

TABLE I: Table of Formations for Alexander and Taku-Skolai Terranes and Gravina-Nutzotin Belt

			ALEXANDER TERRANE	TAKU-SKOLAI TERRANE	GRAVINA-NUTZOTIN BELT	
Era	Period or epoch	Rock unit & thickness	Lithology	Lithology	Lithology	
Cenozoic	Miocene and (?) younger	Tf1 & Tdi	Felsite, latite porphyry.	Felsite, latite porphyry; Diorite(Tdi).	Felsite, latite porphyry.	
			Intrusive contact	Intrusive contact	Intrusive contact	
		Tv 1,060 m	Basalt, andesite, latite, minor rhyolite.	Basalt, andesite, latite, minor rhyolite.		
	Oligocene and (?) older		Not in contact	Not in contact		
		Ofp	Biotite quartz latite porphyry	Biotite quartz latite porphyry		
			Not in contact	Not in contact		
		Amphitheatre Formation Ts 1,100 m	Sandstone, conglomerate, shale; minor carbonaceous shale; limonite.	Sandstone, conglomerate, shale; minor carbonaceous shale, lignite.	Sandstone, conglomerate, shale, minor carbonaceous shale, lignite.	
	Mesozoic and/or Cenozoic	Cretaceous and/or Tertiary	KTgd, KTqd, KTdi		Biotite and hornblende granodiorite, quartz diorite and diorite. Intrudes unit uKp.	
					Not in contact	
	Mesozoic	Lower Cretaceous	rKgd		Granodiorite, diorite, gabbro.	
				Not in contact		
		rKb and rKpx		Auriferous hornblende gabbro and diorite. Clinopyroxenite, minor hornblende clinopyroxenite.	auriferous hornblende gabbro and diorite. Clinopyroxenite, minor hornblende clinopyroxenite.	
Mesozoic and/or Cenozoic	Lower Cretaceous and Jurassic	uKp or Kowp 3,500 m		(uKp): Massive grey phyllite with lenses of pebble conglomerate and greywacke at base. Includes upper part of McCarthy Formation at base and probably part of Deaseash Formation at top.	(Kowp): Thin-bedded greywacke-argillite flysch.	
		Upper Jurassic	(Jg)	Porphyritic granite		
Paleozoic or Mesozoic	Upper Triassic	McCarthy Formation uKwc 0 to 400 m		Thin-bedded limestone and argillite. Formation thins northeastward.		
		Nizina and Chitistone limestones uKcc 0 to 700 m		Massive limestone, limestone breccia, minor thin-bedded limestone at top. Gypsum (uKce) near base. Formation thins northeastward.		
		Nikolai Greenstone uKny 0 to 1000 m		Dark green and maroon amygdaloidal meta-basalt and meta-andesite. Pillow lava, volcanic breccia and conglomerate at base. Thickens northeastward. Intercalated limestone layers near top uKwc.		
	Middle Triassic	mTp 0 to 200 m		Dark grey phyllite; minor limestone. Forms lenses in north on SW side of Terrane.		
				Disconformity with Psp		
Paleozoic or Mesozoic	Upper Permian or Lower Triassic	b		Auriferous gabbro.		
		ub		Peridotite, rare diorite.		
Paleozoic	Lower Permian	Basin Creek Formation Psc 0 to 100 m		Thin-bedded bioclastic limestone, calc-arenite. Mainly in upper part of Basin Creek Fm. on SW side of Terrane.		
		Psv 0 to 50 m		Lenses of amygdaloidal pillow basalt, breccia and tuff. North end of area, SW side of Terrane.		
		Psp 0 to 400 m		Siliceous argillite; minor greywacke and conglomerate rare limestone.		
		Pss 0 to 500 m		Sandstone; minor siliceous argillite and conglomerate. In north end of area on SW side of Terrane only.		
		Pscg 0 to 300 m		Pebble and cobble conglomerate. In north end of area on SW side of Terrane only.		
				In contact with Psv		
	Pennsylvanian(?)	Pb		Gabbro, pegmatitic gabbro, diabase. At north end of area, SW side of Terrane.		
				Not in contact		
	Pennsylvanian and (?) Permian	Station Creek Formation Psw 0 to 1200 m		Tuff, breccia, siliceous argillite, chert; rare meta-andesite flows. May be in part equivalent to Psw. South end of area on SW side of Terrane only.		
		Psv 0 to 2000 m		Tuff, breccia; minor flows and siliceous argillite in north. Meta-andesite and meta-basalt flows; minor breccia and tuff in south.		
Carboniferous and (?) Devonian	DCs 1000 m	DCc 0 to 200 m		Grey phyllite, limy phyllite, siltstone; minor phyllitic limestone. Unit Ppw may be in part equivalent.		
		DCp 0 to 500 m		Thin-bedded limestone and phyllitic limestone.		
		DCv 100 to 500 m		Dark grey phyllite. May change laterally into unit DCs. Unit Ppw may be in part equivalent.		
		DCe 100 to 500 m		Calcareous tuff, breccia, meta-andesite flows locally with intercalated limestone DCe.		
Devonian	Dc 300 m		Massive light grey limestone. Pc may be in part equivalent.			
			Disconformity (?)			
Cambrian to Devonian	EDs & EDv 0 to 1500 m		Massive siltstone, tuffaceous phyllite and greywacke. Pw and Ppw may be in part equivalent. Greenstone and greenschist (EDv) may form a lens within EDs.			
Upper Cambrian or Lower Ordovician	EOw & EOC 2000 m		Porphyritic meta-andesite and meta-basalt; rare volcanic breccia, limy tuff and thin-bedded crystalline limestone (EOc).			
		EOwp 1100 m		Greywacke, phyllite; minor pebble conglomerate.		
				Base not exposed		

Table II: Relations among Deformation, Metamorphism and Plutonism in the Alexander and Taku-Skolai Terranes and Gravina-Nutzotin Belt

ALEXANDER TERRANE			TAKU-SKOLAI TERRANE			GRAVINA-NUTZOTIN BELT		
Rock Units and Time	Deformation	Metamorphism & Plutonism	Rock Units and Time	Deformation	Metamorphism & Plutonism	Rock Units and Time	Deformation	Metamorphism & Plutonism
10 m.y.		Intrusion	Tf1 & Tdi		Intrusion			
Tv			Tv					
20-28 m.y.		Intrusion	20-28 m.y.		Intrusion			
Ts			Ts			Ts		
Angular unconformity and Nonconformity	Uplift		Angular Unconformity and Nonconformity	Uplift		Nonconformity	Uplift	
			115-117 m.y.			115 m.y.		Second Phase Folding
				Folding	Metamorphism			First Phase Folding
132-145 m.y.		Intrusion						
			uKp					
			uKwc					
			uKcc					
			uKny					
			mTp					
			Disconformity	Uplift	Intrusion			
268-278 m.y.		Intrusion	Psp to Pscg					
	Second Phase Folding	Regional Metamorphism	Psv Pb			Pb		
			DCs					
			Dc					
			Disconformity (?)	Uplift(?)				
			EDs					
			EOwp					