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Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

GEOLOGICAL SURVEY BRANCH

1988 - 1989 PLAN

VICTORIA, SEPTEMBER 1988

1988-89 GEOLOGICAL SURVEY PLAN

PREFACE

This Plan is a summary of the Branch's business and what it intends to accomplish in the 1988/89 Fiscal Year. It outlines our Mandate, Key Functions, Organizations and Priorities. It should be used in conjunction with the Branch's Project Inventory, which details all the major projects the Branch will undertake this year. The Plan and the Inventory are developed by Branch staff to help us translate our goals and objectives into measurable, achievable outputs.

MANDATE

Assemble, maintain, and disseminate an up-to-date, comprehensive geoscience database for British Columbia so as to provide a sound base for private sector exploration and development of the Province's mineral resources and for resource management decisions by Government.

KEY FUNCTIONS

Data Collection

- Data are collected in two ways. Firstly, by the Branch through its programs of geological surveying and secondly, by way of information made available by legislation under the Mineral Tenure Act and the Coal Act.

Data Curation and Retrieval

- Curate and store the confidential and non-confidential geoscience information coming to the Branch so that it can be readily retrieved in an appropriate form by users.

- Maintain a manual assessment report library, a manual file on mineral properties, three computer files - MINFILE, COALFILE, and Regional Geochemical Survey Data (RGS), and a rock and mineral collection, for rapid retrieval and use by industry and government.

Data Analysis and Interpretation

- Synthesize, and interpret the variety of data received, from prospectors' reports to mining company reports, in the most cost effective way, to provide a quality provincial geoscience database and publish an annual summary in volume Exploration in British Columbia.

- Provide timely analytical laboratory services in support of Branch survey activities.

- Assemble and maintain a file on the quality of B.C. coals to promote their use, raw or blended, in new markets.

Provision of Services

- Provide geological services to the public and government from 5 district offices (Smithers, Prince George, Kamloops, Nelson, Victoria), a branch office in Vancouver, and headquarters in Victoria. Disseminate information through publications, scientific meetings, trade shows, and an annual open house in Vancouver. Provide prospector training courses throughout the Province. Manage government exploration incentive programs such as F.A.M.E. and Prospectors Assistance and Training.

Marketing Information

- Market the Branch's geoscience databases and publications in innovative ways to respond to users' needs and to raise revenue.

Regulation

- Verify company work assessment reports submitted in compliance with the Mineral Act and Coal Act within 60 days of receipt. Verification ensures quality data is submitted to Provinoe's geoscience database.

- Verify company reserve estimates for projects in the Mine Development Review Process to ensure benefits will outweigh land disturbances and to protect any government infrastructure investment.

- Certify assayers in B.C. as required under the Ministry Act. Hold up to four examinations annually.

Policy

- Promote exploration and mine development and attract mineral investment in B.C. Favourable geology and a comprehensive geoscience database are the first drawing cards to attract private sector mineral exploration investment in an internationally competitive area.

- Provide geological information and advice on land use issues; conduct geological surveys to determine mineral potential as required. Information on the subsurface is required by many Government departments involved in land administration.

- Provide advice on provincial mineral and coal resource supplies and related technical matters as input to provincial regional economic development initiatives.

BUDGET

The Base Budget of the Branch in Fiscal Year 1988-89 is $6,628,446. This includes an additional $1.5 million over Fiscal Year 1987-88.

The M.D.A. Budget is $1.43 in Fiscal Year 1988-89. The 1988-89 F.A.M.E. Program only includes the Prospector Assistance and Training Component, with a Budget of $500,000.

STAFFING

The Branch has 51.5 F.T.E.'s in Fiscal Year 1988-89. The equivalent of 47.2 person-years of contract help (Project leaders, Senior or Junior assistants) is provided from the Base Budget and 31.4 person years equivalents from the M.D.A. Program.

In 1988-89 the Branch lost 2 1/2 F.T.E.s, a Laboratory Scientist position, the Fort St. John District Geologist position and a 1/2 time Core storage technician position in Fort St. John. Three F.T.E.'s were added to the Regional Mapping Subsection and one F.T.E. to the new Scientific Review Office.

The Fort St. John and Fernie District Geologist offices were closed in June 1988. The Fernie District Geologist was transferred to the Coal Geology Subsection in Victoria to strengthen this group. The Fernie District will be serviced out of the Nelson office.

