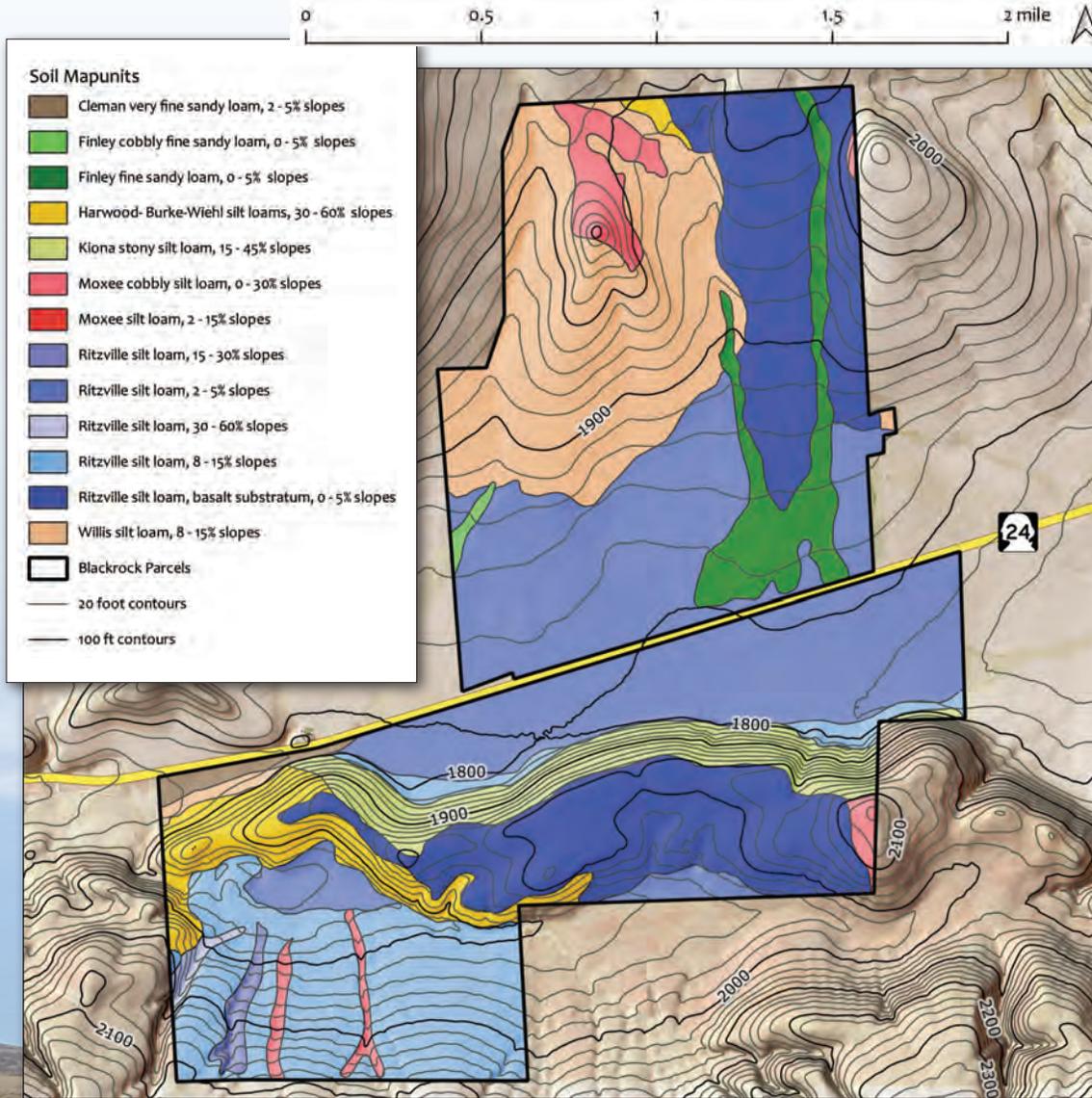


# BLACKROCK SOILS



The majority of the soils on the Blackrock Property are formed from moderately deep to very deep soils from loess; that is, the upper two to ten feet of the soil profile is formed of silt-loam textured loess from dust storms. The soils of the property are exceptional in several ways:

1) More than four-fifths or 81 percent of the soils on the property (Ritzville series map units in shades of blue and Willis series map unit in pinkish tan) have silt loam textures throughout the depth of rooting. Because the silt loam texture class has the highest available water-holding capacity of any soil texture class from loam, to sand, to clay loam, etc., water use efficiency and soil resiliency to drought stress are very high.

2) Almost two-thirds of the property has soils that are greater than 60 inches deep with no root restricting layers or bedrock. These are the large area and contiguous acres of silt loam Ritzville soils in shades of blue and sandy loam Finley soils in green. And even the map area of the somewhat shallower Willis soils, making up almost 20 percent of the property, still have about 30 inches of rooting depth to a hardpan and the rooting zone again has the highly favored silt loam texture with its super water-holding capacity.

3) All of the soils on the property are developed from freshly crushed granitic minerals and exist in a semi-arid grassland ecosystem. This means inorganic nutrients are in abundant supply, the root environment is rich in available calcium, and the content of humus and of organic nitrogen is low to moderate. All of these features are outstanding for the production of permanent crops under drip irrigation because plant health is promoted by high availability of inorganic elements, but vigor of the crops and ripening of fruit can be controlled by carefully tailored applications of nitrogen and water throughout the growing season.

\*Map exhibits were prepared by Dr. Richard Rupp, Palouse Geospatial in August 2018. Background image provided by the US Geospatial Survey. Acre figures, percentages, statistics, etc. derived from map exhibits are believed to be accurate, but no guarantees or warranties, expressed or implied, are made by the Seller, Peoples Company, AgriBusiness Trading Group, or Dr. Richard Rupp.