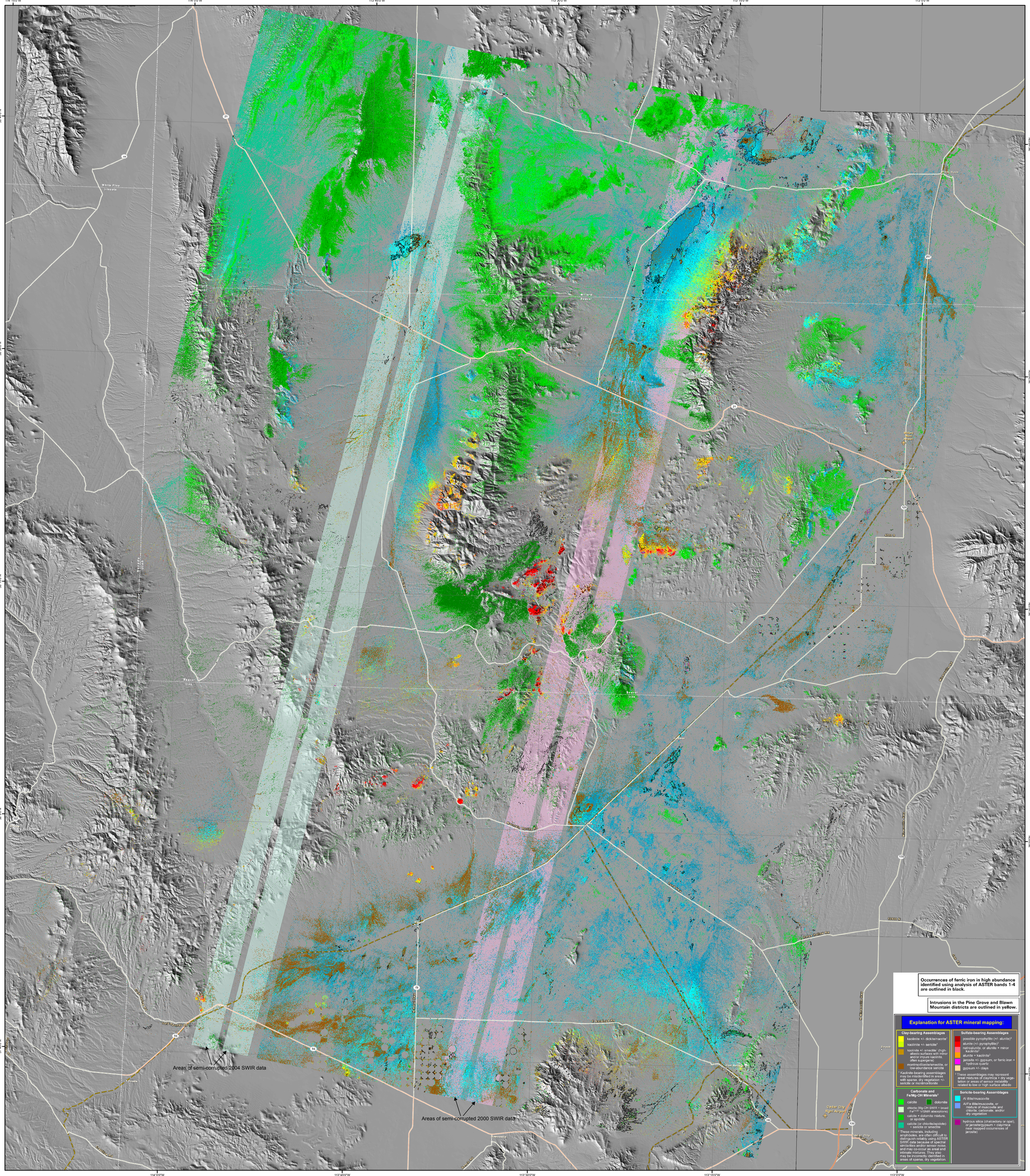
114°15'0"W
114°0'0"W
113°45'0"W
113°30'0"W
113°15'0"W
113°0'0"W
38°45'0"N
38°30'0"N
38°15'0"N
38°0'0"N
37°45'0"N
Areas of semi-corrupted 2004 SWIR data
Areas of semi-corrupted 2000 SWIR data
Occurrences of ferric iron in high abundance identified using analysis of ASTER bands 1-4 are outlined in black.
Intrusions in the Pine Grove and Blawn Mountain districts are outlined in yellow.
Explanation for ASTER mineral mapping:
Clay-bearing Assemblages
kaolinite +/- dickite/nacrite[1]
kaolinite +/- sericite[1]
kaolinite +/- smectite (high-albedo surfaces with minor and/or impure kaolinite often supergene)
montmorillonite/smectite, or low-abundance sericite
[1] Kaolinite-bearing assemblages may be misidentified in areas with sparse, dry vegetation +/- sericite or montmorillonite
Sulfate-bearing Assemblages
possible pyrophyllite (+/- alunite)[2]
alunite (+/- pyrophyllite)[2]
natroalunite, or alunite + minor kaolinite[2]
alunite + kaolinite[2]
jarosite +/- gypsum, or ferric iron + hydrous quartz
gypsum +/- clays
[2] These assemblages may represent areal mixtures of clay/mica + dry vegetation or areas of sensor instability related to low or high surface albedo
Carbonate and Fe/Mg-OH Minerals[2]
calcite
dolomite
chlorite (Mg-OH SWIR + broad Fe+2/+3 VISNIR absorptions)
calcite + dolomite mixture, or epidote
calcite (or chlorite/epidote) + sericite or smectite
[2] These minerals, including amphiboles, are often difficult to distinguish reliably using ASTER SWIR data because of spectral similarities and/or sensor noise, and may co-occur as areal and intimate mixtures. They also may be incorrectly identified in areas of sparse, dry vegetation.
Sericite-bearing Assemblages
Al illite/muscovite
Al/Fe illite/muscovite, or mixture of muscovite and chlorite, carbonate, and/or dry vegetation
hydrous silica (chalcedony or opal), or jarosite/gypsum + clay/mica near mapped occurrences of jarosite)
0
10
20
40 Kilometers