

PRODUCT  
PRODUIT RARE EARTHS

PROVINCE OR  
TERRITORY PROVINCE OU  
TERRITOIRE British Columbia

N.T.S. AREA 82 M/7  
RÉGION DU S.N.R.C.

REF. Ree 1  
RÉF.

NAME OF PROPERTY  
NOM DE LA PROPRIÉTÉ MOUNT GRACE CARBONATITE

OBJECT LOCATED  
OBJET LOCALISÉ Outcrop, southwest slope of Mount Grace

UNCERTAINTY 1000 m  
FACTEUR D'INCERTITUDE Lat. 51°26' Long. 118°49'

Mining Division  
Division minière Kamloops District  
District

County  
Comté Township or Parish  
Canton ou paroisse

Lot  
Lot Concession or Range  
Concession ou rang

Sec  
Sect. Tp. R.  
Ct. R.

OWNER OR OPERATOR/PROPRIÉTAIRE OU EXPLOITANT

#### DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT

A thin carbonatite marble unit has been traced discontinuously for approximately 25 km along the north western margin of Frenchman Cap dome, near the eastern margin of the Shuswap Metamorphic Complex. The carbonatite is interpreted to be extrusive in origin. It forms essentially one conformable layer that averaged 3 m in thickness. It contains abundant apatite, phlogopite, and sodic amphibole and contains high concentrations of manganese, strontium, barium, columbium, and the light rare earth elements, lanthanum, cerium, and neodymium. Although the analyzed samples are generally low grade, with total columbium, lanthanum, cerium, and neodymium ranging from approximately 0.04 to 0.8 percent, the large lateral extent makes it a tremendous potential source for these elements.

#### HISTORY OF EXPLORATION AND DEVELOPMENT HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

The "Mount Grace Carbonatite" is known to occur in the vicinity of the head of Perry Creek and in the Mount Grace and Kirby Creek areas some 50 to 75 km northwest of Revelstoke. Detailed mapping in the vicinity has led to the discovery of a number of occurrences of a single carbonatite layer.

+Hoy, Trygne and Kwong, Y.T. John; The Mount Grace Carbonatite;  
Economic Geology, Vol. 81, 1986, pp. 1374-1386.

Ministry of Energy, Mines and Petroleum Resources, B.C.;  
Geological Fieldwork, 1985, pp. 69-81.

## MAP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES

Frenchmans Cap Dome, Sc. 1": 0.75 mile, Fig. 3, Paper 71-29,  
Geol. Surv. of Canada, 1972.

Cottonbelt-Mt Grace Area, Sc. 1: 20 000, EMPR, BC, Bulletin  
80 (1979).

Regional geological map, Frenchman Cap dome, Fig. 8-1,  
Geological Fieldwork, 1985-p. 70.

#Location and structural setting of the Mount Grace  
carbonatite, Fig. 8-2, Geological Fieldwork, 1985, p. 71.

\*Map 82 M/7, Ratchford Creek, (Topo.), Sc. 1: 50 000.

## REMARKS/REMARQUES

Comp./Rev. By Comp./rév. par	DMacR						
Date Date	04-89						