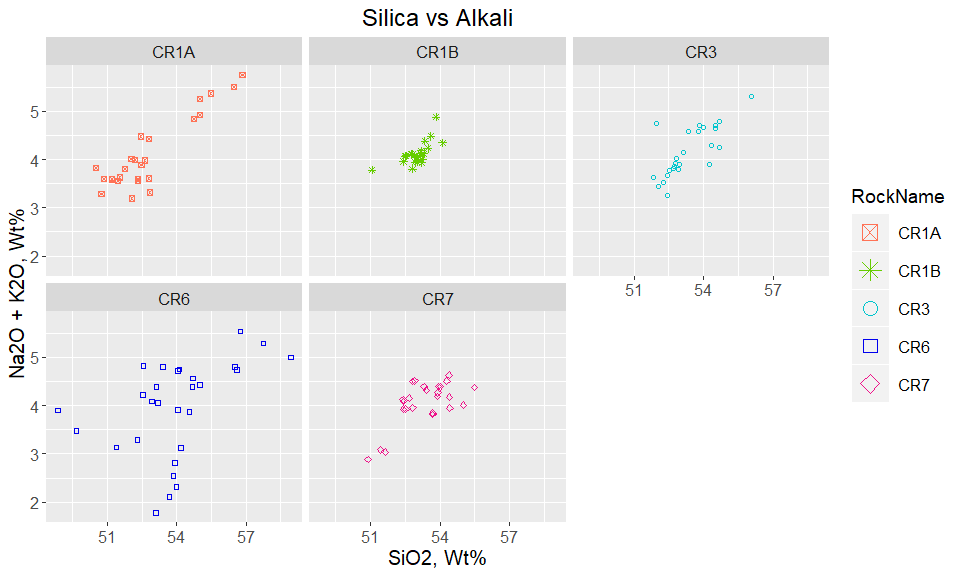
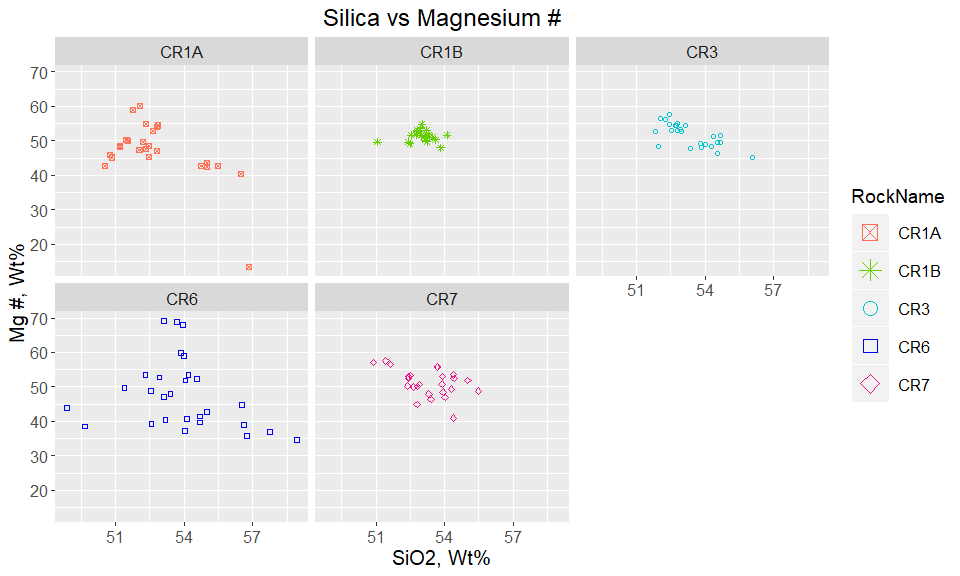
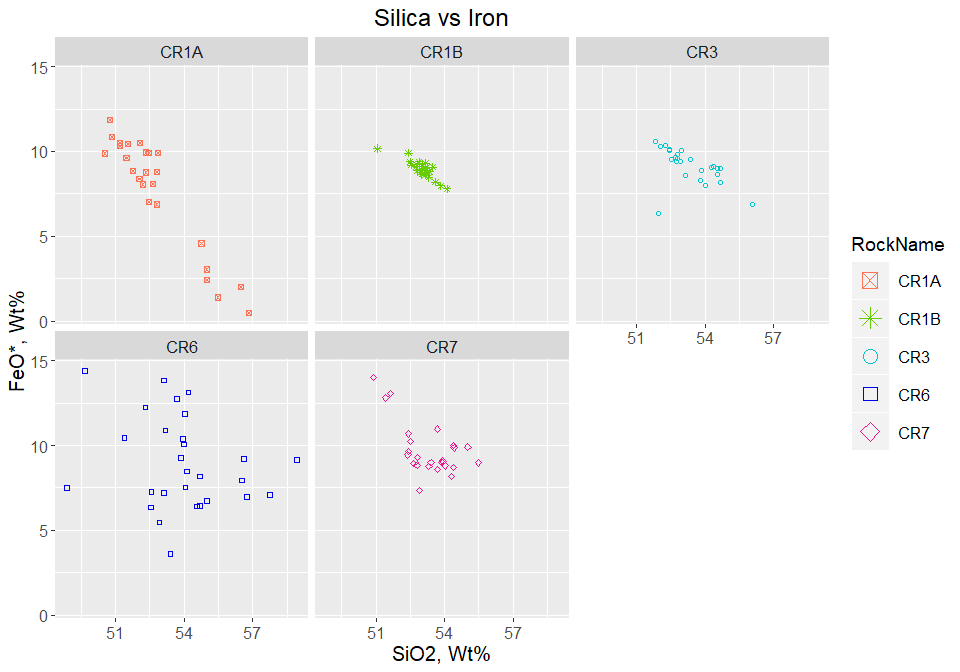
