capabilities and limitations of using galvanic and electromagnetic techniques as a means of providing geological information, delineating faults and shear zones, and mapping permafrost occurrence and thickness.	Scott, WJ	REG	TG	EM	Mack Frank Ont	95 H; 96 E; 107 C,B; 117 A; 38 C; 48 C-F; 76 G; 31 E,F,G	221	4435

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
670068	Operation Norman	Cook, DG	ISPG	RG	M	Mack	86 W $\frac{1}{2}$ ; 96; 97; 106 E $\frac{1}{2}$ ; 107 E $\frac{1}{2}$	1112	4411
	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								
670557	Stratigraphy and age of Precambrian sedimentary rocks and contained sills and dykes, Thule Basin	Christie, RL	ISPG	RG	AI	Frank	120; 340; 560; 29; 39; 49; 59; 28; 38; 48; 58; 27; 37; 47; 57	1111	4412
	Obj: (a) To correlate or distinguish Precambrian sedimentary basins and to obtain information on movement of continental masses; (b) aided by age-determinations on diabase-gabbro sill rocks and other intrusive rocks, to compare the tectonic history of the Precambrian sedimentary rocks of the region.								
670576*	Canadian Triassic Ammonoidea and Bivalvia	Tozer, ET	ISPG	P	OP	Frank Yk BC Alta	103 C,F; 104 P; 106 D; 116 B	1421	4431
	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	1423	4434
	Obj: To obtain paleomagnetic pole positions from various Proterozoic red bed sequences in the western Precambrian Shield for purposes of correlation.								
680015	Geological reconnaissance of eastern Devon Island and southeastern Ellesmere Island	Christie, RL	ISPG	RG	AI	Frank	38 F; G; 48 E-H, 39 B,C, F,H, 49 A,B,D	1111	4412
	Obj: (a) Obtain reconnaissance data on the Precambrian rocks for the correlation with the Precambrian rocks of Baffin and Ellesmere Island and of Greenland; (b) obtain reconnaissance data on the sedimentary rocks so that the stratigraphy of the Ellesmere-Devon-Baffin region may better be understood.								

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept.'l Classification
680017	Sedimentology-engineering geology laboratory development and operation 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.	Podolak, WE	TS	-	SMT	-	-	53	444
680023	X-ray diffraction analyses and mineralogical studies Obj: To provide X-ray diffraction analyses and mineralogical studies in support of Branch projects.	Truill, RJ	CLAS	-	M	-	-	523	4435
680027	Surficial geology, Tawatinaw area Alberta 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 and engineering construction and to determine the Quaternary history of the region.	Richard, SH	TS	-	RP	Alta	83 I	1113	4413
680031*	Quaternary stratigraphy of Old Crow Basin and Porcupine River Valley 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.	Hughes, OL	TS	-	SP	Yk Mack	105 D,E; 106 E,F; 115 I,O,P; 116 B,I,N,O,P 117 A	123	4422
680037*	Hammer seismic surveys Obj: To determine thickness and nature of overburden and configuration of bedrock, as requested in specific urban geology and Uranium Waste Disposal programs.	Hunter, JM	R6G	-	EM	Que NB Ont	21 N,H; 31 F,G	123	4453
680038	Geology of northern Vancouver Island Obj: To complete the reconnaissance geological mapping of the northern part of Vancouver Island, assess its mineral potential and contribute to the knowledge of the Pacific continental margin.	Muller, JE	REG	CPM	GR	BC	Pts 92 E,K,L; 102 I	1111	4412

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
680040	Proglacial geomorphology, Generator Lake Obj: To map and explain glacial, lacustrine, and related landforms and deposits associated with both present and former levels of Generator Lake and to measure pertinent aspects of modern glacio-lacustrine processes in order to elucidate the geomorphology and chronology of the area as a model of the proglacial lacustrine environment.	Barnett, DM	TS	-	RP	Frank	Pts 27C, 37D		444
680047*	Geomorphic processes, Mackenzie Valley-Arctic Coast Obj: To better understand the processes involved in the growth of permafrost and ground ice under present day conditions, and to apply knowledge of present day permafrost and ground ice growth processes to a better interpretation of old and relic permafrost, both on land and beneath the sea.	(Mackay, JR Prof)	TS	-	SP	Mack Yk	Pts 85, 95, 96, 97, 106, 107 C, 117	144	444
680055	Quaternary geology, Great Lakes Obj: To map, describe, analyze and explain unconsolidated deposits, associated organic remains and geomorphic features of the Great Lakes in order to: (1) determine Quaternary stratigraphy, history and paleoecology; (2) to identify processes operative in the lakes during the Quaternary and the factors controlling them; (3) to provide areal geological knowledge including background information for other scientific studies in the Great Lakes.	Anderson, TW	TS	-	PG	-	-	1115	4415
680060	Geology of silver and gold deposits in Canada 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. The work entails: development of systematic records and appraisals of geological data; use of these to classify types of deposits of economic commodities and to determine criteria for their recognition; development of understandings of the relationships between deposit types and their geological environments; development of concepts on genetic processes that govern these relationships; application of the foregoing to determine regions and geological units favourable for the occurrence of each type of deposit, and estimates of mineral resources therein. The work further entails transmitting information and advice through consultations, reports and maps to government agencies and others.	Thorpe, RI	REG	EG	MDG	Que Ont	52 K-N	315	4465



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
680064	Stratigraphy and Paleontology of Upper Paleozoic rocks on parts of Ellesmere and Axel Heiberg Islands 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	Massichuck, WM	ISPG	P	Map	Frank	49 B, C, F, G, H; 340 A, B, C, D; 560 A	121	4421
680066	Geology of the Cariboo Mountains, British Columbia Obj: To determine the tectonic development of the Cariboo Mountains, and their relation to the development of the Rocky Mountains.	Campbell, RB	REG	CPM	GR	BC	83 D; 93 A, H	1111	4412
680071	Alkaline rocks in Canada Obj: To identify and examine occurrences of alkaline rocks in Canada, and to explain their origin, development and emplacement.	Currie, KL	REG	CS	Pet	-	-	122	4421
680074	Geology of the Seal River map-area, Manitoba Obj: To revise, compile and interpret the available geologic and aeromagnetic data on Seal River area as a part of a general revision of geological mapping in Manitoba for assistance to the mineral industry.	Davison, WL	REG	P	SG	Man	64 N, E	1112	4412
680076	Geology of Southern Indian Lake Obj: To assess the economic potential of the area and examine regions of particular geologic interest before flooding caused by construction of the Southern Indian Lake diversion dam. Particular attention will be given to the relationships of the Sickle and Wasekwan Groups to various intrusive rocks of the region.	Davison, WL	REG	P	SG	Man	64	1111	4412
680081*	High resolution aeromagnetics (experimental surveys) Obj: To execute, according to prescribed specifications, high resolution aeromagnetic and/or gradiometer surveys over areas selected and defined by Regional Geophysics program management.	Olson, DG	REG	RG	MM	Que Man NB, NS Ont Sask BC	32 E/1,2,7,8; 32 F/9,10; 52 H/16,9; 42 E/10,11,12, 13,14,15; 31 F/7; 31 F/1	221	4416

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
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	-	-	425	496
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	93 I,O,P	1111	4421
680085	Structural and stratigraphic study of the Precambrian rocks of southwestern Keewatin, N.W.T. Obj: To determine: (1) the relationships of the known Hurwitz group rocks to other metasedimentary units, and the extent and characteristics of the original basins of deposition in order to assess their potential for mineral occurrences; (2) the petrology and mineral potential of the post-kinematic fluorite-bearing porphyritic rocks.	Eade, KE	REG	P	NC	Kee	65 A W <sub>2</sub> , B, C, G, W <sub>2</sub> , I W <sub>2</sub>	122	4421
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	-	523	4435
680091	Clay and clay minerals investigation Obj: To improve and develop techniques for routine mineralogical and chemical analyses of clays; to develop better techniques for quantitative, semiquantitative and qualitative analyses of clays and clay minerals in sedimentary rocks; 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.	Foscolos, AE	ISPG	E	GC	Alta	-	223	4435
680093*	Upper Silurian and Devonian biostratigraphy western and northern Canada 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. Paleogeological and biogeographic analyses of species and other taxonomic categories that have different time ranges in different geographic realms and ecologies.	Pedder, AEH	ISPG	P	MaP	Sask Man Alta BC Yk Frank, Mack	106 C 84 P 85 A, B, C, F 95 J	1421	4431

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
680096	Studies in the Seal Lake Volcanic Province Obj: To determine the characteristic composition, variation in composition, and stratigraphy of the Seal Lake, Croteau and Letitia volcanic successions with a view to elucidating the character of volcanism and the history of the Seal Lake belt. To provide data that may be of aid in prospecting.	Baragar, WRA	REG	P	SP	Nfld	13 K,L	122	4421
680101	Conodont biostratigraphy of Siluro-Devonian rocks of the Arctic Islands 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 graptolites, palynomorphs and brachiopods; to fix time lines in areas where strata undergo complex facies changes over relatively short distances.	Uyeno, TT	ISPG	P	MIP	Frank	49; 57; 58; 59; 68; 69; 78; 89	1421	4431
680102*	Rank and petrographic studies of coal and organic matter dispersed in sediments 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.	Hacquebard, PA	AGC	EPG	-	<u>NB Nfld</u>	12, 21	1433	4462
680109*	Palynological zonation of the Carboniferous and Permian rocks of Atlantic Provinces, Gulf of St. Lawrence and Northern Canada 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.	Barss, MS	AGC	EPG	SS	<u>NS</u>	<u>11 E</u>	1421	4431
680114	Development and supervision of mineral deposits data bank 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.	Anderson, FD	REG	EG	MDB	-	-	4124	4465

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
680119	Operation Stewart 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.	Blusson, SL	REG	CPM	GR	Mack Yk	105 N; 0; 106 B,C,	1111	4412
680135	Basin analysis of the Athabasca Sedimentary Basin Obj: To determine the sedimentary parameters of the Athabasca sedimentary basin, including the logging and evaluation of drill hole cores, so as to develop criteria of possible use in the economic development of the basin.	Fahrig, WF	REG	P	-	Sask Alta	74	121	4421
690005	Structural geology of northern Yukon Territory and northwestern District of Mackenzie 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.	Norris, DK	ISPG	CG	-	Yk Mack	117 A,B,C,D, 107 B,C	1111	4421
690006*	Lower and Middle Paleozoic biostratigraphy of Gaspé Maritime region and Newfoundland Obj: To obtain data on the Lower and Middle Paleozoic rocks of Quebec, New Brunswick, Nova Scotia and Newfoundland from which may be provided; (1) description and classification of the significant macrofauna of each stratigraphic unit studied; (2) local and regional correlation consistent with the above data.	Dean, WT	REG	CS	EP	NS Nfld BC, Alta Que	1 N; 2 C,E; 11 K; 12 B,I; 31 H; 83 C,E	1421	4431
690009	Smithers map-area 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.	Tipper, HW	REG	CPM	GR	BC	93 L	1111	4412
690018	Cretaceous and Tertiary conglomerates and sandstones of the eastern Cordillera Obj: To answer questions relating to the distribution and tectonic implications of the Cretaceous and Tertiary conglomerate facies; the sequence and distribution of source uplifts and the nature of the sedimentary environment; to provide the oil and gas industry with more facts on which to base the interpretation of the migration and present structural and stratigraphic distribution of hydrocarbons; and to analyse the relationships between tectonic activity and facies distribution in orogenic belts of the Rocky Mountains and Alpine types.	Ollerenshaw, NC	ISPG	GC	CG	BC Alta	82; 83	121	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
690038	Probability models for estimating mineral potential Obj: To develop a statistical method employing geological information to assess the probability of occurrence of specific types of mineral deposits in geographically-delineated areas.	Agterberg, FP	REG	EG	GM	-	-	32	312
690043	Quaternary geology inventory, southern Labrador 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.	Fulton, RJ	TS	-	RP	Nfld	12 P; 13 A-K; pts 13 L,N,O; 23 H	1113	4413
690047	Quaternary geology, Beaufort-Mackenzie Obj: To map and explain Quaternary deposits and landforms in order to: (1) establish their sequence and age and outline the history of preglacial, interglacial, glacial and postglacial events; and (2) provide areal and stratigraphic geological information including data applicable to permafrost and engineering studies and petroleum development	(Rampton, V)	TS	-	RP	Mack Yk	97 F; 107 B,C,D,E; 117 A,C,D	1113	4413
690054	Erosion in a permafrost environment 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.	Heginbottom, JA	TS	-	EEG	Mack	107 B and 107 C (parts of)	214	444
690061	Operation Penny Highlands Obj: A reconnaissance geological survey of a previously unmapped area to describe and interpret the geological framework and outline areas of potential economic interest.	Jackson, GD	REG	P	NC	Frank	Pts 16, 26, 27, 36, 37	1112	4411
690064*	Quaternary palynology 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.	Mott, RJ	TS	-	PG	Ont Que BC NB	82 E,L; 92 H,I; 31 G,F <u>21 G,H,I,J,O,P</u>	525	4431

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
690065	Quaternary geology St. Anthony - Blanc Sablon, Newfoundland	Grant, DR	TS	-	RP	Nfld	Pts 2 M; 12 H, I, P	1113	4413
	Obj: To map, describe and explain the Quaternary deposits and landforms in order to provide: (1) areal geological information including data applicable to land inventory surveys, engineering development, and geochemical mineral exploration surveys; and (2) knowledge of stratigraphy and age of Quaternary features and history of Quaternary events and environments including glaciation, deglaciation, local sea level change.								
690072*	Federal-Provincial Aeromagnetic Survey, Contract No. 69-54 Labrador, Melville Peninsula,	Ready, EE	RRG	RG	CS	Frank Kee Mack Nfld	76 L, M; 86 E- P; Pts 86 A-C; Pts 3 D, E; 13 A-O; 14 C-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	1121	4416
	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	1421	4431
	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.								
690089	Analysis of international reference samples	Abbey, S	CLAS	-	AC	-	-	1431	4435
	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	-	-	223	4435
	Obj: To develop, modify and improve methods for the analysis of geological materials, using chemical and instrumental methods.								