1988/89 GEOLOGICAL SURVEY BRANCH BUDGET

OPERATIONAL GROUP	BASE	MDA	FAME	TOTAL
Chief Geologist	581,909			581,909
Scientific Review Office	60,033			60,033
Vancouver Geologist	147,929			147,929
Regional Mapping	1,347,228	620,000		1,967,228
Mineral Deposits	1,173,452	174,000		1,347,452
Geochemistry	623,973			623,973
RGS		200,000		200,000
District Geology	675,906	27,000		702,906
Coal Resources	581,713			581,713
Industrial Minerals	252,155	135,000		387,155
Land Use	179,337			179,337
Assessment Reports & Management	347,117			347,117
Minfile	285,430	94,000		379,430
Lab	372,264			372,264
Overhead/Support		189,000		189,000
FAME			500,000	500,000
	6,628,446	1,439,000	500,000	8,567,446

BRANCH PRIORITIES FOR 1988/89

Ongoing

- Conduct 16 metallogenic surveys in mining camps and areas of potential mineral wealth to determine exploration guides for deposits and commodities and promote their development potential.

- Conduct 7 systematic 1:50,000 scale geological surveying projects and 2 1:250,000 scale geochemical surveying projects in poorly known and under-explored parts of the Province to stimulate grassroots private sector exploration.

- Continue redevelopment, updating, and publishing of the Province's mineral inventory database, MINFILE to achieve 75% updating of the 10,000 occurrences in the file by 1989.

- Respond to requests from other agencies on mineral land use issues and work on Wilderness Advisory Committee implementation team.

- Publish and publicize results of Branch projects in a timely manner.

- Ensure the work of the Branch is market led and that its customers are satisfied with the services it provides.

New Initiatives

- Conduct 3 additional 1:50,000 geological surveys under the Enhanced Program to improve Province's mineral exploration database.

- Implement a new automated system for tracking and processing the 1200 annual industry assessment reports by March 31, 1989, to improve productivity in this area and to issue timely annual outputs to industry.

- Compile a file on the quality of B.C. coals by December 31, 1988 to optimize exports and new market penetration.

- Develop and implement an automated, sample analysis tracking system for the Analytical Laboratory to replace an antiquated manual system and increase productivity.

- Deliver 1988 $500,000 Prospector Assistance Program under FAME, including prospector training and grants.

- Redeploy District Geology staff as a result of loss of 1 FTE and maintsin high quality program of advice to industry and government on regional development issues and land use.

- Develop an effective MINFILE marketing arrangement with SHL Systemhouse to promote B.C. technology worldwide and to defray the development costs of the system.

- Promote use of B.C. dimension stone to redevelop a dormant and once thriving industry and replace imported stone.

- Develop a strategy for the renewal of the Canada-British Columbia Mineral Development Agreement to replace current agreement which expires in 1990.

- Revise the Ministry's Land Use Policy paper in wake of Wilderness Advisory Committee and Mineral Act revisions.

- Conduct cost-benefit analysis of the Branch, utilizing a desk top publishing system, an automated drafting system, and a geographic information system (GIS), for preparing Branch publications.

- Develop a plan for a surficial placer geology program by October 1988 to aid and stimulate growth of this industry as a result of recent legislative changes.

- Draft regulations for the new Mineral Tenure Act by May 10th as they pertain to geological reports.

- Initiate a two-year mineral potential study of Purcell Wilderness area to provide a mineral database for informed land use decision.

- Analyse archived stream geochemical samples for gold to re-target mineral exploration in areas of past surveys.

- Provide financial support for targetted geoscience research in British Columbia which will assist in developing mineral potential.

ORGANIZATION

In April, 1988 the Branch was organized into four sections; Mineral Deposits and Regional Mapping Section, Resource Data and Analysis Section, District Geology and Coal Section and the Analytical Sciences Section. Responsibility for Scientific Review was transferred from the Mineral Deposits and Regional Mapping Section to the Chief Geologist's Office as this function serves all the sections. A new position of Geological Editor was approved to head this unit.

