

## (33) LAKE FLETCHER

U.T.M.G. - N-496433

E-45219

N.T.S. - 11D/13A (1:50,000)

This barite occurrence is situated immediately north of Robert Street, approximately 0.5 mile east of Highway 2 at Lake Fletcher (Fig. 102 and 103).

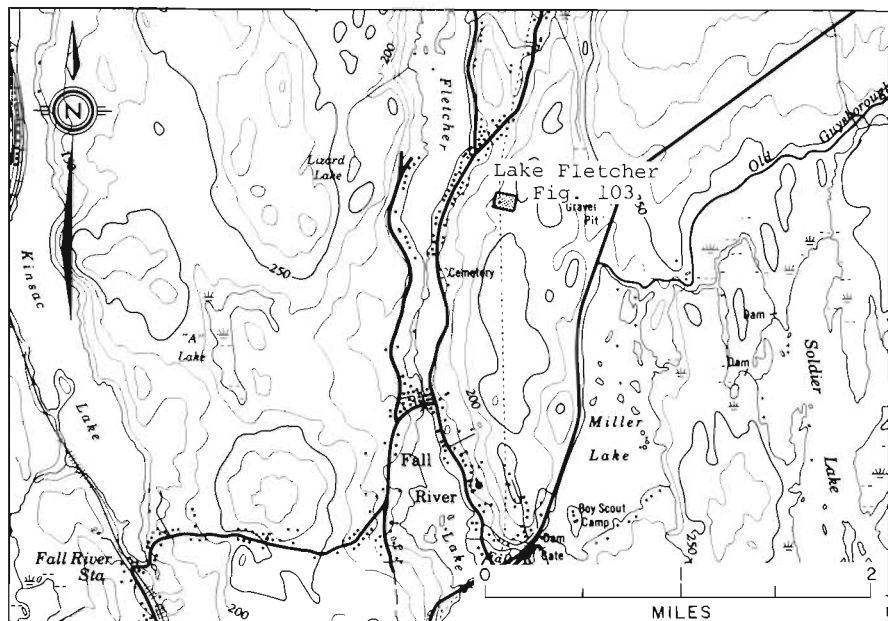


Figure 102

The only reported work carried out here was some trenching by Mr. Angus Rafter in 1962. No additional work has been undertaken since that time.

The barite occurs in meta-sedimentary rocks of the Meguma Group of Cambro-Ordovician Age. These rocks form the southeast limb of a northeasterly trending syncline. Immediately west (approx. 0.5 mile) of the prospect a granite plug, roughly two miles square, intrudes the Meguma Group rocks. The granite is believed to be of Devonian Age.

