

El Cajon Geologic Labels

<u>ptype</u>	<u>name</u>	<u>source_ptype</u>	<u>source_name</u>	<u>source_age</u>
Qsu	Undifferentiated Surficial Deposits; includes colluvium, slope wash, talus deposits, and other surface deposits of all ages	Qc	Colluvium; sand and gravel of slopewash, debris-flow, and talus deposits	Holocene and Pleistocene
Qls	Landslide Deposits; may include debris flows and older landslides	Qls	Landslide deposits	Quaternary
Qa	Alluvial Valley Deposits	Qu	Alluvium and colluvium, undivided	Holocene and Pleistocene
Qa	Alluvial Valley Deposits	Qya	Young alluvium; sand, silt, and gravel in modern streambeds and washes (Note: Qya label was retained in places for edge match with San Diego quadrangle)	Holocene
Qya	Young Alluvial Valley Deposits	Qoa	Older alluvium; sand, silt and gravel; moderately dissected terraces in stream valleys	Holocene and Pleistocene
Qvof	Very Old Alluvial Fan Deposits	Qm	Mesa Conglomerate; sand and gravel of extremely dissected alluvial fan and terrace deposits; paved with well developed desert varnish	Pleistocene
Qvot	Very Old Terrace Deposits	Qt	Terrace deposits; sand, silt and gravel of highly dissected alluvial terraces; capped by desert pavement	Pleistocene
Qss	Coarse-grained formations of Pleistocene age and younger	Ql	Lindavista Formation of Kennedy (1975); interbedded sandstone and conglomerate (Note: Label was changed to Qvof in places for edge match with San Diego quadrangle)	Pleistocene or Pliocene
Qss	Coarse-grained formations of Pleistocene age and younger	QTf	Fanglomerate	Pleistocene and Tertiary?
Qsh	Fine-grained formations of Pleistocene age and younger	QTps	Palm Spring Formation; nonmarine sandstone siltstone and claystone	Pleistocene and Pliocene
Tss	Coarse-grained Tertiary age formations	Ta	Anza Formation; arkosic sandstone and conglomerate	Miocene
Tss	Coarse-grained Tertiary age formations	Tf	Fanglomerate	Pliocene and Miocene
Tss	Coarse-grained Tertiary age formations	Tfr	Friars Formation; sandstone and claystone	Eocene
Tss	Coarse-grained Tertiary age formations	Tmv	Mission Valley Formation; marine sandstone	Eocene
Tss	Coarse-grained Tertiary age formations	To	Otay Formation; sandstone and claystone	Oligocene
Tss	Coarse-grained Tertiary age formations	Tp	Pomerado Conglomerate	Eocene

ptype	name	source_ptype	source_name	source_age
Tss	Coarse-grained Tertiary age formations	Tsd	San Diego Formation; marine sandstone and conglomerate	Pliocene
Tss	Coarse-grained Tertiary age formations	Tsm	Split Mountain Formation; nonmarine conglomerate and sandstone	Miocene
Tss	Coarse-grained Tertiary age formations	Tst	Stadium Conglomerate	Eocene
Tsh	Fine-grained Tertiary age formations	Tfc	Fish Creek Gypsum	Pliocene and Miocene
Tsh	Fine-grained Tertiary age formations	Ti	Imperial Formation; feldspathic arenite, siltstone and sandstone interbedded with limestone	Pliocene and Miocene
Tv	Tertiary age formations of volcanic origin	Tal	Alverson Andesite	Miocene
Tv	Tertiary age formations of volcanic origin	Tj	Jacumba Volcanics	Miocene
Kss	Coarse-grained Cretaceous age formations of sedimentary origin	Kl	Lusardi Formation; cobble and boulder fanglomerate	Late Cretaceous
Kv	Cretaceous age formations of volcanic origin	Kmv	Metavolcanic rocks	Early Cretaceous
Kv	Cretaceous age formations of volcanic origin	Ksp	Santiago Peak Volcanics	Early Cretaceous
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Jhc	Gneiss of Harper Creek	Late and Middle Jurassic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Jsp	Migmatitic schist and gneiss of Stephenson Peak	Late and Middle Jurassic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	JTRm	Metasedimentary and metavolcanic rocks	Jurassic and Triassic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	KJvs	Metavolcanic and metasedimentary rocks	Cretaceous and Jurassic?
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	MzPzm	Rocks of Jacumba Mountains	Mesozoic and Paleozoic?
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Pzm	Metasedimentary rocks	Paleozoic
gr	Granitic and other intrusive crystalline rocks of all ages	Jcr	Granodiorite of Cuyamaca Reservoir	Late and Middle Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Ka	Tonalite of Alpine	Early Cretaceous

ptype	name	source_ptype	source_name	source_age
gr	Granitic and other intrusive crystalline rocks of all ages	Kc	Cuyamaca Gabbro	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kcm	Corte Madera Monzogranite	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kcp	Chiquito Peak Monzogranite	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kgm	Tonalite of Granite Mountain	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kgm1	Tonalite of Granite Mountain, Unit 1	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kgm2	Tonalite of Granite Mountain, Unit 2	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kgm3	Tonalite of Granite Mountain, Unit 3	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kgm4	Tonalite of Granite Mountain, Unit 4	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kgr	Granitoid rocks	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kih	Indian Hill granodiorite of Parrish and others (1986)	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	KJem	Quartz Diorite of East Mesa	Cretaceous and Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	KJld	Leucocratic dikes	Late Cretaceous and Late Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	KJtg	Tonalite and gabbro	Early Cretaceous and Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Kjv	Japatul Valley Tonalite	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Klb	Tonalite of Las Bancas	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Klp	Tonalite of La Posta	Early and Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kmgp	Monzogranite of Mother Grundy Peak	Early Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kpv	Monzogranite of Pine Valley	Early Cretaceous