1. MINERAL DEPOSITS, REGIONAL MAPPING AND GEOCHEMISTRY SECTION

Goal: Mapping Today for Resources Tomorrow

Objectives:

The primary objectives are:

- to maintain an effective Geological Survey by conducting relevant fieldwork.
- to produce timely, authoritative and innovative ecienfitic outflow.
- to maintain a presence and personality within the exploration community.

A modern mapping, mineral deposit and geochemical database is essential for successful exploration planning; the section carries out integrated surveys and followup scientific studies to produce its reports and generate computer-accessible output. Support staff for the Section consist of a secretary, a Technical Aide and a Lapidary Technician.

1a. MINERAL DEPOSITS SUBSECTION

Objectives:

Conduct geologic and metallogenic studies of metallic mineral deposits in mining camps and areas with potential mineral wealth to determine the distribution, origin, mode of formation and exploration guidelines for deposits.

In 1988 most studies are concerned mainly with gold or polymetallic deposits, although one MDA supported project attempts to define the mineral potential of Alaskan-type ultramafic rocks in the Province.

A-base budget in 1988/89 is $1.17 Million for the Subsection's 14 FTE's (including Publications and Lapidary) and $125,000 of MDA funding for the Ultramafic Project.

Action Plan:

Activity	Responsibility	Outputs
Geologic and metallogenic studies	Church, Hoy, Panteleyev Alldrick, Nixon	Open File Maps, 'Fieldwork' reports, talks, poster sessions
Final Bulletin preparation	Ray, Church	Hedley Project Buck Creek Area
Mineral Potential Promotion	All Staff	Geology talks and consultation

1b. REGIONAL MAPPING SUBSECTION

Objectives:

Conduct systematic 1:50 000 scale regional mapping in selected poorly understood or underexplored parts of the province. Maps of this scale determine mineral potential and are essential precursors to effective mineral exploration and for informed land-use decisions. With many of the largest mines in the province nearing the end of their productive lives, this mapping is crucial - new, world class, and smaller employment generating deposits must be found.

Much of the enhancement to the 1988/89 Branch budget is used to accelerate this program; 4 new projects are underway - Telkwa, King Salmon/Atlin, Telegraph and Stikine. The budget for 1988/89 is $960000 A-base and $620000 MDA; the Subsection has 4 FTE's and 5 contract Project Leaders.

Action Plan:

Activity	Responsibility	Outputs
Geologically map at 1:50 000 scale	MacIntyre,Brown,Ferri, Logan,Bloodgood/Rees, Mihalynuk, Nelson, Massey,Glover,Diakow	9 Open File Maps 'Fieldwork' reports, talks poster sessions

1c. REGIONAL GEOCHEMISTRY SUBSECTION

Objectives:

Carry out systematic orientation surveys to determine sampling medium and methodology for the Regional Geochemical surveys, conduct RGS followup surveys to evaluate sampling methodology and interpretation techniques used.

Plan the Regional Geochemical Surveys, ensure quality control during sampling by contractors and of contract analytical results, and prepare data for release in cooperation with Geological Survey of Canada Geochemists.

Evaluate Regional Geochemical Survey data and determine more effective ways to present results, raise awareness of the program and make it more useful to the Exploration and Land Use communities.

Budget for the Subsection in 1988/89 is $624000 plus $200000 from the joint Canada/British Columbia MDA program. If more funds become available, they will be used to analyse archived samples for precious metal pathfinder elements and gold.

Action Plan:

Activity	Responsibility	Output
Collect RGS samples NTS 92E,I,L and K	Matysek, Gravel	2900 sample sites completed
Orientation surveys	Matysek, Day	determine and choose correct sampling methods and media
RGS 1987 sample release on time	Matysek	statistical reports and element maps
Archived samples	Matysek	Analytical results, summary and map data

2. RESOURCE DATA AND ANALYSIS SECTION

This section comprises three subsections.

2a. MINERAL INVENTORY SUBSECTION

Collects, compiles, approves and interprets mineral exploration data submitted by industry. A library of over 15,000 mineral assessment reports is maintained and approximately 1,000 reports are added annually. The library is available for public viewing on microfiche at District Geologists' and Gold Commissioners' offices throughout the Province. The microfiche may also be purchased from the Branch's agent, Victoria Microfilm Ltd. The information collected from industry is summarized and published annually in the volume 'Exploration in British Columbia' and the Assessment Report Index.

