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CANADA

DEPARTMENT OF ENERGY, MINES AND RESOURCES

OFFICE OF
R. A. ROCHON

GEOLOGICAL SURVEY OF CANADA

CATALOGUE OF SCIENTIFIC PROJECTS
SCIENTIFIC PROGRAM
FIELD PROGRAM
1972-1973

Compiled by Gertrude E. Derry
Office of Chief Geologist



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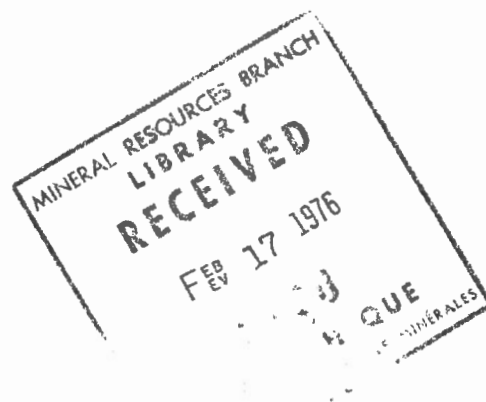
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30 June, 1972

PREFACE

This catalogue of all scientific projects of the Geological Survey of Canada (except those of Atlantic Geoscience Centre)* approved as of 9 June 1972 is arranged to indicate: (1) the total scientific program of the Survey for the period 1 April 1972 to 31 March 1973; and (2) the field program for the summer of 1972.

2. As a catalogue it lists and briefly describes scientific projects, both active and inactive. These total 393 and are compiled from instructions issued to project leaders for 1972-73 via forms CG 96, 48 A and B. 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. Indexes by project leader, division, subdivision, section, and province will be found at the end.

3. The total scientific program, office, laboratory, and field for all persons for all or any part of 1972-73 comprises those projects listed as active (X) in the next to last column. These total 368.

4. The field program for the summer of 1972 comprises the field component of those active projects marked by an asterisk after the project number. These total 176. No distinction has been made between a minor field component, such as a few days, and a major component requiring the entire field season. The location and brief description of many of the resulting field parties is shown on Map 1-1972 "Geological Survey of Canada Field Activities, 1972".

5. It is anticipated that additional projects will be designated as in good standing in 1972-73, and the action thereon defined for that year, via instructions still to be issued to leaders. Until or unless such instructions are issued, however, this edition of the catalogue presents the total roster of Geological Survey scientific projects in good standing, and indicates all projects on which work will be done during fiscal 1972-73. Any additional projects that may be authorized by instructions, and on which work will be done, will appear as a supplement to this edition.

* The Atlantic Geoscience Centre, Dartmouth, Nova Scotia, became a Division of the Geological Survey on 1 April 1972. Some revision of the Centre's scientific project management system has been necessary to adapt it to that of the Geological Survey. This revision and the resulting integration is still in process and thus this edition of the Catalogue does not include projects of the Centre.

Ottawa,
30 June 1972

Distribution:

Project leaders; Heads of divs, subdivs, and secs; CAO (3); Mr. E. Hall;
Dr. T.E. Bolton; Dr. S.C. Robinson; Dr. G.M. Wright; Library; Br. Reg.; Dir, GSC;
Dir, Planning Br.; Provinces, & IAND (appropriate parts); Dir, USGS; CG (25)

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LIST OF ABBREVIATIONS USED

ADMINISTRATION DIVISION - ADM

DO -Director's Office
 SP -Special Projects

CENTRAL LABORATORIES AND TECHNICAL SERVICES DIVISION - CL&TS

M -Mineralogy Section
 AC -Analytical Chemistry Section

RESOURCE GEOPHYSICS AND GEOCHEMISTRY DIVISION - RGG

G -Geochemistry Section
 EM -Electrical Methods Section
 MM -Magnetic Methods Section
 RM -Radiation Methods Section
 SM -Seismic Methods Section
 CS -Contract Surveys Section
 DR -Data Reduction Section

TERRAIN SCIENCES DIVISION - TS

Adm -Administration Section
 RSP -Regional and Stratigraphic Projects Section
 PG -Paleontology and Geochronology Section
 EGG -Engineering Geology and Geodynamics Section

REGIONAL AND ECONOMIC GEOLOGY DIVISION - REG

PS -Precambrian Shield Section
 CPM -Cordillera and Pacific Margin Section
 A -Appalachian Section
 EP -Eastern Paleontology Section
 G -Geochronology Section
 PMag - Paleomagnetism Section
 Pet -Petrology Section
 MD -Mineral Deposits Section
 Adm&SP-Administration and Special Projects Section

INSTITUTE OF SEDIMENTARY AND PETROLEUM GEOLOGY DIVISION - ISPG

Regional Geology Subdivision - RGSd

AI -Arctic Islands Section
 NM -Northern Mainland Section
 SM -Southern Mainland Section

Paleontology Subdivision - PSd

MaP -Macropaleontology Section
 MiP -Micropaleontology Section
 OP -Ottawa Paleontology Section

INSTITUTE OF SEDIMENTARY AND PETROLEUM GEOLOGY DIVISION (cont'd)

Energy Subdivision - ESd

GofP -Geology of Petroleum Section

GofC -Geology of Coal Section

CP -Coal Petrology Section

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
380077	Analysis of rocks and minerals	Abbey, S	CL&TS	AC	-	-	X	
	Obj.: To provide compositional data on geological materials as a contribution to the solution of geological problems.							
400006*	Preparation of collections of Canadian rocks and minerals for distribution to the public	Larose, JM	CL&TS	M	-	-	X	
	Obj.: To make available for distribution to educational institutions and the Canadian public representative collections of Canadian rocks and minerals that will assist prospectors and promote interest in the mineral industry.							
480191	Monograph of the Canadian <u>Buchia</u> (=Aucella)	Jeletzky, JA	ISPG	OP	-	-	X	
	Obj.: To describe and illustrate Canadian representatives of this stratigraphically important genus using fossil collections available at this Survey and elsewhere. To give a stratigraphical appraisal of all described species. To investigate critically the relationships of Canadian species with the American, Eurasian, and Indo-Pacific species and to elucidate the ages of the Canadian <u>Buchia</u> zones in terms of standard stages.							
490001	Mesozoic and Tertiary on the west coast of Vancouver Island and in Quatsino Sound	Jeletzky, JA	ISPG	OP	BC	92 E, F, L	X	
	Obj.: A stratigraphic-paleontological study with special attention to the Lower Cretaceous-Jurassic contact and possibilities of Tertiary strata with respect to oil and gas.							
490038*	Miscellaneous field investigations by staff at Vancouver office	Gabrielse, H	REG	CPM	Yk	92; 93; 94; 103; 104	X	
	Obj.: Varied 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.				BC			

Asterisk in first column indicates project has a field component
 Brackets indicate seasonal employee or other non-staff
 Underscoring indicates province of 1972-73 field work

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
							72-73	72-73
500029	Identification and biostratigraphic interpretation of referred fossils	Staff of Eastern ISPG & Western Paleon-REG tology Sections	ISPG REG	PSD EP CPM	-	-	X	
	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.							
500336*	Devonian of Alberta, British Columbia and southern District of Mackenzie	Belyea, Helen R	R ISPG	NM	Mack, BC Alta	Pts: 72, 73, 74, 82, 83, 84, 85	X	
	Obj.: To publish a series of papers on the Devonian, discussing rock types, their diagenesis and depositional environments, correlations, facies, changes, discontinuities, faults, etc.; in an attempt to elucidate the reasons for Devonian facies distribution and hence designate general areas of potential hydrocarbon reservoir rocks.							
530014*	Geology of Canadian Lithophile metals (Li, Be, Sn, W)	Mulligan, R	REG	MD	-	-	X	
	Obj.: To carry out comprehensive research on the geology of lithophile metals (lithium, beryllium, tin, and tungsten) in order to provide a geological basis for exploration and assessment of such deposits in Canada. The research is to provide: (1) a systematic record and appraisal of geological data; (2) a geological classification of deposits; (3) definition of criteria for recognition of each type of deposit; (4) development of concepts and hypotheses on geological environment, provenance, and genesis of the deposits; and (5) determination of regions and geological units in Canada most favourable for the occurrence of each type of deposit.				Yk BC, NB NFld			
540025	Milliken Lake area, Saskatchewan	Bell, CK	REG	PS	Sask	Pt 74 N/7	X	
	Obj.: To provide detailed information on the age, structure, sequence, relationships, thickness, and origin of the bedrock formations and on the size, grade, mode of occurrence, origin and potentialities of the mineral deposits. Pub Sca 1":800ft.							
540028*	Isotopic age determinations of rocks and minerals	Wanless, RK	REG	G	Kee Que	55 L 32 C, D	X	
	Obj.: To determine the geological age of rocks and minerals and geological events using isotopic methods.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
550004	Cretaceous and Jurassic of Richardson Mountains, Porcupine Plains, and Eagle Plains	Jeletzky, JA	ISPG	OP	Mack Yk	116; 106 W $\frac{1}{2}$; 117 A S $\frac{1}{2}$, B S $\frac{1}{2}$	X	
	Obj.: To study the stratigraphy and paleontology of Cretaceous and Jurassic formations of the region in order to understand the most essential features of the facies pattern, sequence, and lateral extent of lithological units, paleogeography and geological history. To describe and to figure the most important elements of the faunas.							
550101*	The curating of National and Branch mineral and ore collections, and the provision of mineralogical information to the public	Steady, HR	CL&TS	M	-	-	X	
	Obj.: To maintain and develop the National and Branch mineral and ore collections; to make standards and specimens available for comparison and identification, and for the obtaining of additional scientific data; to provide a public service in the identification of geological specimens and the provision of related information.							
560019	Quaternary geology, Ottawa map-area	Gadd, NR	TS	RSP	Ont, Que	31 G/5	X	
	Obj.: To map, describe and explain the Quaternary deposits and landforms in order to provide: (1) areal information; (2) knowledge of the Quaternary stratigraphy and chronology of the region; and (3) background information applicable to engineering, groundwater, and soils mapping. Pub Sca 1:50,000							
570029*	Geology of iron and manganese deposits in Canada	Gross, GA	REG	MD	Ont, Que, Nfld	22, 23, 31, 32, 41, 42, 52	X	
	Obj.: To carry out comprehensive research in the geology of iron and manganese deposits in order to provide a geological basis for exploration and assessment of iron and manganese potential in Canada. The research is to provide: (1) a systematic record and appraisal of geological data; (2) a geological classification of deposits; (3) definition of criteria for recognition of each type of deposit; (4) development of concepts and hypotheses on geological environment, provenance, and genetic processes of iron and manganese deposits; (5) determination of regions and geological units in Canada most favourable for the occurrence of each type of deposit.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
570119*	Studies of meteorites and other extra-terrestrial material	Traill, RJ	CL&TS	M	-	-	X	
	Obj.: To study the mineralogy, petrology, and chemistry of meteorite falls and finds in Canada, and of other extra-terrestrial material, and apply the knowledge thus gained towards a better understanding of earth science processes; and to curate Canada's national collection of meteorites.							
580036	Geology of titanium and titanium deposits of Canada	Rose, ER	REG	MD	-	-	X	
	Obj.: To carry out comprehensive research on the geology of titanium deposits in order to provide a geological basis for exploration and assessment of Titanium potential in Canada. The research is to provide: (1) a systematic record and appraisal of geological data; (2) a geological classification of titanium deposits; (3) definition of criteria for recognition of each type of deposit; (4) development of concepts and hypotheses on geological environment, provenance, and genetic processes of titanium deposits; and (5) determination of regions and geological units in Canada most favourable for the occurrence of each type of deposit. Pub Sca 1:5,000,000.							
580037	Maintenance of the paleontological type collection	Bolton, TE	Adm	DO	-	-	X	
	Obj.: To catalogue, store, and maintain GSC National Type Collection of Fossils so that they are readily available for research by GSC and outside personnel.							
580153	Lexicon of stratigraphic names used in Canada	Bolton, TE	Adm	DO	-	-	X	
	Obj.: Lexicon of Stratigraphic Names in Canada production, with preparation and maintenance of files recording all stratigraphic names used in Canada.							
580160	Catalogue of Canadian minerals	Traill, RJ	CL&TS	M	-	-	X	
	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.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
580175	Analytical services and development in geochemistry	Lynch, JJ	RGG	G	-	-	X	
	Obj.: To provide the specialized analyses required by the geochemical exploration and geochemical census programmes, in requisite volume and with sufficient speed to ensure that these programmes are able to meet their objectives. As time permits, to provide limited analytical services to other Branch personnel as required.							
590194	Monograph of the Canadian belemnites	Jeletzky, JA	ISPG	OP	Frank, Mack, Yk, BC, Alta, Sask, Man	-	X	
	Obj.: To describe and figure all hitherto known Canadian belemnites species and genera. The zonal value of the individual taxa concerned is to be appraised and the results incorporated in the preliminary and final reports.							
590258	Sea magnetometer survey compilation	Hood, PJ	RGG	MM	-	-	X	
	Obj.: Compilation of all available results of sea magnetometer surveys over the continental shelves in order to produce aeromagnetic and ship magnetometer maps. Pub Sca 1":1 mi, 2 mi, or 4 mi							
590283*	Muskox Intrusion	Irvine, TN	REG	Pet	Mack	86 D/3, J/2, 3, 7, 11, 14, 16	X	
	Obj.: To determine the chemical, petrographic and mineralogical characteristics of the Muskox intrusion with the purposes of describing its crystallization history, relating it to events of basaltic magmatism in the Coppermine province, and defining its significance in relation to the general origin of layered intrusion. Pub Sca 1:63,360.							
590457	Radiocarbon laboratory development and operation	Lowdon, JA	TS	PG	-	-	X	
	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.							
600004	Regional correlation - northwest Canadian Shield	McGlynn, JC	REG	PS	Mack	86 C/15 E ₂ ; 85 B/13; 86 B/12 E ₂	X	
	Obj.: To determine the stratigraphy and structure of the Snare and Cameron Bay strata as a contribution to the correlation and interpretation of the Proterozoic rocks of the N.W.T. Pub Sca 1":1 mi							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
600008*	Project Klondike, Quaternary geology and geomorphology phase	Hughes, OL	TS	RSP	Yk	Pts: 105, 115, 116	X	72-73 72-73
	Obj.: To determine the stratigraphy, geomorphology and distribution of Tertiary to Recent deposits of the Klondike district and surrounding area in order to provide background information for heavy mineral phase (Gleason, McLeod) and to elucidate Quaternary and late Tertiary history of the region. Pub Sca 1":2mi							
600009	Geology of copper deposits in Canada	Kindle, ED	REG	MD	-	-	X	
	Obj.: To carry out comprehensive research on the geology of copper deposits in order to provide a geological basis for exploration and assessment of copper potential in Canada. The research is to provide: (1) a systematic record and appraisal of geological data; (2) a geological classification of copper deposits; (3) definition of criteria for recognition of each type of deposit; (4) development of concepts and hypotheses on geological environment, provenance, and genetic processes of copper deposits; and (5) determination of regions and geological units in Canada most favourable for the occurrence of each type of deposit. Pub Sca 1":4 mi.							
600032	Belleoram map-area	Anderson, FD	REG	A	Nfld	1 M	X	
	Obj.: The project is expected to provide a suitable geological map, complete descriptions of rock units, and an appropriate description and interpretation of the general structure, historical and economic geology features of the map-area. Pub Sca 1":4 mi.							
600218	Faunal study of Late Ordovician and Silurian rocks of southeast British Columbia and adjacent Alberta	Norford, BS	ISPG	PSD	BC	83 C; 82 G, J, K, N, O	X	
	Obj.: Description of faunas of Beaverfoot and Tegart Formations, lithologic and biostratigraphic correlation of these units, positioning of the Ordovician-Silurian boundary; establishment of sequence of biochronological zones for the interval represented by these units. The project's study of well preserved faunas from an inexpensively accessible part of the Cordillera will provide time control applicable throughout the Cordillera for exploration of the natural resources of Upper Ordovician and Silurian carbonate rocks.							
600227*	Devonian plant microfossils of eastern Canada	McGregor, DC	REG	EP	Ont	42; 40; 32; 22; 21	X	
	Obj.: Morphologic and taxonomic revision of the Gaspé and related spore floras which will be related to the stratigraphy of the areas. To establish the spores and other palynomorphs as correlation markers and age determinants.				Que NB			

