

PRODUCT

URANIUM (PLACER)

PROVINCE OR TERRITORY British Columbia

N.T.S. AREA 82 K/15, 10

REF. U 1

NAME OF PROPERTY

BUGABOO CREEK

OBJECT LOCATED Lower end of Lease 163.

UNCERTAINTY IN METRES 1,000. Lat. 50°45' Long. 116°42'30"

Mining Division	Golden	District	Kootenay
County		Township or Parish	
Lot		Concession or Range	
Sec	Tp.	R.	

OWNER OR OPERATOR AND ADDRESS

DESCRIPTION OF DEPOSIT

The Cretaceous Bugaboo Batholith is divided into two lithologically distinct units consisting of a western fine- to medium-grained, uniform textured hornblende-biotite granodiorite and an eastern quartz monzonite. The latter consists of a number of textural variants ranging from a medium-grained, leuco-quartz monzonite of uniform texture to very coarsely porphyritic biotite quartz monzonite.

Black sand placer concentrations containing the columbium- and uranium-bearing minerals, uraninite, euxenite-polycrase, and pyrochlore-microlite occur in the outwash gravels of active glaciers in the high peaks of Bugaboo and Horsethief Batholiths. A large block of porphyritic quartz monzonite taken from Horsethief Batholith and representative of much of this pluton was crushed and a heavy concentrate was separated and examined. All minerals found in the placer concentrate were found in the common quartz monzonite of the pluton; pyrochlore-microlite, euxenite-polycrase, uraninite, anatase, lepidocrocite, epidote, allanite, magnetite, ilmenite, rutile, sphene, apatite, fluorite, and zircon. Cassiterite and molybdenite were also found in some of the black sand concentrates. Limited metallurgical testwork by Quebec Metallurgical Industries indicated recoveries for columbium and uranium were 75% and 80%, respectively.

Associated minerals or products of value - Columbium, fluorspar

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located on upper Bugaboo Creek, 19 miles southwest of Spillimacheen.

Uranium-bearing black sand was discovered at the head of Bugaboo creek by G.O. Reid in 1949. Prospecting in the area in August 1953 by F.T. Russel and A. Archer for Quebec Metallurgical Industries Ltd., a subsidiary of Ventures Limited, relocated the deposit by means of a fluorescent stain technique for uranium made on radioactive black sand pan concentrate. Subsequent prospecting led to the discovery of similar deposits on Vowell and Forster creeks.

St. Eugene Mining Corporation, Limited, another subsidiary of Ventures Limited, in 1955-56 held special placer mining Lease No. 163, extending for 3 miles along Bugaboo creek. During 1955 the gravel was tested by 33 churn-drill holes totalling 976 feet, and ranging from 17 to 60 feet in depth. The drilling indicated a depth of about 17 feet of outwash gravel across a width of 550 feet and a length of 3,850 feet. A concentrating plant installed in 1955 operated from August 1 to October 9, 1956, treating 7,220 cubic yards of gravel to produce 24,391 pounds of concentrate. The lease was subsequently allowed to lapse.

Bugaboo Uraniums Ltd., incorporated in August 1968, carried out an airborne spectrometer survey the following month, locating a number of anomalous areas on several creeks. Leases were apparently acquired on Bugaboo and Forster creeks. Canadian Johns-Manville Company, Limited, carried out exploration on Leases 303-314, 351, and 354-357 on upper Bugaboo and Forster creeks in 1969. On upper Bugaboo creek geochemical testing of sands, and scintillometer and magnetometer surveys were carried out over a length of about 7 miles.

Dillingham Corporation Canada Ltd. acquired Placer Mining Leases Nos. 270-277, on the lower end of Bugaboo creek, in 1968. A scintillometer survey was carried out by J.M. Black, consulting geologist. A total of 40 trenches and test pits were dug to provide samples for testing.

120848

Mineral Development Sector, Department of Energy, Mines and Resources, Ottawa

ISTORY OF PRODUCTION

REFERENCES

Reesor, J.E.; Geology of the Lardeau Map-Area, East-Half, British Columbia; Memoir 369, pp. 87, 92, 117, Geol. Surv. of Canada, 1973.

Reports of Minister of Mines, British Columbia: 1955, p. 86; 1956, p. 142; 1968, p. 293.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1969, p. 377.

Mineral Development Sector; Corporation Files: "Tapin Copper Mines Limited" - Statement of Material Facts, May 1974; "Q.M.I. Minerals Ltd."

Lang, A.H., Griffith, J.W., and Steacy, H.R.; Canadian Deposits of Uranium and Thorium; Economic Geology Series No. 16 (Second Edition), p. 198, Geol. Surv. of Canada, 1962.

Rowe, R.B.; Columbium (Niobium) Deposits of Canada; Economic Geology Series No. 18, p. 28, Geol. Surv. of Canada, 1958.

Dawson, K.R.; Niobium (Columbium) and Tantalum in Canada; Economic Geology Report No. 29, pp. 20, 52, Geol. Surv. of Canada, 1974.

MAP REFERENCES

Map 1362 A, Lardeau, (Geol.), Sc. 1:250,000 - accomp. Memoir 369.

Sketch Map of Bugaboo Creek placer deposits, Sc. 1":14 miles, Fig. 1, p. 29, Report by Rowe, 1958.

Map 82 K/15, Bugaboo, (Topo.), Sc. 1:50,000.

Map 82 K/10 E, Howser Creek, (Topo.), Sc. 1:50,000.

REMARKS

BCI 82K/NE-23,75

Comp./Rev. By	DMacR						
Date	7-75						