Also the Branch's computerized mineral inventory database MINFILE is managed by this subsection but receives substantial contributions from the rest of the Branch. The data base contains geological and resource inventory data on over 9500 mineral occurrences. About 55 percent of these have been revised or updated by the end of 1987/88. The data is stored on a VAX 8650 computer at B.C. Systems Corporation. The data may be down loaded onto floppy disks for use on personal computers and with the search program MINFILE/pc.

In 1988/89 this subsection had 5 FTE's, 8 contract geologists, and 4 contract support staff, and a budget of $640,000.

2b. INDUSTRIAL MINERALS SUBSECTION

Conducts studies on industrial minerals to determine their distribution and abundance, thereby facilitating resource development and policy formulation. In 1988/89 this subsection had 2 FTE's, 4 contract geologists and support staff, and a budget of $387,000.

2c. LAND USE SUBSECTION

Carries out field and office evaluations of proposed land alienation areas and aids in the development of mineral land use policy. In 1988/89 this subsection had 2 FTE's and a budget of $180,000.

3. DISTRICT GEOLOGY AND COAL RESOURCES SECTION

This section consists of two subsections.

3a. DISTRICT GEOLOGY SUBSECTION

With offices in Smithers, Prince George, Nelson, Kamloops, and Victoria, maintains an up-to-date inventory of the geology, mineral deposits, and exploration trends and developments in the districts. Prospector training, and advice and consultation to industry and other government departments is also provided. In 1988-89 resources of this subsection were $648,900.00.

3b. COAL RESOURCES SUB-SECTION

Collects information on the Province's coal geology and resources. In 1987-88 this subsection had 5 FTE's and $581,700.00.

4. ANALYTICAL SCIENCES SECTION

Provides analyses of rock, minerals and ores needed by Branch geologists. The section is responsible for certification of assayers in the Province. This subsection has a budget of $372,000 and 6 FTE's.

5. EXECUTIVE STAFF

Based in Victoria, provide management direction and program administration. They are supported by the financial and personnel services of the Finance and Administration Division of the Ministry. In 1988/89 this had 2 FTE's, and one FTE on loan from Resource Data Section.

Branch-wide activities, such as the Vancouver Regional office, the Scientific Review Office and the Mineral Agreement are handled through this office.

5a. VANCOUVER OFFICE

The Vancouver Regional office was opened in 1986 with the goal of promoting and assisting the coordination and development of mineral, coal and other earth resources in B.C. In 1988/89 this office had 1 FTE, a contract research geologist, and a contract assistant.

5b. SCIENTIFIC REVIEW OFFICE

This group is responsible for overseeing Branch publications and consists of a geological editor and three draftsmen. It is supplemented by a contract Scientific Editor under the MDA and contracted typing and drafting.

5c. MINERAL DEVELOPMENT AGREEMENT

The goal of the Canada-B.C. Mineral Development Agreement is to help B.C.'s mineral sector adapt to new demands, new markets and new technologies. The major component, which is designed to expand the B.C. geological data base, is being delivered by the Geological Survey Branch. MDA administration consists of 1.5 contractor FTE's.

TACTICAL ACTION PLANS FOR NEW INITIATIVES

PROJECT: Enhanced Geoscientific Surveys to improve the Province's mineral exploration database.

OBJECTIVE: To complete geological surveying at 1:50,000 scale of 20% of B.C. by year 2000 to provide the fundamental underpinning for private sector exploration. New survey areas in 1988 are in N.W. B.C.

To complete the 1:250,000 scale regional geochemical surveying of B.C. by 1997 and release results to industry. 1988 survey area is northern Vancouver Island.

ACTION PLAN:

ACTION	RESPONSIBILITY	DATE
Select project areas in consultation with industry.	W.J. McMillan	
Hire team of 3 project geologists and summer support staff.	W.R. Smyth/ W.J. McMillan	May 21/88
Conduct field surveying during summer to documented standards.	Project Team/ W.J. McMillan	June-Sept./88
Analyse, synthesize, publish and promote.	Project Team	Jan./89
Monitor industry activity in project areas for project evaluation.	Project Team	Ongoing

CRITICAL SUCCESS FACTOR:

- Completion of field surveys on time and budget.
- Publication of quality maps and reports on time and budget.
- Publication sales.
- Increased interest by industry in survey areas, e.g. consultations, staking, drilling, new deposit discoveries.