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
600307	X-ray emission analysis	Lachance, GR	CL&TS	M	-	-	X	72-73 72-73
	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.							
600353	Dibranchiate Volume of the Treatise on Invertebrate Paleontology	Jeletzky, JA	ISPG	OP	-	-	X	
	Obj.: To prepare an authoritative summary of the present state of knowledge of subclass Dibranchiata based on the study of literature on the global scale supplemented by results of writer's personal research of this subclass in Canada and abroad. The project is to be carried out in conjunction with the writer's monographical study of the Canadian belemnites (Project 590194) now in progress.							
610007	Operation Porcupine	Norris, DK	ISPG	NM	Mack Yk	106 E, F, K-N; 116 F E $\frac{1}{2}$, G-J, K E $\frac{1}{2}$, N E $\frac{1}{2}$, O, P	X	
	Obj.: Critical evaluation of the structural geometry and stratigraphy within these map-areas of northern Yukon Territory and western District of Mackenzie for documentation of the nature, origin, and mechanics of the deformation and its bearing on the hydrocarbon and mineral potential of the region. Pub Sca as appropriate.							
610011	Taseko Lakes map-area	Tipper, HW	REG	CPM	BC	92 O	X	
	Obj.: To interpret the structure, stratigraphy and geological history of the Taseko Lakes area and to evaluate the mineral potential. Pub Sca 1":4 mi.							
610014*	Cretaceous stratigraphy, Peace River to 60	Stott, DF	ISPG	RGSD	BC	94 B, G, J, K, N, O	X	
	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 studied between Peace and Smoky Rivers and in the region of Liard and Mackenzie Rivers.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
610019*	Ordovician and Silurian biostratigraphy of British Columbia, Alberta, Yukon, Mackenzie, and Franklin	Norford, BS	ISPG	PSd	Frank Mack, Yk, BC Alta	- 82, J, N, O; 83	X	72-73 72-73
	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.							
610029	Quaternary geology and bedrock topography of the Riding Mountain area, Manitoba-Saskatchewan	Klassen, RW	TS	RSP	Sask Man	62K	X	
	Obj.: To gain areal information on Quaternary deposits and landforms; to outline buried bedrock topography including major buried valleys; to determine the Quaternary stratigraphy and history of the area; and to provide information pertinent to agriculture, forestry, groundwater and engineering construction. Pub Sca 1:250,000							
610030	Huronian rocks north of Lake Huron	Frarey, MJ	REG	PS	Ont	41 J/3, 5, 6, 12, K/8-10	X	
	Obj.: To revise the geology of the project area for publication at 1 or 2 miles to the inch, with particular emphasis on stratigraphy and correlation. In cooperation with ODM personnel, to correlate strata with those of other parts of the Huronian belt; and to standardize the nomenclature and definition of stratigraphic units. Pub Sca 1":1 or 2 mi							
610044	Diabase dykes of the Canadian Shield	Fahrig, WF	REG	PMag	Frank, Kee Mack, Sask Man, Ont Que, Nfld	-	X	
	Obj.: To extend knowledge of diabase dyke swarms in the Canadian Shield, their tectonic significance, paleomagnetism, age relationships and their chemical and petrologic characteristics.							
610269*	Petrographic examination of coking coals from the Crowsnest coalfield, Alberta and British Columbia	Cameron, AR	ISPG	CP	BC Alta	82 G, J	X	
	Obj.: To determine the coking properties and to prepare seam profiles for correlation and environmental studies of coal seams from coking coals of the Crowsnest coalfield.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
610330	Cretaceous index fossils of Western And Arctic Canada	Jeletzky, JA	ISPG	OP	Frank, Mack Yk, BC Alta, Man	-	X	
	Obj.: To publish a series of fossil plates illustrating a selection of best known and most useful Cretaceous index fossils of the Western Cordillera and the sedimentary basins of Western and Arctic Canada.							
620001	Operation Prince of Wales	Christie, RL	ISPG	AI	Frank	57 B, C, F, G; 58 A-F 67 A, D, E, H; 68 A-F	X	
	Obj.: (a) Geological reconnaissance of the Precambrian rocks of Boothia Peninsula and region. (b) Geological reconnaissance of the Paleozoic and younger rocks of the Boothia region.							
620012	Geochemical and petrological study of Yellowknife volcanic rocks	Baragar, WRA	REG	PS	Mack	85 J/8,9	X	
	Obj.: To provide composition, petrographic, and stratigraphic data from which the volcanic character, eruptive history, and characteristic composition may be obtained.							
620019	Prince Rupert-Skeena map-areas	Hutchison, WW	REG	CPM	BC	103 I W $\frac{1}{2}$, J E $\frac{1}{2}$	X	
	Obj.: To determine the regional geologic relationships and the origin and evolution of the metamorphic and plutonic rocks of part of the Coast Mountains. Pub Sca 1":4 mi							
620023	Triassic stratigraphy and petrology between Smoky River and Crowsnest Pass	Gibson, DW	ISPG	SM	BC Alta	83 C, E, F; 82 G, J, O	X	
	Obj.: To provide data on the stratigraphic relationships and correlation of the Triassic strata; their mega- and microfossil content; their megascopic and petrographic features; conditions of deposition; their potentialities as source rocks for oil and gas and possible suitability as reservoirs for hydrocarbons; and assess the potentialities of the gypsum occurrences.							
620038	Seismic-Oak Ridge Moraine	Hobson, GD	REG	SM	Ont	30 M, N; 31 C, D	X	
	Obj.: To investigate thickness and nature of overburden and topography of bedrock. To determine easterly extent of the moraine. To determine structure in bedrock and differentiate bedrock lithology. Pub Sca 1:50,000							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
620039	Quaternary geology, Chaudière River region, Quebec	Gadd, NR	TS	RSP	Que	21 L/2, 6, 7, 11, 12		X
	Obj.: To map, describe and explain the Quaternary deposits and landforms in order to : (1) contribute to knowledge of glacial history and other aspects of Quaternary chronology of the area (2) elucidate the nature and origin of placer gold deposits applicable to engineering, agriculture, forestry and groundwater. Pub Sea 1":2 mi							
620052	Engineering geology and mapping, Welland Canal	Owen, EB	TS	EGG	Ont	30 $\frac{M}{3g}$, 3b; 30 $\frac{L}{14g}$, 14b		X
	Obj.: (1) To provide engineering geology advice as required by the St. Lawrence Seaway Authority during construction of the new Welland Canal; and (2) to map, describe and explain the surficial and bedrock features of the above map-areas with particular reference to engineering geology.							
620308	Electron probe microanalysis	Plant, AG	CL&TS	M	-	-		X
	Obj.: Operation of an electron probe microanalysis laboratory in order to provide knowledge of the distribution of various elements in minerals and mineral assemblages (a) in support of Branch projects, (b) in direct micromineralogical research, and (c) for research and development of methods and concepts of electron probe microanalysis.							
620317*	Cretaceous subsurface studies in northeastern British Columbia	Stott, DF	ISPG	RGsd	BC	93 I, O, P; 94 A, B <u>G-K, N-P</u>		X
	Obj.: To establish the stratigraphic relationships of surface and subsurface Cretaceous successions; to describe the subsurface stratigraphic succession and to provide data on their lateral variations and for an evaluation of the economic potential.							
620318	Middle Ordovician stratigraphic and faunal study, southern Alberta and southeast British Columbia	Norford, BS	ISPG	PSd	BC	83 C; 82 J, N, O Alta		X
	Obj.: Description of faunas and lithostratigraphy of the Skoki and Owen Creek formations to serve as a reference standard for exploration of the natural resources of rocks of similar age in the Cordillera.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
630003*	Operation Grant Land - NE Ellesmere Island and NW Greenland	Christie, RL	ISPG	AI	Frank	120 C-G; 340 C-F, H	X	X
	Obj.: To obtain a better understanding of the geological features of an orogenic belt extending across northeastern Ellesmere Island into adjacent Greenland. Pub Sca to be decided							
630006	Quaternary reconnaissance, north-west Baffin Island	Craig, BG	TS	RSP	Frank	Pts: 47 C-H; 48 A-E, H; 58 A, D	X	X
	Obj.: Reconnaissance geological study and mapping of the surficial deposits and glacial features of that part of Baffin Island west of the 80th meridian, and adjacent small islands.							
630016*	Coast Mountains project	Roddick, JA	REG	CPM	BC	92 F NE $\frac{1}{2}$, G W $\frac{1}{2}$, J, K, L NE $\frac{1}{2}$, M, N; 93 D; 102 P; 103 A, G, I W $\frac{1}{2}$, J, N, P W $\frac{1}{2}$	X	X
	Obj.: A geological reconnaissance of the Coast Mountains between southeast Alaska and Vancouver for publication on a scale of 1 inch equals 4 miles. The investigation is expected to reveal the main events in the geological history of the Coast Crystalline Belt and to develop an understanding of the processes governing the formation of plutonic rocks in such orogenic belts.							
630017	Operation Liard	Taylor, GC	ISPG	SM	BC	94 F E $\frac{1}{2}$, G, J, K, N, O	X	X
	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. Pub Sca 1":2 or 4 mi							
630019	Quaternary geology, Vernon map-area W $\frac{1}{2}$	Fulton, RJ	TS	RSP	BC	82L W $\frac{1}{2}$	X	X
	Obj.: To gather areal information regarding Quaternary geology; to determine the chronologic sequence of Quaternary events and environments in the region; to provide data applicable to agriculture, forestry, engineering, and groundwater. Pub Sca 1":2 mi							
630021*	Mississippiian physical stratigraphy sedimentology and correlation	Macqueen, RW	ISPG	SM	BC	- Alta	X	X
	Obj.: To determine the stratigraphic relationships and correlation of these strata including formation subdivision; their depositional diagenetic, and geochemical history; their macrofaunal and microfaunal content; and their potentialities as source rocks for oil and gas and their suitability as reservoirs for these fuels.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
630025*	Geological investigations across the boundary between the Churchill and Superior tectonic provinces	Bell, CK	REG	PS	Man	63 NE	X	72-73 72-73
	Obj.: To establish the stratigraphy and structure of sedimentary and volcanic rocks in this region and their relationships to adjacent gneisses and intrusive rocks; and provide data on the mineral deposits of the region with emphasis on the nature of their host rocks and the possibility of genetic relationship to the boundary between the tectonic provinces. Pub sca 1":4 and 8 mi.							
630028	Nakina geologic-magnetic study	Sangster, DF	REG	MD	Ont	42 L/10, 11		X
	Obj.: To correlate the detailed geological features with the micromagnetic properties of iron-formation on the Anaconda property north of Nakina, Ontario.							
630031*	Multispectral photography	Slaney, VR	REG	RM	-	-	X	
	Obj.: Development of multispectral aerial photography, including high altitude and satellite photography, and methods of interpretation as a means of providing geological information.				Mack NB	86 F, G; 21 O, P		
630037*	Geology of Canadian nickel and platinum group deposits	Ekstrand, OR	REG	MD	-	-	X	
	Obj.: To carry out comprehensive research on the geology of nickel and platinum group deposits in order to provide a geological basis for exploration and assessment of nickel and platinum group potential in Canada. The research is to provide: (1) a systematic record and appraisal of geological data; (2) a geological classification of nickel and platinum group deposits; (3) definition of criteria for recognition of each type of deposit; (4) development of concepts and hypotheses on geological environment, provenance, and genetic processes of nickel and platinum group deposits; and (5) determination of regions and geological units in Canada most favourable for the occurrence of each type of deposit.				Sask Ont Que Nfld	74, 73, 52, 35, 23, 21, 12, 11		

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
630039	Geology of vanadium deposits in Canada	Rose, ER	REG	MD	-	-	X	
630049*	Electrical rock properties	Katsube, TJ	REG	EM	-	-	X	
630404	Magnetic gradient techniques	Hood, PJ	REG	MM	-	-	X	
630415	Lower Cretaceous (Albian) stratigraphy of Peel and Snake Rivers, Yukon Territory	Chamney, TP	ISPG	MiP	Mack Yk	106, 116, 96	X	
630434	Seismic-Beauceville	Hobson, GD	REG	SM	Que	21 L/2	X	

Obj.: To carry out comprehensive research on the geology of vanadium deposits in order to provide a geological basis for exploration and assessment of vanadium potential in Canada. The research is to provide: (1) a systematic record and appraisal of geological data; (2) a geological classification of vanadium deposits; (3) definition of criteria for recognition of each type of deposit; (4) development of concepts and hypotheses on geological environments, provenance, and genetic processes of vanadium deposits; and (5) determination of regions and geological units in Canada most favourable for the occurrence of each type of deposit. Pub Sca 1:5,000,000

Obj.: To study the electrical parameters including polarization phenomena of rocks, soils, minerals and frozen soils. These electrical parameters will aid in the interpretation of electrical survey techniques.

Obj.: To assess the usefulness of measuring the vertical gradient in magnetic surveys and to develop the necessary theory for the interpretation of the results.

Obj.: Detailed biostratigraphic subdivision of the Lower Cretaceous (Albian) rocks of the northern Yukon and Arctic Coastal Plain based on the foraminiferal faunas recovered from the critical stratigraphic sections exposed on Peel and Snake Rivers and described by Chamney (GSC Paper 68-26). Such subdivision to provide a vital aid for the exploration of the petroleum resources of the Lower Cretaceous rocks of these regions and the western Arctic Islands.

Obj.: To determine thickness and nature of overburden; to determine bedrock topography; to outline a preglacial drainage system into the Chaudiere Valley associated with placer gold deposits on the Gilbert River.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
640010	Yellowknife and Goulburn rocks in the Contwoyto Lake area, N. W. T.	Tremblay, LP	REG	PS	Mack	75 E/11, 14	X	
	Obj.: To study the metamorphic rocks of the Yellowknife Group with particular reference to petrologic, stratigraphic and/or structural control of ore deposition and to study the stratigraphy of the Goulburn Group in this area for regional comparison and correlation. Pub Sca 1":1 mi							
640011	Itchen Lake map-area	Bostock, HH	REG	PS	Mack	76 E W $\frac{1}{2}$; 86 H E $\frac{1}{2}$, Pt W $\frac{1}{2}$	X	
	Obj.: To outline the limits of gold-bearing rocks of the Yellowknife group; to determine the age and structural relations of the Yellowknife rocks and to ascertain the origin of the gold deposits; to complete mapping and structural interpretation of the Proterozoic outlier at "Rockinghorse Lake" to assist in correlation between the Epworth and Goulburn groups. Pub Sca 1":4 mi							
640016	Operation Keno, surficial geology phase	Hughes, OL	TS	RSP	Yk	105 M N $\frac{1}{2}$, 106 D/1-4		X
	Obj.: To study and map the surficial deposits and related physical features; to differentiate deposits of successive glacial advances, to determine the Quaternary history of the area as displayed in the deposits. Pub Sca 1":4 mi.							
640027	Surficial geology, Kananaskis Lakes	Stalker, AM	TS	RSP	Alta	Pt 82 J		X
	Obj.: To map, describe and explain the Quaternary deposits and landforms in order to elucidate the glacial history of the region and to provide areal geological knowledge including data pertinent to groundwater, engineering, and forestry. Pub Sca 1": $\frac{1}{2}$ mi. or 4 mi.							
640029*	Quaternary geology, Duck Mountain, Manitoba, Saskatchewan	Klassen, RW	TS	RSP	Sask Man	62 N	X	
	Obj.: To gain areal information on Quaternary deposits and landforms; to outline buried bedrock topography including major buried valleys; to determine the Quaternary stratigraphy and history of the area; and to provide information pertinent to agriculture, forestry, groundwater, and engineering construction. Pub Sca 1:125,000; 1:250,000.							

Project Number	Title	Project Leader	Div	Sec	Prov	Map	Man	NTS	Act	Inact	
640032*	Devonian biostratigraphy of Lake Manitoba-Lake Winnipegosis region	Norris, AW	ISPG	MaP	Man		62 I W $\frac{1}{2}$, J, O: 63 B W $\frac{1}{2}$, C, F S $\frac{1}{2}$		X	72-73	72-73
	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 determination of 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 the Appalachian and Cordilleran faunal provinces in Manitoba. Pub Sca 1":8 mi.										
640036	Lake Panache and Collins Inlet areas, Ontario	Frarey, MJ	REG	PS	Ont		41 H/14, I/3		X		
	Obj.: To revise the stratigraphy and structure of the Huronian succession as previously shown (GSC maps 220 A and 221 A); 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. Pub Sca 1":1 mi.										
640039	Morin anorthosite, Quebec	Emslie, RF	REG	Pet	Que		Pts 31 G-J		X		
	Obj.: To determine the nature of the differentiation and the processes leading to development of the present form of the Morin intrusion - to include a map of the intrusion and surroundings. Pub Sca 1":2 mi										
640043	Geological study of the Antigonish Highlands	Benson, DG	REG	A	NS		11 E/8, 9, 16		X		
	Obj.: To determine the stratigraphy, structure and tectonic history of the sedimentary and igneous rocks of the Antigonish Highlands and to provide up to date geological maps and reports as an aid to mineral exploration and the economic development of the area. Pub Sca 1":1 mi										
640048*	Study of mineral collecting areas of interest to collectors and tourists	Stenson, Mrs AP	CL&TS	M					X		
							Ont 42 A; 32 D Que				
640382	Economic Geology Report Series No. 1, 5th Edition (technical editing of French Version)	Tremblay, LP	Adm	SP					X		
	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.										
	Obj.: To prepare a revision of Geology and Economic Minerals of Canada.										

