

Table 1. Petrographic summary of the Cretaceous granitic plutons of St. Lawrence Island, Alaska.

Name & outcrop area of pluton	IWOONUT PLUTON ~1mi <sup>2</sup>	SEVUOKUK PLUTON ~100 mi <sup>2</sup>	TAPHOOK PLUTON ~70 mi <sup>2</sup>	MYGHAPOWIT PLUTON *~ 40 mi <sup>2</sup>	SOOMAGHAT PLUTON ~ 45 mi <sup>2</sup>	KIALEGAK PLUTON ~ 30 mi <sup>2</sup>	KINIPAGHULGHAT PLUTON ~ 65 mi <sup>2</sup>	Name & outcrop area of pluton
Lithology of intrusive members	Olivine-bearing syenodiorite	Hornblende quartz monzonite. Also granodiorite and monzonite	Biotite quartz monzonite. Also alkali	Hornblende quartz monzonite. Also alkali	Porphyritic hornblende quartz monzonite. Also alkali	Biotite quartz monzonite. Also alkali	Biotite granodiorite	Biotite quartz monzonite
Color index	10-18	8-27	4-14	est. 10-15	3-11	6-7	3-6	6-20
Quartz in volume %	None	7-17	19-31	est. 10-15	21-30	17-19	27-36	1-3
Mafic minerals; modal ranges in volume %	augite 4-10 biotite 3-7 olivine 1-3	hornblende 4-17 biotite 0-10 clinopyroxene <1	biotite 2-14 hornblende 0-6	hornblende biotite	biotite 3-8 hornblende 0-4	hornblende 3-4 biotite 3-4	biotite 3-5 hornblende 0-2	hornblende 6-13 biotite 0-7 clinopyroxene <1
Plagioclase composition	sodic labradorite-calcic andesine	sodic andesine-calcic oligoclase	oligoclase-albite	sodic andesine-calcic oligoclase	oligoclase	sodic andesine-calcic oligoclase	andesine-sodic oligoclase	oligoclase
Ubiquitous accessories	apatite, zircon, magnetite	sphene, apatite, magnetite, zircon	sphene, apatite, magnetite, zircon	sphene, apatite, magnetite, zircon	sphene, magnetite, zircon, apatite	sphene, magnetite, zircon, apatite	sphene, magnetite, apatite, zircon	sphene, apatite, magnetite, zircon
Other accessories			allanite			tourmaline		allanite
Modal composition (Also see fig. 3)				No modal analyses available				
Grain size	coarse to medium	medium to coarse	coarse to medium	medium	coarse to fine	coarse to medium	coarse to fine	coarse to medium
Fabric	granitic	granitic to slightly porphyritic and seriate	granitic to porphyritic and seriate	granitic	porphyritic to granitic	porphyritic to seriate	granitic	porphyritic to seriate
Progressive normal zoning of plagioclase	rare	common	common & strong	common	common but faint	common	common	common
Remarks	Olivine poikilitic in feldspars, partly altered to magnetite and biotite Myrmekitic intergrowth of quartz and plagioclase common. Pyroxene as relict core in hornblende	Sparse microcline	Sericitization and chloritization is intense and widespread	Sericitization and chloritization is intense and widespread	Occasional microcline. Fine grained border phase against hornblende quartz monzonite member	* Only partially mapped. Finer grained border phase against porphyritic hornblende quartz monzonite	Fine grained border phase against porphyritic hornblende quartz monzonite	Clinopyroxene occurs as relict core in hornblende
Characteristic feature	Reddish biotite. Medium to dark greenish-gray color	Low quartz content, abundance of hornblende.	High quartz content; dark gray quartz anhedral. Scattered orthoclase phenocrysts.	Low quartz content, abundance of hornblende	Porphyritic texture with orthoclase phenocrysts. High quartz content-	Large dark gray smoky quartz anhedral	Dark gray color, porphyritic texture with large twinned orthoclase	Porphyritic texture with large twinned orthoclase

\* During the course of the present study, approximately 300 thin sections were examined. A total of 86 modal analyses was obtained by point counts on sawed slabs stained by sodium cobaltinitrite. Between 600 to 1,000 points were counted on each slab.

Compositions

Textures

Remarks

Characteristic feature