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept.'l Classification
690095*	Properties and provenance of till 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.	Shilts, WW	TS	-	SMT	NS Que	38 B,C; 11 D,E,F 21 E,L	1432	444
700003	Kootenay River (NTS 82) map area, 1:1 million Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological atlas of Canada. More detailed objectives are as of April 1, 1969 File 116-6-4.	Okuitch, AV	REG	CS	Pet	-	-	132	4423
700008	St. Mary's River (NTS 11) map-area, 1:1 million Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological atlas of Canada. More detailed objectives are as of April 1, 1969 File 116-6-4.	Poole, WH	REG	CS	A	-	-	132	4423
700011	St. John River (NTS 21) map-area, 1:1 million Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological atlas of Canada. More detailed objectives are as April 1, 1969 File 116-6-4.	Poole, WH	REG	CS	A	-	-	132	4423
700014	Mineral indicator tracing, southern Keewatin 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).	Shilts, WW	TS	-	SMT	-	-	2213	444
700015	Yellowknife and Hearne Lake map-areas, District of Mackenzie Obj: To revise and interpret the geology and economic potential of the Precambrian terrain of the project area known only through earlier gross reconnaissance.	Henderson, JB	REG	P	BS	Mack	85 I,J	1111	4412

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
700016	Plaster Rock (east half) map-area, NB Obj: To determine the stratigraphy, structure, and igneous metamorphic and tectonic history of a portion of the Central Mineral Belt of New Brunswick, as an aid to the economic development of the area.	Skinner, R	REG	P	-	NB	21 J/14 E½	122	4421
700018	Paleomagnetism and rock magnetism instrumentation and technological development 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.	Christie, KW	REG	P	PMag	Ont	-	223	4434
700025	Operation Snag-Yukon Obj: To provide geological information on the age sequence, structure, relationships, thickness and origin of the bedrock formation and on the origin, mode of occurrence and economic potential of the associated mineral deposits.	Templeman-Kluit, D	REG	CPM	GR	YK	115 O,W, 1/3, N E½, H,K, E½, J	1111	4412
700026	Cordilleran volcanic project Obj: To interpret data on volcanism in the Cordillera from other Survey projects and outside sources in order to advise and assist departmental geologists, other scientists and the public and industry with problems related to volcanology.	Souther, JG	REG	CPM	GR	YK BC	104 G	122	4421
700027*	Comparative studies of ancient and modern sedimentary environments Obj: The objective is to familiarize the participants with the types of observation that may identify specific conceptual models of depositional environments to enable the participants to both recognize such environments and to critically evaluate the models proposed.	Taylor, GC	ISPG	RG	-	-	-	422	4421
700034*	Devonian biostratigraphy of the northern Yukon Territory and adjacent District of Mackenzie Obj: (a) delineation of facies distribution of Devonian rocks in northwestern Canada; (b) identifying and determining ranges of fossils for 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.	Norris, AW	ISPG	P	MaP	Alta Mack YK	116, 117, 106, 74 M 84 P 85 B,C	121	4421



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
700037*	Geology of the southern Alberta Foothills, Highwood River to Athabasca River 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.	Ollerenshaw, NC	ISPG	CG	CG	Alta	82 O,J; 83 B,C,E	121	4421
700045	Belcher Channel and Ballantyne Strait (NTS 59,69,79,89,99) map-area. 1:1 million Geological Atlas Program 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.	Nassichuk, WM	ISPG	P	MaP	Frank	59; 69; 79; 89; 99	132	4423
700047	Operation Finlay 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.	Gabrielese, H	REG	CPM	GR	BC	94 C Ek, F W%, E	1111	4412
700048	Petrology and structure of the Daly Bay Complex and environs Obj: To determine the petrology and structure of the anorthosite-gabbro-gneiss-granulite complex in the Daly Bay region in order to provide an understanding of the origin, age, and stratigraphic relations within the complex as well as to the surrounding gneisses.	Gordon, TM	REG	CS	Pet	Kee	56 A South half parts of 55 P and 46 D	122	4436
700056	Surficial geology, Cape Breton Island Obj: To map, describe and explain the surficial deposits and landforms in order to provide: (1) areal geological information with particular reference to the needs for data required for industrial development and mineral exploration; and (2) knowledge on the stratigraphy and age of Quaternary features and of the history of Quaternary events and environments including glaciation, deglaciation, and local sea-level change.	Grant, DR	TS	-	RP	MS	11 F,G,J,K	1113	4413

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
700059*	Geology of copper and molybdenum deposits in Canada 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. The work entails: development of systematic records and appraisals of geological data; use of these to classify types of deposits of economic commodities and to determine criteria for their recognition; development of understandings of the relationships between deposit types and their geological environments; development of concepts on genetic processes that govern these relationships; application of the foregoing to determine regions and geological units favourable for the occurrence of each type of deposit, and estimates of mineral resources therein. The work further entails transmitting information and advice through consultations, reports and maps to government agencies and others.	Kirkham, RV	REG	EG	MDG	-	-	315	4465
700061*	Seismic-Precambrian Shield 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 Comrad discontinuity, etc.	Overton, A	REG	RIE	SM	Que NB	21 E; 32 C, G	222	4421
700065	Petrological studies in the vicinity of the Kisseynew Front Obj: To determine metamorphic reactions and isograds associated with the Kisseynew Front as a contribution to the understanding of metamorphism in Precambrian orogenic belts and its effects on mineral deposits.	Froese, E	REG	CS	Pet	Man	63 K/16 E½; 63 J/13 W½	145	4436
700073	Operation Northern Melville Peninsula Obj: To determine the general structural, historical and economic geology of a previously unmapped terrain in order to aid in the future economic development of northern Canada.	Heywood, WW	REG	P	NC	Frank	Pts 47 A,B,C,D	1112	4412

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
700092*	Surficial geology and geomorphology Mackenzie Bay-Continental Shelf  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.	Blasco, SM	TS	-	MC	Frnk Yk	Pts 87, 97, 107, 117	1115	4415
700093	Pleistocene geology, Lake Ontario Basin  Obj: In connection with the International Field Year for the Great Lakes (IFYGL) to prepare a map showing the distribution of the surficial deposits and geomorphic features of the Lake Ontario Basin, including the bed of the present lake.	(Henderson, EP)	TS	-	RP	Ont	31 D/9; pts 31 D/10 15, E/1,2,7,8	122	4422
710010	Northern Basin Analysis Program: Great Bear map-area  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, gas and mineral potential of the region.	Williams, GK	ISPG	RG	M	Mack	96	121	4421
710011	Northern Basin Analysis Program: Redstone map-area  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 oil, gas, and mineral potential of the region.	Williams, GK	ISPG	RG	M	Mack	95	121	4421
710012	Study of the Ramah Group and of Proterozoic-Archean relationships in northern Labrador  Obj: To determine the following parameters relative to the Ramah Group. (1) Stratigraphy, sedimentology and mineral potential. (2) Interactions between Ramah Group and Archean Basement. (3) Nature and history of Archean-Proterozoic boundary. (4) Distribution of metamorphic facies and relationships to structures.	Morgan, WC	REG	P	NC	Nfld	14 L/10,11,14,15 14 W/3,4,6	122	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept '1 Classification
710013	Northern Basin Analyses Program: Peel River map-area  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.	Pugh, DC	ISPG	RG	M	Mack Yk	106; 116	121	4421
710020	Surficial geology and land classification, Mackenzie Valley Transportation Corridor  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.	Hughes, OL	TS	-	SP	Mack Yk	96 B-F; 106 G-P; 116 N,O,P	1113	4412
710022*	Carboniferous and Permian biostratigraphy and coral faunas, western and northern Canada  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.	Bamber, EW	ISPG	P	MaP	Frank Mack Yk BC Alta	49; 59; 69; 78; 79; 82 G,H,J,M; 83 B,C,D,F,G; 92-95; 103-106; 115-117; 340; 560	1421	4431
710023*	Granite studies in the Slave Province (Phase I)  Obj: To classify the granitic rocks according to age, geological and chemical nature, geophysical parameters where available, and to relate them to the regional geology and to mineral deposits.	Davidson, A	REG	P	SG	Mack	85 I,P	1431	4421
710027	TheLon River (66,76) map-area; 1:1 million Geological Atlas Program  Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological Atlas of Canada. More detailed objectives are as April 1, 1969 on File 116-6-4.	Fraser, JA	REG	P	NC	Mack Kee	66, 76	132	4423

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	#MTS	GSC Classification	Dept'l Classification
710028	Great Bear River (86,96) map-area; 1:1 million Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological Atlas of Canada. More detailed objectives are as April 1, 1969 on File 116-6-4.	Fraser, JA	REG	P	NC	Mack	86, 96	132	4423
710033	Northern Basin Analysis Program: Slave River map-area 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.	Williams, GK	ISPG	RG	M	Mack	85	121	4421
710036	Northern Basin Analysis Program: Firth River and Horton River map-areas 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.	Young, FG	ISPG	RG	SM	Mack Yk	107; 117; 87; 97	121	4421
710038	Juniper (east half) map-area, NB Obj: To determine the stratigraphy, structure and igneous, metamorphic and tectonic history of a portion of the Central Mineral Belt of New Brunswick as an aid to the economic development of the area.	Skinner, R	REG	P	-	NB	21 J/11 E½	122	4421
710047	Surficial geology and geomorphology, Mackenzie Valley Transportation Corridor (southern part) Obj: To map, describe, and explain the unconsolidated deposits, landforms, permafrost, ground ice, and muskeg cover of the Mackenzie Valley (southern part) in order to (1) provide areal knowledge of geology and terrain, particularly land-use planning, pipeline proposals and other aspects of development and engineering construction; and; (2) determine the quaternary history of the region.	(Hawes, RJ)	TS	-	RP	Mack	85 D, E; 95 A, B, G, H, I, J, K, N, O	1113	4413

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov.	NTS	GSC Classification	Dept'l Classification
710048	Geological and geophysical studies of the Pacific Continental Margin 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.	Tiffin, DL	REG	CPM	MG	BC	Pts 92; 102; 103	1122	4417
710049*	Geological and geophysical studies in the Beaufort Sea Obj: To produce a magnetic anomaly map and selected shallow seismic profiles of the Beaufort Sea.	Currie, RG	REG	CPM	MG	Mack	87, 97	1122	4417
710050	Lockhart River (NTS 75) map-area 1:1 million Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological atlas of Canada. More detailed objectives are as April 1, 1969 of File 116-6-4.	McGlynn, JC	REG	P	BS	Mack	75	132	4423
710051	Slave River (NTS 85) map-area 1:1 million Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological atlas of Canada. More detailed objectives are as April 1, 1969 of File 116-6-4.	McGlynn, JC	REG	P	BS	Mack	85	132	4423
710059*	Stratigraphy and sedimentology of the Mesozoic and Tertiary rocks of the Atlantic continental margin 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.	Jansa, LF	AGC	EPG	SS	-	-	121	4421
710062	Biostratigraphic zonation (Palynology) of the Mesozoic and Cenozoic rocks of the Atlantic Shelf Obj: Establish a detailed biostratigraphic framework for the Mesozoic-Cenozoic sediments in the Labrador Shelf, Grand Banks and Scotian Shelf wells. Correlate with coeval European type sections. Determine the geological history and paleoecology, thereby facilitating interdisciplinary studies. To assist resource evaluation and hydrocarbon inventory program.	Williams, GL	AGC	EPG	SS	-	-	1421	4431

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	MTS	GSC Classification	Dept'l Classification
710065	Biostratigraphic zonation (Foraminifera-Ostracoda) of the Mesozoic and Cenozoic rocks of the Atlantic Shelf  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.	Ascoli, P	AGC	EPG	SS	-	-	1421	4431
710083	Surficial geology, Sept-Iles Cap Chat  Obj: To map, describe and explain the Quaternary deposits and landforms in order to elucidate the glacial and postglacial history of the region and to provide areal geological knowledge with particular reference to data pertinent to engineering geology.	Dredge, L	TS	-	RP	Que	22 G/5, 6, 11, 14, 15; 22 J/1, 2, 3, E $\frac{1}{2}$	1113	4413
710091*	Palynological studies of Mesozoic and Tertiary coal measures in western and northern Canada  Obj: (1) To establish palyno-stratigraphic zonation 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.	Sweet, AR	ISPG	P	MiP	BC Alta Yk	82 B,G; 92 I	1421	4462
710092	Quaternary geology inventory, lower Nelson River Basin  Obj: To map, describe and explain the Quaternary deposits and landforms to provide areal geologic-geomorphic data and knowledge of the stratigraphy age and history of deposition of surficial materials with particular reference to: (1) terrain information required for land use (forestry) and engineering development; and (2) background information for geochemical and related surveys. To study short term performance of organic and unconsolidated terrain units along selected roads and at chosen construction sites with particular emphasis on mass-wasting and effects of permafrost.	Klassen, RW	TS	-	RP	Man	53 M; 54 C,D; 63 G,I,J O,P; 64 A,G,H,B	123	4413
720024	Gibson-MacQuoid Lakes map-area, N.W.T.  Obj: To determine the geological framework as a basis for assessing further topical studies essential for an estimate of the mineral potential of the area and for future development of the region. Particularly to subdivide the large areas of gneiss and schist and to relate them to the Precambrian stratigraphy in the adjoining map-areas.	Eade, KE	REG	P	NC	Kee	55 M,N	122	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
720037	Stratigraphy and structure of the Mount Ida Group, southern B.C. Obj: To revise the stratigraphy of the Mount Ida Group and the geology of the Shuswap Metamorphic Complex.	Okulitch, AV	REG	CS	Pet	BC	82 L, M	122	4421
720038*	Hazelton map-area Obj: To determine the geological framework of Hazelton 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.	Richards, T	REG	CPM	GR	BC	93 M	1111	4412
720039	Operation Nuvilik Obj: To determine the geological framework of the region as a basis for estimating the potential abundance and probable distribution of minerals and fuels and to aid in the future development of the region.	Taylor, FC	REG	P	SP	Que	25 E; 35 F, G, H, I, J, K	1111	4412
720041*	Upper Paleozoic rocks of western Canadian Cordillera 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.	Monger, JMH	REG	-	CPM	BC Yk	pts. of 92, 93, 94, 115 103 I; 104 A, G, I, J, K, N, P; 115 B, C, F, G	122	4421
720044	Reconnaissance of Mesozoic Foraminifera of Arctic Islands 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.	Wall, JH	ISPG	P	Mip	Frank	49, 59, 69, 79, 88, 89, 98, 340	1421	4431
720047	Stratigraphy and sedimentology of Silurian and Devonian clastic formations, central Ellesmere Island Obj: To elucidate the stratigraphy and sedimentology of the Silurian and Devonian clastic formations.	Trettin, HP	ISPG	RG	AI	Frank	49 C, E, F, H; 340 B	121	4421
720050	Stratigraphic relationships at the western edge of the Middle Cambrian carbonate facies belt, British Columbia Obj: To clarify the stratigraphic relationships across the carbonate to shale facies change; to determine the origin of the outer scarp in the upper Cathedral Formation; to test the facies.	(McIlreath, IA)	ISPG	RG	M	BC	82 N/7, 8	121	4421