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
640419	Studies of Cretaceous stratigraphy of the Plains of Saskatchewan, Manitoba, and eastern Alberta	Price, LL	ISPG	SM	Alta Sask Man	72, 73, 62, 63	72-73	72-73
	Obj.: To improve knowledge of the Cretaceous rocks of the central and eastern Plains using all available subsurface and outcrop data.							X
640420	Geological observations at shafts of potash mines, Saskatchewan	Price, LL	ISPG	SM	Sask	Pts 62K/5, 12, L/16; 72 O/16, P/13, 14; 73 B/1-3		X
	Obj.: To record geological data and obtain fossils from the rocks exposed in the walls of large-diameter potash mine shafts in the eastern Plains: (1) primary function of the project is to preserve fossils encountered in the shafts for authoritative study; (2) a secondary aim is to preserve rock samples from representative complete stratigraphic sections for later detailed investigations; (3) to obtain a record of structure, formational contacts and sedimentology of otherwise unexposed rocks of the Plains; (4) to interpret those observations within the stratigraphic framework of the area. Vert Sca 1":50'							
650003*	Cornwallis and adjacent smaller islands	Thorsteinsson, R	ISPG	AI	Frank	58 F, G; 68 E, H		X
	Obj.: (a) To improve the understanding of the age, structure, sequence, relationship, thickness, and origin of bedrock formations with a view to helping; (b) assess the size, grade, mode of occurrence, origin, and potentialities of any fuel or mineral deposits that may occur; and (c) improve the knowledge and understanding of the morphology of the Silurian and Devonian ostracoderms of Cornwallis Island, thus aiding in the establishment of a more useful stratigraphic framework for the region, and contributing to objective (a). Pub Sca 1:250,000							
650007*	Ocean aeromagnetics	Hood, PJ	REG	MM	-	-		X
	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 shed light on the theories of magnetic imprinting of oceanic rocks, ocean-floor spreading, and continental drift.							
650008	Stratigraphy, sedimentology and correlation of Nonacho Group, N.W.T.	McClynn, JC	REG	PS	Mack	Pts. 75 E, F, K		X
	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. Pub Sca 1":2 mi.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
650009	Petrologic and structural study of the McDonald Fault system south of Great Slave Lake	Reinhardt, EW	REG	PS	Mack	Pts 75 E; 85 H	X	
	Obj.: To describe and interpret the mylonites north and south of the McDonald Fault and their relationships to nearby Archean and Proterozoic rocks; to estimate the order of magnitude and sense of horizontal and vertical components of movement along the McDonald Fault system; and to evaluate the possible correlation of the Yellowknife Group with highly metamorphosed rocks southeast of the McDonald Fault. Pub sca 1:50,000							
650010*	Operation Selwyn	Blusson, SL	REG	CPM	Mack Yk BC	105 A, H, I, P; 104 O; 95 D	X	
	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. Pub Sca 1":4 mi							
650012*	Metallogenic study of the beryllium-tin province of Cassiar batholith	Mulligan, R	REG	MD	Yk BC	105 A, B; 104 O, P	X	
	Obj.: To investigate occurrences of economic minerals, their relationship to the geological environment, and the distribution of special elements in igneous and other rocks and in stream sediments of the area.							
650013	Quaternary geology, Aishihik Lake and southwestern Yukon	Hughes, OL	TS	RSP	Yk	115 H		X
	Obj.: To map and explain the Quaternary geology and geomorphology of Aishihik Lake area with particular reference to limits of glaciation (including the outermost glacial limit) and other aspects of Quaternary history in order to: (1) improve knowledge of the glacial history of southwestern Yukon; and (2) provide areal geological information. Pub Sca 1:250,000							
650015*	Geology of the Mt. Edziza volcano	Souther, JG	REG	CPM	BC	Pts 104 G/7, 10, 15, 16	X	
	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. Pub Sca 1:50,000							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
650020	Quaternary geology, Columbia River project reservoirs	Fulton, RJ	TS	RSP	BC	Pts 82 E, F, K-N; 83 C, D		X
650023*	Operation Bow-Athabasca	(Price, RA Prof)	ISPG	SM	<u>BC</u> <u>Alta</u>	83 C, D E½; 82 J E½, N E½, O W½		X
650024*	Cambrian biostratigraphy of the Canadian Cordillera	Fritz, WH	REG	EP	<u>Mack</u> <u>Yk</u> <u>BC</u> <u>Alta</u>	105 P; 82 N, O; 83 C		X
650027*	Quaternary of southern Alberta	Stalker, AM	TS	RSP	<u>Alta</u>	-		X
650044	Volcanic studies in the Noranda Region, Ont. - Que.	Baragar, WRA	REG	PS	Ont Que	32 D S½, D NW		X

Obj.: To gather areal information regarding Quaternary geology in advance of hydroelectric development; to determine chronologic sequence of Quaternary events and environments; to provide data applicable to engineering, groundwater, forestry, and agriculture. Pub Sca 1:50,000

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 of this area, and other geological data that are required to evaluate the mineral potentialities of the area and to assist exploration of oil, gas, coal and other mineral deposits in this and adjacent areas. Pub Sca 1":4 mi.

Obj.: To identify and describe Cambrian fossils from the Canadian Cordillera, ascertain their relative stratigraphic positions, and provide faunal correlations for their enclosing strata.

Obj.: To gain knowledge of Quaternary stratigraphy, chronology, environments and climates in southern Alberta.

Obj.: To provide compositional, petrographic and stratigraphic data from which the volcanic character, the chemical evolution, the eruptive history and characteristic composition may be obtained.

Obj.: To carry out comprehensive research on the geology of lead and zinc deposits in order to provide a geological basis for exploration and an assessment of lead and zinc potential in Canada. The research is to provide: (1) a systematic record and appraisal of geological data; (2) a geological classification of lead and zinc deposits; (3) definition of criteria for recognition of each type of deposit; (4) development of concepts and hypotheses on geological environment, provenance, and genetic processes of lead and zinc deposits; (5) determination of regions and geological units in Canada most favourable for the occurrence of each type of deposit.

Obj.: To describe the petrology of the Ultramafic Complex in the Lay Range with the purpose of defining its differentiation history and mode of emplacement. Pub Sca 1:63,360

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.

Obj.: 1. To establish a reference section for Late Paleozoic rocks in northern British Columbia.
2. To determine relationships between Permian, pre-Permian and post-Permian rocks in this area.
3. To determine the structural style of these rocks in the 'Atlin Horst'. Pub Sca 1":1 mi.

Obj.: To determine if the Cascade structural belt extends east of Harrison Lake and north of Fraser River. To recognize the principal structural elements of the Cascade structural belt and compare their geometry with that established south of Fraser River; to ultimately understand their metamorphic and structural evolution. Pub Sca 1":1 mi.

X

55 K

Kee

PS

REG

WW

PS

PS

PS

PS

PS

PS

660005 Tavana map-area Heywood, WW REG PS Kee 55 K
Obj.: To determine the structure, stratigraphy and metamorphism of the sedimentary and volcanic assemblage of Tavana map-area with particular emphasis on the petrology and mineral potential of the volcanic rocks. Pub Sca 1:250,000.

660006 Granite studies in the Ennadai-Rankin Inlet region Davidson, A REG PS Kee 55 E, F, K, L; 65 H, I X

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. Pub Sca 1:250,000, larger scale for selected areas.

660007* Studies of Coppermine River volcanic rocks, N. W. T. Baragar, WRA REG PS Mack Pts 86 N, O X

Obj.: To determine the total composition, variation in composition, and stratigraphy of the Coppermine River volcanic succession and its relationships to Mackenzie dyke swarm and Muskox Complex. To provide data of assistance to prospecting. Pub Sca 1":4 mi.

660009* A sedimentological and stratigraphic study of the Great Slave and Et-Then Groups in the East Arm fold belt, Great Slave Lake Hoffman, PF REG PS Mack 75 E, K, L; 85 H, I X

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 Paleogeographic history of the sedimentary basins.

660011* The interrelation of the Archean volcanic stratigraphy and mineral deposits of the Kirkland Lake area Ridler, RH REG PS Ont 42 A X

Obj.: To determine the stratigraphic framework, volcanic history and mineral deposit relationships in the Kirkland Lake area, as an integral part of a larger study by Dr. A. Goodwin of the Timmins-Kirkland Lake-Noranda area. Pub Sca as required.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
660012	Volcanic studies in the Timmins-Kirkland Lake-Noranda area	(Goodwin, AM Prof.)	REG	PS	Ont Que	32 D; 42 A	X	72-73 72-73
660013	Operation Torngat	Taylor, FC	REG	PS	Que Nfld	13 M, N, O; 14 C, D, E, F, L, M W½; 24 A, B, G-J, O, P; 23 P; 25 A	X	
660014	Michikamau anorthosite, Labrador	Emslie, RF	REG	Pet	Que Nfld	Pts 23 I E½; 13 L W½	X	
660019	Geological Study of the Antigonish Basin	Benson, DG	REG	A	NS	11 F/12, 13; Pts 11 F/11, 14	X	
660020	Structural and paleomagnetic fabric of the Mackenzie Arc	Norris, DK	ISPG	NM	Mack Yk	Pts 106; 107; 116; 117	X	
660026*	Conodont biostratigraphy of Lower and Middle Devonian strata of southwestern Ontario	Uyeno, TT	ISPG	MiP	Ont	40 I, J, P	X	

Obj.: A study of Archean volcanic belts to determine the stratigraphic framework, volcanic history and relation to mineral deposits. Pub Sca as appropriate

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. Pub Sca 1":8 mi.

Obj.: To determine the mode of origin, and geological setting of the Michikamau intrusion and its implications as to mineral potential.

Obj.: To determine the stratigraphy of the Antigonish Basin and the stratigraphy and structure of subsediment rocks underlying George Bay. The results will provide a better understanding of the Antigonish Carboniferous basin, be an aid to petroleum exploration and permit evaluation of various offshore methods and techniques. Pub Sca 1":1 mi.

Obj.: The role of the Mackenzie Arc in the depositional and structural history of the western Interior Plains and Mackenzie Mountains as it may have influenced the temporal and spatial relations of stratigraphic and structural traps in the area.

Obj.: To establish conodont zonations of Devonian strata of southwestern Ontario, to facilitate their correlations with other sequences, such as those of the New York standard, Hudson and James Bay Lowlands, and Manitoba.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
660031	Quaternary geology of Peace River Reservoir area	Rutter, NW	TS	RSP	BC	Pts 93 N, O; 94 B, C, F	X	72-73 72-73
	Obj.: Reconnaissance of Quaternary geology of Peace, Parsnip and Finlay Valleys in an advance of flooding to determine chronologic sequence of Quaternary events; to study geomorphic evolution of valleys; to gather areal information including data applicable for engineering and land capability inventory. Pub Sca 1":2 mi.							
660032	Quaternary geology and geomorphology of Whitecourt area, Alberta	St-Onge, DA	TS	RSP	Alta	83 J	X	
	Obj.: To gather areal information concerning Quaternary (including geomorphic features) concentrating particularly on collection and presentation of data on surficial materials and landforms for forestry; to provide data applicable to engineering, groundwater and other fields. To contribute to knowledge of the Quaternary stratigraphy and chronology of the region. Pub Sca 1:250,000							
660033	Quaternary geology and geomorphology of the Assiniboine River Valley and its tributaries	Klassen, RW	TS	RSP	Sask Man	72 I; pts 62 F, G, K-N	X	
	Obj.: To map, describe, and explain the Quaternary deposits and landforms within and adjacent to Assiniboine River Valley and its tributaries in order: (1) to reconstruct the Quaternary stratigraphy and geomorphic history of the valley system; and (2) to provide background information applicable to engineering, groundwater, and land resource development. Pub Sca 1":1 mi.							
660043	Airborne INPUT surveys	Collett, IS	RGG	EM	Alta Man Ont	Pts 82 I, P; 62 H; 62 P/1; 52 M/3, 4, L/14; Pt 31 G	X	
	Obj.: To assess the usefulness of airborne INPUT electromagnetic surveys as an aid to geological mapping. Pub Sca 1:50,000							
660050	Seismic-Rocky Mountain Trench	Hobson, GD	RGG	SM	BC	82 J/4, G/13	X	
	Obj.: To investigate structure beneath the west edge of Rocky Mountains to determine presence of discontinuities and identify formations. If possible to prove or disprove whether the Rocky Mountain front and adjacent part of the Trench floor may be "unrooted".							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
							72-73	72-73
660051	Seismic-Interior Plateau, B. C.	MacAulay, HA	GGG	SM	BC	82 NW; 92 NE	X	
	Obj.: To determine depth and shape of some major valleys and to determine stratigraphy and history of unconsolidated fill in these valleys.							
660052	Seismic-Winkler, Manitoba and Frobisher, Saskatchewan	Hobson, GD	GGG	SM	Sask Man	62 G, E	X	
	Obj.: To investigate use of amplitude and frequency characteristics of seismic waves in the study of groundwater problems and definition of overburden materials.							
660053	Seismic-Flin Flon, Manitoba	Hobson, GD	GGG	SM	Man	63 K/13		X
	Obj.: To determine whether seismic reflection and refraction seismic techniques can detect interfaces between Precambrian rock units utilizing data from the deep bore-hole at Flin Flon.							
660054	Marine seismic-Great Lakes	Hobson, GD	GGG	SM	Ont	30 NW; 40 NE; 41 SE,NW	X	
	Obj.: To determine water-sediment interface, stratification within the unconsolidated sediments, bedrock topography and lithology if possible and stratigraphy within bedrock.							
660486	Stratigraphy of the Blairmore Group and Kootenay Formation, southern Foothills of Alberta, Bow River to Clearwater River	Ollerenshaw, NC	ISPG	SM	Alta	82 O/6, 7, 10 W $\frac{1}{2}$, 11, 14		X
	Obj.: Are closely related to the coal and oil/gas assessment and development of the area, and the main result of the project should be a description of the character (lithology and petrology) and stratigraphy of the rocks forming the Blairmore Group and Kootenay Formation, with an interpretation of rock units, facies relationships, source areas, tectonic significance and economic potential							
660503	Microplankton from the Upper Cretaceous of Saskatchewan and Manitoba	Cox, RL	ISPG	MIP	Sask Man	72; 73; 62; 63	X	
	Obj.: (1) Description of microplankton from Upper Cretaceous strata in Manitoba and Saskatchewan. (2) Correlation of Upper Cretaceous strata of Manitoba with those of Saskatchewan.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
660552	Monograph of brachiopod family Trimerellidae	Norford, BS	ISPG	PSd	-	-		X
670003*	Anorthosite study	Emslie, RF	REG	Pet	Que Nfld	13 NW; 14 SW		X
670004	Study of the Hurwitz Group in the eastern part of the Rankin-Ennadai Belt	(Bell, RT)	REG	PS	Kee	55 J-L; 65 I; Pts 65 G, H		X
670006	Sedimentology of the Yellowknife Group	Henderson, JB	REG	PS	Mack	85 J/8, 9		X
670011	Study of a Tertiary cauldron complex, Bennett Lake, B. C. and Yukon	Lambert, MS	REG	CPM	Yk BC	Pts 105 D/5; 104 M/14		X

Obj.: Description of morphology, taxonomy, ecology, and evolution of a family of Ordovician and Silurian brachiopods that in Canada is largely found in biohermal and biostromal carbonate rocks. Completion of project will assist in the biostratigraphic and paleoecological discrimination of Ordovician and Silurian carbonate rocks.

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).

Obj.: To determine the sedimentary units and their stratigraphic relationship and interpret their provenance, dispersal patterns and depositional environment as well as their structure and relations to the basement rocks. The economic potential of the Hurwitz group and surrounding rocks should be evaluated as part of this study. Pub Sca 1":4 mi and 1":1 mi as required.

Obj.: To provide a paleoenvironmental interpretation of the Yellowknife Group sediments; to increase understanding of depositional mechanism of turbidites and associated sediments; to study the transition from vulcanism to sedimentation in Archean times. To provide criteria for future regional studies of the Yellowknife Group.

Obj.: To describe and interpret the petrography and structure of a circular volcanic complex and contribute to the understanding of volcanic processes in the Cordilleran region. Pub Sca 1:25,000

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
							72-73	72-73
670014*	Operation Winisk	Norris, AW	ISPG	MaP	Kee Man Ont Que	54 A-G, K-M; 53 H N $\frac{1}{2}$, I, J, N, O, P; 43 B, C, D E $\frac{1}{2}$, E-H, J-O; 42 F-G, H N $\frac{1}{2}$, I-K, L E $\frac{1}{2}$, M E $\frac{1}{2}$, N-P; 32 L, M	X	X
	Obj.: To determine the age, thickness, distribution, facies, structure and other relevant parameters of the bedrock formation of the Hudson Bay Lowlands for evaluating the economic potential of the area. Pub Sca 1:1,000,000 and where detail warrants 1:500,000							
670018	Baffin Island-Foxe Basin-Melville Peninsula (Operation Foxe Basin)	Trettin, HP	ISPG	AI	Frank	36 N, O; 37 A-C, F, G; 47 A, D	X	X
	Obj.: To obtain an improved understanding of the stratigraphy, structures, and historical geology of the lower Paleozoic sedimentary rocks of the Foxe Basin region with a view particularly to evaluating the petroleum potential of the region. Pub Sca 1":8 mi or more detailed.							
670019	Stratigraphy, structure, and carbonate petrography of the Marble Canyon Formation (Permian) in the Marble Range, Cariboo District, B. C.	Trettin, HP	ISPG	AI	BC	92 P/4	X	X
	Obj.: To clarify the understanding of the stratigraphy, structure, and carbonate petrology of the Marble Canyon Formation. Pub Sca 1:50,000.							
670021	Conodont biostratigraphy of Middle and Upper Devonian strata of southern and Central Manitoba	Uyeno, TT	ISPG	MiP	Man	62 J, K, N; 63 C	X	X
	Obj.: To establish conodont zonations of Middle and Upper Devonian strata of southern and central Manitoba, to facilitate their correlations with other areas, such as the Alberta subsurface, and the James Bay Lowlands.							
670024	Chitinozoans and Acritarchs from the Hamilton Group (subsurface) of southwestern Ontario	(Legault, Miss JA)	REG	EP	Ont	40 P/4 W $\frac{1}{2}$, J/16	X	X
	Obj.: Stratigraphic zonation of the Hamilton Group based on contained chitinozoans and acritarchs.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
670028*	Geology of rare earth deposits of Canada	Rose, ER	REG	MD	-	-	X	
	<p>Obj.: To carry out comprehensive research on the geology of rare earth deposits in order to provide a geological basis for exploration and assessment of rare earth potential in Canada. The research is to provide: (1) a systematic record and appraisal of geological data; (2) a geological classification of rare-earth deposits; (3) definition of criteria for recognition of each type of deposit; (4) development of concepts and hypotheses on geological environment, provenance, and genetic processes of rare earth deposits; (5) determination of regions and geological units in Canada most favourable for the occurrence of each type of deposit. Pub Sca 1:5,000,000.</p>							
670029*	Geology of uranium and thorium deposits of Canada	Little, HW	REG	Adm & SP	-	-	X	
	<p>Obj. To carry out comprehensive research on the geology of uranium and thorium deposits in order to provide a geological basis for exploration and to provide a national authority on uranium and thorium potential in Canada. The research is to provide: (1) a systematic record and appraisal of geological data; (2) a geological classification of uranium and thorium deposits; (3) definition of criteria for recognition of each type of deposit; (4) development of concepts and hypotheses on geological environment, provenance, and genetic processes of uranium and thorium group deposits; and (5) determination of regions and geological units in Canada most favourable for the occurrence of each type of deposit.</p>							
670032	Quaternary geology, Hudson Bay Lowland.	Craig, BG	TS	RSP	Man Ont Que	Pts 54,53,43,42,32		X
	<p>Obj.: To map, describe and explain the Quaternary deposits and landforms in order to: (1) determine the nature and extent of the Quaternary deposits of the area; (2) to study the stratigraphic succession of the interglacial, glacial and postglacial deposits; (3) to determine the deglaciation history of the area; (4) to investigate the extent and chronology of the post glacial marine invasion; and to investigate the amount and chronology of late Quaternary isostatic uplift throughout the area.</p>							
670034	Bedrock topography and Quaternary stratigraphy, Virden, Manitoba	Klassen, RW	TS	RSP	Man	62 F		X
	<p>Obj.: Through subsurface investigations with the aid of drilling, sidewall sampling, and geophysics, to determine bedrock surface topography and trace the buried "Missouri" Valley and other buried drainage systems; to outline drift stratigraphy, particularly in buried valleys; and to gain knowledge of the glacial, interglacial, and preglacial history of the region. Pub Sca 1":4 mi</p>							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
							72-73	72-73
670040	Geophysical investigations	Scott, WJ	RGG	EM	Man Ont Que NB	62 H, K; 42 I; 32 C/5,6 12, 14, D/7, 16, G/15; 21 E/7, G/3, O/10	X	
	Obj.: To determine the cause of certain elliptical electromagnetic anomalies in the Moose River area, Ontario and the thickness of the causative formation. To carry out similar investigations over the Winkler aquifer to test the method. To carry out similar investigations near Senneterre. To carry out Induced Polarization field phase measurements over selected sulphide bodies. Pub Sca various.							
670041*	VLF mapping	Scott, WJ	RGG	EM	Man Ont Que NB NS	Pt 63 P, 54 D; 31 D/2, 3, 6, 7, 10, 11, 16 W $\frac{1}{2}$, G/5; Pt 21 H, 11 E	X	
	Obj.: To assess the capabilities and limitations of using VLF radio waves as a means of providing geological information to delineate fault and shear zones, and for mapping permafrost. Pub Sca various							
670057	Volcanic study in the Kaladar area, Ontario	Baragar, WRA	REG	PS	Ont	31 C/14	X	
	Obj.: To sample a volcanic succession in the Grenville province near Kaladar, Ontario, to analyse the samples for major and minor elements and to relate variations in chemistry to stratigraphy.							
670059	Stratigraphy of Gog and Cariboo Groups near the Rocky Mountain Trench, McBride area, B. C.	Young, FG	ISPG	NM	BC Alta	Pts 83 E; 93 A, H, I	X	
	Obj.: 1. To elucidate the stratigraphy and structure of the Gog and Cariboo Groups. 2. To determine the nature and amount of possible crustal displacements associated with the Rocky Mountain Trench by means of stratigraphic mapping.							
670061*	Quaternary geology, Bow River Valley	Rutter, NW	TS	RSP	Alta	Pts 82 O	X	
	Obj.: To determine relationship of Cordilleran and Laurentide glaciation; to elucidate Quaternary chronology of the area. To map the distributions of surficial deposits of the area; to study and describe the geomorphology of the area. Pub Sca 1":2 mi.							