Costa Rican Bulk Rock Compositions

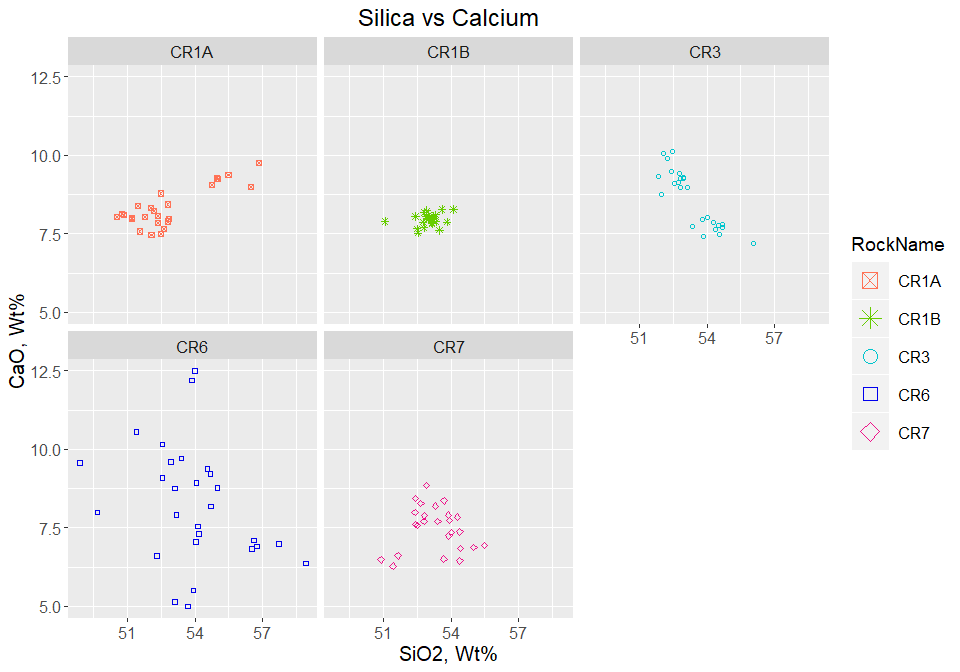
Julie M. Coulombe