Project Number	Title	Project Leader	Div	Subdiv	Sec.	Prov	NTS	GSC Classification	Dept'l Classification
720051*	Saskatchewan Coal Evaluation Program Obj: To determine the quantity, quality, mineability and recoverability of the coal resources of southern and central Saskatchewan to a sufficient degree of accuracy so that their relative position in the framework of Canada's energy supply and demand can be established and reasonably knowledgeable energy policies can be formulated concerning them.	Irvine, JA	ISPG	CG	RE	Sask	62 E,F; 72 F-H	312	212
720052	Indin Lake map-area 86 B Obj: (1) To revise and interpret to present day standards the geology of the Precambrian terrain of the area known only through early reconnaissance and semi-detailed mapping. (2) To provide a basis for assessment of economic potential of the meta-morphic sedimentary and volcanic rocks of the area.	Frith, RA	REG	P	BS	Mack	86 B	122	4421
720055	Paleomagnetism of the Lac St. Jean Anorthosite Obj: To determine the paleomagnetism of the Lake St. Jean anorthosite and its satellite bodies, to use the paleomagnetic data to determine the rotation of this block of Grenville since the intrusion of this body.	Fahrig, WF	REG	P	-	Que	22 SW; 32 SE	1423	4434
720056	Paleomagnetism of the dykes of west Greenland Obj: To determine the paleomagnetism of the diabase dyke swarms of West Greenland in order to examine the possible correlation of the rocks of this area with those of Baffin Island and the coast of Labrador.	Fahrig, WF	REG	P	-	-	-	1423	4434
720057	Terrain mapping in mountainous areas 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.	Fulton, RJ	TS	-	RP	BC	pts of 82 M,N,K,L	1113	4413
720062	Volcanic rocks of the Prince Albert Belt Obj: To determine the structure, stratigraphy and petrology of the volcanic rocks of the Prince Albert Group; their relationship to the adjacent gneisses and the enclosed basic and ultrabasic rocks. To evaluate their mineral potential.	Schau, M	REG	P	NC	Frank Kee	Pts: 46 M,N,L. 47 A,B, 56 I-K, O,P	122	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	WTS	GSC Classification	Dept'l Classification
720066	Evaluation of Canada's petroleum potential 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.	McCrossan, RG	ISPG	E	PR	-	-	311	211
720067*	Ground water geochemistry applied to uranium exploration 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.	Dyck, W	REG	RIE	GC	Sask	74 H	222	4463
720070	Gneisses of the Prince Albert Belt Obj: To determine the feasibility of further structural, stratigraphic and petrological studies of the gneissic rocks adjacent to the Prince Albert Belt of metamorphosed sedimentary and volcanic rocks.	Frisch, T	REG	P	NC	Frank Kee	Pts 46, M,N,L, 47 A,B, 56 I,J,P	122	4421
720071*	Airborne Gamma-Ray Spectrometry (Experimental Surveys) Obj: (1) 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 detailed surveys over areas of interest located on reconnaissance survey maps. (2) Provide acceptable standards for the acquisition and compilation of airborne gamma-ray spectrometric data.	Holman, PB	REG	RIE	RM	Ont Alta BC Que NB NS	11 D, E, F, K; 21 A, G, H, J, N, O; 31 C, F, J; 74 E, L, M; 72; 82; 83	131	213
720072*	Paleozoic ostracodes of Canada Obj: By means of microfossils 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.	Copeiland, MJ	REG	CS	EP	Ont Que NB NS	11 F; 21 P; 22 A, B, 30 L, M, 40 I, P	1421	4431
720073	Petrographic Analysis of Saskatchewan lignites Obj: (a) Petrographic characterization of Saskatchewan lignites; (b) Determination of vertical and lateral changes in petrographic composition; (c) Relation of petrographic composition to environments of deposition.	Cameron, AR	ISPG	CG	CT	Sask	62 E; 72 H, G, F	145	4462

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
720078	Diatom analysis and paleoecological studies of Quaternary sediments 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.	Federovich, S	TS	PG	-	-	-	525	4433
720080*	Interpretation of aeromagnetic surveys 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.	Kornik, LJ	RGG	-	MM	Ont. Man Sask	31 F, C; 55, 56, 64, 65, 66, 74, 75, 76	223	4416
720081	Surficial geology and geomorphology of Central Ellesmere Island 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.	Hodgson, DA	TS	-	RP	Frank	Pts 49 C, D, E, G, H 340 B	1113	4413
720084*	Gamma-Ray Spectrometry (Technique Development) Obj: To develop improved methods of airborne gamma-ray spectrometry data collection, analysis and presentation.	Grasty, RL	RGG	RIE	RM	Ont. Alta	31 C, F, G; 82; 83	222	245
720089	Quantification of geological variables and geomathematical estimation of mineral potential for selected areas in Canada 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 and 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.	Fabbri, AG	REG	EG	GM	-	-	315	312

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
720095	Geology of barium, fluorine and strontium deposits in Canada Obj: To carry out comprehensive research on the geology of barium, fluorine and strontium 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. The work entails: development of systematic records and appraisals of geological data; use of these to classify types of deposits of economic commodities and to determine criteria for their recognition; development of understandings of the relationships between deposit types and their geological environments; development of concepts on genetic processes that govern these relationships; application of the foregoing to determine regions and geological units favourable for the occurrence of each type of deposit, and estimates of mineral resources therein. The work further entails transmitting information and advice through consultations, reports and maps to government agencies and others.	Dawson, KR	REG	EG	MDG	-	-	315	4466
720098	Lower Paleozoic stratigraphy, southern Rocky Mountains Obj: To determine the nature, thickness, distribution and origin of Lower Paleozoic formations of the region.	Aitken, JD	ISPG	RG	M	BC Alta	82, 83	121	4421
720101*	Bottom studies of the Beaufort Sea 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.	Pelletier, BR	TS	-	SP	Frank Mack	97 C,F,G; 107 A,B,C,D,E <u>117 A,B,C,D</u>	123	445
720102	Marine Science Atlas of the Beaufort Sea 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.	Pelletier, BR	TS	-	SP	Mack Frank	97 C,F,G; 107 A,B,C,D,E; 117 A,B,C,D	123	4423
720103	Hydrocarbon inventory of the sedimentary basins of Eastern Canada 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.	Wade, JA	AGC	EPG	RSBS	-	-	311	211

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
720104*	Regional subsurface geology of Mesozoic and Cenozoic rocks of the Atlantic continental margin  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.	Wade, JA	AGC	EPG	RSBS	NS	<u>21 A,H</u>	121	4461
730001*	Primary halos and metallogenic distribution of the elements  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 metallogenic and geochemical data in regional prospecting for mineral deposits.	Boyle, RW	RGG	RIE	SP	Ont Que	-	212	4465
730004*	Applied EM problems  Obj: To develop theories for new e.m. exploration techniques with special reference to ground and airborne mapping of permafrost and unfrozen ground. To develop methods for quantitative interpretation of e.m. data. To assess various e.m. systems, analyze their deficiencies, if any, and suggest suitable remedies.	Sinha, AK	RGG	TG	EM	Ont BC Mack	<u>31 G; 30 M; 92 J; 107 C,B</u>	123	4435
730006*	Seismic properties of earth materials in the permafrost environment  Obj: To identify and delineate permafrost in continuous and discontinuous zones in the various geomorphological environments found in northern Canada; to obtain acoustic and elastic properties of permafrost and correlate these with lithology, moisture content, temperature, etc; to investigate the applicability of shallow seismic techniques in permafrost areas; to design and test new instrumentation relating to these problems.	Hunter, JA	RGG	TG	EM	Frank Yk Mack Kee	<u>107, 115, 106</u>	123	4435
730007	Automated track recovery  Obj: (1) To develop an automated flight path recovery system of sufficient accuracy to be suitable for airborne geophysical surveys. (2) To develop an improved navigation system for such surveys.	Grasty, RL	RGG	RIE	RM	-	-	223	4416

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
730012*	Federal Provincial aeromagnetic Surveys-Quebec	Knappers, WA	RGG	RG	CS	Que	24 B-G, J-N; 25 C-F; 35 A-C, F-K; Pts 23 M; 24 A, H, I	1121	4416
	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 - geomorphic process studies, Maguse River	Shilts, WW	TS	-	SMT	Ke	55 D, E, F, L; 56 D; 65 A, H, I, P; 66 A	1113	444
	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 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	-	-	52	4413
	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.								
730020	Coastal erosion-sedimentation, southeast Melville Island	McLaren, P	TS	-	MC	Frank Yk	Pts 78 E, H; 79 A	144	444
	Obj: (1) To map the modern sedimentary environments of the coast of eastern Melville and Byam Martin Islands and to study the rates of the various active sedimentary processes with particular reference to the role of permafrost and sea ice movement in the shore and nearshore zones; (2) to provide basic data to assess the impact of various human activities on the natural balance of processes with particular reference to gas pipeline concerns; (3) to gather data that will elucidate the geological history of the area.								
730021	Coastal erosion-sedimentation, northern Somerset Island	Taylor, RB	TS	-	MC	Frank	Pts 68 C, E-H; 58 F, G	144	444
	Obj: To map the modern sedimentary environments of the coast of northern Somerset Island and adjacent islands with particular reference to the processes controlling erosion, transportation, and deposition of the sediments and the role of permafrost and sea ice movement. To provide basic data that will help assess the impact of the various human activities on the natural balance of processes with particular reference to gas pipeline concerns.								

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
730027*	Late Cenozoic fossil insects and Late Cenozoic paleoecology	Matthews, JV Jr.	TS	-	PG	Mack Frank Yk BC Ont Que	117 B; 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	1421	4433
730028	Urban Geology liaison Obj: To provide biostratigraphic and paleoecologic information on late Cenozoic terrestrial sediments as an aid to interpretation of their age and environment of deposition.	Belanger, JR	TS	-	EEG	-	-	123	4452
730029	Environmental geology - Hamilton urban area Obj: To compile, evaluate, and present geological information concerning the Hamilton area to meet the needs of engineering and planning. To prepare a comprehensive source of information (maps, report, and/or data file), designed to serve as background for planning and development in the area, illustrating: (1) distribution, thickness, and physical properties of surficial and bedrock materials and (2) magnitude and effect of active geological processes.	Morin, F	TS	-	EEG	Ont	30 M; 40 P	123	4452
730031	Offshore Quaternary geology, Arctic island channels Obj: To investigate the submarine unconsolidated deposits, geomorphic and structural features of the Arctic island channels in order to: (1) provide areal geological knowledge including distribution of materials and the Quaternary stratigraphy and history; (2) to identify the sedimentary and geomorphic processes controlling sediment distribution, seabed stability and disturbances; and (3) to assemble a regional environmental geology data base relative to areas of potential development, e.g., pipeline crossings, harbours and landing areas offshore petroleum exploration and production areas, ship channels and anchorages, etc.	Bornhold, BD	TS	-	MC	Frank	Pts 48, 58	1115	4415
730035*	Operation Mt. St. Elias Obj: To determine the stratigraphy, structure, metamorphism, and relationship of intrusive and volcanic rocks, and to assess the mineral potential of the area.	Campbell, RB	REG	CPM	GR	Yk BC	114 P,0; 115 A-C,F,G	122	4412
730036*	Geology of Victoria map-area, Vancouver Island Obj: To map the geology and study stratigraphy and structure, metamorphism and petrology of the region.	Muller, JE	REG	CPM	GR	BC	92 B,C	1111	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	MTS	GSC Classification	Dept'l Classification
730037*	Stratigraphy, structure, and metallogeny of Pelly Mountains, and Yukon Plateau, Yukon Territory	Tempelman-Kluit,	D	REG	CPM	GR	Yk	105 A, F, G, H	4421
	Obj: To provide information on the relationship between stratigraphy, structure, sedimentary facies, and mineral deposits in Pelly Mountains and adjacent Yukon Plateau.								
730038	Volcanic stratigraphy and geo-chemistry of the Cape Smith belt, New Quebec	Baragar, WRA	REG	P	SP	Que		Pts 35 B, C, D, F, G, H	4421
	Obj: To determine the characteristic composition, variation in composition and stratigraphy of the volcanic succession of the Cape Smith-Wakeham Bay belt with a view to elucidating the character of volcanism and the history of the belt. To provide data that will lead to an understanding of the relationship between mineral deposits and volcanism, thus ultimately aiding in their location.								
730039	Sloan River map-area (86K), District of Mackenzie	Hoffman, PF	REG	P	BS	Mack		86 K	4412
	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	4421
	Obj: To determine: (1) the stratigraphic and structural relations in each belt; (2) the location of volcanic centres; (3) the sequence and types of volcanic eruptions and their environment of deposition; (4) the relationship of mineral deposits of volcanic stratigraphy and volcanic processes.								



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
730041	Calder River map-area, District of Mackenzie Obj: (1) To define the stratigraphic and relative age relations of Apehbian (Snare, Cameron Echo Bay (Groups) sedimentary rocks and associated Apehbian plutonic rocks; (2) to determine the nature and environment of the volcanogenic-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 Apehbian orogen; (4) to develop models of relationship of mineral deposits with tectonic, plutonic and supercrustal history thereby providing data for resource assessment and exploration.	McGlynn, JC	REG	P	BS	Mack	86 F	122	4412
730043*	Volcanic rocks of the Appalachian region 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.	Bostock, HH	REG	CS	A	NB NS Nfld	Pts 2 E/12, 2 E/4, 12 H	122	4421
730044*	Granite studies in the Appalachians Obj: (1) To establish a set of criteria based on field, petrographic and chemical observations, according to 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.	Currie, KL	REG	CS	Pet	NS Nfld NB	2 E	122	4421
730046	Geochronological research and control studies Obj: To precisely establish the chronological order of rocks and events, thereby providing the fourth dimension -- time--to geological mapping.	Wanless, RK	REG	CS	G	Yk Mack Kee Man, Frank BC Ont	-	522	4432
730047	Development of techniques for geochronological studies Obj: To develop methods and apparatus required to remain at the forefront of geochronological research and applications.	Wanless, RK	REG	CS	G	-	-	522	4432

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
730049	Lower Devonian (Gedinnian) biostratigraphy and brachiopod faunas, Prince of Wales and Bathurst Islands, District of Franklin Obj: Refinement of the biostratigraphic zonation of lowermost Devonian rocks of part of the Innuitian Orogen, based on brachiopods, and establishment of their paleoecology and paleogeography. These objectives are expected to assist exploration for petroleum and other mineral resources in the Arctic Islands.	(Smith, RE)	ISPG	P	MaP	Frank	68; 69	1421	4431
730051*	Completion of reconnaissance geology, northern Ellesmere Island Obj: To prepare terminal reports accompanied by maps of the region at the scale of 1:250,000 or more detailed.	Trettin, HP	ISPG	RG	AI	Frank	240 A-H, 120 C-G, 49 H; 560 D, E	1111	4412
730055	Comparative field seminar structural prototypes Obj: The objectives and goals of the seminars will be to familiarize the participants with the types of observations that may identify specific conceptual models of structural types, and thus enable the participants to both recognize such structures as well as critically evaluate the models proposed.	Taylor, GC	ISPG	RG	-	-	-	422	4421
730057*	Helikian and Hadrynian stratigraphy Eastern Cordillera and Interior Platform 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.	Aitken, JD	ISPG	RG	M	Alta BC Mack	97 A; 96 D; 106 A, B, C, F, G, H	121	4421
730060	Mineralogy and chemistry of fine grained rocks in central Sverdrup Basin Obj: To compare the clay mineralogy and inorganic geochemistry of the same formation from outcrop samples and from subsurface samples.	Foscolos, AE	ISPG	E	GC	Frank	59 E; 69 E, F; 79 B, C	1431	4435
730062	Development of extraction, identification and correlation systems for organic compounds from sedimentary rocks and crude oils 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.	Snowdon, LR	ISPG	E	GC	-	-	211	4461