670062 DC Resistivity-Ontario Collett, LS RGG EM Ont Pt 31 G X

Obj.: The purpose of the project was to assess the capabilities and limitations of DC resistivity as a means of determining geological structure including the tracing of faults in the Ottawa area and to determine the resistivity of various geological formations in the map-area to provide data needed to assess the capabilities and limitations of other geophysical methods (such as AC resistivity, electromagnetic, INPUT and magnetotelluric) as aids to geological mapping.

670064* Cretaceous and uppermost Jurassic Jeletzky, JA ISPG OP BC 92; 93; 103; 104 X
biostratigraphy of western Cordillera

Obj.: To study the stratigraphy and paleontology of Cretaceous and upper Jurassic (Buchia-bearing beds only) formations of the region in order to work out a detailed zonal sequence of marine faunas. The biostratigraphically important elements of these faunas are to be described and figured. Project includes field and office study of Lower, Middle and Upper Jurassic rocks of Manning Park area in connection with the 24th IGC, 1972.

670068 Operation Norman Cook, DG ISPG NM Mack 86 D, E, L, M; 87 B, C; 96; 97 A-D, F; 106 A, B, G-J, O, P; 107 A, D, E X

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 the contribution. Pub Sca 1:250,000 and 1:500,000.

670074 Seismic-Welland-Port Colborne Hobson, GD RGG SM Ont 30 L, M X

Obj.: To determine thickness and nature of overburden and configuration of bedrock. To assist Mr. E. B. Owen in his studies associated with the New Welland Canal.

670278 Structural and petrological study Reesor, JE REG Pet BC Pts 82 L/1, 8, K/4 X
of Pinnacle Peaks gneiss dome, B.C.

Obj.: To determine the origin, emplacement and tectonic history of the Pinnacle Peak gneiss dome. To compare the structural and metamorphic development of an "intermediate level" gneiss-dome complex (Pinnacle Peaks) with the deeper level Valhalla and Thor-Odin domes, and to elucidate the time of deformation and metamorphism of the Shuswap metamorphic complex. Pub Sca 1":1 mi.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
							72-73	72-73
670557	Stratigraphy and age of Pre-cambrian sedimentary rocks and contained sills and dykes, east coast of Canadian Arctic Islands and north and north-west Greenland	Christie, RL	ISPG	AI	Frank	120; 340; 560; 29; 39; 49; X 59; 28; 38; 48; 58; 27; 37; 47; 57;		
	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.							
670562	Studies of evaporite-carbonate-clastic suite, Souris River Formation (Devonian), Saskatchewan	Macqueen, RW	ISPG	SM	Sask	62 L; 72 P		X
	Obj.: To determine the nature, stratigraphic relationships, and origin (including depositional, diagenetic, and geochemical history) of the Souris River Formation cycles as they are displayed in a bore hole core, and the shaft walls of a potash mine.							
670576*	Canadian Triassic Ammonoidea and Bivalvia	Tozer, ET	ISPG	OP	Frank, Yk BC, Alta	-		X
	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	PS	Kee Mack Sask	65; 66; 74; 75 E, F; 85; 86		X
	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, with additional stratigraphic studies on southeastern Ellesmere Island	Christie, RL	ISPG	AI	Frank	38 F, G; 39 B, C, F-H; 48 E-H; 49 A, B, D		X
	Obj.: (a) Obtain reconnaissance data on the Precambrian rocks for 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 be better understood. Pub Sca 1":4 mi							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
680018	The environment of oil and gas in western Canada	McCrossan, RG	ISPG	ESd	BC, Alta Sask, Man	-	X	
	Obj.: To study the occurrence of hydrocarbon in western Canada in search of principles that will help to understand its distribution hence aid in exploration. To advise the Geological Survey on direction of future research of value to the petroleum industry.							
680019*	Non-marine Lower Cretaceous of the southeastern Canadian Cordillera	Norris, DK	ISPG	NM	BC Alta	82 G, J, O	X	
	Obj.: Assist the coal industry in its search for mineable reserves of low ash, coking coals through outlining of areas in the Kootenay coal swamps favourable for prospecting and exploitation.							
680023	X-ray diffraction analyses and mineralogical studies	Traill, RJ	CL&TS	M	-	-	X	
	Obj.: To assist in the identification and inventory of potential mineral resources in Canada by provision of X-ray diffraction analyses and other specialized mineralogical data for use by earth scientists engaged in studies of minerals and mineral deposits.							
680027	Quaternary geology and geomorphology of Tawatinaw area, Alberta	St-Onge, DA	TS	RSP	Alta	83 I		X
	Obj.: To gather areal information concerning Quaternary (including geomorphic features), concentrating particularly on collection and presentation of data on surficial materials and landforms for forestry; to provide data applicable to engineering, groundwater and other fields. To contribute to knowledge of the Quaternary stratigraphy and chronology of the region. Pub Sca 1:250,000							
680031	Quaternary stratigraphy of Old Crow Basin and Porcupine River Valley	Hughes, OL	TS	RSP	Yk	Pts 116 O; 117 A, B E½		X
	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 archeology studies by National Museum scientists.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
							72-73	72-73
680032	Quaternary reconnaissance, northwest District of Mackenzie	Fulton, RJ	TS	RSP	Mack	96 N $\frac{1}{2}$; 97 S $\frac{1}{2}$		X
	Obj.: To map and explain Quaternary deposits and landforms in order to : (1) establish their stratigraphic sequence and age and to outline the Quaternary history of the area; and (2) provide areal geological information including data applicable to permafrost and engineering studies. Pub Sca 1:500,000							
680037*	Hammer seismic surveys	Hunter, JM	REG	SM	- Mack Que	106; 107; 31 H/12		X
	Obj.: To determine thickness and nature of overburden and configuration of bedrock to assist Quaternary, geochemical, groundwater and geophysical studies. To develop new procedures in field and interpretation of shallow seismic techniques.							
680038*	Geology of northern Vancouver Island	Muller, JE	REG	CPM	BC	Pts 92 E, K, L; 102 I		X
	Obj.: To complete the reconnaissance geological mapping of the northern part of Vancouver Island, assess its mineral potential, and contribute to knowledge of the Pacific continental margin. Pub Sca 1":4 mi.							
680040	Proglacial geomorphology, Generator Lake, Baffin Island	Barnett, DM	TS	RSP	Frank	Pts 27 C; 37 D		X
	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.							
680047*	Geomorphic processes, Mackenzie Valley-Arctic Coast	(Mackay, JR Prof)	TS	EGG	Mack Yk	Pts 85, 95, 96, 97, 106, 107, 117		X
	Obj.: To describe, measure, and explain geomorphic features and processes related to permafrost, and to fluvial, lacustrine, coastal, eolian, and mass wasting activity in a permafrost environment.							

680060* Geology of silver and gold deposits in Canada Thorpe, RI REG MD -- Nfld X

Obj.: To carry out comprehensive research on the geology of silver and gold deposits in order to provide a geological basis for exploration and assessment of silver and gold potential in Canada. The research is to provide: (1) a systematic record and appraisal of geological data; (2) a geological classification of deposits; (3) definition of criteria for recognition of each type of deposit; (4) development of concepts and hypotheses on geological environments, provenance and genetic processes of silver and gold deposits; (5) determination of regions and geological units in Canada most favourable for the occurrence of each type of deposit.

680062 Quaternary geology, Kingston N $\frac{1}{2}$ Henderson, EP TS RSP Ont 31 C N $\frac{1}{2}$ X

Obj.: To map and explain the Quaternary deposits and landforms of the area in order to elucidate the glacial history of the region and to provide areal geological knowledge including data pertinent to groundwater, engineering, agriculture, and forestry. Pub Sca 1:250,000 or 1:125,000, as warranted.

680063 Permian biostratigraphy, northern British Columbia and northern Yukon Nassichuk, WW ISPG MaP Yk 116 H, P; 104 N; 117 A X BC

Obj.: To establish the relationship between Permian rocks in selected areas of northern British Columbia and northern Yukon and those of the Sverdrup Basin and West Texas.

680064* Stratigraphy and Paleontology of Upper Paleozoic rocks on parts of Ellesmere and Axel Heiberg Islands Nassichuk, WW ISPG MaP Frank 49 B, C, F, G, H; 340 A, B, C, D; 560 A X

Obj.: (a) To improve the understanding of the 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.

680066 Geology of the Cariboo Mountains, British Columbia Campbell, RB REG CPM BC 83 D; 93 A, H X

Obj.: To determine the tectonic development of the Cariboo Mountains, and their relation to the development of the Rocky Mountains. Pub Sca 1":.4 mi.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
680068*	Mesozoic palynology and biostratigraphy, Arctic Islands	Hopkins, WS Jr	ISPG	MIP	Frank	- 69 C-H; 59 C, F	X	
	Obj.: Description of microfloras from Mesozoic rocks of the Sverdrup Basin. Establishment of sequence of floral zones necessary for biostratigraphic control in this region of active exploration for petroleum resources. Ultimately the project will allow description of floral evolution and migration through the Mesozoic and into the Tertiary.							
680071*	Alkaline rocks in Canada	Currie, KL	REG	Pet	-	- Nfld 13 E/15	X	
	Obj.: To identify and examine occurrences of alkaline rocks in Canada, and to explain their origin, development and emplacement.							
680073	Magnetic anomaly map of Canada	Larochele, A	RGC	CS	-	-	X	
	Obj.: To construct a magnetic anomaly map of Canada as an aid to geotectonic studies in Canada. Pub Sca 1:5,000,000.							
680074	Geology of the Seal River map-area, Manitoba	Davison, WL	REG	PS	Man	64 NE	X	
	Obj.: To revise, compile and interpret the available geologic and aeromagnetic data on Seal River area as part of a general revision of geological mapping in Manitoba for assistance to the mineral industry. Pub Sca 1":8 mi.							
680075	Cochrane River (NTS 64) map-area. 1:1 million Geological Atlas Program	Davison, WL	REG	PS	Sask Man	64		X
	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							
680076	Geology of Southern Indian Lake	Davison, WL	REG	PS	Man	64 SE	X	
	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. Pub Sca 1":8 mi							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
680078	Tuadook Lake map-area, N. B.	Skinner, R	REG	A	NB	21 J/15	X	72-73 72-73
	Obj.: To determine the structure, stratigraphy 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. Pub Sca 1:50,000							
680081*	Queen Air high resolution aeromagnetics	Hood, PJ	REG	MM	-	42 A; 41 P; 32 D; 31 C, F, M; 21 O, P; I J, O Nfld	X	
	Obj.: 1. To design, fabricate, install and test a high resolution rubidium vapour aeromagnetic survey system in a Queen Air aircraft. 2. To conduct high-resolution aeromagnetic test surveys with this system to evaluate its use as an aid to geological mapping.							
680082	Annual reviews, Exploration Techniques	Hood, PJ	REG	MM	-	-	X	
	Obj.: To provide an annual review of new geophysical, geochemical, data recording and compilation techniques.							
680084*	Operation Smoky	Taylor, GC	ISPG	SM	BC	93 I, O, P; 83 L Alta	X	
	Obj.: 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. Pub Sca 1":4 mi or 1":2 mi.							
680089*	ARES (airborne resistivity electromagnetic system)	Becker, A	REG	EM	-	Que 31 H	X	
	Obj.: The development of a variable frequency airborne EM system to aid in geological mapping through the measurement of the electrical properties of the ground.							
680092	Geology of Southampton Island	Heywood, WW	REG	PS	Kee	45 M-P; 46 A-C, F; Pts 46 D, E, G	X	
	Obj.: To conduct a geological study of Southampton Island, N.W.T. with particular attention to: (1) correlation of the Precambrian rocks with those in eastern Keewatin and Baffin Island; (2) the determination of the basic stratigraphy of the Paleozoic rocks; and (3) the economic potential of the region. Pub Sca 1":8 mi							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
680093	Devonian biostratigraphy, western and northern Canada	Pedder, AEH	ISPG	MaP	Frank, Mack Yk, BC, Alta	-	72-73	72-73
	Obj.: Establishment and refinement of Devonian faunal sequences to allow correlation of Devonian rocks of western and northern Canada. The project will provide time control that will aid greatly the search for Devonian stratigraphic traps and thus assist the exploration of the natural resources of the region.						X	X
680096	Studies in the Seal Lake Volcanic Province	Baragar, WRA	REG	PS	Nfld	13 K, L		X
	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.							X
680101*	Conodont biostratigraphy of Upper Ordovician to Devonian rocks of the Arctic Islands.	Uyeno, TT	ISPG	MIP	Frank	49; 57; 58; 59; 68; 69; 78; 79; 88; 89; 560		X
	Obj.: To set up zonal standards for conodonts for the Arctic Islands to correlate conodont and paleomorph zones in measured sections; and to obtain fossil data of immediate use to those engaged in stratigraphic studies and geological mapping of the Arctic Islands.							X
680102*	Rank studies of coal and carbonaceous matter	Hacquebard, PA	ISPG	CP	BC Alta NS	82 G, J		X
	Obj.: To obtain information on local and regional changes in metamorphism, with application towards structural geology, search for oil and gas, and evaluation of properties of coking coals.							X
680105*	Petrography of coal seams in the Rocky Mountain Foothills Belt north of the Crownsnest area	Hacquebard, PA	ISPG	CP	-	-		X
	Obj.: To examine the petrography of these coals in order to determine their coking properties and prepare seam profiles for correlation purposes.							X

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
680106	Uranium possibilities in lignite	Cameron, AR	ISPG	CP	Yk, BC Alta, Sask	-	X	
	Obj.: To check the uranium content of Tertiary lignite deposits for the purpose of delineating areas that are geologically favourable for the occurrence of U ₃ O ₈ .							
680110	Petrography of the coal seams of Telkwa River area, B.C.	Hacquebard, PA	ISPG	CP	BC	93 L/11	X	
	Obj.: To examine the petrography of these coals in order to determine their coking properties and prepare seam profiles for correlation purposes.							
680113*	Biostratigraphy study of Paleozoic palynomorphs of Arctic Islands	McGregor, DC	REG	EP	Frank	49;58;59;68;69;78;79; 88;89;560	X	
	Obj.: (1) To set up zonal standards for palynomorphs for the Arctic Islands. (2) To correlate palynomorph zones with conodont zones on measured sections. (3) To obtain fossil data of immediate use to those engaged in geological mapping of the Arctic Islands.							
680118	MacMillan River (NTS 105,115) map-area. 1:1 million Geological Atlas Program	Gabrielse, H	REG	CPM	Mack Yk	105; 115	X	
	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 1 April, 1969 of File 116-6-4.							
680119*	Operation Stewart	Blusson, SL	REG	CPM	Mack Yk	105 N, O; 106 B, C	X	
	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. Pub Sca 1":4 mi.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
680121	Aeromagnetic interpretation-Appalachia	McGrath, PH	GGG	MM	NB NS PEI NFLD	21;12;11;2;1	X	
	Obj.: Utilization of geologic, aeromagnetic, ground magnetic, and rock magnetic data to delineate the regional crustal structure of the Canadian Appalachian region. A primary aim will be the production of a map of the pre-Carboniferous surface in the southwestern portion of the Gulf of St. Lawrence.							
680123*	AFMAG surveys	Collett, LS	GGG	EM	Sask Man Ont, NS	Pts 74 N; 63 G, I-K, N-P; 64 A; 53 M; Pts 54 D; 11 E, F; 31 G/6	X	
	Obj.: To assess the value of airborne AFMAG surveys as aids to geological mapping of faults, shear zones and ultramafic dykes. To develop and improve present instrumentation for measuring natural EM fields.							
680130*	Operation Strait of Belle Isle	Cumming, LM	REG	A	Que NFLD	Pts 2 M, 3D, 12 I, P, 13 A	X	
	Obj.: To determine the structure and origin of Strait of Belle Isle; for possible future engineering works and to assess petroleum and mineral potential of the operation area. Pub Sca 1:250,000 and 1:50,000							
680132	Application of mathematics to Quaternary research and geomorphology	Shimizu, K	TS	Adm	-	-	X	
	Obj.: To serve as a consultant to research scientists on mathematical, statistical and computer programs; to investigate the application of mathematical and statistical techniques to geological and geomorphological problems.							
680135	Basin analysis of the Athabasca Sedimentary Basin	Fahrig, WF	REG	PMag	Alta Sask	74	X	
	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.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act Inact
680140*	High-resolution aeromagnetic data	Holroyd, MT	GGG	DR	-	-	X
680141	Pattern recognition	Holroyd, MT	GGG	DR	-	-	X
680148	The development of K-Ar dating techniques and their application to very young continental basalts, from British Columbia	Wanless, RK	REG	G	BC	93 C/11-14; 104 G/6, 7, 10, 11, 14	X
690003	Subsurface Cambrian stratigraphy and "Granite wash" in northern and central Alberta	Pugh, DC	ISPG	SM	Alta	73 L, M; 74 D, E, L, M; 83 I-P; 84	X
690005*	Structural geology of northern Yukon Territory and northwestern District of Mackenzie	Norris, DK	ISPG	NM	Mack	117 A, B E ₁ , C E ₁ , D; Yk 107 B	X

Obj.: (1) To produce high-resolution aeromagnetic maps of specified areas; (2) to evaluate the advantages/disadvantages of this type of data compared with conventional aeromag; (a) as direct total field data; (b) as source material for processed maps, eg. filtered, vertical continuation and derivative. Pub Sca 1:25,000 and larger.