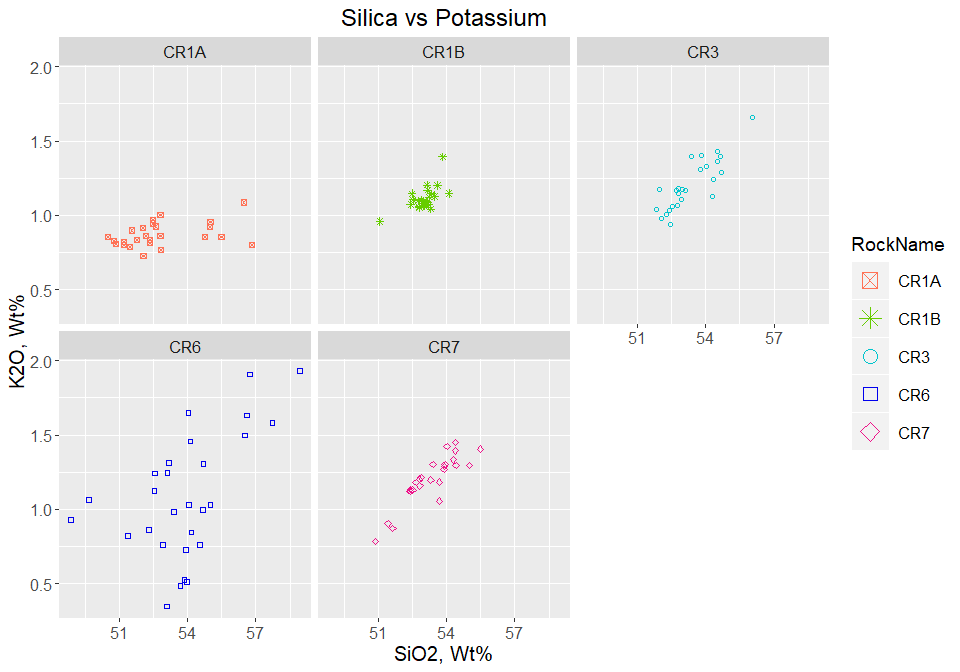
4/1/2020

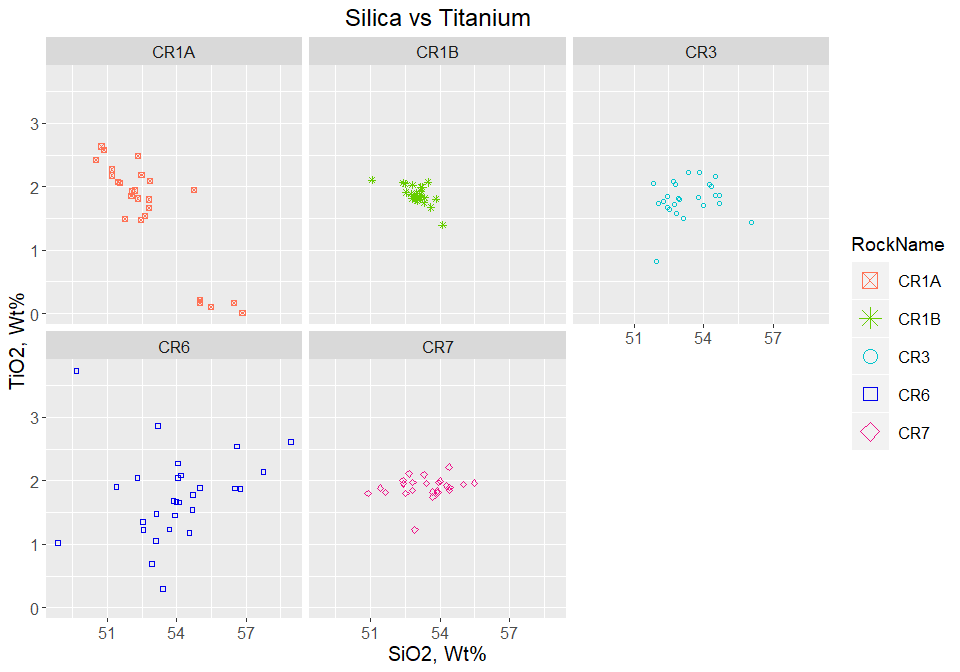