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
730063	An automated system for petrologic analysis of metamorphic mineral assemblages. Obj: To develop a set of computer programs to expedite the analysis of metamorphic mineral assemblages.	Gordon, TM	REG	CS	Pet	-	-	453	4436
730065	Palynological study of the Tertiary coals and associated clastic rocks of the Ravenscrag and Frenchman formations, Saskatchewan Obj: To give a biostratigraphic support to the Saskatchewan lignite project.	Sweet, AR	ISPG	P	MiP	Sask	72 F,G,H; 62 E,F	312	4462
730067	Geothermal Energy Resources in Canada Obj: To make an inventory of the distribution, nature and geological setting of hot springs in Canada and the chemistry of their waters.	Souther, JG	REG	CPM	GR	BC	92 J	314	4464
730069	Metallogeny of Selwyn Basin Obj: To determine the stratigraphy, facies, structural style and metallogeny of Paleozoic strata in Selwyn Basin as a basis for evaluating the economic potential of the region.	Blusson, SL	REG	CPM	GR	Yk Mack	105 I,J,N,O,P; 106 B,C,D	121	4465
730072*	Bedrock and surficial geology-Grand Banks 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.	King, LH	AGC	RR	SBG	Nfld	<u>1, 2</u>	1115	4414
730081*	East coast Offshore surveys 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.	Folinsbee, RA	AGC	RR	GPS	-	-	1122	4414

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
730083	Structural and stratigraphic synthesis of the Phanerozoic rocks of Eastern Canada Obj: To compile accounts of the depositional and tectonic evolution of the Lower and Middle Paleozoic rocks of the North Atlantic region, with emphasis on Atlantic Canada.	Harris, IM	AGC	EPG	RSBS	Nfld Que NB NS	2, 12, 11, 21, 22	121	4421
730085	Classification of dinocysts Obj: The study of the morphology of the dinocyst. compilation of; (1) a generic and species index, (2) glossary of morphological terms, (3) a generic key.	Williams, GL	AGC	EPG	SS	-	-	1442	4431
730091	Micropaleontology of unconsolidated sediments of the Labrador continental shelf and slope Obj: Describe Holocene history of the sedimentary environment on the continental shelf and slope by: (1) Establishing synchronous horizons in the sediment; (2) Possibly establishing absolute ages of these horizons leading to the calculation of the rates of sedimentation; (3) Changes in paleoenvironment on the sea-floor with the emphasis on changes in sea level and the vicinity of shoreline.	Vilks, G	AGC	EMG	PEC	-	Adjacent to 3, 13, 14, 15	142	4431
730098	Hydrocarbon geochemical analysis of eastern offshore well samples - heavy hydrocarbons as source and maturity indicators Obj: The research efforts of this project are aimed at developing complete and comprehensive geochemical information for the frontier areas of exploration and major hydrocarbon provinces located on the Labrador Shelf, Scotian Shelf and Grand Banks, in order to assist in the preparation of realistic inventories of oil and gas resources of the Atlantic seaboard.	Rashid, MA	AGC	EMG	OGC	-	-	211	4461
730155	Surficial geology Fraser Lowland Obj: To map, describe, and explain the Quaternary deposits and landforms to provide geologic-geomorphic data on stratigraphy, thickness, age and history of deposition of surficial materials, and to determine the thickness and distribution of Tertiary rocks with particular reference to information pertinent to urban and rural land use planning, groundwater investigations, engineering development and soils mapping.	Armstrong, JE	TS	-	SP	BC	92 G/1,2,3,6,7,8; pts 92 H/4,5,6	1113	4413

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
730160	Paleomagnetism of the Circum-Ungava Belt 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.	Schwarz, EJ	REG	P	PMag	Ont Que	23, 24, 33, 34, 43	1423	4434
740003	Geological interpretation of geophysical data as an aid to basin synthesis and hydrocarbon inventory Obj: To define the geologic structure and history of the sedimentary basins in the offshore regions of Eastern Canada.	Grant, AG	AGC	EPG	RSBS	-	-	1122	4417
740004	Biostratigraphic history of the Mesozoic-Cenozoic sediments of the Grand Banks, Northeast Newfoundland and Labrador Shelves (based on Foraminifera and Ostracoda) Obj: To elucidate the biostratigraphic history of the Mesozoic-Cenozoic sediments of the Grand Banks, Northeast Newfoundland and Labrador Shelves using Foraminifera and Ostracoda.	Gradstein, FM	AGC	EPG	SS	-	-	1421	4431
740012*	Dynamics of coastal zones (Minas Basin) Obj: Determination of the relationship between bedload transport, movement of bed-forms and hydrodynamic variations; mapping of surficial sediments; evolution of post-Holocene sedimentation.	Long, B	AGC	EMG	CG	NS	<u>11 E</u>	123	444
740013	Sea floor spreading history of the Labrador Sea Obj: To determine the seafloor spreading history of the Labrador Sea.	Srivastava, S	AGC	RR	LSS	-	-	133	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
740016	Geology of the Island Lake map-area (53 E), Manitoba and Ontario Obj: (1) To establish the geology of the intrusive, extrusive and sedimentary rocks of the map-area; (2) to study grades of metamorphism and test the tectonic Archean style developed in earlier work; (3) to compile detailed information for the volcanic-sedimentary rock belts available for Manitoba and Ontario and rationalize known mineral deposits in these belts; (4) to evaluate, in terms of Ni, Cu and S a number of ultramafic bodies occurring in quartz diorites; (5) to establish chemical modality of early granitic rocks related to volcanic rocks; (6) to provide a tectonic synthesis suitable for resource evaluation.	Herd	REG	P	SG	Man Ont	53 E	122	4421
740017	Metamorphism in the Canadian Shield 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.	Fraser, JA	REG	P	NC	Que, Ont Man Sask Nfld, Mack Frank Kee	-	122	4421
740019*	Archean felsic volcanic complex near Regan Lake, District of Mackenzie, NWT 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.	Lambert, MB	REG	P	BS	Mack	Pts of 76 B, C, E, G	122	4421
740020	Geology of the Foxe Fold belt, Baffin Island, District of Franklin 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.	Morgan, WC	REG	P	NC	Frank	27 pts A,B,C; 37 A, pts C,D Pts. of 25 H	122	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
740024*	Petrological studies in the Sherridon Area, Man. Obj: To study the behaviour of sulphide-silicate assemblages at high-grade metamorphic conditions and to increase the understanding of those factors favouring a presentation of deposits during metamorphism.	Froese, E	REG	C\$	Pet	Man	63 N/2,3	122	4421
740029	Stratigraphic and sedimentological studies of the Cretaceous Gething Formation, Peace River Canyon of northeastern British Columbia Obj: To describe the stratigraphic succession; to collect samples for laboratory studies; to provide data on the distribution and continuity of coal seams throughout the region; to attempt to determine criteria useful in determining the subenvironments in which the 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 in Canada.	Gibson, DW	ISPG	CG	CG	BC	93 0; 94 B	121	4421
740030	Boothia Peninsula and Somersset Island (Operation Boothia) 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.	Kerr, JW	ISPG	RG	AI	Frank	57 B,C,F,G; 58 B,C,D	1111	4412
740035	Petroleum Exploration Analog Study 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.	Procter, RM	ISPG	E	PR	-	-	221	211
740041*	Comparative studies of geological types 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 the staff.	Taylor, GC	ISPG	RG	-	Alta	-	422	4421
740042	GSC Workshop travel - Micropaleontology Section 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.	Wall, JH	ISPG	P	MiP	-	-	422	4431

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
740046	Assessment of terrain performance in the Mackenzie Valley and Arctic Islands Obj: To assess previous work regarding terrain performance with the aim of evaluating the effectiveness of mapping systems and identifying the significant parameters for terrain performance.	Kurfurst, PJ	TS	-	EEG	Frank Kee	65, 66, 56, 57, 58, 68, 69	214	4453
740052*	Geotechnical investigation of soils in the Ottawa Valley Obj: To assess the variability of the sensitive clay deposits and relate this variability to the probability of slope failure along rivers in the Ottawa Valley. To aid regional planners and engineers in determining the behaviour of the sensitive clay, hence, to help determine suitable sites for the location of engineering structures.	Fransham, PB	TS	-	EEG	Ont, Que	31 G, F	214	4453
740054	Geological variability of marine deposits, Ottawa-St. Lawrence Lowland Obj: To evaluate the stratigraphic, geomorphic and historical factors affecting the natural and engineering behaviour of marine clays, with special reference to landslides.	Gadd, NR	TS	-	EEG	Ont, Que	31 G	214	4453
740062*	Fraser Delta sedimentation 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.	Luternauer, JL	TS	-	MC	BC	92 G	123	444
740063	Quaternary geology, northern Strait of Georgia Obj: To develop, in part, a stratigraphic framework and paleoenvironmental reconstruction of the unconsolidated Quaternary deposits in northern Strait of Georgia as a basis for an understanding of coastal/subaqueous terrain materials and landforms by: compiling existing onshore and offshore geological and geophysical information pertinent to Strait of Georgia; conducting sedimentological investigations of onshore exposures of Quaternary and related Quaternary sediments around the Strait of Georgia; seismic profiling, sampling coring, interpretation and correlation of offshore sediments in northern Strait of Georgia.	Clague, JJ	TS	-	RP	BC	92 B, F, G, K	1115	4415



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
740065*	Surficial geology inventory, Banks Island 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.	Vincent, J-S	TS	-	RP	Frank	88 B,C,D,F; 97 G,H; 98 A-F	1113	4413
740067*	Surficial geology-terrain inventory, Bathurst, Cornwallis and eastern Melville Islands Obj: To 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.	Barnett, DM	TS	-	RP	Frank	68 G,H; 69 B 78 E,H; 79 A,B; pt 68 E,F; 69 A; 78 F,G	1113	4413
740068*	Surficial geology, Ottawa Valley lowlands 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.	Richard, SH	TS	-	RP	Ont, Que	31 B,F,G	1113	4413
740070	Quaternary research in Canada Obj: To further understanding of Canadian Quaternary Geological history and processes and to further knowledge of the evaluation of Quaternary events.	Prest, VK	TS	-	SP	-	-	132	4422
740072*	Surficial geology of Newfoundland 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.	Grant, DR	TS	-	RP	Nfld	1; 2 D; 11; 12 A	1113	4413

Project Number	Project Leader	Title	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
740079*	Hornbrook, EHW	Regional Geochemical Surveys-Operational Standards	GGG	RIE	GC	Ont Sask BC Yk Kee, Nfld	13 B, F, J; 42 D, E; 52 A, H; 64 L, M; 82 F, K; 104 N; 106 C, F; 116 A, C, F, H; 46 N, O; 47 A, B	1132	4463
		Obj: To coordinate and supervise the planning, scientific requirements and execution of the Federal-Provincial regional geochemical surveys carried out through the employment of private contractors and GSC staff personnel.							
740081*	Jonasson, IR	Environmental Geochemistry	GGG	RIE	GC	Ont, Que Frank	31 C, F, G; 42 A, B; pts 68 G, H; 69 A, B, G, F; 78 F, G, H; 79 E, F, H; 88 E, G, H; 89 A; 340 C, D, E, F; 560 A; 59 E, F, G, H	214	4451
		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 concerns							
740083	(Willey, JD)	Formation and equilibrium of authigenic and syngenetic metal deposits in the marine environment	AGC	EMG	IGC	-	-	1432	4465
		Obj: (1) To compile and evaluate geochemical characteristics of transition metals in the marine environment; (2) to evaluate chemical stability and formation mechanisms of authigenic minerals in natural environments; (3) to relate the studies of mineral equilibrium to environmental conditions of metal accumulation and dispersal in recent marine sediments.							
740084*	Bolton, TE	Silurian-Ordovician macro-biostratigraphy of Anticosti Island, Quebec	DGO	-	SP	Que, NB NS, Kee Ont	22 H; 12 E, F; 22 A, B; 21 P; 11 F; 45, 46; 31 G, H	121	4421
		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.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept '1 Classification
740085*	Borehole Geophysics (Nuclear Techniques) 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.	Killeen, PG	GGG	RIE	RM	Ont NB	21 G; 31 F, G; 41 J	222	4463
740086	Sedimentary processes and sediments, Babbage River delta, Yukon coast Obj: To develop integrated hydraulic/transport, sedimentation model(s) applicable to an estuarine delta in a tundra and permafrost environment; to consider the stability of the system and its potential response to artificial changes relative to pipeline construction or oil spills; and assess the utility of the Babbage River delta as a small scale research analogue for the Mackenzie delta.	(Forbes, DL)	TS	-	MC	Yk	Parts of 117 D	144	444
740090*	Palynological study of the Shell Anglo Harlequin D-86, Murrelet L-15, Auklet G-14, and Osprey D-36 wells, offshore British Columbia 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.	Hopkins, WS, Jr	ISPG	P	MIP	BC	102 O, 103 B	1421	4431
740091*	Borehole Geophysics (Electrical and Magnetic Techniques) Obj: (1) To improve and develop instrumentation, methods of operation and interpretation aids for the electric and magnetic methods of exploration geophysics for use in boreholes. (2) To investigate the application of these methods to problems of mineral exploration and geological mapping. (3) To include techniques for measurement of rock properties in situ.	Dyck, AV	GGG	TG	EM	BC Ont Que NB	92 I/7; 82 B/12; 41 I/5,6; 21 P/5; 32 D/7; 31 F/7	214	4465
740092	Geology of the Bathurst Inlet Area Obj: To establish the geology of the intrusive, extrusive and sedimentary rocks of the map-area; to compile a detailed stratigraphic-sedimentological analysis of the Goulburn Group and related overlying rocks; to relate the Goulburn Group to other depositional sequences in the Coronation Geosyncline.	Campbell, FHA	REG	P	BS	Mack	76 J (W $\frac{1}{2}$ ); 76 K (E $\frac{1}{2}$ ); parts of 76 G, O, N, L; 77 A; 86 H	122	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
740095	Quaternary geology-terrain inventory, Kananaskis Lakes 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.	(Jackson, LE)	TS	-	RP	Alberta	82 J	1113	4412
740096	Metamorphic map of Manitoba south of 56° Obj: To prepare a metamorphic map of part of Manitoba as a contribution to the Metamorphic map of the Canadian Shield.	Froese, E	REG	CS	Pet	Man	-	122	4423
740098*	Metallurgy of the northern Canadian Cordillera 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.	Dawson, KM	REG	EG	MDG	BC Yk Mack	94, 95, 96, 104, 105, 106 <u>114, 115, 116, 117</u>	315	4465
740100	Preparation of popular earth science education literature Obj: To present to the Canadian public, particularly students, information dealing with earth science topics of interest and educational importance.	Copeland, MJ	REG	CS	EP	-	-	432	447
740102*	Sub-bottom permafrost distribution in the Southern Beaufort Sea Obj: To provide an inventory of permafrost conditions in an area of active oil and gas exploration and to prepare a map of sea-bottom permafrost distribution in the southern Beaufort Sea from seismic records acquired from major oil companies who hold leases in the area.	MacAulay, H	REG	TG	SM	Yk Mack	<u>107, 117</u>	123	4415
740104*	Paleomagnetism of Proterozoic to Devonian Strata across Boothia Arch Obj: To measure the paleomagnetism of Upper Proterozoic, Ordovician, Silurian and Devonian strata across the Boothia Arch.	Fabric, WF	REG	P	-	Frank	<u>48 A, D</u>	1423	4434

