

Mineral name: Lawsonite

General Mineral formula: $\text{CaAl}_2\text{Si}_2\text{O}_7(\text{OH})_2 \cdot \text{H}_2\text{O}$

Mineral chemical class: Sorosilicate

Specific Gravity: 3.05-3.12	Crystal System: Orthorhombic
Hardness: 6	Crystal Class: 2/m 2/m 2/m
Cleavage: 2 planes of cleavage	Crystal description (common forms, habit, etc.): <ul style="list-style-type: none">• Granular masses, that are spherical• Anhedral
Luster: Greasy / Pearly	
Streak: White	
Characteristic Color(s): Whitish	

Environment (where you find the mineral): <ul style="list-style-type: none">• Almost exclusively in subduction zones• Low temperature – high pressure	Common Mineral Associations (in samples; also consult text, notes): <ul style="list-style-type: none">• Glaucofan shist• pumpellyite, jadeite, chlorite, and albite-rich plagioclase.
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Scientific use/significance: <ul style="list-style-type: none">• Hydrous• Carries water into the mantle	Industrial or societal use/significance: <ul style="list-style-type: none">• None	Environmental significance: <ul style="list-style-type: none">•
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Spherical anhedral masses



Mineral name: Clinozoisite-Epidote

General Mineral formula: $\text{Ca}_2\text{Al}_2(\text{Al}, \text{Fe}^{3+})\text{O}(\text{OH})(\text{Si}_2\text{O}_7)(\text{SiO}_4)$

Mineral chemical class: Sorosilicate

Specific Gravity: 3.21-3.49	Crystal System: Monoclinic
Hardness: 6-7	Crystal Class: 2/m
Cleavage: 1 cleavage plane	Crystal description (common forms, habit, etc.): <ul style="list-style-type: none">• Radial Blades/Fibers, Anhedral• Columnar
Luster: Vitreous	
Streak: White	
Characteristic Color(s): Pistachio Green, Green	

Environment (where you find the mineral): <ul style="list-style-type: none">• crystals in veins in hydrothermal systems• accessory minerals in a variety of regional and contact metamorphic rocks		Common Mineral Associations (in samples; also consult text, notes): <ul style="list-style-type: none">• Quartz,• Piemontite, Allanite	
Scientific use/significance: <ul style="list-style-type: none">•	Industrial or societal use/significance: <ul style="list-style-type: none">• Gem	Environmental significance: <ul style="list-style-type: none">•	

Pistachio Green Color



Radial Fibers

Mineral name: Zoisite

General Mineral formula: $X_2YY_2O(OH)(Si_2O_7)(SiO_4)$

Mineral chemical class: Sorosilicate

Specific Gravity: 3.15-3.37	Crystal System: Orthorhombic
Hardness: 6-7	Crystal Class: 2/m 2/m 2/m
Cleavage: 2 planes of cleavage	Crystal description (common forms, habit, etc.): <ul style="list-style-type: none">• Anhedral grains,• can also appear columnular, fibrous
Luster: Vitreous	
Streak: White	
Characteristic Color(s): Gray / Greenish Gray	

Environment (where you find the mineral): <ul style="list-style-type: none">• Calcium-rich metamorphic rock• hydrothermal alteration• amphibolite derived from mafic igneous rocks		Common Mineral Associations (in samples; also consult text, notes): <ul style="list-style-type: none">• Tanzanite• albite, zoisite clinozoisite, sericite	
Scientific use/significance: <ul style="list-style-type: none">•	Industrial or societal use/significance: <ul style="list-style-type: none">• Gems• Spiritual Healing	Environmental significance: <ul style="list-style-type: none">•	

White / Grayish Color



Mineral name: Beryl

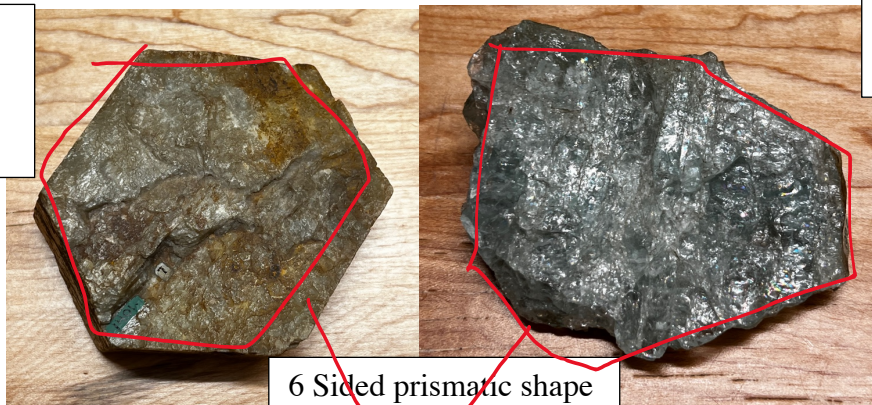
General Mineral formula: $\text{Be}_3\text{Al}_2\text{Si}_6\text{O}_{18}$

