

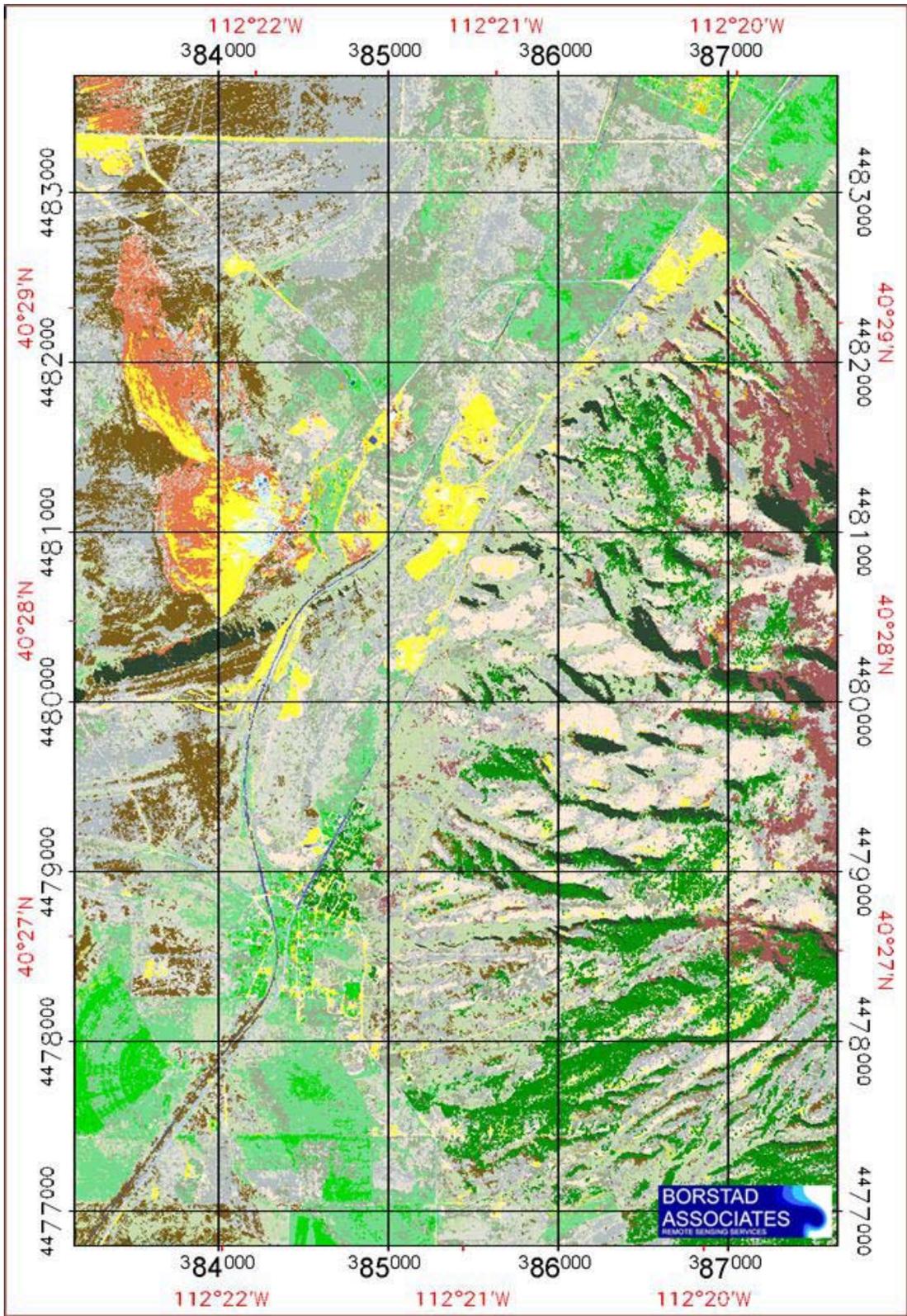
## **Vegetation and Ground Cover in the Stockton Mining District, Utah**

