Supplemental Table S3.

Mineralogical data for soil samples

| **Sample #** | **Dominant** | **Major** | **Minor** | **Trace** |
| --- | --- | --- | --- | --- |
| AMUD | calcite | phyllosilicates | quartz, dolomite |  |
| AMUD-2 | calcite |  | phyllosilicates, quartz, dolomite |  |
| HAZ-1 | phyllosilicates | quartz |  | plagioclase, K-fspr, dolomite, calcite |
| HUK-1 |  | quartz, calcite, phyllosilicates |  | plagioclase, K-fspr, dolomite |
| HUK-2 |  | plagioclase, calcite, phyllosilicates | quartz, pyroxene |  |
| KHL-1 | phyllosilicates | quartz |  | plagioclase, K-fspr, hematite (?) |
| RVD-1 |  | phyllosilicates, quartz |  | plagioclase, K-fspr, calcite, dolomite |
| RVD-2 |  | phyllosilicates, quartz |  | plagioclase, K-fspr, calcite, dolomite |
| RVD-3 |  | quartz, calcite, phyllosilicates |  | plagioclase, K-fspr, dolomite, goethite (?) |
| RVD-4 |  | quartz, calcite, phyllosilicates |  | plagioclase, K-fspr, dolomite, goethite (?) |

Dominant >50%, Major 20-50%, Minor 5-20%, Trace <5%