PROJECT: Automate tracking and processing of 1200 annual industry assessment reports received from industry in compliance with Mineral Tenure.

OBJECTIVE: To improve oapability for handling large volume of reports in timely and cost effective manner and to publish annual summaries for industry.

ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Define deficiencies in system as of Mar. 31/88.	C. Borsholm	Request for Enhancements	Apr.1/88
Contract to analyst/ programmer to write/ enhance programs.	A. Guilbault	Software	Sep.30/88
Test system operation for administrative and publication outputs	C. Borsholm/ L. DeGroot/ T. Kalnins	Reports	Dec.31/88
Design specifications for P.A.C. Accounts - Future enhancement.	C. Borsholm T. Kalnins	Design Report	Dec.31/88

CRITICAL SUCCESS FACTOR

- Approval of increased volume of reports in a timely fashion with significant improvements in data capture efficiency.
- Timely production of published outputs from the database to assist explorationists in exploration planning.

PROJECT: Draft regulations for new Mineral Tenure Act dealing with reporting of geological work.

OBJECTIVE: To simplify regulations and ensure that industry submits reports detailing results of their exploration programs so that a lasting contribution is made to B.C.'s mineral inventory database for ongoing exploration planning.

ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Draft regulations.	T. Kalnins/ G. McArthur	Draft	Apr.15/88
Consultation with Industry.	T. Kalnins/ G. McArthur	Revised Draft	May 10/88
Forward Final Draft for Ministry Executive approval.	W.R. Smyth	Final Draft	May 16/88

CRITICAL SUCCESS FACTOR:

- Acceptance by mineral industry that regulations achieve a fair balance between professional standards and ease of compliance.
- Continued submission of quality geoscience data.

PROJECT: Analyse archived stream sediment samples for gold and other sought after metals not previously determined.

OBJECTIVE: To encourage mineral exploration activity in previously sampled Regional Geochemical Survey (RGS) areas.

ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Selection of survey area	Matysek/Industry		Apr. 88
Vialing of archived sample material and insertion of analytical control samples.	" "		Sept. 88
Awarding of analytical contract	" "		Oct. 88
Data evaluation - statistics	" "		Dec. 88
Open File Production Preparation of geological, geochemical and sample location maps; floppy diskettes; data listings and text.	" "	Maps & Data	Mar. 88
Open File Release Distribution of data to public.	" "	Maps & Data	June 88

CRITICAL SUCCESS FACTOR

- Increased claim staking and renewed exploration activity in selected survey areas.
- Discovery of new prospects.

PROJECT: Revise Ministry's Land Use Policy Paper.

OBJECTIVE: Revise and update Ministry Land Use Policy Paper to accommodate Ministry organizational changes and identify any new land use issues, interministry agreements, and impacts of new wilderness-type designations on land base.

ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Review and amend Land Use policy as necessary.	Ratel, McLaren	New Land Use Policy Paper	Spring, 1989

CRITICAL SUCCESS FACTOR:

- Clear definition of where Land Use lies in any Ministry/Board re-organization.
- Draughting of suitable figures.
- Provide opportunities for ministry/board personnel as well as members of Wilderness Liaison Committee and industry to review and comment on draft paper(s).
- Ask Minister to release and sponsor policy rather than see it released as an information paper.

PROJECT: Prospectors Assistance and Training (FAME)

OBJECTIVE: To support grassroots prospecting and to maintain trained prospectors in the Province to ensure discovery of new mineral deposits that will be the new mines of tomorrow.

ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Grant Program: Review applications and award grants by May 31.	V. Preto/ J. Pardy	Grants issued	May 31/88
Field visits and train prospectors in the field.	V. Preto/ J. Pardy	Field visits	Oct.15/88
Advertise, organize, and deliver annual Advanced Prospecting Course.	V. Preto/ District Geologists/ G. Dickson/ J. Pardy	Course - up to 32 students trained annually.	Apr.20-May 7

CRITICAL SUCCESS FACTOR:

- o Timely review of grant applications and issue of grants.
- o Effective field advice provided to grantees.
- o Smooth and effective administration of program.
- o Grantee satisfaction, performance and success.
- o Efficient and effective delivery of course.
- o Student satisfaction with course.
- o Student success as prospectors.

