

Sheep Hole Mountains Geologic Labels

<u>ptype</u>	<u>name</u>	<u>source_ptype</u>	<u>source_name</u>	<u>source_age</u>
Qw	Alluvial Wash Deposits	Qy	Youngest alluvium; floors active washes; poorly sorted sand and sandy gravel	Holocene
Ql	Lacustrine, Playa and Estuarine (Paralic) Deposits	Qpsh	Playa deposits, silt, clay, and halite salt; commonly associated with brine	Holocene
Qe	Eolian and Dune Deposits	Qwy	Younger windblown sand; active dunes and sand sheets	Holocene
Qyf	Young Alluvial Fan Deposits	Qya	Younger alluvium; forms alluvial fans; sand and poorly sorted sandy gravel with angular clasts	Holocene and Pleistocene (?)
Qyl	Young Lacustrine, Playa and Estuarine (Paralic) Deposits	Qpb	Playa deposits, playa-bar deposits	Holocene or late Pleistocene
Qyl	Young Lacustrine, Playa and Estuarine (Paralic) Deposits	Qps	Playa deposits, silt and clay	Holocene
Qyl	Young Lacustrine, Playa and Estuarine (Paralic) Deposits	Qpsg	Playa deposits, silt, clay, gypsum, and celestite	Holocene
Qye	Young Eolian and Dune Deposits	Qwo	Older windblown sand; stabilized dunes	Holocene and late Pleistocene
Qof	Old Alluvial Fan Deposits	Qoa	Older alluvium; forms partly dissected fans, benches and terraces; dark pavement of varnished stones common; red soil under surface	late Pleistocene
Qol	Old Lacustrine, Playa and Estuarine (Paralic) Deposits	Qch	Sedimentary deposits of Campbell Hill, fluvial and lacustrine beds	Pleistocene
Qvof	Very Old Alluvial Fan Deposits	Qo	Oldest alluvium; commonly tilted, faulted, and dissected; dark desert pavement in places	Pleistocene
Qss	Coarse-grained formations of Pleistocene age and younger	Qbr	Sedimentary breccia	Pleistocene
Qss	Coarse-grained formations of Pleistocene age and younger	Qss	Sandstone	Pleistocene
Qv	Pleistocene age and younger formations of volcanic origin	Qba	Basalt of Amboy	early Holocene or late Pleistocene
Qv	Pleistocene age and younger formations of volcanic origin	Qbl	Basalt of Lead Mountain	late Pleistocene
Qv	Pleistocene age and younger formations of volcanic origin	Qblc	Basalt of Lead Mountain, basalt cinders	late Pleistocene
Tss	Coarse-grained Tertiary age formations	Tbg	Sedimentary breccia, granitic-clast breccia	Pliocene and (or) Miocene

ptype	name	source_ptype	source_name	source_age
Tss	Coarse-grained Tertiary age formations	Tbst	Breccia, sandstone, and tuff	Miocene
Tss	Coarse-grained Tertiary age formations	Tbv	Sedimentary breccia, volcanic-clast breccia	Pliocene and (or) Miocene
Tss	Coarse-grained Tertiary age formations	Tc	Alluvial conglomerate	Pliocene and (or) Miocene
Tss	Coarse-grained Tertiary age formations	Tcs	Conglomerate and sandstone	Miocene
Tss	Coarse-grained Tertiary age formations	Tg	Gravel	Pliocene and (or) Miocene
Tv	Tertiary age formations of volcanic origin	Tab	Amygdaloidal basalt	Miocene
Tv	Tertiary age formations of volcanic origin	Tb	Basalt in Iron Mountains	Miocene
Tv	Tertiary age formations of volcanic origin	Tbl	Basalt of Deadman Lake Volcanic Field	Pliocene
Tv	Tertiary age formations of volcanic origin	Tblc	Basalt of Deadman Lake Volcanic Field, basalt cinders	Pliocene
Tv	Tertiary age formations of volcanic origin	Td	Dacitic rocks	Miocene
Tv	Tertiary age formations of volcanic origin	Tdi	Dacitic rocks, intrusive dacite	Miocene
Tv	Tertiary age formations of volcanic origin	Tdv	Dacitic rocks, dacitic volcanic rocks	Miocene
Tv	Tertiary age formations of volcanic origin	Tdvc	Dacitic rocks, volcaniclastic rocks	Miocene
Tv	Tertiary age formations of volcanic origin	Tvm	Basalt of Valley Mountain	Miocene
Ksh	Fine-grained Cretaceous age formations of sedimentary origin	Jl	Limestone	Jurassic (?)
Kv	Cretaceous age formations of volcanic origin	Jdl	Dale Lake Volcanics	Jurassic
Kv	Cretaceous age formations of volcanic origin	Jvh	Volcanic and hypabyssal rocks, undivided	Jurassic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	^rb	Buckskin Formation of Reynolds and Spencer (1989), schist and gneiss	Triassic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	_t	Metamorphosed Bright Angel Shale and Tapeats Sandstone, undivided	Cambrian
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	m	Marble	Paleozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	}s	Metasedimentary gneiss of Sheep Hole Mountains	Mesozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	<p	Quartzite of Pinto Mountain	Proterozoic