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
740106*	Geological assistance with provincial coal drilling project in Nova Scotia Obj: In co-operation with provincial authorities to prepare an inventory of remaining coal resources in Nova Scotia.	Hacquebard, PA	AGC	EPG	-	NS	11, 21	312	496
740107	Trace Elements in sulphides 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 baselines. (3) To provide a systematic geochemical inventory for N.G.R. and U.R.P. surveys.	Jonasson, IR	REG	GGG	GC	-	-	1431	4465
740110*	Carboniferous and Triassic strata of Appalachian region 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.	Geldsetzer, HHJ	REG	CS	A	Nfld NS PEI NB Que	11 D, E, F, K, K, N, O 12 A, B, H 21 A, G, J	121	4421
750001*	A geophysical investigation of the submarine extension of geological zonation of Newfoundland 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.	Haworth, RT	AGC	RR	GPS	-	-	1122	4417
750003	Organic geochemistry related to the petroleum potential -- Atlantic Coast of Canada Obj: To integrate all hydrocarbon geochemical data into EPG's basin analysis program to aid in defining the hydrocarbon potential of each basin.	Purcell, LP	AGC	EPG	-	-	-	211	211
750004	Geology of the Tulemalu Lake map-area Obj: To interpret the Precambrian geology and economic potential to a standard of modern 4-mile mapping.	Eade, KE	REG	P	NC	Kee	65 J	122	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750005	MacQuoid Lake (W $\frac{1}{2}$ ) and Thirty Mile Lake (E $\frac{1}{2}$ ) Map-Areas Obj: To interpret the geology and mineral potential of the Precambrian rocks of the area to a standard of 1:250,000 mapping.	LeCheminant, AN	REG	P	NC	Kee	55 M, W $\frac{1}{2}$ ; 65 P, E $\frac{1}{2}$	122	4412
750007*	Correlation and geochronological studies in the Canadian Shield 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-classification.	Frarey, MJ	REG	P	SP	Ont Man <u>Que</u>	41 H/14 I/3	142	4421
750008	Geology of the Hackett River - Back River area 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 geophysical and geochemical patterns and anomalies to the geological and mineral deposit data.	Frith, RA	REG	P	BS	Mack	76 F (E $\frac{1}{2}$ ), 76 G (W $\frac{1}{2}$ )	142	4412
750009	Paleomagnetism of the Natkusiak Volcanics, Victoria Island Obj: To determine in detail the paleomagnetism of the Hadrynian Shaler Group and Natkusiak strata and intrusive sills with emphasis on reversal stratigraphy.	Foster, JH	REG	P	PMag	Frank	Parts of 77 M,N; 78 C,D 87 J,K,N,O,P; 88 A	1423	4434
750010*	Geology of Uranium and Thorium Resources of Canada 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.	Ruzicka, V	REG	EG	URE	Ont. Que NB NS PEI Nfld Kee	41 I,J,P; 42 D,J; 51 K-N; 31 C-F; 33 F; 13 I-K; 66H; 65 H	313	213
750011*	Geology, petrology and economic potential of the anorthosite suite in southern Labrador 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.	Emslie, RF	REG	CS	Pet	Nfld	13 B,C,E,F, G	122	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750012*	Salt basins of Canada  Obj: To provide general information on all onshore-offshore salt basins including their regional distribution, thickness, age stratigraphic relationships, depth and tectonic setting, and to also determine additional parameters (economic potential, geochemistry, hydrology and geometry) of selected basins.	Sanford, BV	REG	CS	A	NS NB Ont_Sask	11, 21, 40, 41, 62, 72, 73	121	4453
750013	Successor basins of the Western Cordillera  Obj: To determine the structure and sedimentology of late Mesozoic clastics in basins which contain coal deposits and have a unknown potential for uranium and fossil placer deposits. To develop models which might help in the appraisal of successor basins as exploration targets. Compilation of Spatsizi map-area.	Eisbacher, GH	REG	CPM	GR	BC Yk	115 A; 103 P; 104 A,B,G,H, K,N; 92 N,0	121	4421
750014*	Stratigraphy and sedimentation of the Proterozoic Rapitan Group and related rocks, Mackenzie, Wernecke and Ogilvie Mountains  Obj: To determine sedimentology, structural framework and metallogenic significance of the various facies of Hadrynian clastic successions to derive a qualitative model of relative mineral potential in Mackenzie, Wernecke and Ogilvie Mountains.	Eisbacher, GH	REG	CPM	GR	Mack Yk	95 L,M; 105 P; 106 A,B,C,F	121	4421
750015*	Stratigraphy of the Takla Group, northwestern B.C.  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.	Monger, JWH	REG	CPM	GR	BC Yk	94 D,E; 104 B,G,H,I,J 94 C; 105 D; 115 A	1111	4412
750016	Geology and Mineral Deposits of McConnell Creek map-area, B.C.  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.	Richards, TA	REG	CPM	GR	BC	94 E,D	1111	4412
750017	Stratigraphy and correlation, Lower Paleozoic subsurface Arctic Islands  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.	Mayr, U	ISPG	RG	AI	Frank	49 C; 58 D-H; 68 D,E,G,H; 78 E-H; 88 E-H; 89 B,C	121	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750018*	Stratigraphic and sedimentological studies of Lower Cretaceous rocks, Rocky Mountain Foothills and Front Ranges, Alberta and British Columbia 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.	Gibson, DW	ISPG	CG	CG	BC Alta	82 G, J, O	121	4421
750019*	Structure and stratigraphy of Paleozoic and Lower Mesozoic rocks in Halfway River map-area, northeastern British Columbia Obj: To revise Halfway River map-area (94 B) at 1:250,000 scale (including sub-division of Triassic strata); to map 94 B/3,4,5,6,11,12,13,14 at 1:50,000 scale and to study in detail the structure and stratigraphy of this area and its relation to adjacent areas; to determine the regional stratigraphic and structural setting of Pb-Zn mineralization in the area; to help develop models for the stratigraphic and structural evolution of this portion of the Rocky Mountains.	Thompson, RI	ISPG	RG	M	BC	94 B	121	4421
750020*	Carboniferous biostratigraphy in the northern Yukon, British Columbia, and Alaska 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.	Nassichuk, WW	ISPG	P	MaP	Yk BC	116 H, I; 92 F	1421	4431
750021	Development of programs for Kremp File and Dinofile GSC palynological data files Obj: Assist in the development and execution of the Kremp and other palynological computer files.	Sweet, AR	ISPG	P	MiP	-	-	452	4431
750023	Methodology of petroleum resource evaluation Obj: To provide a reliable, realistic, statistically sound methodology for evaluation of resource abundance.	Dahlberg, EC	ISPG	E	PR	-	-	32	4461



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750024	Petroleum geology of Tertiary, Mesozoic and Paleozoic strata north of 70°	Haimila, NE	ISPG	E	PR	Frank	37-39; 47-49; 57-59; 67-69, 77-79; 87-89; 97-99; 120; 340; 560	211	211
	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 strata north of 64° on the NWT mainland and Yukon	Van Elsberg, JN	ISPG	E	PR	NWT YK	97, 107, 117	211	211
	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.								
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	222	4461
	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 estimate the relative effects of time and temperature on these parameters.								
750028*	Measurements of Dielectric Properties of Geologic Materials <u>in situ</u>	Davis, JL	RGG	TG	EM	Que Sask Ont	31 G/5,8,9; 24 K; 73 B	221	4435
	Obj: (1) To determine the dielectric properties of geologic materials <u>in situ</u> . (2) To determine the dependence of the dielectric properties of soils with soil water content (3) To develop techniques and an instrument to measure dielectric constant of geologic materials <u>in situ</u> . (4) To provide dielectric properties as 'ground truth' for other projects.								
750030*	Federal/Provincial aeromagnetic Surveys: British Columbia	Knappers, WA	RGG	RG	CS	BC	104 B,G,H,J; Pt. 103 O,P; 104 B	1121	4416
	Obj: To carry out an aeromagnetic survey of a portion of northern British Columbia and publish the resulting data in the form of total field maps and digital data files for use in geological mapping and mineral exploration programs.								

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750031	Aeromagnetic Surveys: General 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.	Hood, PJ	RGG	RG	MM	-	-	1121	4416
750032*	Digital Compilation Software Development: Obj: To improve the computational and user efficiency and increase the generality of software for the compilation and mapping of aerogeophysical data.	Holroyd, MT	RGG	RIE	DC	-	-	223	4416
750034*	Mineralogy of nickel deposits in serpentinitized ultramafic rocks Obj: To supplement the study of the geology of nickel deposits by carrying out comprehensive research on the mineralogy and petrology of serpentinitized ultramafic rocks known to contain low grade nickel deposits.	Duke, JM	REG	EG	MDG	Que Ont	31 E, L; 32 D; 52 B	315	4465
750035*	Biostratigraphic study of Mesozoic rocks in the Intermontane and Insular Belts of the Canadian Cordillera 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.	Tipper, HW	REG	CPM	GR	BC Yk	92 H, L; 93; 94 D; 103 C, F, G; 104 I, 105; 115	121	4421
750036	Silurian and Devonian spores of Canada 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.	McGregor, DC	REG	CS	EP	Alta NS	-	1421	4431
750037*	Radar sounding in geological environments Obj: (1) Evaluate existing ground probing radar systems. (2) Define geophysical and geologic problems where radar methods may provide a solution. (3) Establish design criteria for ground probing radar systems. (4) Develop methodology for utilizing radar for sounding geologic environments.	Annan, AP	RGG	TG	EM	Sask Que Ont	24 K; 14; 72 G-J, O, P	222	4435

Project Number	Project Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept.'1 Classification
750038	Pleistocene-Holocene Basin sedimentation Obj: (1) Describe the Pleistocene-Holocene sedimentary history of the continental shelves of eastern Canada using paleontological and geochemical evidence in sedimentary basins. (2) Improve the understanding of the genesis of gaseous hydrocarbons in sediments. (3) Establish geological environments favorable for the preservation of microfossils.	Vilks, G	AGC	EMG	PEC		21 B	121	444
750039*	Geochemical Data Systems Obj: To maintain the data files of the Geochemistry Section so that data may be retrieved, processed and maps prepared in a timely fashion to support the Section's work and the Uranium Reconnaissance Program. To investigate and develop more efficient means of acquiring, storing, processing, interpreting and presenting exploration, and applied, geochemical data.	Garrett, RG	RGG	RIE	GC		-	4123	4463
750040*	Uranium Reconnaissance Program (Gamma-Ray Spectrometry) 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.	Richardson, KA	RGG	RIE	RM	Mack Kee Sask Man Ont	31 D, E, L; 41 H, I; 46 E, J-O; 47 A-F; 53 E, F, K, L-N; 55 n; 56 D, E; 63 H, I; 64 C, D; 65 L; 66 A, B, G, H; 75 A, H; 76 B	1131	4463
750042*	<u>In-situ environmental responses of Benthonic Foraminifera</u> Obj: To determine the biological mobility and transport of marginal marine species through sterile substrate and tank experiments; to interpret transport and paleoecological events in sediment cores during the Upper Holocene.	Schafer, CT	AGC	EMG	PEC	NS	11 F	144	444
750043	Consulting advice on conservation and restoration of coastal environments 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.	Reinson, GE	AGC	EMG	CGD		-	54	496
750045*	Late Cenozoic Paleoceanography of the Labrador Sea Obj: Study of Hudson cores will provide information on detailed paleoclimatic fluctuations over the 100,000 to 200,000 years of Late Pleistocene-Recent sedimentation. Detailed knowledge of past changes in climate, glacierization and ocean circulation is useful for achieving several major goals. It will permit stratigraphic correlation to be made with areas outside the Labrador Sea. Stratigraphic correlation between the deep sea and the continent. To define the time sequence of glacial climatic and eustatic events on the Labrador Shelf.	Fillon, RH	AGC	RR	LSS		-	121	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750046	Geochemical transformations and reactions of organic compounds in recent marine sediments Obj: (1) To determine the impact of depositional environment on (a) qualitative and quantitative distribution of organic compounds and (b) an early diagenetic transformation which could be correlated with long-term diagenesis resulting in the formation of hydrocarbons and their precursors. (2) To understand the influence of sedimentary organic matter on solubility, precipitation and recycling of trace metals.	Rashid, MA	AGC	EMG	OGC	-	-	1432	444
750048*	Multidisciplinary environmental marine geological analysis of the Miramichi Estuary and Bay 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.	Buckley, DE	AGC	EMG	NB	<u>21 P</u>		214	444
750049*	Milliken Lake - Goldfields mining area Obj: To fill in gaps outstanding in map-coverage of the Beaverlodge uranium area.	Davison, WL	REG	P	SG	<u>Sask</u>	<u>74 9</u>	1111	4421
750050	Paleomagnetic stratigraphy within the Abitibi Belt, Ontario and Quebec Obj: To define the paleomagnetic stratigraphy within the Abitibi Belt, Ontario and Quebec.	Foster, J	REG	P	PMag	Ont Que	32 D/4, 31 M/13 41 P/16	1423	4434
750051*	National geochemical reconnaissance 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.	Cameron, EM	GGG	RIE	GC	Nfld Ont Sask BC Yk Kee Frank	1 M; 2 D; 3 E; 11 P; 12 A; 13 B, F, G, I, J, O; 42 D, E; 46 N, O, P; 47 A, B; 52 A, H; 64 L, M; 82 F, K; 104 N; 106 C-F; 116 A-C, F-H	212	4463

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750053	EDP systems and applications 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.	Holroyd, MT	GGG	RIE	DC	-	-	452	4463
750055*	Structural studies in the Mackenzie Arc, Franklin Mountains and Coleville Hills 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.	Cook, DG	ISPG	RG	M	Yk Mack	95, 96, <u>106 A,B</u>	121	4421
750056	Stratigraphic distribution of Lower Paleozoic organic-walled microfossils in eastern Canada Obj: To ascertain the potential usefulness of chitinozoa and acritarchs in working out lower Paleozoic stratigraphy, in Canada, to develop and apply a zonation in the lower Paleozoic rocks based upon the vertical distribution of chitinozoa and acritarchs; to relate this project to other GSC projects concerned with lower Paleozoic rocks and their natural resources. Potential benefits to Canada are expected in the refinements of stratigraphic knowledge within the country, particularly with regard to mineral deposits developed within lower Paleozoic rocks.	Jenkins, WAM	ISPG	P	MiP	Nfld NS NB Que Ont	1-3; 16; 21; 22; 25-27; 30, 31, 40, 41	1421	4431
750057	Stratigraphically important cystimorph corals from the Lower Devonian of western Canada Obj: The project will describe stratigraphically important cystimorphs from the Lower Devonian of the Yukon and also will provide new interpretations of related forms Ontario, Tasmania and Gotland. The Yukon forms are expected to be important biostratigraphically for the Lower Devonian of that region.	Pedder, AEH	ISPG	P	MaP	Ont Yk Frank	40 I, J, P	1421	4431
750058*	Geology of Uranium Resources of Canada-2 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.	Tremblay, LP	REG	EG	URE	Sask Que	<u>31 J,K; 12 K,L; 32 I,P; 64 T; 74 A-P; 24 B,C,F,G,K</u>	313	213
750059	Mineralogical research on the Rabbit Lake uranium deposit, Saskatchewan Obj: To carry out systematic laboratory research on the development of chlorite, clay minerals and other alteration products at the Rabbit Lake uranium deposit in order to determine their relationship to ore-forming processes.	Rimsaite, JYH	REG	EG	URE	Sask	64 L, 74 N	313	4463