Mineral chemical class: Cyclosilicate

Specific Gravity: 2.63-2.97	Crystal System: Hexagonal
Hardness: 7-8	Crystal Class: 6/m 2/m 2/m
Cleavage: Conchoidal Fracture, potential slight basal cleavage	Crystal description (common forms, habit, etc.): <ul style="list-style-type: none">Plated / scaly crystal, rough hexagonal prismAnhedral or Euhedral
Luster: Vitreous	
Streak: White	
Characteristic Color(s): Deep Orange, blueish-greenish, non colorish	

Environment (where you find the mineral): <ul style="list-style-type: none">Igneous rocks / granitic pegmatites		Common Mineral Associations (in samples; also consult text, notes): <ul style="list-style-type: none">Quartz, K-feldspar, albite, muscovite, biotite, and tourmaline.Aquamarine, emerald
Scientific use/significance: <ul style="list-style-type: none">	Industrial or societal use/significance: <ul style="list-style-type: none">Source for metallic berylliumUsed in alloysGemstone	Environmental significance: <ul style="list-style-type: none">

Orangish Color



White / Grayish Color

6 Sided prismatic shape

Mineral name: Tourmaline

General Mineral formula: $WX_3Y_6(BO_3)_3Si_6O_{18}(OH,F)_4$

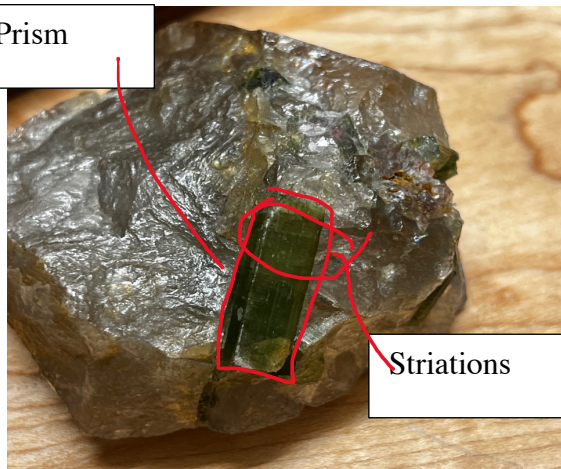
Mineral chemical class: Cyclosilicate

Specific Gravity: 2.9 - 3.22	Crystal System: Hexagonal (Trigonal)
Hardness: 7	Crystal Class: 3/m
Cleavage: No clear cleavage,	Crystal description (common forms, habit, etc.): <ul style="list-style-type: none">• Trigonal Prisms, can also appear striated / columnar / scaly when with muscovite• Visible striations• Subhedral
Luster: Vitreous	
Streak: White	
Characteristic Color(s): Green, or teal	

Environment (where you find the mineral): <ul style="list-style-type: none">• Granitic Pegmatites• Can be found in metamorphic environments• Accessory in felsic igneous rocks	Common Mineral Associations (in samples; also consult text, notes): <ul style="list-style-type: none">• Quartz, Muscovite, Albite• schist, gneiss, quartzite, and phyllite.
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Scientific use/significance: <ul style="list-style-type: none">• boron-bearing• Has Piezoelectric properties	Industrial or societal use/significance: <ul style="list-style-type: none">• Gemstone• Folk Medicine / Modern skincare• Used to make pressure gauges and electronic components	Environmental significance: <ul style="list-style-type: none">•
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Trigonal Prism



Striations

Columnar



Mineral name: Cordierite

General Mineral formula: $X_2Y_2O(OH)(Si_2O_7)(SiO_4)$

Mineral chemical class: Cyclosilicate

Specific Gravity: 2.53-2.78		Crystal System: Orthorhombic (Says its also pseudo hexagonal? But can't see it)	
Hardness: 7		Crystal Class: 2/m 2/m 2/m	
Cleavage: Subconchoidal fracture (stated 3 planes of cleavage but not visible)		Crystal description (common forms, habit, etc.): <ul style="list-style-type: none">• Anhedral crystals, porphyroblastic grains,• Columnar	
Luster: Vitreous			
Streak: White			
Characteristic Color(s): Deep Sky Blue, indigo blue			
Environment (where you find the mineral): <ul style="list-style-type: none">• porphyroblasts in metapelites• medium and high-grade pelitic metamorphic rocks.		Common Mineral Associations (in samples; also consult text, notes): <ul style="list-style-type: none">• chlorite, andalusite, sillimanite, kyanite, staurolite, muscovite, biotite, and chloritoid	
Scientific use/significance: <ul style="list-style-type: none">•	Industrial or societal use/significance: <ul style="list-style-type: none">• Iolite Gem• Ceramics• Insulation and heating elements		Environmental significance: <ul style="list-style-type: none">•

Indigo Blue Color