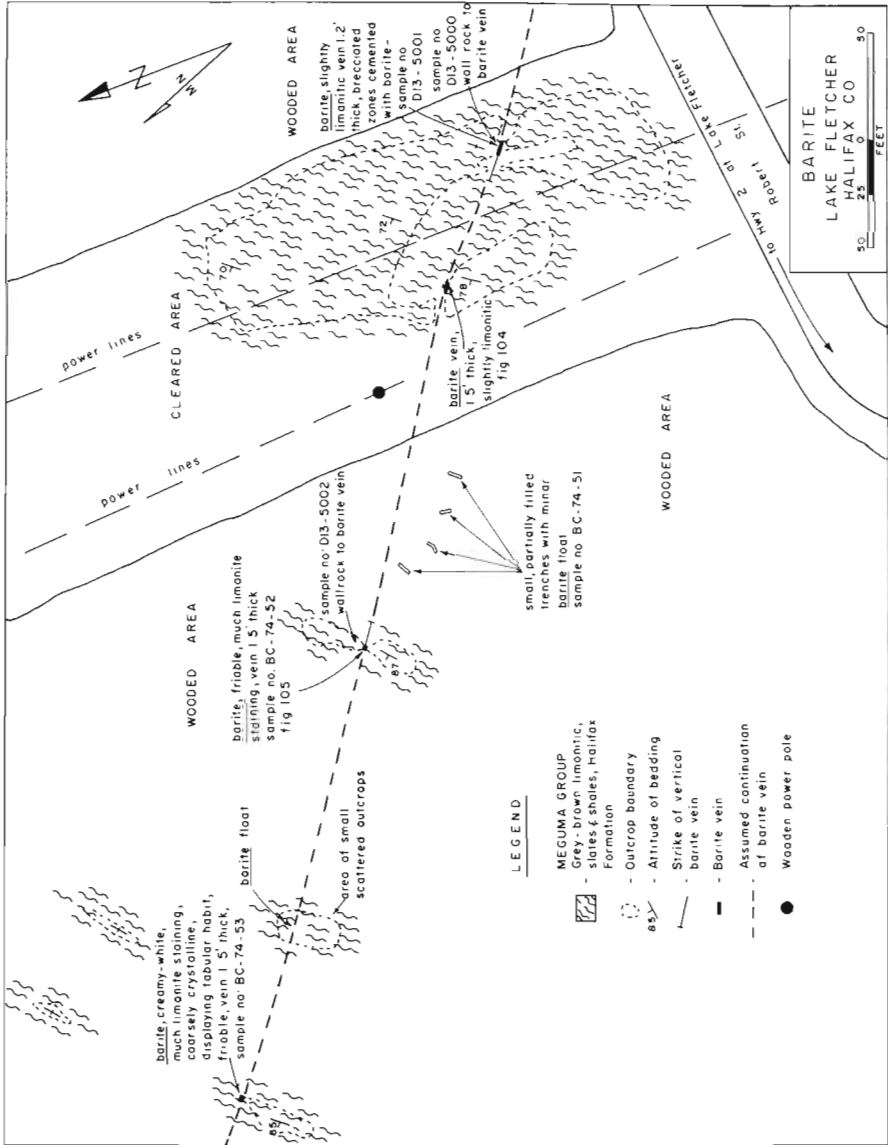


Figure 103

The host rocks are slates and shales, striking generally 040° azimuth and ranging in dip from 70° northwest to vertical. These rocks are brown to black in colour (weathered surface) and show a primary cleavage parallel to the plane of bedding. The brown colouring is attributed to the presence of limonite.

The deposit is structurally controlled, occupying a fracture or possible fault. The vein attains a maximum width of 1.5 feet and can be traced over a strike length of almost 500 feet. It strikes from 127° to 133° azimuth, dips vertically and traverses the host rock almost perpendicular to the strike of the bedding. Fragments of the enclosing host rock are noted to be occasionally caught up in the barite (Fig. 104 and 105). This fissure is probably part of a dominant set of joints which were produced along with the major folds during the Acadian Orogeny.

In hand specimen the barite is coarsely crystalline, often displaying a tabular habit and occasionally showing well developed crystals. It is predominantly white in colour though the abundance of limonite in some portions imparts a distinct rusty colour to the barite. The barite is strongly weathered, making it rather friable. The only other mineral associated with the barite is limonite, which has a fine grained texture and is confined to cleavage planes, interstices among barite crystals, and small fractures. This limonite is of secondary origin having been derived from the iron minerals (primarily pyrite) common in the surrounding host rock.

Grabs samples were taken from the barite vein and the host rock in close proximity to the vein and submitted for chemical analysis. The sample locations are indicated on Figure 103, and the analytical results are listed below and in appendix III.

Rock Type	Sample No.	Per cent				ppm	
		BaSO <sub>4</sub>	SrSO <sub>4</sub>	F	Cu	Pb	Zn
Barite	BC-74-51	90.10	1.65	.03	16	34	14
Barite	BC-74-52	89.50	1.25	.03	129	34	75
Barite	BC-74-53	88.55	1.95	.03	48	137	17
Slate, shale	D13-5000	.22	.02	.03	20	40	90
Barite	D13-5001	80.28	.90	.04	10	60	180
Slate, shale	D13-5002	.20	.02	.06	10	70	100



Figure 104 - Lake Fletcher. Barite vein (white) cutting shale (Halifax Formation, Meguma Group), sh - shale, ba - barite.