Obj.: To conduct research into and develop varied computer methods for visual display and enhancement of digital data in profile or map form for purpose of clarifying and extracting significant features within a highly complex background.

Obj.: To develop experimental techniques required to precisely determine the age of young terrestrial basalts and to establish the lower age limit for application of the methods.

Obj.: To carry out a thorough regional study of subsurface Cambrian strata and "Granite wash" within Alberta between Townships 63 and 126, ie. to identify, describe and determine the distribution of formations and their various facies; to interpret these data in terms of geological history and environments; to determine their economic potential as possible hosts for oil and gas; and to publish the results as a report by structure, isopach and isolith maps.

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

690006* Lower and Middle Paleozoic biostratigraphy Gaspé, Quebec, and Maritime provinces
 Dean, WT REG EP Que NS NB Nfld
 1; 2; 11; 21; 22; 32; X

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.

690009 Smithers map-area
 Tipper, HW REG CPM BC 93 L X

Obj.: To interpret the structure, stratigraphy, and geological history of Smithers map-area and to provide a regional structural, stratigraphic and plutonic framework to which the mineral deposits can be related. Pub Sca 1:4 mi.

690010 Berens River, Deer Lake map-area
 Ermanovics, IF REG PS Man Ont 63 A E $\frac{1}{2}$, 53 D W $\frac{1}{2}$ X

Obj.: To revise and reinterpret the geology and economic potential of a Precambrian terrain known only through gross reconnaissance carried out in 1936. Pub Sca 1":4 mi.

690015 Structural evolution of rocks of the Bathurst-Newcastle district, N.B.
 Helmstaedt, H. REG A NB Pts 21 O, P X

Obj.: To determine the structural evolution of Paleozoic rocks of Bathurst-Newcastle district, the geometry of the rocks and sequence of structural events, and relate these features to sulphide orebodies. To improve knowledge of the geological history of the district and explain the broad structural control of orebodies thereby aiding exploration. Pub Sca 1:25,000

690017 Rocky Mountain Foothills map and cross-section compilation
 Ollerenshaw, NC ISPG SM BC Alta 82 G-J, O; 83 B, C, F X

Obj.: Are to provide a hitherto unavailable, comprehensive geological map and structure cross-section coverage, on a scale of 1:250,000 of the Rocky Mountain Foothills of south and central Alberta, based on Geological Survey and company geologic and seismic data, through the liaison of the A.S.P.G. These maps and sections will be an invaluable direct, basic guide to mineral exploration and evaluation, in this active oil and gas development area, and indirectly through their contribution to the knowledge of Cordilleran tectonics.

690018* Cretaceous and Tertiary conglomerates and sandstones of the eastern Cordillera Ollerenshaw, NC ISPG SM BC Alta 82; 83 X

Obj.: The first objective is to answer some of the questions relating to the tectonic history of the eastern Cordillera, such as: the distribution, and tectonic implications of the Cretaceous and Tertiary conglomerate facies, the sequence and distribution of uplifts and the nature of the sedimentation pattern. The second objective is 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. The third objective is to analyse the relationship between tectonic activity and facies distribution in orogenic belts of the Rocky Mountains and Alpine types.

690020 Mesozoic and Tertiary stratigraphy and sedimentation, Beaufort-Mackenzie area Yorath, CJ ISPG NM Mack 106 N½; 107; 116 N½; 117 Yk X

Obj.: 1. To determine the geological history of the Beaufort-Mackenzie Basin. 2. To provide geological data in support of conservation regulations. 3. To contribute to the realization of the economic potential of the area. Pub Sca 1:250,000

690022 Petrographic study of particle types in coking coal charges Cameron, AR ISPG CP Yk, BC - X
 Alta
 NB, NS

Obj.: To determine the effect of petrographic variation as expressed by microlithotypes or particle types on the coking behaviour of coals as charged to the coke oven, as an aid in the evaluation of the coking coals of western Canada.

690023 Upper Paleozoic rocks of Stikine Arch Monger, JWH REG CPM BC 104 A, B, G, F, K, L X

Obj.: 1. To correlate Late Paleozoic rocks in Stikine Arch with established sections in Atlin Horst. 2. To determine the existence of facies belts in Stikine Arch (comparable to those in Atlin Horst). 3. From this to establish the paleotectonic setting of the northern Cordillera, from Cassiar to Coast Mountains, in Late Paleozoic time.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
690024	A stratigraphic, sedimentological and paleontological study of the Epworth Group, north-central District of Mackenzie	Hoffman, PF	REG	PS	Mack	86 J, O, I, P	X	
	Obj.: To define the rock stratigraphic framework of the fold belt. To establish regional correlation with the Great Slave, Goulburn and Snare belts. To determine the paleogeographic history of the sedimentary basin and the surrounding region, the probability and location of stratiform and peneconcordant mineral deposits; and the time stratigraphic zonation of the Precambrian.							
690026	Petrographic correlation of coal seams at Carmacks, and evaluation of their coking properties	Hacquebard, PA	ISPG	CP	Yk	115 I/1	X	
	Obj.: (1) Correlation of coal seams in order to determine extent of mineable coals in Carmacks area. (2) To predict coking properties from petrographic composition and rank determinations.							
690028	Operation Coppermine and Bathurst Inlet	Fraser, JA	REG	PS	Kee Mack	Pts 66, 67, 76, 77, 86, 87 96, 97	X	
	Obj.: To provide reconnaissance geological information and assess the economic mineral potential of 120,000 square miles of mainly unmapped terrain in the northwest Canadian Shield. Pub Sca 1":8 mi.							
690032*	Tectonic Framework of Sustut and Sifton Basins	Eisbacher, G	REG	Sp	BC	94 D, E, F; 104 H	X	
	Obj.: To determine the late stage tectonic developments of the northern part of the eastern Cordilleran fold belt and its bearing on the environment of deposition of late Cretaceous and early Tertiary basins that are prospective regions of exploration for uranium and coal. Pub Sca to be determined.							
690034	Petrochemical study of selected granulites	Reinhardt, EW	REG	PS	Ont Que	31	X	
	Obj.: To define equilibrium conditions of granulite facies metamorphism for selected parts of the Grenville Structural Province including accurate estimates and comparisons of temperature, depth, and partial pressure of water. Through the course of this project, to develop and test a method of evaluating metamorphic grade in granulites of the Canadian Shield.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
690040*	Seismic-Beaufort-Mackenzie	Hobson, GD	RGG	SM	Mack	Pts 107, 117	X	72-73 72-73
	Obj.: To acquire seismic data in the Mackenzie Delta-Beaufort Sea area probably through participation surveys and to provide the 3rd dimension required by I.S.P.G. geologists to interpret sedimentation and structural history of the area.							
690041	Earth science symposium on off-shore Eastern Canada	Hood, PJ	RGG	MM	-	-	X	
	Obj.: A symposium to summarize our present knowledge of the underlying geology of offshore Eastern Canada, including the Labrador Sea, and the adjacent Continental Land mass. The format would be essentially the same as for the 1968 Hudson Bay Symposium and the GSC would publish a Proceedings volume.							
690043	Quaternary geology inventory, southern Labrador	Fulton, RJ	TS	RSP	Nfld	3; 13; Pts 23 A, B, G, H-J, O	X	
	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". The project will involve development of a system of mapping (scale 1:500,000), designed to permit accelerated coverage and to meet particularly the need of forestry (ARDA) land capability surveys for geologic-geomorphic information. Pub Sca 1:500,000							
690045	Glacial-interglacial stratigraphy, James Bay Lowland	Skinner, RG	TS	RSP	Ont	Pts 32, 42, 43	X	
	Obj.: Through investigation of the Quaternary deposits and associated organic remains, to determine the age, nature and stratigraphic relationships of the interglacial and glacial deposits and the sequence of environments and events they represent, and to provide areal geological information including data applicable to land resource planning.				Que			
690048*	Soils in glaciated and unglaciaded terrain	Rutter, NW	TS	RSP	Yk	Pt 115 P	X	
	Obj.: To characterize soils (pedology) in the central Yukon, with particular reference to the contrast between soils in glaciaded and unglaciaded regions; develop a technique for differentiating soils developed <u>in situ</u> from those developed on transported material.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
690049	Quaternary geology, Pine Pass-Jasper	Rutter, NW	TS	RSP	BC Alta	Pts 93 H, I, J, P, O, 83 E, L	X	
690054*	Erosion in a permafrost environment	Heginbottom, JA	TS	EGG	Mack	Pt 107 B, C	X	
690060	Geochronology of the Canadian Shield	(Stockwell, CH)	REG	PS	-	-	X	
690064*	Quaternary palynology	Mott, RJ	TS	PG	-	-	X	
690065	Quaternary geology St. Anthony-Blanc Sablon, Newfoundland	Grant, DR	TS	RSP	Nfld	Pts 2 M; 12 H, I, P	X	

Obj.: To conduct a reconnaissance of Quaternary and geomorphic features of the Rocky Mountains and adjacent terrain and to map and explain the Quaternary deposits and landforms in major valleys and in other appropriate parts of your project area, in order to determine the chronological sequence of Quaternary events, to study the geomorphic evolution of the terrain, and to gather areal information including data applicable for land capability inventory and erosion prediction.

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. Pub sca to be decided.

Obj.: To assess the geological significance of past geochronological studies of the Canadian Shield and to prepare recommendations on future requirements as well as methods of achieving them.

Obj.: In connection with research projects headed by other divisional officers, to provide biostratigraphic and paleoecologic information through investigations comprising selection of sampling sites in bogs or lakes, collection of sediment cores, identification of Quaternary pollen and other fossil materials extracted from these and other samples; determination of fossil assemblages and profiles, and interpretation of age, environment of disposition, past climates, etc.

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 of history of Quaternary events and environments including glaciation, deglaciation, local sea-level change. Pub Sca 1:125,000

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
							72-73	72-73
690066	Federal-Provincial Aeromagnetic Surveys-British Columbia (Geotrex)	Larochele, A	RGG	CS	BC	82 E, F, G W½; Pts 82 L, M; 92 H; Pts 92 I, J E½		X
690068*	Federal-Provincial Aeromagnetic Surveys - Keewatin and Mackenzie	Larochele, A	RGG	CS	Ke Mack	N½ 55 M, N, O; 56 A-D, E-L, M-P; Pt 65 F, G; 65 J-P; 66 A-D, E-P; Pt 75 P		X
690071	Federal-Provincial Aeromagnetic Surveys Northern Baffin Island.	Larochele, A	RGG	CS	Frank	37 D, F; Pts 27 C, F, 37 C, E, G, H, 38 B		X
690072*	Federal-Provincial Aeromagnetic Surveys Labrador, Melville Peninsula and Coppermine areas	Larochele, A	RGG	CS	Frank Mack Nfld	23 A, B, G-J, Pt O,P; Pt 24 A, H, I, P, 25 A; 14 D, E,Pt C, F, L, M; 13 A-G, J-N,Pt 13 H, I, O, P; Pt 3 D, E; 46K, L, N, O, Pts D, E, I, J, M, P; Pts 47 A-D; 86 E-I, K-N, Pts A-C, L, O, P; 76 L, Pt M		X

Obj.: 1. To provide the Department of Mines and Petroleum Resources of British Columbia and the Geological Survey of Canada with adequate aeromagnetic maps over areas determined by both agencies. 2. To provide these two agencies and, more generally, the Canadian public with an aid for mineral exploration and for geological research. Pub Sca 1:63,360 and 1:253,440.

Obj.: 1. To provide the Geological Survey of Canada with adequate aeromagnetic maps as an aid in orienting the geological mapping program. 2. To provide the mining and oil industries with an aid in exploration and geological research. Pub Sca 1:63,360 and 1:253,440.

Obj.: To provide adequate aeromagnetic maps over a predetermined portion of Northern Baffin Island, as an aid for geological mapping, mineral exploration and geological research. Pub Sca 1:63,360 and 1:253,440.

Obj.: 1. To provide the Geological Survey of Canada with adequate aeromagnetic maps of areas selected on the basis of the needs of Crustal Geology Division in relation with the mapping program. 2. To provide the mining and oil industries with basic information which could help in orienting their mineral exploration program. Pub Sca 1:63,360 and 1:253,440.

Project Number Title Project Leader Div Sec Prov NTS

690073* Federal-Provincial Aeromagnetic Surveys - Quebec Larochele, A RGG CS Que 23 C, E, F, K, L, N, Pt M, O, P, 24 A W¹/₂, B, C; 32 M-0; 33 B-L

Obj.: 1. To provide the Department of Natural Resources of Quebec and the Geological Survey of Canada with adequate aeromagnetic maps over an area previously determined by both agencies. 2. To provide the above-mentioned government agencies, and, more generally, the Canadian public with an aid for mineral exploration and for geological research. Pub Sca 1:63,360 and 1:253,440.

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

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.

690076 Iron-formation facies in Superior type iron formations in the Knob Lake area (Zajac, IS) REG MD Que 23 J Nfld

Obj.: To obtain a better understanding of the sedimentary environment and origin of these ferruginous sediments and to acquire fundamental geological information necessary for evaluation of the iron formation as potential taconite ore.

690083 Investigation of Lower Jurassic genus Weyla as a guide fossil in the Lower Jurassic successions of British Columbia Tipper, HW REG CPM BC

Obj.: To establish the value and feasibility of using the genus Weyla as a guide fossil in the Lower Jurassic succession of British Columbia to describe and to determine the stratigraphic range of the several species believed to be present.

690089 Analysis of international reference samples Abbey, S CL&TS AC

Obj.: To participate in international collaborative analysis of reference samples, prepared by geological institutions throughout the world, thereby contributing to the establishment of such samples as calibration standards and as references for checking analytical methods.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
690090	Development of methods for the analysis of geological materials	Abbey, S	CL&TS	AC	-	-	X	
	Obj.: To develop, modify and improve methods for the analysis of geological materials, using chemical and instrumental methods.							
690091*	Mercury in soil gas applied to exploration for sulphide ores	Jonasson, IR	GGG	G	Mack Ont Que	-	X	
	Obj.: To investigate the soil and soil gas chemistry of mercury and other related natural emanations, to help more fully exploit mercury as a pathfinder element to base metal ore deposits.							
700004	Fraser River (NTS 92) map-area, 1:1 million Geological Atlas Program	Roddick, JA	REG	CPM	BC	92	X	
	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.							
700005	Iskut River (NTS 104 & 114) map-area, 1:1 million Geological Atlas Program	Souther, JG	REG	CPM	BC	104; 114	X	
	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.							
700006	Skeena River (NTS 103) map-area, 1:1 million Geological Atlas Program	Hutchison, WW	REG	CPM	BC	103	X	
	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.							
700007	Parsnip River (NTS 93) map-area, 1:1 million Geological Atlas Program	Tipper, HW	REG	CPM	BC	93	X	
	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.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
700015*	Yellowknife and Hearne Lake map-areas, District of Mackenzie	Henderson, JB	REG	PS	Mack	85 I, J	X	72-73 72-73
	Obj.: To revise and interpret the geology and economic potential of the Precambrian terrain of the project area known only through earlier gross reconnaissance. Pub Sca 1":4 mi.							
700016	Plaster Rock (east half) map-area, N.B.	Skinner, R	REG	A	NB	21 J/14 E½	X	
	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. Pub Sca 1:50,000.							
700018	Paleomagnetism & rock magnetism instrumentation and technological development	Christie, KW	REG	PMag	-	-	X	
	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.							
700023*	Federal-Provincial Aeromagnetic Surveys- British Columbia (Lockwood)	Larochele, A	RGG	CS	BC	Pts 82 L, M, 92 I, P, 93 A, E, F, K, L, N; 93 M; 94 D; Pt 103 P	X	
	Obj.: 1. To provide the Department of Mines and Petroleum Resources of British Columbia and the Geological Survey of Canada with adequate aeromagnetic maps over areas determined by both agencies. 2. To provide these two agencies and, more generally, the Canadian public with an aid for mineral exploration and for geological research. Pub Sca 1:63, 360 and 1:253,440.							
700025*	Operation Snag-Yukon	Tempelman-Kluit, D	REG	CPM	Yk	115 O W1/3, N E½, H, K E½, J	X	
	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. Pub Sca 1":4 mi.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
700026	Cordilleran volcanic project	Souther, JG	REG	CPM	Yk BC	115; 105; 104; 103; 93; 92	X	72-73 72-73
	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.							
700027*	Comparative studies of ancient and modern sedimentary environments	Davies, GR	ISPG	AI	-	-	X	
	Obj.: To compare various modern sediments with similar deposits encountered in ancient rocks as an aid in the determination of environments of deposition of the latter; and by such identification to assess the economic potential and to differentiate reservoir rock areas from non-reservoir rock areas.							
700029	Operation Peel Sound: stratigraphy and structure of Prince of Wales Island and adjacent small islands	Christie, RL	ISPG	AI	Frank	67 G, H; 68 A-E;	X	
	Obj.: (a) To improve the understanding of the stratigraphic framework of the Paleozoic rocks of Prince of Wales Island. (b) To determine the tectonic history of the Boothia uplift. Pub Sca 1":4 mi.							
700030	Lancaster Sound (NTS 48,58) map-area. 1:1 million Geological Atlas Program	Christie, RL	ISPG	AI	Frank	48, 58	X	
	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.							
700031	Victoria Strait (NTS 67,77) map-area. 1:1 million Geological Atlas Program	Christie, RL	ISPG	AI	Frank	67; 77	X	
	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.							
700032	Thomsen River (NTS 88, 98) map-area. 1:1 million Geological Atlas Program	Christie, RL	ISPG	AI	Frank	88,98	X	
	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.							