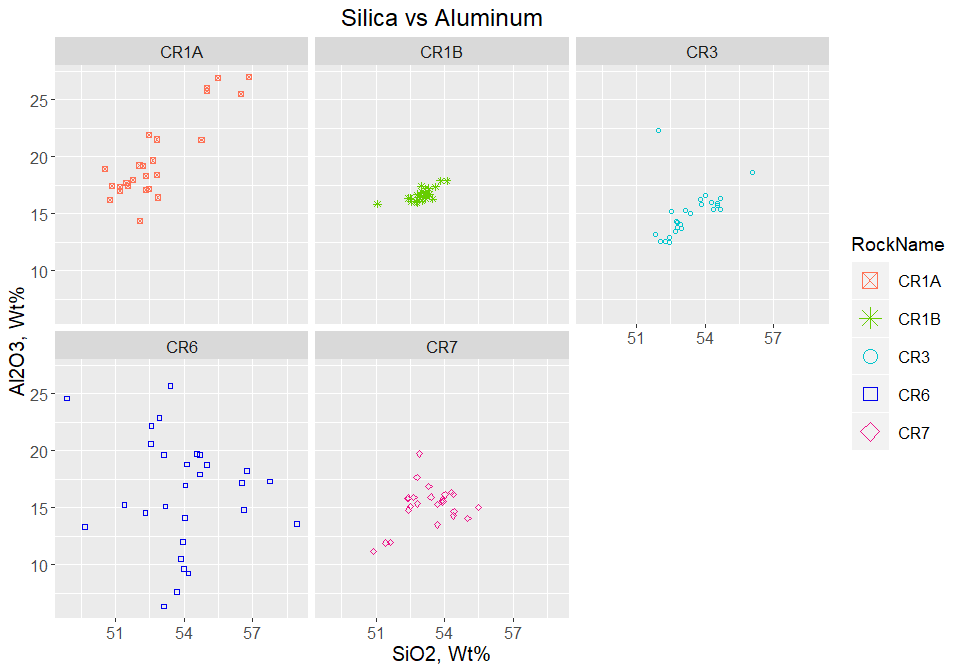


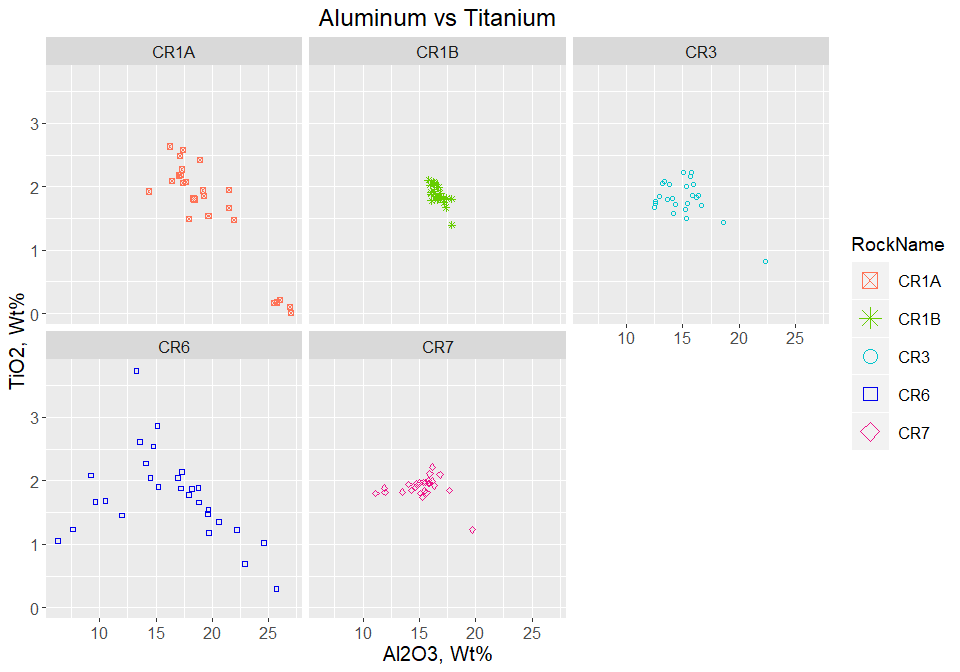


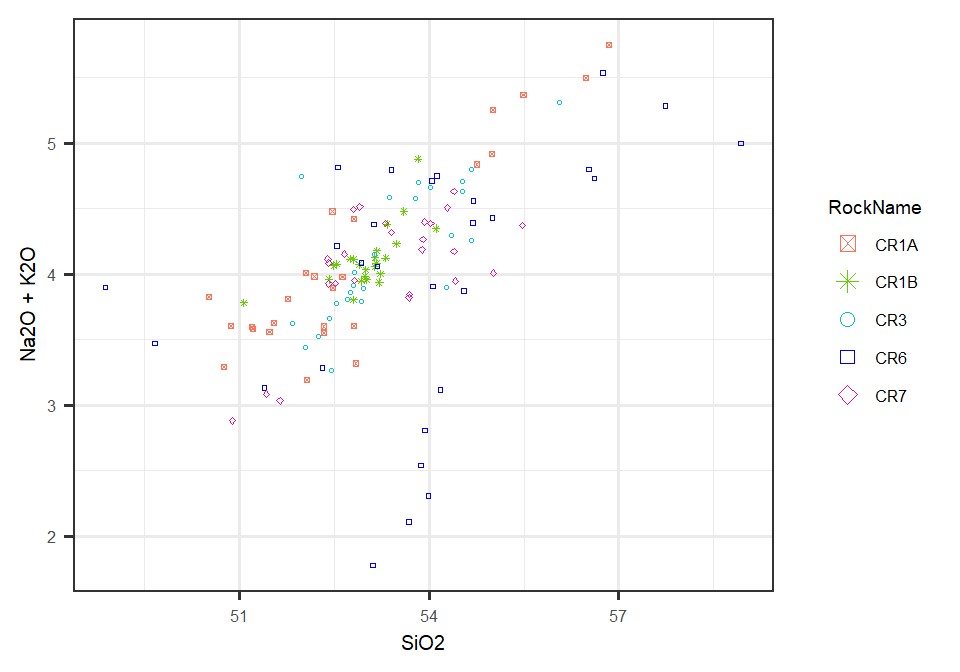