PROJECT: Evaluate desk-top publishing, automated drafting and geographic information system for use by Branch.

OBJECTIVE: To prepare Branch's outputs of maps and reports in more rapid and cost effective ways, even if this means that standards have to be relaxed. To reduce requirement for manual cartography which currently limits the rate at which final maps and reports are published.

ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Prepare and let contract for consulting firm to report on automated drafting systems for geological maps.	Smyth, McMillan	Report	June 15
Evaluate report and make recommendation to Executive.	Smyth		September 15

CRITICAL SUCCESS FACTOR:

- o Acceptable Final Report on options.
- o Acceptance of recommendations by Executive.

PROJECT: Redeploy District Geology Staff

OBJECTIVE: To redeploy district staff as a result of Government restructuring and changing demand for services to ensure a high quality of service and advice to industry and Government on mineral development opportunities and land use issues in the regions is maintained.

ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Staff Nelson District Office	V. Preto	D.G. installed	Jul.1/88
Transfer Fernie District Geologist to Victoria.	V. Preto/ W. Kilby	Transfer effected	Jul.15/88

CRITICAL SUCCESS FACTOR:

- Successful delivery of services in Kootenay Development Region.
- Client acceptance and satisfaction with new Nelson District Geologist.
- Successful continuation of coal quality studies by transferred Fernie District Geologist.
- Closure of Fernie and Fort St. John offices without significant loss of service to clients.

PROJECT: Automate Analytical Laboratory's Sample Analysis Tracking System.

OBJECTIVE: To replace antiquated manual system. Eliminate errors inherrent in manual system. Improve productivity of laboratory staff to enable them to handle increased workload is result of enhanced program. Improve communication between users and laboratory.

ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Draft scope document.	Branch Mgmt.		May 15/88
Negotiate contract ($7,000).	W. Johnson/ R. Smyth		Jun.15/88
Implement project.	W. Johnson		Sep.15/88
User training.	W. Johnson		Nov.15/88

CRITICAL SUCCESS FACTOR:

- o Laboratory reporting system that meets user needs.
- o Increased productivity of laboratory staff.
- o Project delivery on time and budget.

PROJECT: Negotiate and sign a MINFILE software marketing system between the Ministry and SHL Systemhouse Inc.

OBJECTIVE: To promote B.C. technology worldwide and to defray the Province's development costs of system.

ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Review of draft legal agreement by Ministry's lawyer.	Jarman	Review	May 10
Finalize agreement	Smyth	signed agreement	June 1
Develop marketing plan	Smyth/SHL		July 1

CRITICAL SUCCESS FACTOR:

- Signed agreement.
- Sales of system.
- Revenue to Province.
- Enhanced reputation of Branch's technology and innovation.

PROJECT: Promote development of B.C. Dimension Stone Industry.

OBJECTIVE: To redevelop a dormant and once thriving local industry to replace imported stone.

ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Distribution of glossy Information Circular to specific client groups, e.g. architects.	D. Hora		Sep.30/88
Participate in one or more trade shows with B.C. stone samples.	D. Hora/ G. White	Display	Dec.31/88
Liaison with potential developers - including identification of incentives and removal of constraints to development.	D. Hora/ G. McArthur	Briefings	Mar.31/89

CRITICAL SUCCESS FACTOR:

- Increased utilization of B.C. produced dimension stone.
- Development of a variety of stone quarries to facilitate expansion of existing processing plant in Vancouver.

PROJECT: Coal Quality Catalogue

OBJECTIVE: To compile and publish a catalogue and information brochure summarizing quality characteristics, distribution and availability of British Columbia coals. To optimize exports and new market penetration.

ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Prepare Catalogue and Brochure	Kilby, Holter	Catalogue and Brochure	December 31
Distribute to industry and offshore buyers	Kilby		January

CRITICAL SUCCESS FACTOR:

- Timely production and distribution of catalogue and brochure.
- Quality of product as indicated by interest generated and acceptance with industry.
- New exports and market penetration by B.C. coals.

PROJECT: Develop a work plan and budget for a placer geology survey of B.C.

OBJECTIVE: To develop guidelines and a database to target intelligent exploration for placer deposits and increase the probability of exploration successes.

