GENERALIZED STRATIGRAPHIC SECTION OF THE OTUK FORMATION

	GENERALIZED STRATIGRAPHIC SECTION OF THE OTUK FORMATION PDF 94-47 Sheet 2 of 14										
SYSTEM	SERIES	STAGE	FORMATION	MEMBER	Generalized cumulative thickness in meters	Graphic Column	Megafossils	Microfossils	Ave wt % TOC (shales)	DESCRIPTION	
CRETACEOUS	LOWER	VALANGINIAN	UNNAMED COQUINOID	LIMESTONE & SHALE UNIT	150-	M	Buchia sublaevis	Gaudryina tailleuri Gaudryina cf. G. nanushukensis Glomospira corona Glomospirella gaultina		Brown or red shale containing beds of coquinoid limestone up to 1.5 meters thick. Nature of upper contact unknown but probably overlain by Lower Cretaceous (Neocomian) clastic rocks.	
JURASSIC	LOWER-MIDDLE	SINEMURIAN	OTUK	BLANKENSHIP	130-	000	belemnites Otapiria tailleuri	Livarella sp. Droltus sp. Paronaella sp.	6.86%	Very black organic-rich non-calcareous shale with interbedded black chert and/or thin fossiliferous black limestones near base. Sharp disconformity above and lower contact is probably disconformable upon the Karen Creek Member(new name) or limestone member.	
				AREN CREEK	110-	0101	Monotis ochotica Monotis subcircularis M. cf. M. densistriata Eomonotis pinensis Chondrites			Discontinuous very fine-grained sandstone or quartzose siltstone, thin (.2-1.5 m.) and only present in eastern part of study area. Interbedded tan weathering gray fine-grained sublithographic siliceous limestone and black and green-gray shales. Richly fossiliferous with	
	PER	NORIAN		LIMESTONE KAREN CREEK	100-		Chonantes	Capnuchosphaera sp. Capnodoche sp. Canesium sp. Syringocapsa sp. Pseudoheliodiscus sp.	3.56%	Monotis sp. Beds up to 30 cm thick and massive, weathers a banded color, with black center and tan outer layers to beds. From Erratic Creek east the member becomes more sooty, more shaley, and limestones become black, fetid, and gray-weathering.	
	JAN .		NO		90-		Halobia lineata Halobia fallax Halobia halorica	Capnuchosphaera sp. Capnodoche sp. Corum cf. C. perfectum			
		CARNIAN	FORMATION	CHERT	80-		Halobia ornatissima Halobia cf. H. cordillerana Halobia superba Halobia zitelli	Xenorum sp. Saria sp. Stauracontium sp.	2.21%	Thin rhythmically interbedded chert and black shale and subordinate thin black limestone beds. Shale is often calcareous and separated from chert beds by coquinoid layers of halobiid pelecypods. Cherts black below and become green-gray with wispy lamination (bioturbated) above. Upper and lower contacts are gradational. Lower black cherts are replaced to the east at Cobblestone Creek	
TRIASSIC	MIDDLE	ANISIAN LADINIAN			70-	0000	Daonella frami D. degeeri	Neogondolella mombergensis Corum cf. C. perfectum Triassocampe cf. T. deweveri		by phosphate.concretion-bearing organic-rich black shale. Member has less chert and shales are more sooty in the eastern part of study area. Upper part weathers with a banded weathering pattern.	
TRI	-5	SPATHIAN ANI			60-	250		Pseudostylosphaera sp Tripocyclia sp. Neospathodus timorensis Neogondolella jubata			
la j		SMITHIAN	OTUK		50-		Posidonia sp. Phycodes Haentzschelinia Posidonia cf. P. mimer Euflemingites romunderi	Neogondolella milleri Xaniognathus sp. Cypriododella sp. Neospathodus homeri Neogondolella silberlingi Ellisonia sp. Neospathodus cf. N. waageni Neospathodus conservativus Neospathodus pakistanensis	2.55%	Mostly black organic, non-calcareous, pyritic shale, some interbedded gray-weathering medium to fine-grained limestone beds and nodules. Limestone nodules more common in lower part and they contain trace fossils and pelecypods. Distinctive zone near top consisting of rhythmically interbedded black shale and light-green siltstone or silty shale which is very finely laminated. In eastern part of study area the lower contact is gradational with gray weathering black shales with siderite, dolomite, and barite nodules. In western part of study area lower contact is disconformable upon green-gray non-calcareous shales of the uppermost Siksikpuk Formation.	
	WE			SHALE	30-						
		CHIAN? DIENERIAN			20-						
PERMIAN	UPPER	LUPIANGRIESBACHIAN	SIKSIKPUK	UNNAMED	10-						
PER	5	GUADALUPIAN	SIKS	NNO	0-	NV'V		THE PARTY			