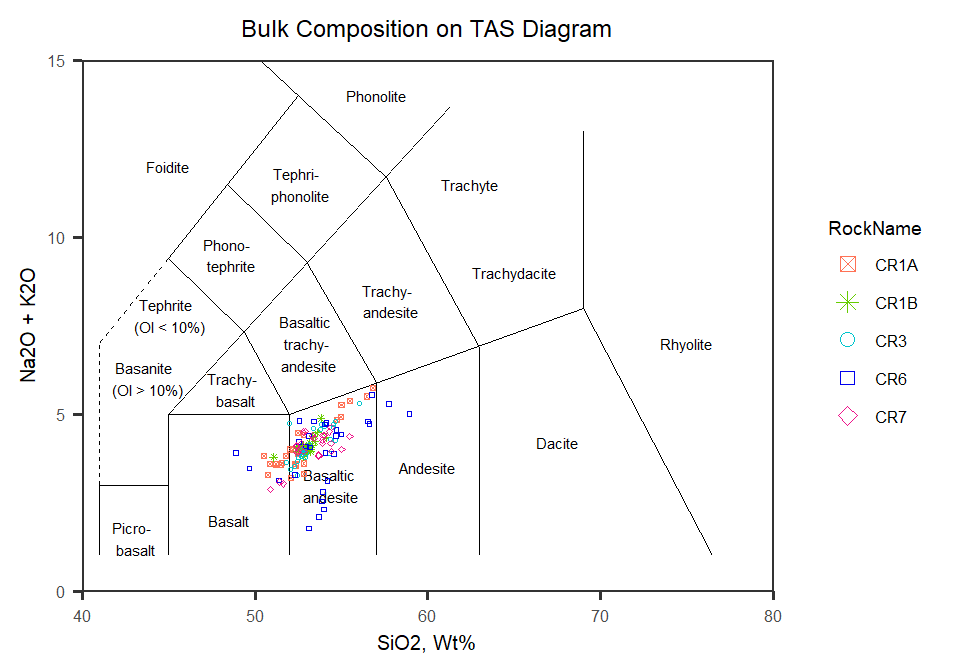




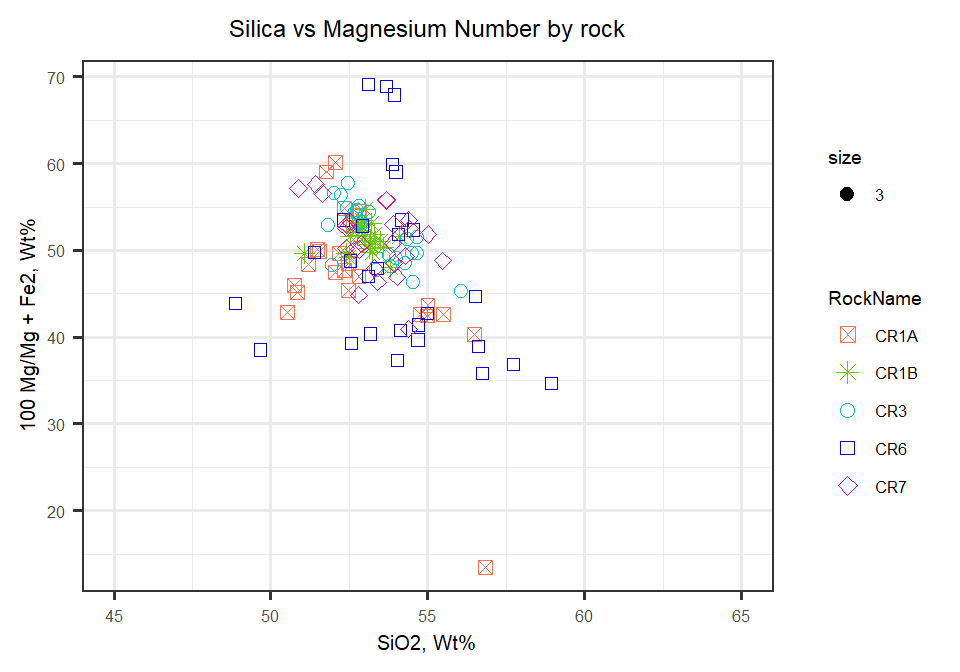