ptype	name	source_ptype	source_name	source_age
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	<pm	Quartzite of Pinto Mountain, marble	Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	<pm?	Quartzite of Pinto Mountain, marble, uncertain	Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	D_m	Marble and dolomite marble	Devonian and Cambrian
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Jgg	Granite gneiss	Jurassic (?)
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Jggd	Granite gneiss, granodiorite gneiss	Jurassic (?)
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Jgrg	Dark granite gneiss	Jurassic (?)
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Jk	Granite gneiss of Kilbeck Hills	Jurassic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Kid	Iron Mountains Intrusive Suite, Danby Lake Granite Gneiss	Late Cretaceous
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Kid?	Iron Mountains Intrusive Suite, Danby Lake Granite Gneiss, uncertain	Late Cretaceous
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Kii	Iron Mountains Intrusive Suite, iron granodiorite gneiss	Late Cretaceous
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	KJm	McCoy Mountains Formation of Miller (1944), metamorphosed siltstone and calcareous siltstone	Cretaceous and Jurassic (?)
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	lgt	Leucogranite gneiss south of Twentynine Palms Mountain	Mesozoic or Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Pk	Metamorphosed Kaibab Limestone, Coconino Sandstone, and Hermit Shale, undivided	Permian

p type	name	source_p type	source_n ame	source_a ge
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	PMb	Metamorphosed Bird Spring Formation and Redwall Limestone, undivided	Permian, Pennsylvanian, and Mississippian
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	q	Quartzite	Unknown, pre-Late Cretaceous
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	ts	Tectonic schist	Proterozoic, protolithic age; Mesozoic, assembly and fabric age (Early Proterozoic gneiss, Mesozoic deformation)
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Xag	Augen gneiss	Early Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Xbg	Biotite granite gneiss	Early Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Xdw	Dog Wash Gneiss	Early Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Xf	Fenner Gneiss	Early Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Xg	Granodiorite gneiss	Early Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Xgn	Gneiss, undivided	Early Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Xgn?	Gneiss, undivided, uncertain	Early Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Xk	Kilbeck Gneiss	Early Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Xp	Pinto Gneiss of Miller (1938)	Early Proterozoic

ptype	name	source_ptype	source_name	source_age
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Xs	Schist, gneiss, and quartzite	Early Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Xsg	Spotted gneiss	Early Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	Ycm	Augen gneiss of Calumet Mountains	Middle Proterozoic (?)
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	YXd	Gneiss of Dry Lakes Valley	Middle or Early Proterozoic
pKm	Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin	YXg	Granitoid gneiss	Middle or Early Proterozoic
gr	Granitic and other intrusive crystalline rocks of all ages	^t	Quartz monzonite of Twentynine Palms	Early Triassic
gr	Granitic and other intrusive crystalline rocks of all ages	a	Amphibolite	Mesozoic and (or) Proterozoic
gr	Granitic and other intrusive crystalline rocks of all ages	Ja	Altered intrusive rocks	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jbe	Bullion Mountains Intrusive Suite, Granite east of Cleghorn Pass	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jbep	Bullion Mountains Intrusive Suite, Granite east of Cleghorn Pass, porphyritic facies	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jbpm	Bullion Mountains Intrusive Suite, mafic porphyritic quartz monzonite	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jbq	Bullion Mountains Intrusive Suite, quartz monzonite	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jbqm	Bullion Mountains Intrusive Suite, quartz monzodiorite	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jbs	Bullion Mountains Intrusive Suite, syenogranite	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jbv	Bullion Mountains Intrusive Suite, Virginia Dale Quartz Monzonite	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jbv?	Bullion Mountains Intrusive Suite, Virginia Dale Quartz Monzonite, uncertain	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jc	Chubbuck Porphyry, biotite monzogranite and granodiorite gneiss	Jurassic

