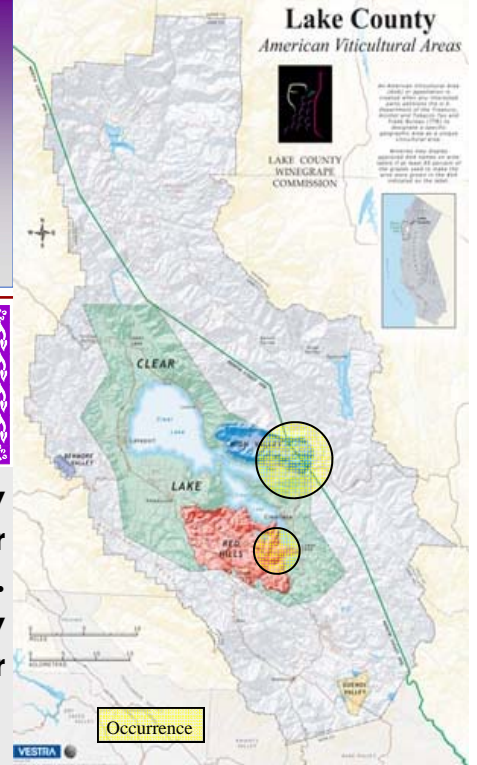




Lake County, California Soils

Vitrandepts



“...may it be that the land chooses the crop, not otherwise.”
- anonymous

Vitrandepts are moderately deep to deep, excessively drained soils formed in volcanic ash and cinders under brush and annual grasses. These soils are of very limited fertility found on or near areas of cinder cones.



Vitrandepts Profile:

- 0 - .5 ft: dark red brown gravelly sandy loam
- .5- 1.5 ft: dark red brown very gravelly sandy loam
- 1.5 - 3 ft: dark red brown extremely gravelly sand
- > 3 ft: cinders



Fitness for Use in Vineyards:

- **Nutrient Cycling:** Organic amendments and cover crops improve nutrient supply and tilth. Nutrient applications should ensure delivery to the root zone.
- **Water Relations:** A broad, exploitive root distribution may be expected. The high gravel and sand content greatly limits available water-holding capacity. The onset of plant water deficits is rapid in this droughty, coarse-textured soil.
- **Management Considerations:** Highly variable properties make this unit difficult to manage. Topsoil losses have a disproportionately large impact on function.

Vitrandepts soils, Shannon Ridge Vineyard, near Clearlake Oaks, California. The scale is in feet.

Soil Climate and Geography:

Mean annual precipitation: 24 to 32 inches
Frost-free days: 160 to 210 days
Elevation Range: 1,500' to 2,300'
Slope Range: from 15 to 75%
Slope Direction: no dominant slope direction



Vitrandepts Properties of Interest:

Available water-holding capacity: less than 2 inches (0-3 ft)
Drainage class: excessively drained
Permeability class: very rapid permeability

Clay range in profile: 15 to 3%, decreasing with depth
Sand range in profile: 70 to 90%, increasing with depth
Coarse fragment range: 15 - 80%, increasing with depth

Soil pH range: pH 6.3 in upper part