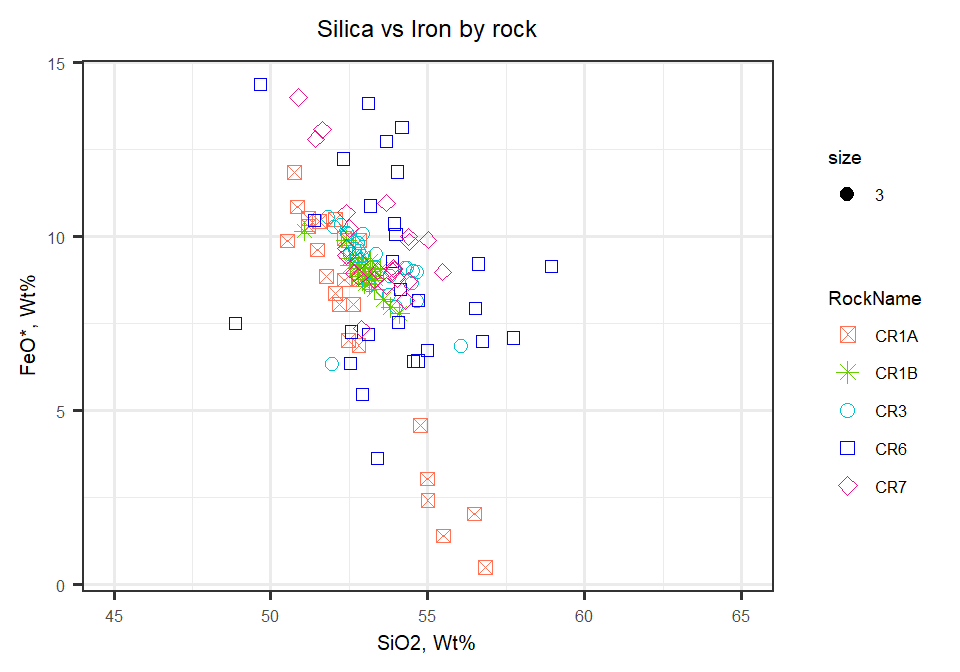


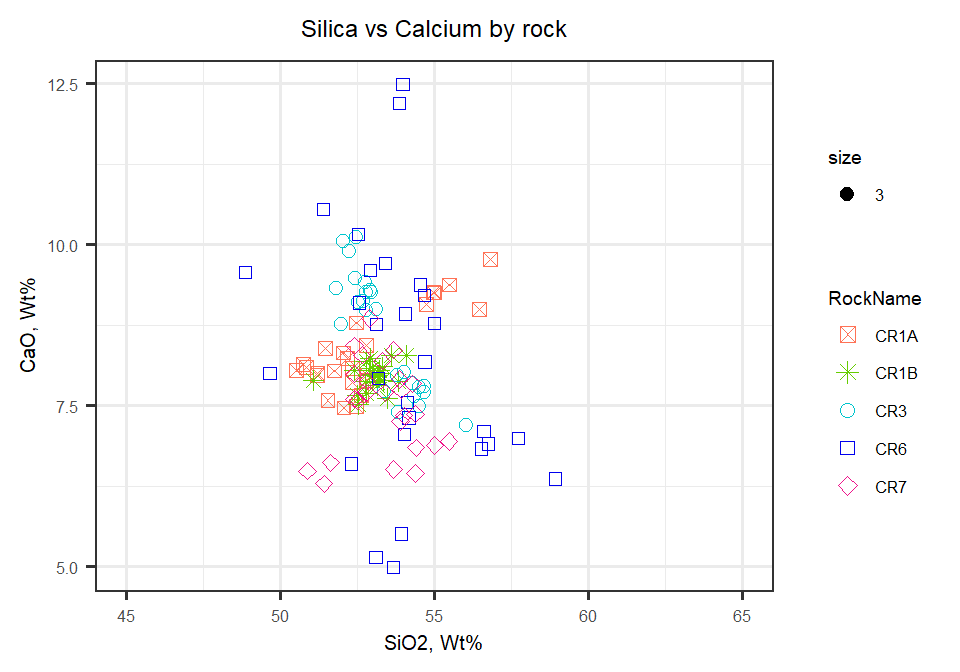
Plot Alkali by Rock