



SPATSIZI PLATEAU

By N. C. Carter

The Spatsizi Plateau area of northwestern British Columbia was proposed as a wilderness conservancy by various government agencies in late 1974. An integrated resource study of the area was initiated by the Environment and Land Use Committee Secretariat which involved the major Provincial resource agencies including the Department of Mines and Petroleum Resources.

The study area (Fig. 14) was bounded on the north, east, and south by the Stikine River and its upper reaches, and on the west by the Klappan and Little Klappan Rivers. The Spatsizi River courses the central part of the area. Included in the wilderness conservancy was an ecological reserve proposal to include the Gladys Lake drainage southwest of Cold Fish Lake.

Oldest rocks in the area are Triassic and Jurassic clastic volcanic and sedimentary rocks which occur in a northwest-trending belt in the central part of the area and border it on the north and east (Fig. 14). These are partly in fault contact with siltstones, greywackes, and conglomerates of the Upper Jurassic–Lower Cretaceous Bowser assemblage which occupy the western part of the area shown on Figure 14. Intruding both the Triassic–Jurassic and Bowser rocks are small stocks of porphyritic granodiorite, quartz monzonite, and syenite. Underlying nearly half the study area are Late Cretaceous and Early Tertiary sandstones, conglomerates, and shales of the Sustut Group. These overlie older rocks unconformably or are in fault contact with them.

Sustut Group rocks are not known to contain significant mineral deposits. Several airborne scintillometer and ground geochemical surveys conducted by mining exploration companies have not indicated radioactive mineralization. Bowser assemblage sedimentary rocks are known to contain potential reserves of coal in the Groundhog Range to the south, but no coal seams of importance are known in the study area.

In a relative sense, the Triassic and Jurassic volcanic and sedimentary rocks and the granitic stocks intruding them were considered to have the highest mineral potential although no mineral occurrences were known. A field examination of these rocks, combined with a geochemical sampling program, was undertaken in 1975. A significant amount of regional geochemical information was also provided by a number of exploration companies which had worked in the area.

Rock samples were collected from four granitic stocks, indicated as A, B, C, and D on Figure 14. Several silt samples were also collected from creeks draining into Gladys Lake, shown as area E. Sample results are as follows:

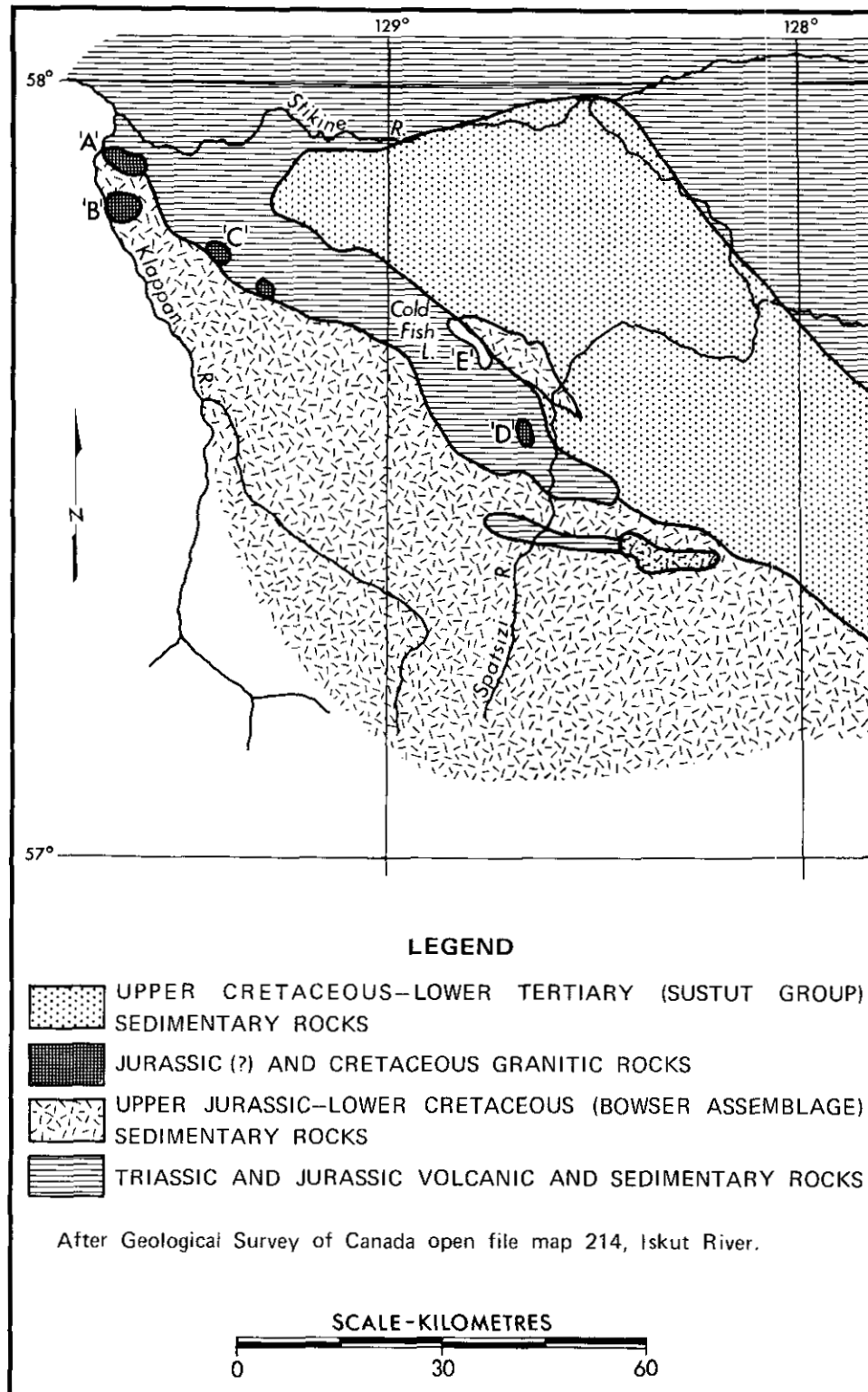


Figure 14. Spatsizi Plateau.

	Ag <i>ppm</i>	Cu <i>ppm</i>	Mo <i>ppm</i>	Pb <i>ppm</i>	Zn <i>ppm</i>
Location A					
SP-75-1-1	1.3	221	1	26	75
SP-75-1-2	0.8	126	1	20	75
SP-75-1-3	1.4	45	1	27	123
SP-75-1-4	1.1	69	1	141	60
SP-75-1-5	0.9	59	1	20	59
SP-75-1-6	1.0	104	1	17	52
SP-75-1-7	1.2	106	1	24	75
SP-75-1-8	0.9	68	1	19	51
SP-75-1-9	0.5	127	1	17	45
Location B					
SP-75-2-1	0.5	6	1	10	34
SP-75-2-2	0.3	15	1	17	36
SP-75-2-3	0.2	13	1	13	51
SP-75-2-4	0.2	3	1	18	20
SP-75-2-5	0.1	3	1	14	15
SP-75-2-6	0.1	3	1	11	28
SP-75-2-7	0.1	3	1	12	26
Location C					
SP-75-3-1	0.1	2	1	10	20
SP-75-3-2	0.1	1	1	3	4
SP-75-3-3	0.1	2	1	12	35
SP-75-3-4	0.1	3	1	13	30
Location D					
SP-75-4-1	0.1	33	1	12	141
SP-75-4-2	0.1	2	1	7	27
SP-75-4-3	0.1	5	1	17	11
Location E					
SP-75-5-1	0.6	17	0.1	43	67
SP-75-5-2	0.4	27	0.3	42	98
SP-75-5-3	0.2	6	0.2	33	82
SP-75-5-4	0.7	39	0.8	48	221
SP-75-5-5	0.9	17	0.1	52	69
SP-75-5-6	0.8	17	0.1	53	68
SP-75-5-7	0.5	36	0.6	50	141
SP-75-5-8	0.4	6	0.1	37	75

Based on these results, and on information made available by exploration companies, a recommendation was made to exclude areas A and B from a mineral reserve.

REFERENCE

Geol. Surv., Canada, Map 9-1957, Stikine River Area.