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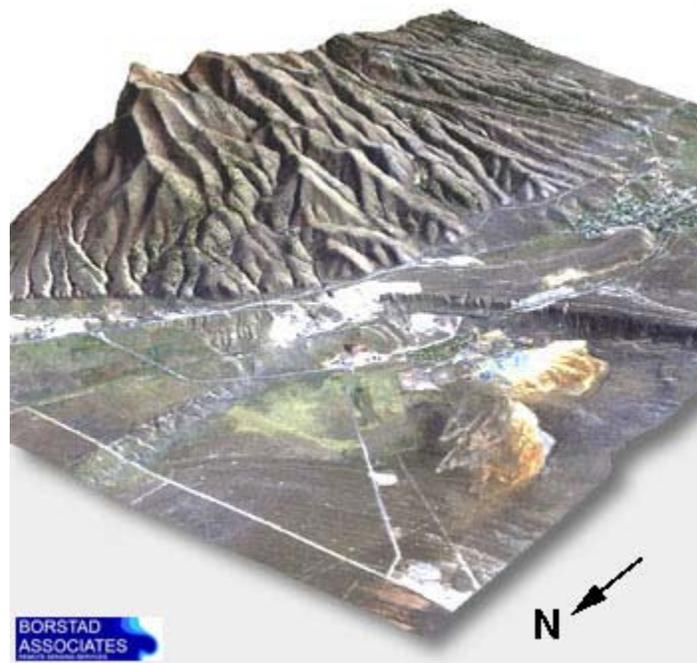
The map of the vegetation and ground cover of the Stockton, Utah mining district, below was made from a multispectral classification of digital image data acquired with a Compact Airborne Spectral Imager (CASI).

The mountainous mining district is in the eastern half of the area, and the town of Stockton is at the south center of the map. The Bauer Mill and the two tailings ponds are at the western edge of the map, just west of the Bauer town site. The mill is located at the eastern apex of the southern tailings pond.

The surface zonation in the tailings outward from the mill is obvious in both the image and the map and is a result of zonation in iron minerals. Tailings nearest the mill (blue in the image) contain sections that are highly pyretic and which probably contain some jarosite at the surface, with occasional alunogen as well. The most oxidized and finest materials (orange to red in the image) generally are farthest away from mill. Mine dumps in the mining district generally show up as small yellow to blue patches in the hills east of Stockton. The Honorine Mine shows up well, with the dump being the brightest one (two lobes visible) to the northeast of town. Other large mines, the Ben Harrison, Calumet, and Argent, all show up as well.



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|--|---|---|
|  Irrigated grass and fields   |  Sparse annual grasses and bare ground   |  Yellow tailings (Goethitic)             |
|  Annual grasses dominant, low density Big Sage ( <i>Artemisia tridentata</i> ) and rabbitbrush ( <i>Chrysothamnus nauseosus</i> ) |  Low density dry annual grasses, shrubs  |  Red-rust tailings (Goethitic-Hematitic) |
|  Big Sage dominant  |  Tamarisk ( <i>Tamarix spp.</i> )  |  Gray tailings (Pyritic)                 |
|  Annual grasses, forbs and some Big Sage (20% coverage)   |  Gambels oak ( <i>Quercus gambelii</i> )   |  Gravel and bare ground                  |
|  Tall Wheat Grass, some Big Sage (10% coverage)   |  Honey locust tree ( <i>Gleditsia triacanthos</i> )  |  Roads                                   |
|  Dry annual grasses, forbs, some Big Sage   |  Rocky mountain juniper ( <i>Juniperus scopulorum</i> ) dominant, some Piñon Pine ( <i>Pinus edulis</i> ), mountain mahogany ( <i>Cercocarpus montana</i> ) and sub alpine fir ( <i>Abies lasiocarpa</i> ) |  Paved areas, dark gray tailings         |
|  |   |  Shadow                                  |
|  |   |  Buildings                               |



Near true colour 3D view of the mine area