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	MTS	GSC Classification	Dept'l Classification
750061*	Lower Paleozoic geology of Eastern Canada 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.	Sanford, BV	REG	CS	A	Ont Que	31 F,G	121	4421
750062	Regional synthesis of the Grenville Province in Quebec and Labrador Obj: To effect a regional synthesis of the geology of the eastern Grenville Province in Labrador and eastern Quebec and immediately adjacent areas and to interpret this synthesis in terms of the geological evolution of the area.	Bourne, JH	REG	P	SG	Que Nfld	31 K,N,G	122	4421
750063*	Quaternary geochronology, Arctic Islands 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 <sup>14</sup> C. (3) To determine rates of crustal movement. (4) To reconstruct environments and events for as much of Quaternary time as possible.	Blake, W, JR	TS	-	PG	Frank	29 F; 38 G; 39 A-C, F-H; 48 G,H; 49 A E;	122	4433
750064	Regional synthesis, Southern Superior Province and Eastern Southern Province, Project I 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.	Frarey, MJ	REG	P	SP	Ont Que	-	122	4421
750065	Regional synthesis, Northern Manitoba and Western Superior, Project I Obj: To provide a single comprehensive source for all relevant data on the region in question; to prepare and have available for presentation broad regional and tectonic syntheses; and to have a designated "expert" who would be thoroughly familiar with the geological data and related aspects of the region.	Davison, WL	REG	P	SG	Man Sask	Pts 53, 54, 63, 64	122	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750067	Mesozoic biostratigraphy and Jurassic paleontology of Northern Yukon and adjacent District of Mackenzie  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.	Poulton, TP	ISPG	P	OP	Yk Mack	106; 116 N,0; 117 A,B	1421	4431
750068	CIDA Liaison and Project Coordination  Obj: Execution of requests from CIDA under two EMR-CIDA Memoranda of Understanding.	Manistre, BE	REG	-	-	-	-	54	496
750069*	Geology of uranium resources of Canada 3  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) to provide guidelines for their discovery; (3) to provide advice to government for uranium policy and related matters.	Bell, RT	REG	EG	URE	BC Yk Mack Alta Sask Man	-	313	213
750070	Synthesis of Quaternary geology, Great Plains of Canada  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.	Staiker, AM	TS	-	SP	BC Alta Sask Man	62, 63, 64, 72, 73, 74, 82 83, 84, 93, 94	132	4422
750071*	Quaternary geology-terrain inventory, Boothia Peninsula and Somerset  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.	Dyke, AS	TS	-	RP	Keel Frank	57 A,B,C,D,F,G; 67 E,H; Pts 58 A,B,C,D,F; 68 A-E	1113	4413

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750072*	Quaternary geology, northeastern Manitoba 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.	Dredge, LA	TS	-	RP	Man	54 E, F, K, L, M, 64 I, J, O, P, K, N	1113	4413
750074*	Uranium drift prospecting techniques, Lower Kazan River area 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.	Klassen, RA	TS	-	SMT	Kee	55 L, M, N; 56 C, D; 65 P, I, O; 66 A	213	444
750075	Urban geology automated information system (UGAIS) research and development Obj: To develop a computer-based user-oriented system for the storage, retrieval and presentation of geotechnical information for regional planners and engineers in order to permit fast retrieval of information for query and up-date and to have a compatibility with Data Bank Management Systems, and to continue such development of EDP programs and systems as they may relate to other projects of the Division.	Belanger, JR	TS	-	EEG	-	-	221	4452
750076	Quaternary geology of the Canadian Cordillera Obj: To gather and synthesize information regarding Quaternary deposits, stratigraphy, geomorphology and chronology of the Canadian Cordillera.	Fulton, RJ	TS	-	RP	BC Yk Alta, Mack	-	132	4422
750077*	Hydraulic, morphologic and morphometric studies of selected rivers along the Mackenzie Highway 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.	Eggington, P	TS	-	SMT	Frank Mack	95 O, 96 C, 107 B	144	444



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750078*	Quaternary geology--terrain inventory, Prince Rupert--Terrace area 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.	Claque, JJ	TS	-	RP	BC	Pts 93 L,M; 103 I,J,P	1113	4413
750079*	Fluvial and mass wasting processes, Banks Island 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.	Day, TJ	TS	-	MC	Frank	88 B,C,F 98 A,B,D	144	444
750080	Gravel stream beds 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.	Day, TJ	TS	-	MC	-	-	144	444
750081*	Dispersion in natural channels Obj: To investigate the pattern of longitudinal dispersion in both natural river channels and laboratory channels in order to determine the relationship between the structure of the dispersion process, its relevant scaling parameters and channel properties.	Day, TJ	TS	-	MC	Frank BC	88 C, 98 A, 830, 82 E, 31 G	144	444
750082*	Structural analysis of the Fernie Basin 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.	Ollerenshaw, NC	ISPG	CG	CG	BC	Pts 82 G	121	4421
750083*	Mesozoic stratigraphy and Basin Analysis of the Western Queen Elizabeth Islands, Arctic Archipelago Obj: The objective of this project is to furnish, through a detailed litho- and biostratigraphic documentation, a model for the depositional and diagenetic history and basin tectonics for the Mesozoic clastic sequence of the western part of the Sverdrup Basin. This model will facilitate understanding of (1) the genesis of, and to ultimately help predict the occurrence of reservoir rocks, and (2) the migration history of hydrocarbons presently contained in these reservoir rocks.	Rahmani, RA	ISPG	RG	SM	Frank	69; 79 C,F; 89 D,E; 99	121	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750084	Phanerozoic stratigraphy and sedimentology of Somerset Island and northern Boothia Peninsula Obj: Analysis, revision and compilation of stratigraphy and sedimentology, principally of the Cambrian to Devonian and Cretaceous-Tertiary rocks.	Miall, AD	ISPG	RG	AI	Frank	57, 58	121	4421
750085*	Stratigraphy, sedimentology and diagenesis of Paleozoic rocks in the southern Mackenzie Mountains and northern Rocky Mountains Obj: Understanding of Devonian and Carboniferous stratigraphy of this area leading to an analysis of the regional sedimentologic and tectonic setting. Analysis of diagenetic events that have affected the Devonian and Carboniferous sequence of this area and how these have influenced mineralization and the production of hydrocarbons in the area.	Morrow, DW	ISPG	RG	M	Yk BC Mack	94; 95; 96; 105; 106 <u>A,B,G,H</u>	121	4421
750087*	A study of optical properties of sedimentary organic materials in relation to oil and gas occurrences in the Sverdrup Basin Obj: To investigate more fully the total spectrum of microscopic organic materials using their measurable, maturable qualities to evaluate oil and gas potential in the Sverdrup Basin.	Gunther, PR	ISPG	CG	CT	-	-	1433	4461
750088*	Investigations concerning the optical properties of coals and dispersed organic materials Obj: To provide critical information concerning paleotemperatures, maximum depths of burial, and coal petrography to GSC geologists in Western and Arctic Canada.	Gunther, PR	ISPG	CG	CT	-	-	1433	4462
750089	Planning, directing and coordinating coal resource evaluation programs 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	Latour, BA	ISPG	CG	RE	-	-	312	212
750092*	Mesozoic stratigraphy and basin analysis of Eastern Sverdrup Basin, Arctic Archipelago 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.	Embry, AF	ISPG	RG	SM	Frank	29; 39; 49; 59; 69; 79 E,H; <u>120; 340 560</u>	121	4461

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750093	Compilation and evaluation of geologically oriented data of industrial mineral resources of Canada Obj: Marshalling and appraisal of in-house data on industrial minerals; keeping abreast of current activity in industrial minerals for the purposes of improving the bank of technical information and of maintaining a watching brief that will detect subjects on which the GSC may expect demands for information and advice.	Moyd, P	REG	EG	-	-	-	316	4466
750094	Development of computer-based statistical techniques applicable to regional geological and mineral deposit data Obj: The design or adaptation of statistical techniques for analysis (e.g. classification analysis) and the application of such techniques and related computer programs to the presently available computerized geological and mineral deposit data, specifically the data for Project Appalachia.	Chung, CF	REG	EG	GM	-	-	221	312
750095*	Microscopic study of pyrite in main seams of Sydney coalfields, N.S. 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.	Hacquebard, PA	AGC	EPG	-	NS	<u>11 K, G</u>	145	4462
750096*	To advise the Cape Breton Development Corporation on coal geology for its operations in the Sydney coalfield 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.	Hacquebard, PA	AGC	EPG	-	NS	<u>11 K, G</u>	54	496
750097*	Engineering geology in Canada 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.	Owen, EB	TS	-	SP	-	-	54	4453
750098*	Metallogeny of the southwestern part of the Canadian Shield Obj: Assembly, interpretation and synthesis of data gained by: (1) field examination of selected areas and mineral deposits in conjunction with provincial, federal and industry geologists, (2) related laboratory and office studies of specimens and other field data, (3) literature study and consultation with geologists in government, industry and universities.	Franklin, JM	REG	EG	MDG	Man Sask Ont Frank Keel Mack	42, 52, 53, 54, 62, 63, <u>64, 73, 74</u>	212	4465

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
750099	Regional Synthesis, Western Superior province, north-western Ontario 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.	Skinner, R	REG	P	-	Ont	52, pts 53, 42, 43	122	4421
750102	Regional syntheses, southern Keewatin, Project I 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.	Eade, KE	REG	P	NC	Ke	-	122	4421
750106	Joint WHOI/AGC IPOD Site Survey Sites 2.6, North Atlantic Obj: To provide information on the nature of oceanic layer 2 at the sites in preparation for deep drilling during the International Program of Ocean Drilling.	Falconer, RKH	AGC	RR	EAOG	-	-	1115	4417
750107*	Acquisition of an ocean bottom seismometer Obj: To acquire an ocean bottom seismometer for seismic refraction studies of the earth's crust and upper mantle.	Barrett, DL	AGC	RR	OBM	-	-	223	4417
750108*	Marine surficial geology and sedimentation, British Columbia 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, shore, straits, and fiords of the British Columbia coast; (2) determine the composition, distribution, transport mechanisms and flux of suspended particulate matter in the marine waters off the British Columbia coast.	Bornhold, BD	TS	-	MC	-	-	1115	4415
750110*	Federal-Provincial mineral evaluation liaison and co-ordination 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).	Findlay, DC	REG	EG	-	Man	-	54	496

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
760002*	Urban Studies, Saint John River Valley Obj: To compile existing and specifically acquired geological and geotechnical data in the form of maps and a data bank to meet the information requirements of planners and engineers in the St. John area.	Bélanger, JR	TS	-	EEG	NB	<u>21 G,H</u>	123	4452
760003*	Geotechnical and environmental study, Riviere-du-Loup, Quebec Obj: To prepare a geotechnical map of an urban area which is undergoing rapid development; to study the methods and techniques developed and used by the Quebec Department of Natural Resources in geotechnical mapping; to create and maintain contacts between Terrain Sciences Division (GSC) and the geotechnical service of DNRQ for the purpose of exchanging services and scientific expertise.	Morin, F.	TS	-	EEG	Que	<u>21 N; 22 C</u>	123	4452
760004	Mineral and geochemistry of the unconsolidated cover-- central Arctic Obj: To identify mineralogical and biological components of various glacial and postglacial sediments collected on projects 700014, 690095, 730013, 750074. To use mineralogical and chemical criteria to define weathering in the active layers of Keewatin tills.	Adshead, JD	TS	-	SMT	-	-	213	444
760005*	Geological zonation of central Arctic coasts 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.	McLaren, P	TS	-	MC	Frank	<u>38 C; 48 C-F</u>	144	444
760008*	Géologie du Quaternaire, région de Bathurst, Nouveau Brunswick 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.	(Gauthier, RC)	TS	-	RP	NB	<u>21 P</u>	1113	4413
760010*	Surficial geology, geomorphology and terrain inventory of the Ringnes and adjacent islands 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.	Hodgson, DA	TS	-	RP	Frank	<u>59 C,F; 69 C,D,E,F; 79 E; pts 59 B</u>	123	4413

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
760012*	Surficial geology-terrain inventory, north-central Keewatin 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.	Thomas, RD	TS	-	RP	Kee	56 E,F,K,L,M,N; 66 I; pt. 66 H	1113	4413
760014*	Geology of uranium resources of Canada-4 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.	Dunsmore, HE	REG	EG	URE	NS NB PEI Nfld Frank	11 E,L; 21 G-J, P; 59; 68; 69	313	213
760015*	Eastern Baffin Island shelf bedrock and surficial geology mapping program 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.	MacLean, B	AGC	RR	-	Frank	Pts 15, 16, 17, 25, 26, 27, 28, 38	1115	4414
760016*	Geochemical technology development 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.	Bristow, Q	RGG	RIE	GC	Ont	31 F	222	4465
760018*	Stratigraphy and sedimentology of Blairmore Group and equivalent strata in Alberta and northeastern B.C. Obj: 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.	McLean, JR	ISPG	CG	CG	Alta BC	Pts 83 B,C,E,F,L, 93	211	4462

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
760019*	Structure and stratigraphy, western Queen Elizabeth Islands, Dist. offFranklin Obj: To elucidate the nature, sequence, and structure of Mesozoic and Cenozoic in the western part of Sverdrup Basin, Innuitian Province; to ascertain the style, kinematics, and chronology of Mesozoic and Cenozoic tectonism, and the relationships of tectonism to Sverdrup Basin evolution and sedimentation; and through the foregoing, to determine the significance of stratigraphy, structure and tectonism for assessment of hydrocarbon and other mineral deposits in western Sverdrup Basin.	Balkwill, HR	ISPG	RG	SM	Frank	Pts <u>69, 79, 89; 38 B</u>	121	421
760020*	Operation Olomane Obj: To carry out reconnaissance mapping in the eastern Grenville Province of Quebec.	Bourne, JH	REG	P	SG	Que	<u>12 N (E½) J (W½), K (E½)</u>	1111	4411
760021*	Structure and stratigraphy of western Devon Island and Vendom Fiord map-area of Ellesmere Island Obj: (1) To delineate the stratigraphical and structural history of the areas with a view to helping: (2) Assess the size, grade, mode of occurrence, origin and potential of fuel or mineral deposits that may occur.	Thorsteinsson, R	ISPG	RG	AI	Frank	<u>48 F, G; 58 D, E, H; 59 A; 49 D</u>	1111	4412
760023*	Reconnaissance mapping of the Precambrian geology of southern eastern Ellesmere and eastern Devon Island, NWT Obj: To complete the reconnaissance geological mapping of the northern Churchill Province.	Frisch, T	REG	P	NC	Frank	Pts. <u>39 B-H; 48 E-H</u> <u>49 A, B, D, E, H</u>	1111	4411
760024	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 in the area; 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.	Henderson, JB	REG	P	BS	Mack	<u>86 H/2, 3, 6, 7</u>	122	4421
760025	Geology of Amer Lake map-area District of Keewatin, NWT Obj: To refine and upgrade the 16-mile reconnaissance; to study the structure and stratigraphy of the Yellowknife (KAMINAK) metavolcanics and Hurwitz meta-sediments and their relations with the adjacent gneisses; to determine structure and stratigraphy of the gneissic areas; to study the metamorphic history of the area; to evaluate the economic potential of the region.	Heywood, WW	REG	P	NC	Kee	<u>66 H</u>	1111	4412

