



REGIONAL GEOCHEMICAL SURVEYS  
HAZELTON AND MANSON RIVER MAP--AREAS  
(93M, N)

By H. R. Schmitt

The British Columbia Ministry of Energy, Mines and Petroleum Resources was involved in two regional geochemical surveys in 1983, covering map-areas 93M and 93N.

The Ministry funded and supervised the geochemical survey for 93M (Hazelton) and provided supervision for the Federal Department of Energy, Mines and Resources' funded geochemical survey of 93N (Manson River). Completion of analytical work and data compilation is expected by late May 1984. Results of the surveys, in the form of sample location maps and analytical data sheets, will be released in early June. *Simultaneous data release is anticipated to take place in Smithers, Vancouver, and Victoria.*

To date a total of 19 map-areas has been sampled in British Columbia for a total coverage of approximately 250 000 square kilometres; average sample density ranges from one site per 12.5 square kilometres to one site per 15 square kilometres (Fig. 35).

Field sampling in 1983 was carried out in the Hazelton map-area (93M) by Bema Industries Limited and in Manson River map-area (93N) by Hardy Associates (1978) Limited. Both surveys covered relatively remote areas and relied primarily on helicopter support with limited use of truck and boat. Helicopter services by Quasar Aviation Limited were used by Bema Industries and Viking Helicopters Limited provided service for Hardy Associates. Field supervision for the Ministry and Geological Survey of Canada was by H. R. Schmitt.

Both surveys were concluded successfully within the allotted budget and schedule. NTS 93M, covering 14 000 square kilometres, was sampled in 1 040 sites for an average coverage of one sample per 13.46 square kilometres. NTS 93N, covering 14 000 square kilometres, was sampled in 1 062 sites for an average coverage of one sample per 13.18 square kilometres. Thirty samples collected in 93N were unsuitable for analyses and might be recollected.

Sample preparation and analyses were contracted to commercial firms. Water samples were analysed for uranium, fluorine, and pH by Acme Analytical Laboratories. Stream sediments will be analysed for zinc, copper, lead, nickel, cobalt, silver, manganese, iron, arsenic, molybdenum, tungsten, mercury, uranium, and antimony by Chemex Laboratories.

The two contiguous surveys cover diverse geological terranes, containing several significant mineralized environments. Placer and vein-type gold and silver mineralization is providing focus for intense exploration activity in Manson Creek area and along the Pinchi and Vital faults. Exploration in Hazelton map-area (93M) is primarily for polymetallic vein deposits, with limited exploration for copper-molybdenum porphyry deposits. *Survey results are anticipated to reinforce current exploration activity and provide valuable regional geochemical information for the reinterpretation of mineral potential in apparently less mineralized and overburden-covered areas.*

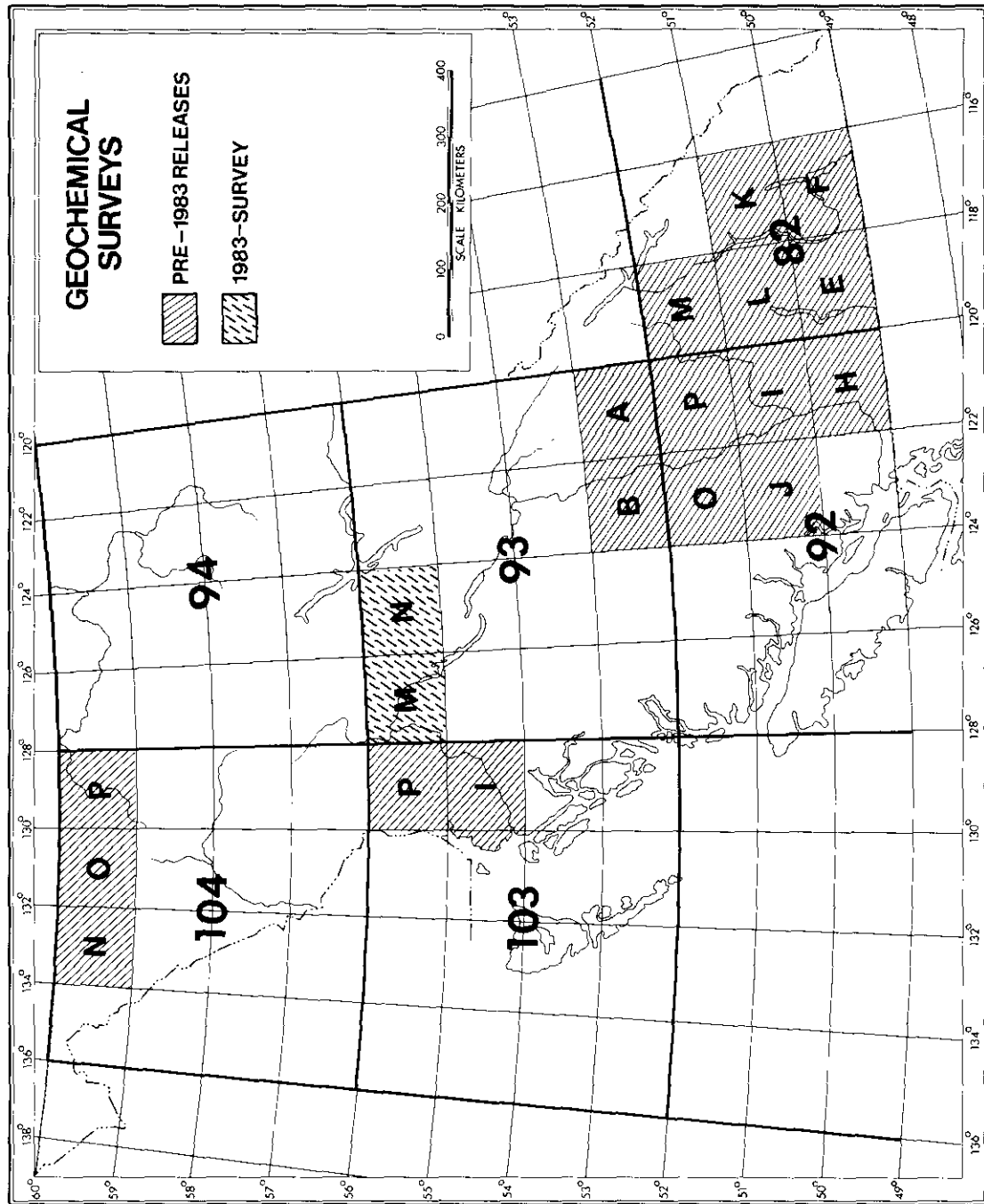


Figure 35. Map showing locations of regional geochemical surveys carried out to date.