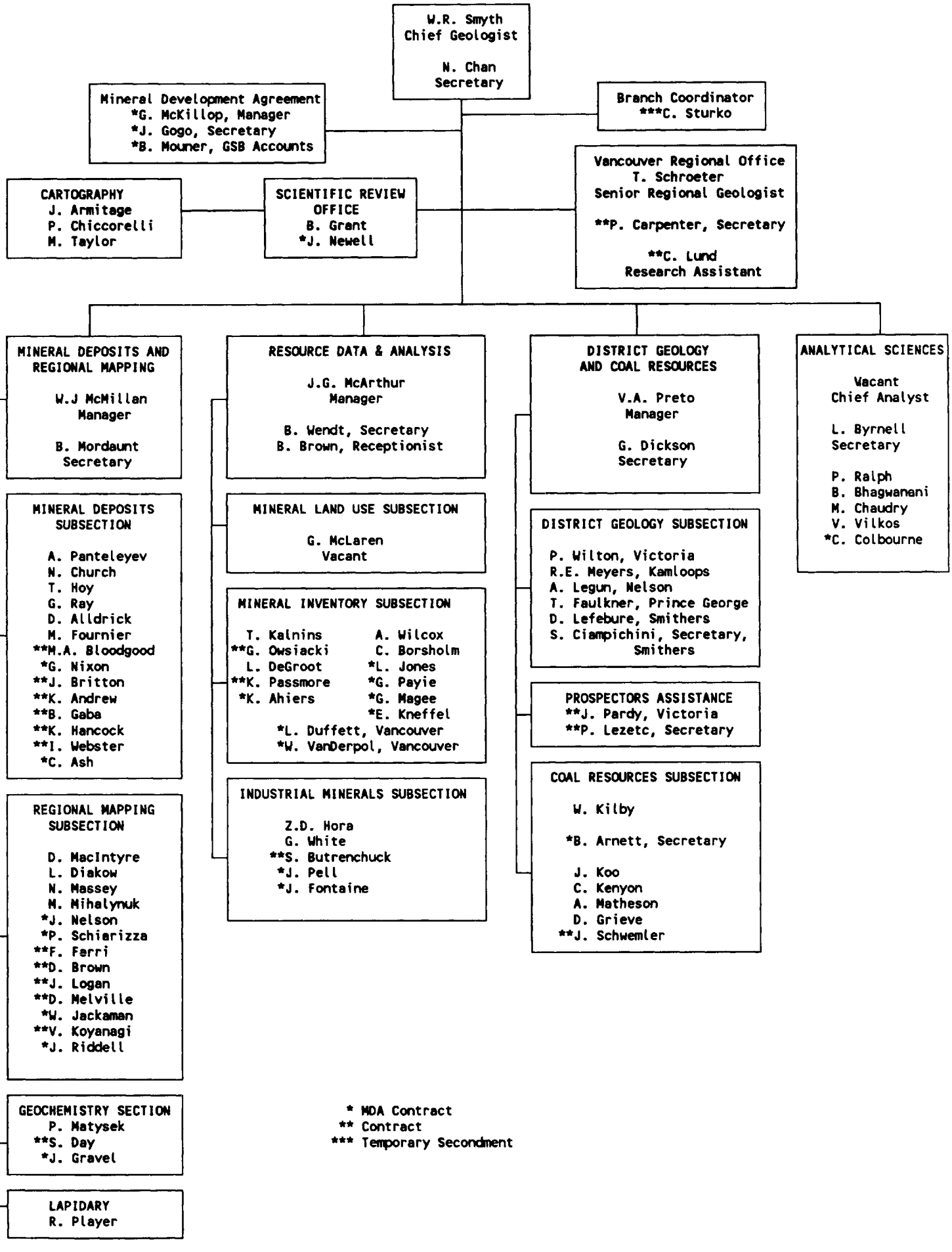
ACTION PLAN:

ACTION	RESPONSIBILITY	OUTPUT	DATE
Identify existing data-base and needs.	Smyth	Report	September
Finalize action plan.	Smyth	Report	November

CRITICAL SUCCESS FACTOR:

- o Development of plan acceptable to industry and academia.
- o Acceptance of plan by Executive.

GSB ORGANIZATIONAL CHART



* MDA Contract
** Contract
*** Temporary Secondment