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
760026*	Geology of Penrhyn Fold Belt, Melville Peninsula, NWT 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.	Okulitch, AV	REG	CS	Pet	Frank	46 O,P 47 A	122	4421
760027	Redbed sequences in Canada 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.	Chandler, FW	REG	CS	A	-	-	122	4421
760028*	The geology of southeast Baker Lake, NWT Obj: To provide information on the origin and relationships of a heterogeneous group of plutonic and metamorphic rocks.	Schau, M	REG	P	NC	Kee	56 C/4 D/1	122	4421
760029*	Huntec Seabed Project Obj: Development and application of high resolution vertical incident acoustic reflection data for the quantitative classification of marine sediments.	Ross, DI	AGC	RR	-	-	-	1432	4435
760030*	Surficial geology and paleogeology of Saglek Bank, Labrador Shelf 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 structure; 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.	Fillon, RH	AGC	RR	LSS	-	-	1115	4415
760033*	Sedimentologic study and basin analysis of the eugeoclinal sedimentary rocks (Cambrian to early Devonian) of southern N.S. Obj: (1) To obtain field and petrographic data and reappraise the results of previous work in order to describe the sedimentology of these rocks and construct a sedimentologic model. (2) To interpret the Paleozoic evolution of the southeastern Canadian Appalachians on the basis of this work.	Harris, IM	AGC	EPG	RSBS	NS	11 D,E,F; 21 A,B; 20 O,P	121	4421



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
760036	West Greenland Cretaceous and Tertiary Obj: To examine the occurrences of Cretaceous and Tertiary marine to continental sedimentary sequences and to compare these sequences with those underlying the Labrador-Baffin Island continental shelf.	Umpleby, DC	AGC	EPG	RSPBS	-	-	121	4421
760037	Regional subsurface geology, continental shelf and slope, offshore Labrador, Baffin Island and related areas 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.	Umpleby, DC	AGC	EPG	RSBS	Nfld	Frank 2, 3, 13, 14, 15, 16, 27 28, 29, 30, 39, 120	121	4421
760038	Biostratigraphy and paleoecology (palynology) of Mesozoic and Cenozoic of the Atlantic Shelf Obj: Refinement of the biostratigraphic zonation, already established for the Scotian Shelf and Grand Banks, and the extension of these studies to the Labrador Shelf. Comparison of palynomorphs from offshore Eastern Canadian wells with coeval assemblages from other North Atlantic margins. Determination of environmental and provincial significance of dinoflagellate cyst distributions. Study of organic type and maturation where relevant.	Bujak, J	AGC	EPG	SS	NS	Nfld 1, 2, 3, 10, 11, 12	121	4421
760039	Study of the structures and origin of Baffin Bay Obj: Analysis of bathymetric, gravity, magnetic, seismic reflection and refraction, bedrock samples and sediment sample data from offshore and geological and geo-physical data from onshore to determine the structure and origin of Baffin Bay.	Falconer, RKH	AGC	RR	EAOG	-	-	1122	4417
760040	Head, Coal Geology Subdivision Obj: Advise the Director of the Institute of Sedimentary and Petroleum Geology on areas of investigation required to evaluate the coal resources of Canada, and to administer the coal geology and evaluation program within the Geological Survey of Canada.	Morris, DK	ISPG	CG	-	-	-	511	212
760042*	Jurassic biostratigraphy of selected areas of western and Arctic Canada 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.	Poulton, TP	ISPG	P	OP	BC Yk Frank	Alta 82, 83, 92-94, 103 104 105, 49, 59, 69, 79 F, 89 E 99, 340, 560	121	4431

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
760043	Regional geochemistry--Eastern Canadian Shield 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.	Maurice, YT	RGG	RIE	GC	Que Nfld	-	1132	4463
760044*	Regional geochemistry--Southern Canadian Shield 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 National Geochemical Reconnaissance Map as a contribution to the mineral potential inventory of the nation.	Coker, WB	RGG	RIE	GC	Sask Man Ont	31 C,F; 42 D,E; 52 A,H 65 N	1132	4463
760045*	Evaluation of Uranium Reconnaissance Data 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.	Charbonneau, BW	RGG	-	RM	Man NB NS Ont Que	11 E,L; 12 L; 21 A,G,H, J,O; 52 E,F,G,J,K,L,M,N; 53 D; 54 L,M; 63 A; 64 I,N,P	222	4463
760046*	Administration and Technology Transfer Obj: To provide the direction and selection of projects within the Terrain Geophysics Program (TGP) and to facilitate the transfer of technology to and from the public domain.	Collett, LS	RGG	TG	EM	-	-	511	496
760047*	Regional geochemistry--Northern Canadian Shield 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.	Maurice, Y	RGG	RIE	GC	Mack Kee	76 H,I 75 F-K	1132	4463

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
760048*	Radiation instrumentation 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.	Bristow, Q	RGG	R	ANI	Ont Que NB	31 C,F,J; 21 G,I	222	4463
760052	Examination of potential AGC/GSC participation in the Nansen Drift Project Obj: The Nansen Drift Project is a U.S.A. initiated project to investigate the Eurasian Basin from an icebreaker frozen into the polar ice. Canada has been involved in planning the project, which was scheduled for Summer 1977. The time has come for formal application to participate in one or more research programs of the whole project. This project is to examine whether AGC/GSC should submit research proposals, and to initiate similar assessments in other Canadian research groups.	Falconer, RKH	AGC	RR	EAOG	-	-	46	4414
760053	Hydrocarbon geochemistry of Arctic Archipelago 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.	Powell, TG	ISPG	E	GC	Frank	98, 88, 78, 68, 58, 99, 89, 79, 69, 59, 49, 560, 340	1132	4461
760054	Hydrocarbon geochemistry of Canadian East Coast offshore 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.	Powell, TG	ISPG	E	GC	Nfld NB NS	14, 3, 10, 11, 20	113	4461
760055	USSR-Canada Exchange-Hydrocarbon Geochemistry Obj: To exchange information on methods of geochemical investigations of oil, gas and organic matter and application of their results to explorations and resource assessment. To gain a broader knowledge of geochemical criteria for petroleum generation and accumulation in various geological settings.	Powell, TG	ISPG	E	GC	-	-	462	4461

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	MTS	GSC Classification	Dept'l Classification
760056*	Evaluation of coal deposits in western and northern Canada Obj: To establish a coal resource base from which quantitative, qualitative, mineability and environmental studies can be made.	Graham, PS	ISPG	CG	RE	Alta BC	82 G,J; 93 B,C,D,G	211	4462 212
760058*	Vegetation distribution and relationships to surficial materials-Arctic Obj: To map and describe vegetation distribution and plant communities as they relate to selected areas of the Arctic Islands.	Edlund, SA	TS	-	RP	-	-	1113	4413
760059*	Study of large landslides in the Western Cordillera 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.	Eisbacher, GH	REG	CPM	GR	Mack YK	93 D 106 C,F	214	444
760060	Mineral and energy resource evaluation: Probabilistic Methods Obj: Preparation of a book which will attempt to bring together and provide a perspective for those methods which, in one way or another, aim to predict the places and modes of occurrence of undiscovered mineral resources.	Agterberg, FP	REG	EG	GM	-	-	32	312
760061*	Regional synthesis of the Grenville Province in Ontario and western Quebec 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.	Davidson, A	REG	P	SG	Ont Que	Pts 31, 32, 41	122	4421
760062*	Geology of bedded phosphate deposits in Canada Obj: To identify Canadian phosphate resources and to develop an understanding of the regional geology relationships: patterns of occurrences, associations, facies, paleogeography, etc.	Christie, RL	ISPG	RG	AI	-	-	316	4466
760063	Hydrocarbon geochemistry of northern interior plains and Beaufort Sea Obj: To determine presence or absence and quality of petroleum source rocks and product petroleum 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.	Snowdon, LR	ISPG	E	GC	YK Mack	106, 107, 117	1132	4461

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
760064	Geology of Mineral Resources in the Ocean 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.	Gross, GA	REG	EG	SP	-	-	315	4465
760065	Digital Compilation of Queen Air Aeromagnetic Data 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.	Dods, SD	REG	RG	DC	-	-	1121	4416
770001	Study of the Cenozoic Evolution of the Western Cordillera 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 on 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.	Souther, JG	REG	CPM	GR	BC VT	pts. of 82, 92, 93, 103, 94, 104, 95, 105, 115, 106, 116, 117	122	4421
770002*	Acquisition and upgrading of Cambridge Ocean Bottom Seismometers Obj: (a) To develop two OBS's useful for work on continental shelf. (b) To acquire the expertise of building additional units. (c) To gain experience (applicable to AGC's deep sea OBS program). (d) To become experienced in the use of a low power microprocessor.	Heffler, D	AGC	PS	GE	-	-	223	4414
770004*	Reconnaissance field study of the Mesozoic sequences outcropping on the Iberian Peninsula Obj: To provide evidence that the sedimentary sequences of the Iberian Peninsula are co-eval with similar sequences beneath the Grand Banks.	Jansa, L	AGC	EPG	SSG	-	-	121	4421

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770005	Foraminiferal Ecology and Sedimentary Processes on the Eastern Canadian Continental Slope Obj: To determine major invertebrate biotopes and sedimentary processes in the 300-3000M depth range. To determine the local textural and geochemical variability and stability of modern slope sediments.	Schafer, CT	AGC	EMG	P	Nfld	-	141	444
770006*	Stratigraphy and structure of the Pacific Continental Slope Shelf using manned and unmanned submersibles 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.	Yorath, CJ	REG	CPM	MG	BC	<u>92 C,D,E,I; 102 H,I,O,P;</u> <u>103 B,C,F,K</u>	1115	4414
770008*	Morphology and Dynamics of the Barrier Island systems in the Southern Gulf of St. Lawrence Obj: (1) To explain the morphology and recent developments of the barrier islands. (2) To monitor and analyse beach, nearshore and inlet processes, and to define littoral drift patterns and establish sediment budgets within each barrier system. (3) To provide a basis for environmental assessment and for planning harbour conservation, dredging operations, and resource development.	McCann, SB	AGC	EMG	CG	NB PEI	<u>11 L; 21 I</u>	1432	444
770009	Holocene stratigraphy of Barrier-Island Systems, Southern Gulf of St. Lawrence Obj: (1) To determine the evolution of the barrier shorelines during the past 5000-8000 yrs, to provide a time framework for evaluating the present shoreline conditions and the effect of contemporary processes. (2) To define the vertical extent and total volume of sediments in the barrier systems and to document these sediments in terms of their potential mineral and/or other resource applications.	McCann, SB	AGC	EMG	CG	NB PEI	11, 12, 21, 22	1432	444

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770010	Development of Analytical and Theoretical Techniques for Refraction Seismology Interpretations 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.	Keen, CE	AGC	RR	CM	-	-	223	4421
770011	Symposium on the Analysis of Geological Materials ("Analysis 78") Obj: To provide a forum for the exchange of information among specialists in the analysis of geological materials.	Maxwell, JA	CLAS	-	-	Ont	-	422	4435
770012*	Geology of the Coronation Gulf area, District of Mackenzie, N.W.T. 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 Timney Cove and Ellice River Formations; to correlate, if possible, the Hornby Bay dolomite and sandstone with the Parry Bay, Ellice and Timney 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.	Campbell, FHA	REG	P	BS	Mack Frank	<u>77 A, B, D, E; 76 G, J, K, M</u> <u>N, O (parts of) 86 O, P</u>	122	4421
770013*	Operation Borden 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.	Jackson, GD	REG	P	NC	Frank	parts of <u>37 G; 38 B, C;</u> <u>48 A-D</u>	122	4411
770014	Conference and Publication on The Coast of Canada; littoral processes and shore morphology 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.	McCann, SB	AGC	MG	CG	NS	-	422	444

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770015	High Resolution Aeromagnetismics (Instrumentation Development) Obj: To improve the performance of the GSC experimental high resolution/gradiometer survey system, in terms of sensitivity, precision, reliability, efficiency and endurance.	Sawatzky, P	REG	RG	EAO	-	-	221	4416
770016*	Operation Dease Obj: i) To complete and update the 1:250,000 geological mapping of Cry Lake and Dease Lake map-areas, N <sup>2</sup> Sptazizi. 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 and on Dease Lake map-area.	Gabrielse, H	REG	CPM	GR	BC	<u>104 I, J</u>	1111	4412
770017*	Stratigraphy, structure and metallogeny of the northern part of the Intermontane Belt (Whitehorse trough) in the Canadian Cordillera Obj: To provide data on, and extend our understanding of, the relationships between stratigraphy, structure, sedimentary facies and mineral deposits on the northern Intermontane Belt of Central Yukon.	Tempelman-Kluit, D	REG	CPM	GR	YK	<u>105 E; 115 I; 105 L; 105 C</u>	122	4421
770018*	Regional Seismic Surveys Obj: To determine depths to basement underlying the Athabasca sandstone in the Athabasca Basin using seismic methods.	Overton, A	REG	RG	SM	Sask	<u>74 H</u>	121	4421
770019*	Stratigraphy, structure and metamorphism of the eugeosynclinal rocks of the Coronation Geosyncline and their relation to the Hepburn Batholith Obj: An analysis of the depositional and deformational record of the eugeosyncline, a description of the plutonic and metamorphic character of the batholith, and a reconstruction of the tectonic history and significance of the batholithic-eugeosynclinal belt as a whole.	Hoffman, PF	REG	P	BS	Mack	<u>86 J, O</u>	122	4421
770020*	Kemano Project Obj: To produce a report and geological map of Whitesail Lake (W <sup>2</sup> ) map-area, on a scale of 1:250,000, with one or more 1:50,000 maps of the most critical areas.	Woodsworth, GJ	REG	CS	GR	BC	<u>93 E</u>	1111	4412



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770021	Magnetic Characteristics of Sulphide Ore Deposits in Bathurst area, New Brunswick Obj: To determine the magnetic properties of geologically distinct sulphide deposits in Bathurst area. Goals are: (1) to arrive at conclusions as to the expected magnetic signature of similar deposits which might occur in the area, (2) to determine distribution of pyrrhotite types in the area and correlation with geological features, (3) to study magnetic texture and effect of metamorphism.	Schwarz, EJ	REG	P	Pmag	NB	<u>21 P</u>	212	4435
770023*	Examination and Evaluation of Exploration Methods for Use in Clay Covered Areas Obj: (1) To review literature on the extent of clay covered areas in Canada, the exploration techniques used in these areas in various parts of the world, and suggest possible methods of exploration for base metals and uranium which show promise. (2) To field test, in an orientation area, methods of exploration which could be used in clay belts.	Smee, BW	REG	RIE	GC	<u>Ont</u>	<u>52 H; 42 E</u>	222	4463
770024*	Geology of uranium resources of Canada-V 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.	Gandhi, SS	REG	EG	URE	<u>BC Mack</u>	<u>86 C, F, K, N; 85 G; 75 K, L; 82 M</u>	313	213
770025*	Regional Geochemistry - Yukon Obj: (1) To determine through U.R.P. geochemical surveys the mineral potential of 15,000 mi <sup>2</sup> 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.	Goodfellow, WD	REG	RIE	GC	<u>Yk BC Mack</u>	<u>105 C, F; 106 C, D, E, F; 116 A, B, C, F, G, H</u>	1132	4463