X

Pts 82, 92

BC

RSP

TS

Fulton, RJ

700033* Quaternary geology of the southern Canadian Cordillera - IGC field excursion A 02

Obj.: To prepare and conduct an IGC field excursion, including selection of the routes, preparation of a guidebook and organization of the logistics.

X

106 W $\frac{1}{2}$; 116 E $\frac{2}{4}$; 117 S $\frac{1}{2}$

Mack

MaP

ISPG

Norris, AW

700034 Devonian biostratigraphy of northern Yukon Territory and adjacent District of Mackenzie

Obj.: To include:(a) delineation of facies distribution of Devonian rocks in area; (b) identifying and determining ranges of fossils for refining correlations with other areas; (c) determining distribution of faunal provinces and paleogeography of Devonian seas; and (d) obtaining more information on the Upper Silurian and Lower Devonian, an interval well represented in the southern part of the area.

X

Pts 83 J, O

Alta

EGG

TS

St-Onge, DA

700035* Erosion studies in an area of intensive petroleum exploration and development

Obj.: To assess the terrain disturbance resulting from intensive petroleum exploration and development and associated deforestation; and to determine the nature, rate and controls of erosion and other processes involved in this terrain disturbance.

X

Pts 72 E, F

Alta

RSP

TS

St-Onge, DA

700036* International Geographical Union 1972 Field Symposium, Commission of Geomorphological Survey and Mapping

Obj.: To prepare and conduct an International Geographical Union field symposium, including selection of the route, preparation of a guidebook and organization of logistics.

X

Alta 82 O, J; 83 B, C, F

Alta

SM

ISPG

Ollershaw, NC

700037 Geology of the southern Alberta Foothills, Highwood River to Athabasca River

Obj.: Are to provide a new and 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. A secondary objective is to provide data for 1:250,000 scale map compilation (Project 690017) and regional structural syntheses.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
700040	Eureka Sound-Robeson Channel (NTS 340, 560, 120) map-area. 1:1 million Geological Atlas Program	Trettin, HP	ISPG	AI	Frank	340; 560; 120	X	72-73 72-73
	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 Apr. 1, 1969 of File 116-6-4.							
700041*	Mineralogy of porphyry deposits of Cu and Mo in Canada	Jambor, JL	REG	MD	BC	93 K, L; 92 I	X	
	Obj.: To determine the relationship of ore minerals to alteration zones and variations in alteration zones, as an aid to exploration and development; (2) to contribute mineralogically-based concepts to interpretation of genesis and provenance of these deposits, useful in identifying favourable geological environments for these deposits.							
700044*	I. G. C. Field Trip A03-C03	Monger, JWH	REG	CPM	BC	92 H W*	X	
	Obj.: To determine and describe sites of geological interest to be visited on Field Trip A03 C03 in the Hope area.							
700045	Belcher Channel and Ballantyne Strait (NTS 59, 69, 79, 89, 99) map-area. 1:1 million Geological Atlas Program	Nassichuk, WW	ISPG	MaP	Frank	59; 69; 79; 89; 99	X	
	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 Apr. 1, 1969 of File 116-6-4.							
700046	Development of regional geochemical exploration methods for permafrost areas	Allan, RJ	RGG	G	-	-	X	
	Obj.: (1) To develop, test, and demonstrate the feasibility of geochemical methods suitable for reconnaissance prospecting in permafrost regions, and thus to provide industry with geochemical methods for outlining areas having an anomalously high content of economic elements in those regions with permafrost. (2) To investigate the fundamental problems involved in application of geochemical methods in regions of permafrost.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact	
700047	Operation Finlay	Gabrielse, H	REG	CPM	BC	94 C E $\frac{1}{4}$, F W $\frac{1}{2}$, E		72-73 72-73	X
700048	Petrology and structure of the Daly Bay Complex and environs	Gordon, TM	REG	Pet	Kee	56 A S $\frac{1}{2}$; pts 55 P, 46 D			X
700050	Structural prototypes, scale models and stress analysis	Norris, DK	ISPG	NM	BC	82 G, H, J, O and U.S.A. Alta			X
700052*	Volcanic Study in the Ennadai Belt, Keewatin	Ridler, RH	REG	PS	Kee	Pts 55 W $\frac{1}{2}$, 65 E $\frac{1}{2}$			X
700053*	Quaternary geology, Winnipeg (east half)	(Fenton, MM)	TS	RSP	Man	62 H E $\frac{1}{2}$			X
700054*	Thermomagnetism of single minerals and rocks	Schwartz, EJ	REG	PMag	Ont	41, 42, 32			X
					Que, NB				

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. Pub Sca 1":4mi.

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. Pub Sca 1":2 mi.

Obj.: Through a better understanding of the geometry and mechanics of faults and folds to assist the coal industry in its search for, and safe exploitation of mineable reserves, and the oil industry in its delineation of structural traps.

Obj.: To determine and analyse the Archean stratigraphy of the areas, and its relationship to metallogeny and mineralization. To reconstruct the depositional history and evolution of the sequences. To assess the mineral potential of the Archean terrain and establish guides for future mineral exploration. Pub Sca as required.

Obj.: To map, describe and explain the Quaternary deposits and landforms in order to provide (1) areal information, (2) knowledge of the Quaternary stratigraphy and chronology of the area, and (3) background information applicable to soils and mapping, engineering, groundwater, etc., bearing in mind the proximity of the project area to metropolitan Winnipeg. Pub Sca 1:250,000

Obj.: To investigate magnetic properties of minerals and rocks other than the direction of the natural remanence and thereby: (1) develop generally applicable methods to obtain unique information in applied geophysical and geological work on, in particular, sulphide orebodies; and (2) provide a firmer physical base for Paleomagnetism.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
700056	Surficial geology, southern Cape Breton Island	Grant, DR	TS	RSP	NS	Pt 11 F, G, J, K	72-73	72-73
	Obj.: To map, describe and explain the surficial deposits and landforms in order to provide: (1) 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. Pub Sca 1:125,000.						X	X
700057*	Airborne geochemistry	Bristow, O	RGG	G	-	-		X
	Obj.: To develop methods of obtaining from the air information about the chemical composition of the ground. To select the methods most pertinent to the objectives of the Geological Survey on the basis of long term cost-effectiveness. These methods to be suitable for integration with other airborne techniques being applied by GSC.							
700059*	Geology of copper and molybdenum deposits of Canada	Kirkham, RV	REG	MD	-	-		X
	Obj.: To carry out comprehensive research on the geology of copper and molybdenum deposits in order to provide a geological basis for exploration and assessment of copper and molybdenum potential in Canada. The research is to provide: (1) a systematic record and appraisal of geological data; (2) a geological classification of copper and molybdenum deposits; (3) definition of criteria for recognition of each type of deposit; (4) development of concepts and hypothesis of geological environment, provenance, and genetic processes of copper deposits; and (5) determination of regions and geological units in Canada most favourable for the occurrence of each type of deposit.							
700060*	Devonian and older Paleozoic rocks, southern and central District of Mackenzie	Mackenzie, WS	ISPG	NM	Mack	85 C-F, K-N; 86 D, E, L, M; 87 B, C; 95 A-C, F-K, N-P; 96; 97 A-D, F; 106 A, B, G, H, I, J, O, P		X
	Obj.: To resolve if possible, stratigraphic problems within carbonate rocks that are laterally equivalent to oil-producing limestones at Norman Wells and to publish and apply the results to the continuing search for hydrocarbons in nearby areas. To prepare for publication correlation charts and columnar sections of Devonian and older Paleozoic rocks in the Great Slave Plains area and to select rock units for isopach and lithofacies maps that will elucidate the tectonic and depositional history of the basin. Pub Sca 1:1,000,000.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
							72-73	72-73
700061	Seismic-Precambrian Shield	Overton, A	RGG	SM	-	-	X	
	Obj.: To apply seismic refraction and reflection methods to solution of geological problems in the Precambrian Shield. To apply sonic methods to downhole environments. To apply sonic methods to such problems as subsurface structure, boundaries between geological provinces, interfaces between geological formations, definitions of orebodies, delineation of Conrad discontinuity, etc.							
700062	Feasibility pilot study of geochemical reconnaissance methods in the Ennadai-Rankin Belt	Hornbrook, EHW	RGG	G	Kee	55L		X
	Obj.: To determine (a) which geochemical reconnaissance methods are most effective in delineating areas which have greatest economic potential for prospecting, (b) to compare effectiveness of these methods with studies of eskers and tills being made under Project 700014 and (c) to determine costs of the various methods at different densities of sampling.							
700064*	Foraminiferal zonation of the Mesozoic and lower Cenozoic rocks of the Mackenzie Delta and adjacent Arctic Coastal Plain	Chamney, TP	ISPG	MiP	Mack Yk	Pts 97, 106, 107, 116, 117	X	
	Obj.: Detailed biostratigraphic subdivision of the Mesozoic and lower Cenozoic rocks to aid exploration of the petroleum resources.							
700065*	Petrological studies in the vicinity of the Kisseynew Front	Froese, E	REG	Pet	Man	63 K/16 E½, J/13 W½	X	
	Obj.: To determine the metamorphic reactions and isograds associated with the Kisseynew Front as a contribution to the understanding of metamorphism in Precambrian orogenic belts and its effect on mineral deposits., Pub Sca 1": ½ mi							
700067*	Mica group minerals and related silicates in Canadian mineral deposits	Rimsaite, JYH	REG	MD	-	Mack Yk BC 69, 82, 85, 105	X	
	Obj.: To ascertain whether and how variations in characteristics of these minerals can be used to determine age and genetic relationships of mineral deposits and thus assist mineral exploration.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
							72-73	72-73
700068*	Basin Analysis of exposed Mesozoic and Tertiary strata in northern Yukon Territory in relation to the subsurface stratigraphy of Mackenzie Delta-Beaufort Sea areas	Young, FG	ISPG	NM	Mack Yk	Pts 106, 107, 116, 117	X	X
	Obj.: 1. To elucidate and interpret the economic, tectonic, and historical significance of Mesozoic and Tertiary stratigraphy and sedimentology of northern Yukon Territory and northwestern District of Mackenzie. 2. To determine the relationships of this stratigraphy to the subsurface Mesozoic stratigraphy of the Mackenzie River Delta, the Beaufort Sea continental shelf, the Alaskan north slope, and the Sverdrup Basin. Pub Sca 1:125,000.							
700073	Operation Northern Melville Peninsula	Heywood, WW	REG	PS	Frank	Pts 47 A, B, C, D	X	X
	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. Pub Sca 1":8 mi							
700074	Operations Back River and Wager	Heywood, WW	REG	PS	Frank Kee	46 D W ^A , E, F N ^{1/2} , G N ^{1/2} ; 47 A S ^{1/2} ; 56 A, B, G-K, N-P; 57 A, B, D, Pts C; Pts 67 A; 66 I-K, N-P	X	X
	Obj.: To determine the general structural, historical, and economic geologic features of this previously unstudied terrain as a basis for future economic development of this portion of northern Canada. Pub Sca 1:1,000,000.							
700075*	Quaternary geology and geomorphology in southern Quebec - IGC field excursion - A44, C44	Gadd, NR	TS	RSP	Que	-	X	X
	Obj.: To prepare and conduct an IGC field excursion, including selection of the route, preparation of a guide book and organization of the logistics.							
700080	Geology of Walrus and Coats Islands, NWT	Heywood, WW	REG	PS	Kee	45 J, pt 0	X	X
	Obj.: To conduct a geological study of Walrus and Coats Islands, NWT with particular attention to: (1) correlation of the Precambrian rocks with those of Southampton Island, (2) the determination of the basic stratigraphy of the Paleozoic rocks, (3) the economic potential of the region. Pub Sca 1":4 mi.or 1":8 mi.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
700084	Development and maintenance of mineral deposits geology records	Vice Johnston, AG	REG	MD	-	-	X	72-73 72-73
	Obj.: To provide a scientific data and information base for studies of geology of mineral deposits, of regional and national metallogeny in Canada, and for estimation of mineral potential.							
700086	Petroleum potential of sedimentary basins of Canada	McCrossan, RG	ISPG	ESd	-	-	X	
	Obj.: To evaluate the ultimate petroleum potential of all sedimentary basins of Canada and to provide sufficient geological documentation to substantiate the conclusions, as part of an overall study of North American potential by the NPC of United States. Pub Sca probably 1:5,000,000.							
700087*	The development of portable instrumentation for the routine detection and measurement of elemental vapours such as mercury, arsenic and selenium both on the ground and in the air	Bristow, Q	GGG	G	-	-	X	
	Obj.: The design, development and testing of suitable instrumentation and methodology for the detection and measurement of elemental vapours, both at ground level and in the air, as an aid to geochemical prospecting for geochemical reconnaissance studies.				Ont	31 F/2		
700091*	Regional Economic Expansion Program--Geophysics--New Brunswick, Nova Scotia, Quebec	Collett, LS	EG	EM	Que NB NS	-	X	
	Obj.: To advise and aid officials of the Provincial Departments on planning and supervising geophysical programs in selected areas in the province under funding by the Department of Regional Economic Expansion.							
700092*	Surficial geology and geomorphology Mackenzie Bay-Continental Shelf	Shearer, JM	TS	RSP	Frank	Pts 107 C, D, E, F; 117 D, E	X	
	Obj.: To map, describe and explain the unconsolidated deposits, associated organic remains, geomorphic and structural features, and permafrost occurrence on the Continental Shelf, Mackenzie Canyon and offshore part of the Mackenzie Delta in order to: (1) provide areal geological knowledge including information required in connection with petroleum exploration and production; (2) determine Quaternary stratigraphy and history; and (3) identify the sedimentary and geomorphic processes operating in the area. Pub Sca as warranted.							

700093* Pleistocene geology, Lake Ontario Basin Henderson, EP TS RSP Ont - 31 D/9; pts 31 D/10, 15, E/1, 2, 7, 8 X

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. Pub Sca 1:500,000.

710001 Origin and migration of petroleum in western Canada McCrossan, RG ISPG ESD Alta 82 E½; 83; 72 W½; 73 W½ X

Obj.: To develop a method of relating reservoirized hydrocarbons to organic material in source rocks; to reconstruct the evolutionary history of the organic material; to determine the pattern and timing of hydrocarbon migration and entrapment; and to evaluate the application of this type of geochemical investigation to the assessment of ultimate pooled hydrocarbon reserves in the study area as well as other basins.

710003* Structure and stratigraphy, Ringnes Island and nearby smaller islands Balkwill, HR ISPG AI Frank Pts 59, 69, 79 X

Obj.: (1) To establish the nature, sequence and gross structure of bedrock in the central part of the Sverdrup Basin; (2) to elucidate the nature, kinematics and chronology of tectonism in the Eureka Sound Fold Belt and its relationship with other elements of the Innuitian Orogen; and (3) through the above, to determine the significance of structure and stratigraphy of the region on the genesis and accumulation of hydrocarbons and other mineral resources. Pub Sca 1:250,000; 1:50,000 and other scales as warranted.

710004* Structural analysis, western main ranges, Rocky Mountains, B.C. Balkwill, HR ISPG AI BC 82 N/7 W½, Pts N/7 E½, 2, 10 W½, 6 E½ X

Obj.: To establish (1) the nature, sequence and gross structure of the bedrock within the northern part of the western main ranges subprovince of the Rocky Mountains; (2) the structural relationships between this subprovince of the Rocky Mountains and the Dogtooth Range subprovince of the Purcell Mountains; and (3) to investigate the character and significance of mesoscopic fabric elements in this area with a view to elucidating the kinematics and dynamics of deformation. Pub Sca 1:50,000 and other scales as warranted by detail.

710006 Sedimentological studies of carbonate rocks Davies, GR ISPG AI Yk Alta - X

Obj.: Application of principles of Recent sedimentation and diagenesis to the study of older carbonate rocks in several geological provinces of Western Canada; specifically, the reinterpretation of the origin of Devonian "laminites" in northern Alberta, and facies analysis of Upper Paleozoic carbonates in the northern Yukon Territory.