ptype	name	source_ptype	source_name	source_age
gr	Granitic and other intrusive crystalline rocks of all ages	Jcp	Hypabyssal quartz monzonite of Cleghorn Pass	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jcp?	Hypabyssal quartz monzonite of Cleghorn Pass, uncertain	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jd	Diorite and quartz diorite	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jg	Granite	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jgb	Granitoid rocks of Goat Basin Mine	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jgdg	Granodiorite and tonalite gneiss	Jurassic (?)
gr	Granitic and other intrusive crystalline rocks of all ages	Jh	Hypabyssal rocks	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jm	Granodiorite of Music Valley	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jqk	Quartz diorite of Kilbeck Hills	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Jsm	Granite of Ship Mountains	Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Kcc	Coxcomb Intrusive Suite, Porphyritic granodiorite of Coxcomb Mountains	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kccl	Coxcomb Intrusive Suite, Granodiorite of Cadiz Lake	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kccm	Coxcomb Intrusive Suite, Granodiorite of southern Calumet Mountains	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kccp	Coxcomb Intrusive Suite, Clarks Pass Granodiorite	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kccp?	Coxcomb Intrusive Suite, Clarks Pass Granodiorite, uncertain	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kcg	Coxcomb Intrusive Suite, granite	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kcgi	Coxcomb Intrusive Suite, granite, granodiorite, and meta-igneous inclusions	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kcgp	Coxcomb Intrusive Suite, porphyritic granite and granodiorite facies	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kck	Coxcomb Intrusive Suite, Granodiorite of Kilbeck Hills	Late Cretaceous

ptype	name	source_ptype	source_name	source_age
gr	Granitic and other intrusive crystalline rocks of all ages	Kcpg	Coxcomb Intrusive Suite, porphyritic granodiorite	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kcsh	Coxcomb Intrusive Suite, Sheep Hole Pass Granite	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kcsk	Coxcomb Intrusive Suite, Quartz monzodiorite of southern Kilbeck Hills	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kcsm	Coxcomb Intrusive Suite, Sheep Hole Mountains Granodiorite	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kcsm?	Coxcomb Intrusive Suite, Sheep Hole Mountains Granodiorite, uncertain	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kf	Felsic dikes, microgranite	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kia	Iron Mountains Intrusive Suite, garnet aplite	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kig	Iron Mountains Intrusive Suite, Granite Pass Granite	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kigd	Iron Mountains Intrusive Suite, Granite Pass Granite, equigranular facies	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kigm	Iron Mountains Intrusive Suite, Granite Pass Granite, muscovite-garnet granite facies	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	KJpg	Pink granite	Cretaceous or Jurassic
gr	Granitic and other intrusive crystalline rocks of all ages	Kl	Leucocratic granite	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Km	Leucogranite of Milligan	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Ko	Old Woman Mountains Granodiorite	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kop	Old Woman Mountains Granodiorite, porphyritic facies	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Ks	Granite of Sweetwater Wash	Late Cretaceous
gr	Granitic and other intrusive crystalline rocks of all ages	Kwt	White Tank (?) monzogranite of Trent (1984)	Late Cretaceous (?)
gr	Granitic and other intrusive crystalline rocks of all ages	Xd	Diorite and amphibolite	Early Proterozoic
gr	Granitic and other intrusive crystalline rocks of all ages	Xjt	Granite of Joshua Tree	Early Proterozoic