the study area generally at depths of 40 feet or greater below ground surface. Clays of the Hawthorn Group were encountered at depths ranging from 40 to 70 feet bgs along the eastern and western edges of the study area and to a depth of 122 feet bgs beneath Trail Ridge. Results of undisturbed samples collected from the top of the Hawthorn Group indicate hydraulic conductivities ranging from 3.69×10^{-5} to 9.3×10^{-9} centimeters per second (or 3.69×10^{-2} to 2.64×10^{-5} feet per day). Figure 1 is a conceptual site model for the hydrogeologic conditions at the site.

3. In addition to the above-referenced borings and piezometers, TTL reviewed 387 logs prepared by Twin Pines as part of their mineral exploration investigations within the study area. A TTL geologist was present to log an additional 70 mineral exploration borings performed by Twin Pines within the proposed mining area. Figure 1 provided the locations of borings drilled by Twin Pines and TTL as well as piezometers installed by TTL. Figure 2 provides locations of borings drilled by both TTL and Twin Pines.

4. TTL performed down-hole geophysical logging (formation conductivity and natural gamma logs) in a total of 15 boreholes located within the study area. These boreholes were drilled to the top of the Hawthorn Formation, at depths ranging from 90 to 130 feet bgs. The data obtained from the geophysical logs were compared to the geologist's logs to assist with evaluating site stratigraphy.

5. Data obtained from the above-referenced borings and piezometers were used to generate geologic cross sections of the study area. Additionally, numerous laboratory tests (gradation, moisture, density, porosity, permeability, soil moisture retention curves, etc.) were performed on soil samples collected from the boreholes to characterize surficial and subsurface soil properties at the site. The purpose of this data is to assist in the development of a conceptual site model for the proposed mining area (see Figure 1). Groundwater samples were also collected from six piezometers and two surface water locations within the study area and submitted for laboratory analysis of select metals, cations/anions, alkalinity, total dissolved solids, total organic carbon, phosphorous, and organic acids.

6. TTL performed a total of 24 slug and bail tests in piezometers located within the proposed mining area or on adjacent properties. The purpose of the slug and bail tests was to evaluate the horizontal hydraulic conductivity of the surficial aquifer at the site. The data from each test was independently analyzed by Hydro Geo Chem, Inc. (HGC) of Phoenix, Arizona using Aqtesolv™ computer software (KGS and Bouwer-Rice Methods for unconfined aquifers). Results of the data analyses indicated horizontal hydraulic conductivity values ranging from about 0.2 feet per day (ft/day) to 174 ft per day.

7. In addition to construction of piezometers to monitor groundwater levels, a total of 22 staff gages were installed to monitor surface water points within the study area.