710007* Evaporites of the Arctic Islands (Mossop, G) ISPG AI Frank 48; 49; 58; 59; 68; 69; 77; 78; 79; 87; 88; 89; 120; 340; 560 X

Obj.: (a) To obtain better understanding of both bedded and intrusive evaporites of the Arctic Islands, and thereby (b) obtain better understanding of the sources or ages of the intrusive evaporites; and (c) (a) and (b) should aid in interpretation of the diapiric structures, which are significant features of the Arctic Islands petroleum region. Pub Sca not determined

710008 Clearwater River (NTS 74) map-area, 1:1 million Geological Atlas Program Tremblay, LP REG PS Sask 74 X

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.

710010 Northern Basin Analysis Program: Great Bear River map-area, (Paleozoic part) MacKenzie, WS ISPG NM Mack 86; 96 X

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. Pub Sca 1:1,000,000.

710011 Northern Basin Analysis Program: Redstone River map-area Meijer-Drees, NC ISPG SM Mack 95 X

Obj.: To provide a thorough understanding of the geological history of the sedimentary basin north of the 60th parallel of latitude, stressing the relationships of tectonics, sedimentation, biostratigraphy, geochemistry and hydrocarbon distribution. To evaluate oil and gas potential of the region. Pub Sca 1:1,000,000.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
710012*	Study of the Ramah Group and of Proterozoic-Archean relationships in northern Labrador	Morgan, WC	REG	PS	Nfld	14 L/11, 14, Pts 6, 13, M/3, 4	X	72-73 72-73
	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. Pub Sca 1":4 mi							
710013	Northern Basin Analysis Program: Peel River map-area	Young, FG	ISPG	NM	Mack Yk	106; 116	X	
	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. Pub Sca 1:1,000,000.							
710015*	Jurassic Trigonidae of western British Columbia	(Poulton, TP- Thesis Project)	ISPG	MaP	BC Alta	92 H W $\frac{1}{2}$, I W $\frac{1}{2}$, O; 82 G	X	
	Obj.: Biostratigraphic, taxonomic and paleoecologic study of Jurassic pelecypods of the family Trigonidae in western British Columbia in order to determine and elucidate their usefulness for biostratigraphic and paleoecologic zonation and to prepare a monograph describing their morphology, taxonomy and evolution.							
710019*	Taxonomy, biostratigraphy, and paleoecology of Mesozoic miospore and microplankton assemblages from the District of Mackenzie, northwestern Canada; utilization of computer techniques	Brideaux, WW	ISPG	MIP	Frank Mack Yk, BC Alta	Pts 106 M, 107B	X	
	Obj.: To monograph Mesozoic miospore and microplankton assemblages, to determine the local ranges and their value and application in regional and world-wide biostratigraphy, and to investigate their paleoecological distribution in sedimentary basins of the District of Mackenzie and in conjunction with these objectives, to utilize computer facilities for the array and analysis of data generated.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
710020*	Surficial geology and land classification, Mackenzie Valley Transportation Corridor	Hughes, OL	TS	RSP	Mack Yk	106 E, F, I-0; 116 I, N, O, P	X	
	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. Pub Sca 1:125,000.							
710021	Metallogeny of iron-formation (Exhalite) at the southern margin of the Abitibi Basin, Ontario and Quebec	Ridler, RH	REG	PS	Ont Que	42 A; 32 D	X	
	Obj.: To determine and interpret the distribution of base and precious metals in the various facies of exhalitive iron-formation of this area and establish guides for future mineral development and exploration within the context of regional basin analysis.							
710022*	Carboniferous and Permian biostratigraphy and coral faunas, western and northern Canada	Bamber, EW	ISPG	MAP	Frank Mack Yk, BC Alta	49; 59; 69; 78; 79; 82; 83; 92-95; 103-106; 115-117; 340; 560.	X	
	Obj.: Establishment of faunal sequence within stratigraphic framework previously described for Upper Paleozoic of Alberta, British Columbia, Yukon, District of Mackenzie, for use as a biostratigraphic reference succession in surface and subsurface exploration of these areas. Description of coral faunas from these areas and Arctic Islands to document the above succession and facilitate its use by other workers in industry and in other government organizations.							
710023	Granite studies in the Slave Province (Phase 1)	Davidson, A	REG	PS	Mack	85 I, P	X	
	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. Pub Sca 1":4 mi.; 1":1 mi.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
710024	Maguse River (NTS 55) map-area. 1:1 million Geological Atlas Program	Davidson, A	REG	PS	Kee	55	X	72-73 72-73
	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.							
710025*	Precambrian geology of Norway House, Grand Rapids and Berens River W $\frac{1}{2}$ map-areas, Manitoba	Ermanovics, IF	REG	PS	Man	63 H, G, A W $\frac{1}{2}$	X	
	Obj.: To revise and reinterpret the geology and economic potential of a Precambrian terrain known only through gross reconnaissance done in 1936. Pub Sca 1":4 mi.							
710026	Sachigo River (NTS 53) map-area, 1:1 million Geological Atlas Program	Ermanovics, IF	REG	PS	Man Ont	53	X	
	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.							
710027	Thelon River (NTS 66, 76) map-area, 1:1 million Geological Atlas Program	Fraser, JA	REG	PS	Kee Mack	66, 76	X	
	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.							
710028	Great Bear River (NTS 86, 96) map-area. 1:1 million Geological Atlas Program	Fraser, JA	REG	PS	Mack	86, 96	X	
	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.							
710030*	Canada-wide broad-scale statistical estimation and prediction of the occurrence of mineral deposits for selected metals, based on geological factors	Kelly, AM	REG	Adm&SP	-	-	X	
	Obj.: To provide a nation-wide estimate of the probable occurrence and size of mineral deposits for both base and precious metals.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
710031*	Middle Devonian brachiopods of Arctic Islands	(Brice, D Prof)	ISPG	MaP	Frank	49; 59		72-73 72-73
	Obj.: Refinement of biostratigraphic zonation of Middle Devonian rocks							X
710032*	IGC Field excursion A35, C35, Geology of Precambrian Shield Winnipeg-Montreal	Frarey, MJ	REG	PS	Man Ont Que	31; 41; 42; 52; 62		X
710033	Northern basin Analysis Program: Slave River map-area	Williams, GK	ISPG	SM	Mack	85		X
	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. Pub Sca 1:1,000,000.							
710035	Northern Basin Analysis Program: Horton River map-area	Yorath, CJ	ISPG	NM	Mack	87; 97		X
	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. Pub Sca 1:1,000,000.							
710036	Northern Basin Analysis Program: Firth River map-area	Yorath, CJ	ISPG	NM	Mack	107, 117 Yk		X
	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. Pub Sca 1:1,000,000.							
710038	Juniper (east half) map-area- N.B.	Skinner, R	REG	A	NB	21 J/11 E		X
	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. Pub Sca 1:50,000.							

Project Number	Title	Project Leader	Div	Sec	Prov.	NTS	Act	Inact
710041*	Surficial geology and geomorphology of Melville Island	Barnett, DM	TS	RSP	Frank	Pts 78, 79, 88	72-73	72-73
710042*	Terrain performance, Melville Island	Barnett, DM	TS	EGG	Frank	Pts 78, 79, 88,		
710043*	Geology of mineral deposits of Bear-Slave Provinces, N.W.T.	Thorpe, RI	REG	MD	Mack	75; 76; 85; 86		
710044*	Environmental geology of the New Montreal International Airport Region (NMIAP)	St-Onge, DA	TS	EGG	Que	Pts 31 G/8, 9, 16, H/5, 12, 13		
710045*	Compilation of company geological data of central mineral belt of Newfoundland	Anderson, FD	REG	A	Nfld	Pts 12 A		

Obj.: To map, describe and explain the surface and near surface materials, landforms, permafrost conditions and other aspects of the geomorphology on a reconnaissance scale, with particular reference to terrain information pertinent to the implementation of the Territorial Land Use Regulations, and to petroleum exploration and associated activities. Pub Sca 1:250,000.

Obj.: To prepare case histories of terrain performance encountered by airfields, roads and "overland" vehicles, in relation to geological materials, geomorphic setting and ground ice. Pub Sca as warranted.

Obj.: To contribute to knowledge of the metallogeny and to an assessment of the mineral potential of the area. Specifically, to gather information on, and representative samples of, mineral deposits in Bear-Slave provinces and to interpret and summarize the data acquired from field work and follow-up laboratory investigations.

Obj.: To map, describe and explain the surficial deposits and landforms, to investigate the geodynamic processes and to determine the bedrock surface configuration in order to evaluate the significance of the geology of the NMIAP region in relation to planning for engineering construction, industrial development and land use planning, agriculture and water supply. Pub Sca 1:50,000.

Obj.: To provide a systematic framework of the geology and mineral deposits in order to permit the evaluation of the mineral potential for economic and environmental development of central mineral belt of Newfoundland. Pub Sca 1":1 mi.or 1":2 mi.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
710046	Structural evolution of eastern Cape Breton Island	Helmstaedt, H	REG	A	NS	Pts 11 F, K	X	72-73 72-73
	Obj.: To determine the structural evolution of Precambrian and Paleozoic rocks of eastern Cape Breton Island, and the sequence of metamorphic and metallogenic events in order to improve the geological framework and permit evaluation of the miennial potential for economic development of the region. Pub Sca. 1:25,000.							
710047*	Surficial geology and land classification, Mackenzie Valley Transportation Corridor (southern part)	Rutter, NW	TS	RSP	Mack	85 D, E; 95 A, B, G, H-K, N, O	X	
	Obj.: To map, describe, and explain the unconsolidated deposits, landforms, permafrost, ground ice, and organic (muskeg) cover of the Mackenzie Valley Transportation Corridor (southern part) 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. Pub Sca 1:125,000							
710048*	Geological and geophysical studies of the Pacific Continental Margin	Tiffin, DL	REG	CPM	BC	Pts 92, 102, 103	X	
	Obj.: To establish the geological framework of the Pacific Continental Margin; determine the hydrocarbon potential of its contained sedimentary basins, and to determine the tectonic development of the Pacific Continental Margin especially its interaction with the Pacific ocean floor.							
710049*	Geological and geophysical studies in the Beaufort Sea	Tiffin, DL	REG	CPM	Frank	Pts 107, 117	X	
	Obj.: To produce a magnetic anomaly map and selected shallow seismic profiles of the Beaufort Sea.							
710050	Lockhart River (NTS 75) map-area 1:1 million Geological Atlas Program	McGlynn, JC	REG	PS	Mack	75	X	
	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.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact	
710051	Slave River (NTS 85) map-area. 1:1 million Geological Atlas Program	McGlynn, JC	REG	PS	Mack	85		72-73 72-73	X
	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.								
710052	Branch coordinator Mineral Potential Analysis Sub-Program Bear-Slave Province	McGlynn, JC	REG	PS	Mack	75; 76; 76; Pts 85, 95, 86, 96, 87, 97			X
	Obj.: To provide a thorough knowledge and understanding of the geology and mineral deposits of the Bear-Slave region stressing its tectonic evolution and metallogenesis and their interrelationships. To evaluate the mineral potential. Pub Sca as required.								
710053*	Penrhyn Group metamorphic complex, Melville Peninsula, District of Franklin	Reesor, JE	REG	Pet	Frank	Pts 46 J, K, N, O			X
	Obj.: To determine structural, metamorphic, stratigraphic, and age relations between 'basement' gneisses and migmatites and Penrhyn Gp. metasedimentary gneisses and schists. To elucidate the structural development of 'gneiss domes' in an area of upper amphibolite facies rocks. To provide structural-stratigraphic and isotopic age bases for regional correlation. Pub sca 1:50,000								
710055*	Glaciation and emergence, Archer Fiord	Fyles, JG	TS	PG	Frank	Pts 120 C			X
	Obj.: To map and explain surficial deposits and related landforms on the area adjacent to Archer Fiord, with special reference to raised marine deposits and beaches; to determine the history of glaciation, deglaciation, and associated changes in relative sea level.								
710056	Revision of the Arichat map-area	Benson, DG	REG	A	NS	11 F/11 E½			X
	Obj.: To determine the stratigraphy, structure and tectonic history of the sedimentary and igneous rocks of the Arichat map-area, in particular of the Carboniferous rocks as an aid to the economic and environmental development of the Canso region. Pub Sca 1":1 mi.								
710057*	Editing terminal maps and report on Guysborough map-area	Benson, DG	REG	A	NS	11 F/5			X
	Obj.: To revise and complete a manuscript terminal map and report by E. A. Schiller for publication by Geological Survey. Pub Sca 1":1 mi.								

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
							72-73	72-73
710058	Paleomagnetic correlation of basic intrusive and extrusive rocks in the region of the Grenville Front	Fahrig, WF	REG	PMag	Que Nfld	23; 13	X	
	Obj.: To determine the age and correlation of basic intrusive and extrusive rocks in the vicinity of the Grenville Front. These rocks include: (1) the Michael diabase which extends inland from the coast of Labrador. (2) The diabases and volcanic rocks of the Seal Lake area. (3) Shabogamo diabase (at southern end of the Labrador Trough). (4) The diabase sheets of the Otish Mountain area.							
710060*	Pennsylvanian and Permian conodonts of Arctic Canada	(Bender, KP PDF)	ISPG	MiP	Frank Yk	340 B, C; 560 A, D; 59 B; 116 B, C, H; 106 F	X	
	Obj.: Biostratigraphic taxonomic and paleoecologic study of conodont microfossils in order to determine and elucidate their usefulness for biostratigraphic zonation.							
710069*	Northern Basin Analysis Program: Belcher Channel map-area	Roy, KJ	ISPG	AI	Frank	59, 69, 79	X	
	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. Pub Sca 1:1,000,000.							
710072	Northern Basin Analysis Program: Ballantyne Strait map-area	Roy, KJ	ISPG	AI	Frank	89; 99	X	
	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. Pub Sca 1:1,000,000.							
710073	Northern Basin Analysis Program: Viscount Melville Sound map-area	Davies, GR	ISPG	AI	Frank	68; 78	X	
	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. Pub Sca 1:1,000,000.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
710074	Northern Basin Analysis Program: Lancaster Sound map-area	Davies, GR	ISPG	AI	Frank	48; 58	X	72-73 72-73
	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. Pub Sca 1:1,000,000.							
710075	Northern Basin Analysis Program: Jones Sound map-area	Roy, KJ	ISPG	AI	Frank	29; 39; 49	X	
	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. Pub Sca. 1:1,000,000.							
710077*	Terrain sensitivity evaluation and mapping, Mackenzie Valley Transportation Corridor	Heginbottom, JA	TS	EGG	Mack	Pts 95, 96, 106	X	
	Obj.: To investigate the response of various earth and rock materials in differing situations to various types of disturbance, both from natural and man-induced causes. 2. To develop and test a terrain sensitivity mapping system that will relate the performance or sensitivity of various terrain units to the activities of man, particularly those involved in the construction and operation of pipelines. Pub Sca to be decided.							
710080*	Application of Quaternary geology to mineral exploration, Timmins-Val-d'Or mining district	Skinner, RG	TS	RSP	Ont Que	31 M, N; 32 C, D; 41 O, P; Pts 42 A, B, G, H	X	
	Obj.: To assess the requirements and methods of field and laboratory investigations in order to design and plan a program of surficial geology, drift prospecting and related studies to provide the background information necessary to aid mineral exploration in the area. Pub Sca as warranted.							
710081*	Distribution of marine deposits, Ottawa-St. Lawrence Basin	Gadd, NR	TS	EGG	Ont Que	Pts 21, 22, 31, 32	X	
	Obj.: To delimit the occurrence of deposits of the Champlain Sea of the St. Lawrence Lowlands and the equivalent Laflamme Sea of the Lac St-Jean area with particular reference to the distribution of marine clays within these areas; to investigate the stratigraphic and physical parameters and geomorphology of the deposits to aid in the evaluation of the causes and occurrence of landslides, particularly of the mud-flow type. Pub Sca to be determined.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
710082*	Engineering geology, land use regulations (DIAND)	Owen, EB	TS	EGG	Frank, Kee Mack, Yk	-	X	
	Obj.: To provide engineering geological consultation and advice to the Department of Indian Affairs and Northern Development related to the applicability of land use regulations for controlling disturbance of northern terrain by resource exploration and related activities. To evaluate the influence of resource exploration and related activities on northern terrains at various times of the year. Pub Sca to be decided.							
710083*	Surficial geology, Sept-Iles-Cap Chat	Craig, BG	TS	RSP	Que	22 G/5, 6, 11, 14, 15 J/1, 2, 3 E $\frac{1}{2}$	X	
	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. Pub Sca 1:250,000 or 1:50,000 as warranted.							
710085*	Glacial geology, northeastern British Columbia	(Mathews, WH, Prof)	TS	RSP	BC	94 E $\frac{1}{2}$	X	
	Obj.: To map, describe and explain the glacial deposits and landforms in order to provide descriptive information on the Quaternary geology and geomorphology of the region, and particularly to differentiate Laurentide versus Cordilleran glacial features and to delineate the Laurentide-Cordilleran boundary. Pub Sca 1:250,000.							
710087	Geology of Waterton Lakes National Park. National Parks Branch Inventory Program	Duffell, S	REG	Adm	Alta	Pts 82 H/4, G/1	X	
	Obj.: To provide the National Parks Branch with descriptive and scientific data on the bedrock and surficial geology of the Waterton Lakes National Park as part of a scientific base for evaluation of research and management programs and to assist in implementing the National Parks Policy. Pub Sca 1:50,000							
710088	Geology of Kejimikujik National Park. National Parks Branch Inventory Program	Duffell, S	REG	Adm	NS	26 A/6	X	
	Obj.: To provide the National Parks Branch with descriptive and scientific data on the bedrock and surficial geology of Kejimikujik National Park as a part of a scientific base for evaluation of research and management programs and to assist in implementing the National Parks Policy. Pub Sca 1:50,000.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
710089*	Study of tonstein bands in coal seams of Kootenay Formation	(Mériaux, E)	ISPG	CP	BC Alta	82 G, J	X	72-73 72-73
	Obj.: To examine the value of tonstein bands for the correlation of coal seams, and to determine their petrographic composition and mode of origin.							
710091*	Palynological studies of Upper Jurassic and Cretaceous coal measures in western Canada	Sweet, AR	ISPG	MiP	BC Alta	82 G, J	X	
	Obj.: (1) To establish a palyno-stratigraphic zonation of the coal measures, as an aid to coal petrological, sedimentological and structural interpretations of coal basins. (2) To correlate coal seams of suitable rank (exceeding 25% volatile matter) by means of spore and pollen histograms.							
710092*	Quaternary geology inventory, lower Nelson River Basin	Klassen, RW	TS	RSP	Man	53 M; 54 C, D; 63 O, P; 64 A	X	
	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. Pub Sca 1:250,000							
710098*	Computer based storage, retrieval and compilation of geologic field data	Hutchison, WW	REG	CPM	BC	-	X	
	Obj.: The provision of computer based techniques that will facilitate the input, retrieval, processing and display of geological field data to expedite the analysis and distribution of geological information.							
710099	WW Lake bottom sediment sampling program for the Timmins-Val-d'Or region	Hornbrook, EHW	REG	G	Ont Que	32 D; 42 A	X	
	Obj.: By sampling and analyzing lake bottom sediments and tills: (a) to outline areas of mineral potential; (b) evaluate the usefulness of geochemical exploration techniques in the area as a guide to further mineral exploration.							
710100	WW Overburden drilling and sampling and geologic data compilation Timmins-Val-d'Or region	Skinner, RG	TS	RSP	Ont Que	Pts 31 M, N, 32 C, D; 41 O, P. 42 A, B, G, H	X	
	Obj.: 1. To carry out an overburden drilling, sampling and analysis program to provide data applicable to mineral exploration. 2. To analyze, assess and compile existing geologic data.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
710101*	National and Historic Parks Branch Booklet Program	Duffell, S	REG	Adm	-	-	X	
720004*	Obj.: To provide the National and Historic Parks Branch with popular booklets on the geology of ten National Parks for the National Parks Booklet program. Co-operative terrain mapping south-central British Columbia	Fulton, RJ	TS	RSP BC	Pts 82, 92, 83, 93		X	
720005*	Obj.: To map, describe and explain the unconsolidated deposits and landforms in order to provide terrain inventory maps; to determine the Quaternary history of the area; and to provide consultative advice to the British Columbia soil-land classification program. Pub Sca 1:125,000 Seismic refraction-Sverdrup Basin	Hobson, CD	RGG	SM	Frank	Pts 49, 59, 69, 79, 89	X	
720024*	Obj.: To determine thickness and attitude of sediments overlying crystalline basement, to determine seismic velocities within and depth to refracting interfaces within the geological section, to provide regional information about the architecture and structural history of the Sverdrup Basin. Gibson-MacQuoid Lakes map-area, N.W.T.	Reinhardt, EW	REG	PS	Kee	55 M, N	X	
720028*	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. Pub sca 1":4 mi. Canada-Newfoundland Mineral Development Program Project 6: geochemical-glacial geological survey (glacial geology phase)	Grant, DR	TS	RSP	Nfld	Pts 1, 2, 11, 12	X	
720036*	Obj.: To provide data and interpretation on the surficial geology as required to aid the selection of geochemical survey methods to be applied to a regional geochemical survey of large tracts of Newfoundland in 1973 and possibly 1974. Pub Sca 1:50,000 and 1:250,000. Canada-Newfoundland Mineral Development Program, Project 6: geochemical-glacial geological survey (geochemical phase) Obj.: To outline areas in Newfoundland with richer potential in metallic mineral resources in order to facilitate discovery by exploration companies and thus contribute to economic and social development.	Hornbrook, EHW	RGG	G	Nfld	Pts 1, 2, 11, 12	X	