Figure 105 - Lake Fletcher. Strongly limonitic barite vein (white) cutting shale (Halifax Formation, Meguma Group), sh - shale, ba - barite.

The barite vein at this locality is of insufficient width to be economically significant at the present time. However, it is still open at both ends along strike, indicating that it could have a strike length well in excess of 500 feet. Another drawback to the potential of this occurrence is the rapid rate of urbanization in the immediate vicinity.

#### Bibliography

Slater, R.

1962: Barytes, Lake Fletcher, Hal. Co., report to N.S. Dept. Mines; N. S. Dept. Mines assessment file 11D/13A 6-H-32(06) and 45-H-32(00).

## (34) UPPER TANTALLON

U.T.M.G. - N-495000  
E-43111

N.T.S. - 11D/12C (1:50,000)

This fluorite occurrence was brought to the writer's attention shortly before the final stage of the project and will be only briefly commented on.

The showing is found on a road cut on the northeast side of Highway 103, at the top of the hill immediately past Exit 5 at Upper Tantallon (Fig. 106 and 107).

No reported exploration work for fluorite has been undertaken here.

The host rock is a coarse-grained biotite granodiorite of the Devonian age South Mountain batholith.

The mineralization was structurally controlled, with the fluorite occupying fractures and shear zone cavities which attain a maximum thickness of approximately three inches.

The fluorite ranges in colour from white, pale purple to deep purple and is fine to medium grained in texture. In many cases the original grain boundaries have been obliterated, and a platy texture imparted to the fluorite. Small scale slickensiding is also evident on the fluorite. These features are a result of shearing which probably took place contemporaneous with and subsequent to the deposition of fluorite.

No samples were chemically analyzed. Visually the fluorite appears to be relatively pure (80 per cent fluorite), except for certain portions of the showing where small xenoliths of the granodiorite occur.

Further work is warranted in this area to determine the extent of the deposit.

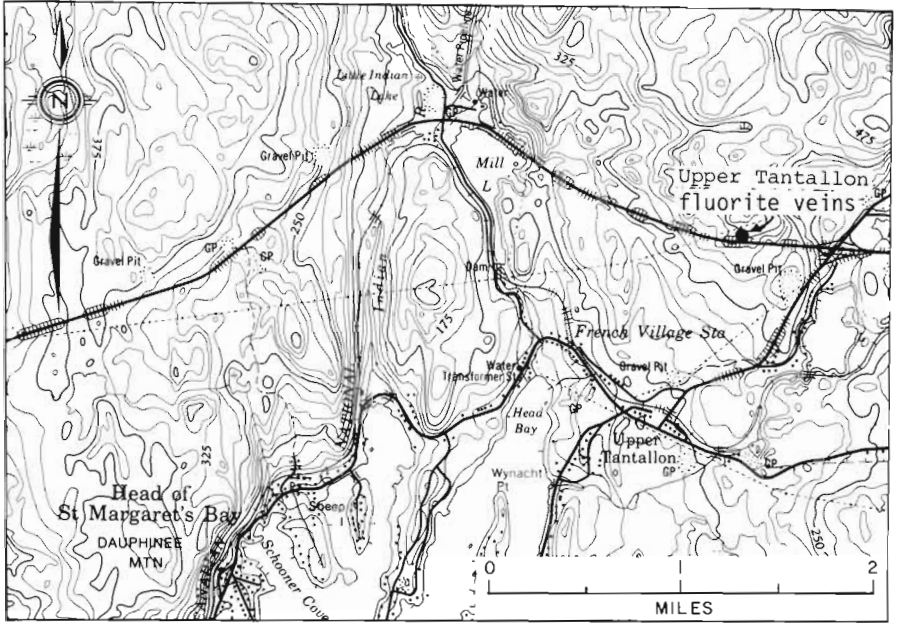


Figure 106



Figure 107 - Upper Tantalum. Purple fluorite veins in biotite granodiorite, fl - fluorite.