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	MTS	GSC Classification	Dept'l Classification
770026*	Geology of Red Indian Lake, west half, Newfoundland 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.	Herd, RK	REG	CS	A	Nfld	12 A	1111	4421
770027*	Proterozoic red beds of Richmond Gulf 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.	Chandler, FW	REG	CS	A	Que	34 C/1,8	122	4421
770029*	Surficial Geology Bear-Slave Province Obj: To map, describe and explain the surficial geology with particular reference to: (1) background information of particular use in drift prospecting, geochemical and related surveys, (2) terrain information required for land use and engineering developments, (3) Quaternary history and present day process activity.	Clague, JJ	TS	-	RP	Mack	76 E,F,G,J,K,L; 86 H,I	123	4413
770030*	Geologie du Quaternaire, region de l'Outaouais superieur Obj: Cartographier, decire 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 geochimique. (2) Determiner les proprietes physiques et mecaniques de certain depots.	Veillette, JJ	TS	-	RP	Que Ont	31 M,N $\frac{1}{2}$ ; 31 N,NW $\frac{1}{2}$	123	4413
770031*	Surficial geology and terrain evaluation, southern Yukon 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.	Klassen, RW	TS	-	RP	Yk BC	94 M; 95 D; 104 P; 105 A-D	123	4413
770032*	Sediment budget of Arctic Lakes Obj: To investigate the postglacial sedimentation and diagenetic processes and to determine the physical and chemical characteristics of sediments in Arctic Lakes to assist environmental impact studies and mineral exploration programs.	Adshead, JD	TS	-	SMT	Keew NWT	66 A; 65 P; 65 I; 65 H; 55 E; 55 F, 55 M	1432	444

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770033*	Glacial sedimentation studies Obj: To study the mechanics of glacier sedimentation to determine the mechanism by which rock fragments are entrained, moved and deposited by glaciers in order to increase the understanding of the relationship between mineralized bedrock and glacial drift and associated sediments.	DiLabio, RNW	TS	-	SMT	Frank	Parts of 38 B,C; 48 A,D	1432	444
770034*	Drift prospecting investigations, Bear-Slave Province Obj: To determine the dispersal pattern of rock, mineral and chemical components in various drift materials relative to their source in the bedrock, with particular reference to its application to the delineation of geological bodies masked by drift in areas of potential base metal and uranium mineralization.	DiLabio, RNW	TS	-	SMT	Mack	76 86 (parts of)	212	444
770035*	Periglacial processes and slope movement, central Keewatin 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.	Eggington, PA	TS	-	SMT	Ke	65 I; 55 L; 65 P	123	444
770036*	Geotechnical study of rock heave, central Arctic 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.	Kurfurst, PJ	TS	-	EMG	Frank Ke	65; 66; 56; 57; 58; 59; 68; 69	1432	4453
770037*	Slope processes and cryogenic movements, Arctic Islands 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.	Heginbottom, JA	TS	-	EEG	Frank	Parts of 58 F; 68 G; 68 M; 79 B	1432	442
770038	A text on Canadian Geology and Natural Resources Obj: To prepare a text, at about the senior high school or introductory college level, which will summarize our present knowledge of Canada's rocks 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.	Neale, ERW	ISPG	RG	M	-	-	432	4423

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770039	Joint Canada-USSR evaluation of petroleum resource evaluation systems Obj: (1) To test or validate the EMR-GSC methodology. (2) To compare methods. (3) To exchange information concerning petroleum geology.	Dahlberg, EC	ISPG	E	PR	-	-	32	4461
770040*	Studies of coal-bearing Upper Cretaceous and Paleocene formations, central Alberta Foothills Obj: Establish the stratigraphic framework of the Upper Cretaceous and Paleocene formations of the central Foothills of Alberta as a basis of further qualitative, quantitative, mineability and environmental studies leading to an evaluation of their coal resource potential.	Jerzykiewicz, T	ISPG	CG	GC	Alta	83 F, 83 C	211	4462
770041*	Compositional Characteristics of Coals from Hat Creek, British Columbia Obj: (1) To determine the petrographic characteristics of the coals at Hat Creek. (2) To determine the mineral matter content, identify individual minerals and trace elements in the Hat Creek coals. (3) To use these data for interpretation of the geology of the deposit.	Cameron, AR	ISPG	CG	CT	BC	92 I/13E, 92 P/4E	211	4462
770042*	Surface oxidation of variously ranked coals Obj: To determine the effects of surface oxidation on the petrographic rank of variously ranked coals and to ascertain if the effect is consistent or random.	Gunther, PR	ISPG	CG	CT	BC Alta	-	145	4462
770043	Carboniferous and Permian stratigraphy and sedimentation in the southwestern District of Mackenzie and southeastern Yukon Territory Obj: The principle objective of this project is to determine the depositional environments of the Mississippian to Permian Yohin, Clausen, Flett, Etanda (=Besa River), and Mattson Formations (sensu Harker, 1963), and investigate the lithofacies relationships within and between these formations. A second objective is to revise the stratigraphic nomenclature of Mississippian surface and subsurface units in the project area.	Richards, BC	ISPG	RG	M	Mack Yk	95 B, 95 C	121	4421

Project Number	Project Leader	Title	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770044*	Cecile, M	Lower Paleozoic basin-to-platform relationships in the Cordillera. Obj: To contribute to the subdivision, mapping and understanding of important Lower Paleozoic basinal sequences through: (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.	ISPG	RG	M	Mack BC	106 A,B,F,G; 94 B,F,G	121	4421
770045*	Sweet, AR	Taxonomy and biostratigraphic distribution of Mesozoic and Paleogene megaspores Obj: (1) To describe and classify megaspores from northern Canada and when necessary for comparative purposes, from southern localities. (2) To establish biostratigraphic zonation based on the described megaspores.	ISPG	P	Mip	Mack Frank Ont NS Alta	107 B; 88 C; 98 E; 79 B; 79 D; 69 D; 49; 42 N; 11 E; 72 D, 82 P	141	4431
770046	Hughes, JD	Resource Evaluation of coal deposits of western and northern Canada Obj: To establish a coal resource base from which quantitative, mineability and environmental studies can be made by other governmental 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.	ISPG	CG	RE	Alta	83 H/2 and 83 H/7	312	212
770047*	Long, DGF	Studies of coal deposits of western and northern Canada 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 for an exploitation of coal.	ISPG	CG	GC	Yk	106 E	211	4462
770048	Norris, AW	Brachiopods of the lower Upper Devonian Waterways Formation of northeastern Alberta 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).	ISPG	P	Map	Alta	74 D,E; 84 P	1421	4431

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770049*	Stratigraphy and sedimentology of the Tertiary sediments of the eastern Arctic 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.	Miall, AD	ISPG	RG	AI	Frank	49, 120	121	4421
770050	Cenozoic geology of the Beaufort-Mackenzie Basin 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.	Young, FG	ISPG	RG	SM	Mack Frank	107 B,C,D,E, parts of; 117 A,D parts of	121	4421
770051	The relationship between kerogen type (known petrographic rank) and chemical extract data, for the purpose of source rock evaluation Obj: To classify kerogen types with oil source characteristics.	Gunther, PR	ISPG	CG	CT	Kee	-	1431	4461
770052	Study tour of Jura Mountains, Franco-Swiss Alps, Provence Obj: To participate in a scientific exchange program with France through involvement on conducted tours on the Franco-Swiss Alps, the Juras, and the mountains of Provence followed by independent study of an area likely to contain parallels with the deformation displayed in the northern Franklins and Mackenzie Mountains.	Cook, DG	ISPG	RG	M	-	-	422	4421
770053*	Heavy Oil and Oil Sand Resources 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.	Recruit	ISPG	E	PR	-	-	311	211
770054	Sample preparation and mineral-separating Obj: To provide sample preparation and mineral-separating services in support of Branch projects.	Paris, JC	CLAS	-	M	-	-	533	447
770055*	Metallurgy of the northwestern part of the Canadian Shield Obj: To provide a metallogenic basis for the evaluation of the mineral resources of the northwestern part of the Canadian Shield.	Roscoe, SM	REG	EG	MDG	Mack Kee Man Sask	55, 56 64, 65, 66, 75, 76, 85, 86	212	4465

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770056*	Hydrogeologic investigations of test sites and potential radioactive waste storage sites Obj: To provide hydrogeologic data that will assist in the assessment of the feasibility of subsurface containment of solid radioactive waste in crystalline rock.	Raven, KG	TS	-	EEG	<u>Ont</u>	-	214	4453
770057*	Collection and analysis of borehole fracture data at test sites and potential radioactive waste storage sites Obj: To determine from borehole TV surveys the geometrical characteristics of the fracture systems of each site; to assess the hydraulic 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.	Lau, JSO	TS	-	EEG	<u>Ont</u>	-	214	4453
770058*	Drilling investigations of test sites and potential radioactive waste storage sites Obj: This project is designed to meet the drilling needs of the geotechnical, geological and geophysical components of the AECL-EMR program on Radioactive Waste Storage. The project will ensure that the drilling programs will have continuity and that control will be maintained on the type and quality of the data obtained from the drilling. The drilling programs will provide information on the subsurface occurrence and characteristics of structural features at each potential site.	Dugal, JJB	TS	-	EEG	<u>Ont</u>	-	214	4453
770059*	Geological (hard rock) investigations of potential radioactive wastes disposal sites Obj: To develop a rationale for the selection of potential sites, 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 sites with a view to the selection of a prime site.	Brown, PA	TS	-	EEG	<u>Ont</u>	-	214	4453
770060*	Environmental assessment of coal resource development, Canadian Cordillera 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.	Jackson, LE	TS	-	EEG	<u>Alta BC</u>	-	214	4451

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770061*	Mineralogy of uranium deposits in granitic rocks in the Grenville Structural Province 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.	Rimsaite, JYH	REG	EG	URE	Ont Que	<u>31</u>	212	4463
770062	Regional Syntheses - New Quebec; Project I Obj: To compile and interpret data for the New Quebec component of the metamorphic map of the Canadian Shield.	Herd, RK	REG	P	SG	Que	Pts 23, 24, 25; 33, 34, 35	122	4423
770063*	Geology of Lead and Zinc resources of Canada - II 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.	Lydon, JW	REG	EG	MDG	NS Man	<u>11 D, E; 63 J, K, L; 64 B, C</u>	315	4465
770064	Healey Lake Map-Area, District of Mackenzie NTS 76 B, N.W.T. 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.	Henderson, JB	REG	P	BS	Mack	<u>76 B</u>	1111	4412
770065	Surficial and Quaternary geology of Cumberland Peninsula, Baffin Island Obj: Complete preparation of maps and prepare a paper for publication by the Geological Survey of Canada.	Dyke, AS	TS	-	RP	Frank	26 P, O, I, J; 16 L and K	1113	4413
770066*	A study of siltation within lakes and the stratigraphy of lake bottom sediments Obj: To study siltation processes within lakes and the stratigraphy of late bottom sediments.	Edwards, TWD	TS	-	SMT	Kee	<u>55 E, L, 65 A, H, I</u>	1432	444



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770067	Western Canada Oil and Gas Pool File 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.	Recruit	ISPG	E	PR	Alta Sask BC Man	-	311	211
770068	Petroleum Evaluation of Mainland Territories Obj: To provide a reliable and adequate data base for assessment by the Geological Potential Subcommittee of the area's hydrocarbon potential. To document proven and potential hydrocarbon occurrence in the area.	Wilson, DG	ISPG	E	PR	Yk Mack	85, 86, 95, 96, 97 A, 97 B, 97 C, 97 D, 97 F, 105 P, 106 A-B, 106 H-P, 107 A-E, 116 F-P, 117 A-D	311	211
770069	Release of Data from Western Canada Petroleum Potential Study Obj: To present the results of western Canada evaluation of undiscovered oil and gas resources to provincial agencies and possibly to public by open file or publication.	Wilson, DG	ISPG	E	PR	Alta BC Sask Man	-	311	211
770070*	Regional Geological Synthesis, Central Superior Province 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.	Card, KD	REG	P	SG	Ont Que	41, 42, 32	122	4421
770071*	Geology of copper and molybdenum resources of Canada - II 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.	Sinclair, WD	REG	EG	MDG	Yk BC NS NB Que	115 F-K; 104 N 11; 21; 22; 12; 31; 32	315	4465

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	GSC Classification	Dept'l Classification
770072	Geological Survey representative on Steering Committee of the Kremp Palynologic Computer Research Project. 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.	Barss, MS	AGC	EPG	-	-	-	141	4431
770073*	Study of the Boundaries of Lithospheric Plates 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.	Loncarevic, BD	AGC	RR	DSG	-	-	133	4421
770074	Display, Analysis, and Management of Spatially Referenced Geological Data 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.	Gordon, TM	DGO	-	DS	-	-	452	447
770075*	Canada Basin Ocean Bottom Seismometer Equipment Obj: Obtain experience in geophysical work on arctic ice. Develop techniques for operation of ocean bottom seismometers in ice covered waters. Establish joint working relationships with major U.S.A. arctic research groups: ONR, MIT, Lamont, and Woods Hole. Obtain measurements of the velocity of the seafloor to a sub-bottom depth of about 200 m, the zone which much affects acoustic propagation. Obtain crustal refraction data in the Canada Basin - presumed oceanic but there is no published refraction data.	Falconer, RKH	AGC	RR	AGG	-	-	223	4421
770076	The Geochemistry of Uranium in Natural Waters 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).	Coker, WB	RGG	RIE	G	BC Yk NWT Sask Man Ont Que	31C 1-16, 31F 1-16 (1977)	212	4463

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Traill, R.J.	570119*;	580160;	680023	
Tremblay, L.P.	750058*			
Trettin, H.P.	670019;	720047;	730051*	
Umpleby, D.C.	760037;	760036*		
Uyeno, T.T.	680101;	660026		
Van Elsberg, J.N.	750025			
Veillette, J.J.	730019;	770030*		
Vilks, G.	750038;	730091		
Vincent, J.S.	740065*			
Wade, J.A.	720103;	720104*		
Wall, J.H.	720044;	740042		
Wanless, R.K.	540028;	650466;	730046;	730047
Williams, G.K.	710033;	710010;	710011	
Williams, G.L.	710062;	730085		
(Willey, J.)	740083			
Wilson, D.G.	770068;	770069		
Woodsworth, G.J.	770020*			
Yorath, C.J.	770006*			
Young, F.G.	710036*;	770050		