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
720037*	Stratigraphy and structure of the Mount Ida Group, southern B.C.	Campbell, RB	REG	CPM	BC	82 M, 82 L	X	72-73 72-73
	Obj.: To revise the stratigraphy of the Mount Ida Group and the geology of the Shuswap Metamorphic Complex.							
720038*	Hazelton map-area	Richards, T	REG	CPM	BC	93 M	X	
	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. Pub sca 1:250,000							
720039*	Operation Nuvilik	Taylor, FC	REG	PS	Que	25 E, 35 F-K	X	
	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. Pub Sca 1:250,000							
720040	Subsurface Cambrian stratigraphy in northeastern British Columbia	Pugh, DC	ISPG	SM	BC	93 I, P; 94 A, B, G-J, O, P	X	
	Obj.: To determine the extent, nature and economic potential of subsurface Cambrian strata in NE B. C.; to identify, describe and determine the distribution of formations and their various facies; to interpret these data in terms of geological history and environments; to determine their economic potential as possible hosts for oil and gas; and to publish the results as a report by structure, isopach, isolith and subcrop maps and stratigraphic cross-sections. Pub Sca 1":8 mi.							
720041*	Upper Paleozoic rocks of western Canadian Cordillera	Monger, JH	REG	CPM	Yk BC	Pts 115, 92, 93, 94, 103 104	X	
	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.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
720042*	Monograph of miopore assemblages from the Lower Colorado Group, central Alberta, and comparative studies of assemblages from south-western Alberta and adjacent British Columbia	Brideaux, WW	ISPG	MIP	BC Alta	-	72-73	72-73
	Obj.: To monograph miopore assemblages from the Lower Colorado Group recovered from subsurface sections, to determine their biostratigraphic value and paleoecologic distribution within the Lower Colorado Group. Further, to collect surface and subsurface samples from selected Mesozoic, primarily post-Triassic, sections for comparative study.							X
720043*	A.S.P.G. Field Trip and Guided Tour of Athabasca Tar Sands Area, 1973	Norris, AW	ISPG	MaP	Alta	<u>74 D</u>		X
	Obj.: Main objectives include: (a) to assist in the planning and preparations in 1972 for a guided tour of the tar sands area in the fall of 1973; (b) to help prepare a guidebook on the geology of the area in which the writer's responsibility will be the Paleozoic Geology; and (c) to be one of the guides (See New Project Proposal dated 3 Sept. 1971 for further details.)							
720044*	Reconnaissance of Mesozoic Foraminifera of Arctic Islands	Sliter, WV	ISPG	MIP	Frank	<u>98, 88, 89, 79, 69, 59</u>		X
	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.							
720045	Upper Cretaceous benthic Foraminifera and biostratigraphy of JOIDES core samples from Rio Grande Rise, south Atlantic	Sliter, WV	ISPG	MIP	-	-		X
	Obj.: To describe the Upper Cretaceous benthic Foraminifera from the Rio Grande Rise; to determine their biostratigraphic and paleoecological importance, and to compare these with those of Arctic foraminiferal faunas; to assess the diagenetic changes of the Foraminifera; and to extend continental margin interpretations of foraminiferal distribution into oceanic water depths.							
720046*	Paleomagnetic reversals in Paleozoic of the St. Lawrence Platform	Foster, JH	REG	PMag	Ont	<u>Pts 40, 31, 21</u> <u>Que</u>		X
	Obj.: To identify magnetic reversals in Paleozoic of the St. Lawrence Platform and to establish their stratigraphic position and age.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
720047*	Stratigraphy and sedimentology of lower Paleozoic clastic formations, Cañon Fiord region, Ellesmere Island	Trettin, HP	ISPG	AI	Frank	49 H, 340 B	X	
	Obj.: To elucidate the stratigraphy and sedimentology of the Silurian and Devonian clastic formations.							
720048*	The stratigraphy and sedimentology of the Ramah Group between Nachvak Fiord and Saglek	(Knight, I)	REG	PS	Nfld	Pts. 14 L, 10, 11, 14, 15	X	
	Obj.: To determine the stratigraphy and sedimentological characteristics of this previously little known group of rocks for purposes of correlation and economic evaluation. Pub Sca 1:50,000							
720049	Jurassic biostratigraphic (foraminiferal) studies, northeastern British Columbia and adjacent Alberta	(Brooke, MM)	ISPG	MiP	BC	83 L, 94 B	X	
	Obj.: Biostratigraphic zonation of Jurassic rocks by means of microfossils (mostly Foraminifera) in order to facilitate subdivision and correlation of both outcropping and subsurface formations.				Alta			
720050*	Stratigraphic relationships of the western edge of the Middle Cambrian facies carbonate belt, Field, British Columbia	McIlreath, IA	ISPG	SM	BC	82 N/7, 8	X	
	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 belt concept by studying texture and sedimentary structures as they pertain to the problem of dispersal in the terrigenous clastic units; to clarify or negate the Kicking Horse Rim concept; to establish the area of provenance of the Chancellor terrigenous sediments. Pub Sca 1:50,000.							
720051*	Saskatchewan Coal Evaluation Program	Irvine, JA	ISPG	GofC	Sask	Pts 62 E, F, 72 F-H, 73 I	X	
	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 reasonable and knowledgeable energy policies can be formulated concerning them. Pub Sca 1:250,000 (tentative)							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
720052*	Indin Lake map-area 86 B	Frith, RA	REG	PS	Mack	86 B	X	72-73 72-73
	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 metamorphic sedimentary and volcanic rocks of the area. Pub Sca 1":4 mi.							
720053*	Blanket Mountain area, British Columbia	Reesor, JE	REG	Pet	BC	Pts: 82 L/16, 9	X	
	Obj.: To revise and upgrade map of Blanket Mountain segment, north flank of Thor-Odin gneiss dome. Pub Sca 1:50,000.							
720054*	Sedimentary rocks of the Prince Albert Belt	Campbell, FHA	REG	PS	Frank Kee	Pts: 46 M, N, L, 47 A, B, 56 I-K, O, P	X	
	Obj.: To determine the structure, stratigraphy, sedimentology and petrology of the sedimentary rocks of the Prince Albert Group; their relationship to the adjacent gneisses and to the enclosed basic and ultrabasic rocks. To evaluate their mineral potential. Pub Sca 1:250,000							
720055*	Paleomagnetism of the Lac St. Jean Anorthosite	Fahrig, WF	REG	PMag	Oue	22 SW, 32 SE	X	
	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.							
720056*	Paleomagnetism of the diabase dykes of West Greenland	Fahrig, WF	REG	PMag	-	-	X	
	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.							
720057*	Terrain mapping in mountainous areas	Fulton, RJ	TS	RSP	BC	Pts: 82 M, N, K, L	X	
	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. Pub Sca 1:50,000; 1:125,000							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
720058*	Terrain-Quaternary inventory, Ashcroft map-area	Fulton, RJ	TS	RSP	BC	92 I NW	72-73	72-73
								X

Obj.: To map, describe, and explain the unconsolidated deposits and landforms in order to provide terrain inventory maps and to determine the Quaternary history of map-area 92 I NW.
Pub Sca 1:125,000

720059 Northern Basin Analysis Program: Davies, GR ISPG AI Frank 340, 560 X
Eureka Sound 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. Pub Sca 1:1,000,000.

720060* Sedimentology of selected Upper Paleozoic carbonates and evaporites, Queen Elizabeth Islands, Arctic Archipelago Davies, GR ISPG AI Frank 340 B, C; 49 C X

Obj.: To clarify selected aspects of carbonate and evaporite sedimentology in Upper Paleozoic rocks of the Queen Elizabeth Islands that relate to basin development and porosity controls; specifically:
1) cementation and porosity development in Upper Paleozoic carbonate mounds (reefs); 2) identification of mound-building biota, and their role in development of carbonate build-ups. 3) depositional environment of evaporites, and their relationship to basin evolution.

720061 Northern Basin Analysis Program: Roy, KJ ISPG AI Frank 88, 98 X
Thomsen 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. Pub Sca 1:1,000,000.

720062* Volcanic rocks of the Prince Albert Belt Schau, Mikkel REG PS Frank Pts.: 46 M, N, L, 47 X
Kee A, B, 56 I-K, O, P

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 ultra-basic rocks. To evaluate their mineral potential. Pub Sca. 1:250,000.

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act 72-73	Inact 72-73
720063*	Bear-Slave geochemical reconnaissance	Allen, RJ	RGG	G	Mack	76 A/12, 13, B,C, D/9-16, E, F, G, H/4, 5, 12, 13, 86 A, B, C/9-16, D/9, 10, 15, 16, E/1, 2, 7-10, 15, 16, F, G, H	X	
	Obj.: 1) To outline areas of 20 or greater square miles that have either (a) an extremely high content of one trace element, or (b) higher than regional background levels for several trace elements, or (c) very much lower than regional background levels for several trace elements in relation to regional geology, as foci for detailed exploration by industry; 2) To differentiate large areas of similar rock type as to relative economic element content; 3) To provide information of assistance to regional geological mapping; and 4) to assess the proposed logistics in relation to possible future contracted surveys of this type.							
720064*	Geochemical prospecting for petroleum in Alberta using interstitial soil gases	Ball, NL	ISPG	GofP	Alta	82 A, J, I, O, P; 83 A, B, G, H; 72 E, L, M; 73 D	X	
	Obj.: To test the efficiency of prospecting for petroleum reserves, using helium and hydrocarbon content measured in interstitial soil gases.							
720065	Sedimentology of evaporite and carbonate lithofacies in selected areas of the Elk Point Basin, Middle Devonian of western Canada	Busson, G	ISPG	SM	Alta Sask	Pts. 73, 93, 84	X	
	Obj.: 1) To determine the role and relative importance of the morphology of carbonate masses (such as reefs or mounds) in the segregation of evaporite deposits in the Elk Point Basin; 2) To determine the temporal relationships between carbonate and evaporite deposits through the recognition and use of common datum horizons; 3) To determine the spatial relationships between these various facies.							
720066	Evaluation of Canada's petroleum potential	McCrossan, RG	ISPG	ESd	-	-	X	
	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 liquid hydrocarbon deposits in Canada.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
720067*	The use of simple volatile compounds and their isotope ratios in natural emanations for evaluating mineral potential	Dyck, W	RGG	G	Ont <u>Que</u>	41 J; 42 A; 32 C	X	
	Obj.: To determine the effectiveness of amounts and isotope ratios of volatile compounds such as He, SO ₂ , and light hydrocarbons in natural emanations from faults and fracture zones, ground waters, and rock inclusions in evaluating the mineral potential of buried formations.							
720068*	The stability of natural slopes in the Mackenzie Valley	Code, JA	TS	EGG	Mack <u>Que</u>	85 D, E; 95 H-J, N, O; <u>96 C, D, E; 106 H</u>	X	
	Obj.: To investigate river bank failures on the Mackenzie River and its tributaries; to determine the relationships between the types and scale of failures and the geological environments, the engineering properties of soil and rock materials, the geometry of the slopes, the boundaries of permafrost and the erosional processes acting on the banks. To predict the significance of the stability of slopes with respect to future engineering activities. Pub Sca to be decided							
720069*	Engineering geology of eastern Canada-southern Ontario, Field Excursion C51B XXIV International Geological Congress	Code, JA	TS	EGG	Ont <u>Que</u>	-	X	
	Obj.: To plan, organize and lead IGC field trip C51B and to prepare a guide book pertaining to the field trip.							
720070*	Gneisses of the Prince Albert Belt	Frisch, T	REG	PS	Frank <u>Kee</u>	Pts 46 M, N, L, <u>47 A, B</u>	X	
	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.							
720071*	Gamma-ray spectrometry (experimental surveys)	Richardson, KA	RGG	RM	-	-	X	
	Obj.: Application of new developments in gamma-ray spectrometry techniques to geologic mapping and exploration by making cross country reconnaissance surveys and detailed area surveys. Geologic interpretation and evaluation of airborne gamma-ray results, with aid of ground and laboratory investigations. Investigation of radioelement distribution pattern within Canada.							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
720072	Paleozoic Micropaleontology of eastern Canada	Copeland, MJ	REG	EP	Ont, Que NB, NS Nfld	-	X	72-73 72-73
	Obj.: To determine the stratigraphic relationships of microfaunas in eastern Canada; to identify, describe, and determine their zonal affinities as an aid to correlation and assessment of economic potential.							
720073*	Petrographic analysis of Saskatchewan lignites	Cameron, AR	ISPG	CP	Sask	62 E	X	
	Obj.: The overall objective of this study is the petrographic characterization of the Saskatchewan lignites on a regional basis. In terms of goals, the following may be cited: 1. To see whether or not there is a vertical pattern of petrographic change within the section. The presence or absence of lateral variation on a regional basis will also be demonstrated. 2. If such changes do exist, attempts will be made to relate them to environments of deposition. In this regard, full use will be made of all available information from the non-coal part of the Ravenscrag Formation. 3. Attempts will be made to relate data from 1 and 2 to such coal quality parameters as ash, sulphur, and thermal value.							
720074*	Geology of Pacific Rim National Park	Muller, JE	REG	CPM	BC	Pts: 92 F, C	X	
	Obj.: To provide the National Parks Branch with descriptive and scientific data on the bedrock and surficial geology of the Pacific Rim National Park as a part of a scientific base for evaluation of research and management programs and to assist in implementing the National Parks Policy. Pub Sca 1:50,000							
720075*	Paleomagnetism of the Hopedale diabase dykes	Christie, KW	REG	PMag	Nfld	13	X	
	Obj.: To determine the paleomagnetism of three swarms of unaltered diabase dykes in the Hopedale area, Labrador.							
720076*	Geology of Gros Morne National Park	Cumming, LM	REG	A	Nfld	-	X	
	Obj.: To provide National Parks Branch with descriptive and scientific data on the bedrock and surficial geology of Gros Morne National Park as part of a scientific base for evaluation of research and management programs and to assist in implementing the National Parks Policy. Pub Sca 1:50,000							

Project Number	Title	Project Leader	Div	Sec	Prov	NTS	Act	Inact
720077	Geology of the Milk River Formation, southern Alberta	Williams, GK	ISPG	SM	Alta	-	72-73	72-73

Obj.: To provide a thorough understanding of the occurrence of the Milk River Formation; to provide data on the stratigraphic relationships; to attempt to determine the relationship of gas production to lithofacies and the controlling factors of gas accumulation; to assist the National Energy Board in its appraisal of the gas reserves within the Formation.

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