IBUTION OF ANOMALOUSLY ABUNDANT ELEMENTS IN STREAM-SEDIMENT LES FROM THE ANCHORAGE 1° \times 3° QUADRANGLE, SOUTHERN ALASKA

Monument, Gravel,
and Glacier
Creeks.

Mountain.

Monument, Gravel,
and Glacier
Creeks.

Northern Chugach
Mountains, from
Matanuska to
Nelchina Glaciers.

Ship and Campbell
Creeks, Tanaina
Peak area.

Upper Friday Creek
and north
tributary.

Gravel and Glacier
Creeks.

Marcus Baker Glacier
Creeks.

Marcus Baker Glacier
creeks.

Marcus Baker Glacier
of Sylvester
Glacier.

Marcus Baker Glacier
creek,
west of Lake
George.

Area between Lake
George on west
and Gannett
Glacier on east.

Mount Curtis and
northwest side
of College Fiord.

Yale Glacier Geologic map
unit(s)

eninsular terra

Jt, JPzpm,
Tc; Kv,
Kmc lie
upstream.

Jt, JPzpm,
Kw. Kw. gh Complex. Or veins(?). Quart; minerals occur in greenstone in Peters Creek¹. Ci may occur, as in Eklutna drainage². Au ins in Valdez Group(?). ower Hicks Creek, tributary south of Mount Monarch.

outheastern Talkeetna Mountains (Squaw and Fortress Creeks).

nob Lake, East Fork River. Jt Tmi,
Tfi.

Ifi.

Jt, Tfi,
Km, Tv.

Km, Jt,
Tmi.

Jt, (Tmi?).

Jt, (Tmi?).

Jt, JPzpm
Jg, (Kv
upstream). nap Suggested types of mineral occurrences

No known mineral deposits in unit TKa. Suite of anomalous metals may not be ore related, but instead may reflect lithology of unit TKa.

Sulfides disseminated locally in units Jtr or Jaqd Anomalous metals may be from unit Jum. Clinopyroxenite in Wolverine Complex contains 700 ppm Cu (Clark, 1972). Native Cu in fractures in peridotite in Eklutna (ultramafic) complex (Rose, 1966, p. 6).

Fine-grained Au from veins upstream in unit Kv(?).

W and scheelite in concentrates from unit Kv(?).

W and scheelite in concentrates from unit Kv(?).

W and scheelite in ontent between units Jt and Jgd or Jgd (as in Kaina Lake area discussed by Winkler and others, 1981a); or sulfides within unit Jt(?).

Massive sulfides in unit Jt(?)

Massive sulfides?). Ni, Cr, Co from mafic unit Jt, and stringers and pods of sulfidering dacite cuts unit Jt, and stringers and pods of sulfidering and others, 1981).

Massive sulfides(?). Ni, Cr, Co from mafic bypabyssal intrusions mapped elsewhere as unit Tmi; and others, 1981); or sulfide minerals in unit Jt and plutonic rocks (as in Kaina Lake area of Winkler and others, 1981); or sulfide minerals in unit Jt (as in Willow Mountain area of Winkler and others, 1981); or magmatic segregations of sulfide minerals similar to those at Spirit Mountain. Unit Jg is probable source for Co. Ultramafic rocks in unit probably contributed Cr and Nil. Stream sediments also may have come from unit W to south. Unit W is relatively Cu enriched to west in Glacier and Gravel Creeks.

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Mi

6 4 4 5 0 13 128 128 131 131 131 131 131

10 557 551 564 9 558 372 372 372 372 372 398 398 31.70 112.30 66.35 --34.85 114.06 110.36 68.34 .12 100 100 300 300 70 100 200 0.5

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