

# Stratigraphic Section of Colorado Springs, El Paso County, Colorado

System	Formation	Thickness m
Quaternary	Mesa Gravels	10
Paleogene (Tertiary)	D1 sequence	370
	Laramie Fm	110
	Fox Hills Ss	90
	Pierre Shale	1520
Upper Cretaceous	Niobrara Fm	140
	Benton Shale	150
	Dakota Ss	50
	Purgatoire Fm	60
	Morrison Fm	90
Jurassic	Lykins Fm	40
Triassic (?)	Lyons Ss	210
Permian	Fountain Fm	1230
	Glen Eyrie Fm	110
Mississippian	Hardscrabble Ls	30
Devonian	Williams Canyon Ls	10
Ordovician	Manitou Ls	60
Cambrian	Sawatch Ss	15
Proterozoic	Pikes Peak Granite Idaho Springs Fm	

**Omg Mesa Gravels**- Unconsolidated, poorly sorted gravel, pebbles and cobbles primarily of granitic origin

**JIMMY CAMP CREEK PARK AND CORRAL BLUFFS**  
**D1 sequence**- (Arapahoe Conglomerate, Denver Fm, Dawson Fm), andesitic and/or granitic conglomerates, sandstones and mudstones. Abundant fossil frees, leaves; turtle, crocodile, champsosaurus, mammal; K/Pg Boundary

**Kl Laramie Fm** -Lower- lenticular ss, shale, coal; upper – carbonaceous shale and ironstone beds; fossil leaves, palms

**Kf Fox Hills Ss**- Lower- buff sandstone and concretionary sandy shale; upper- white sandstone

**Kp Pierre Shale**- (90 m base of formation) Dark gray marine shale with ammonites and pelecypods; ironstone beds; calcareous concretions; cone-in-cone

**Kn Niobrara Fm**- (140 m)  
 -Smoky Hill Chalk Mbr- Shale weathers to yellowish-tan; thin limestone beds; *Platyceramus*, *Pseudoperma congesta*, fish bones and scales  
 -Fort Hays Limestone Mbr- Alternating beds of light gray limestone and gray calcareous shale; *Inoceramus deformis*

**Kb Benton Shale**- (150 m)  
 -Codell Sandstone Mbr- F-mg yellow-brown calcarenite; shark teeth, ammonites, pelecypods  
 -Graneros Shale/Carlisle Shale- Dark gray marine shale separated by Greenhorn Ls Mbr (these units not differentiated at RRCOS due to poor exposure); interbedded bentonites; fish teeth

**Kd Dakota Ss**- (65 m) Vfg quartz sandstone; lower trough crossbeds; upper platy ss w/ mudstone; ripples; dinosaur tracks; tree, leaf impressions, *Araucaria sp*

**Kdp Purgatoire Fm**- (65 m)  
 -Glencairn Shale Mbr- Dark gray marine shale with thin ss and limestone beds, weathers tan; fish scales; *inoceramus sp*  
 -Lytle Ss Mbr- Coarse grained, white ss, chert pebbles, some conglomerate, variegated claystones; *Theiophytalia kerri* iguanodontid from Garden of the Gods

**Jm Morrison Fm**- (90 m) Gray, green, red claystone w/ channel ss; lacustrine limestone; dinosaur bones Section 16 Open Space; lower includes **Ralston Creek Fm** gypsum beds

**Trl(?) Pl Lykins Fm**- (40 m) Sandstone, siltstone and shale red beds, minor stromatolitic limestone/dolostone includes Forelle Ls Mbr

**Pl Lyons Ss**- (210 m) Red, gray, white well sorted f-mg quartz ss, calcite cemented; lower massive, red; middle conglomeratic arkose, forms valley, ripples; upper- red to white; heavily cross bedded; mud cracks

**Pf Fountain Fm**- (700 m- top of formation) red and white cg arkosic sandstone, conglomerate w/ angular to subangular primarily granitic clasts up to 20 cm; interbedded w/ micaceous siltstone; fossil roots

**Glen Eyrie Mbr**- (lower member of Fountain Fm) Varicolored shale, thin sandstone, limestone; sea urchins, crinoids

**Hardscrabble Ls**- Buff to gray sandy, dolomitic ls, lower sandy, chert, oolites; upper karst breccia

**Williams Canyon Ls**- Varicolored, thin bedded sandy limestone/dolomite, sandstone, shale, siltstone

**Manitou Ls**- Lower- red, sandy coarse dolomitic; upper interbedded limestone/dolomite, cherty, oolitic, glauconitic; trilobites, gastropods

**Sawatch Ss**- Lower- lt gray m-cg quartz ss; upper fg, red to green, glauconitic, calcareous, dolomitic, qtz pebbles; trilobites

**Pikes Peak Granite**- Red, coarse-grained, massive granite; pegmatites common

**Idaho Springs Fm**- (migmatic gneiss as described by Keller *et al*, 2005)