Name - Bulk Composition 

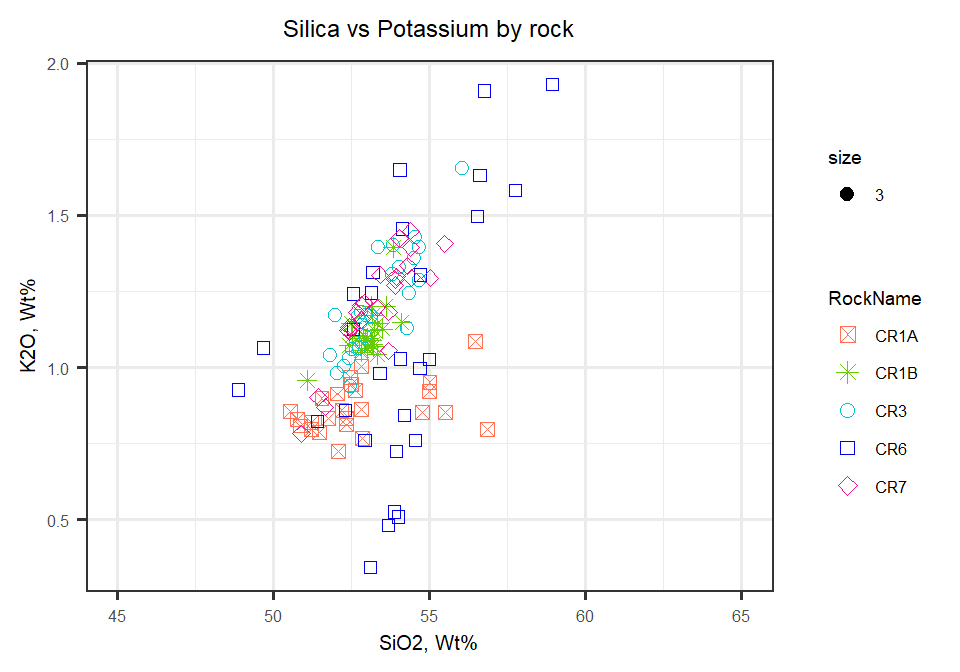
Overlay Alkali Plot on TAS Diagram 

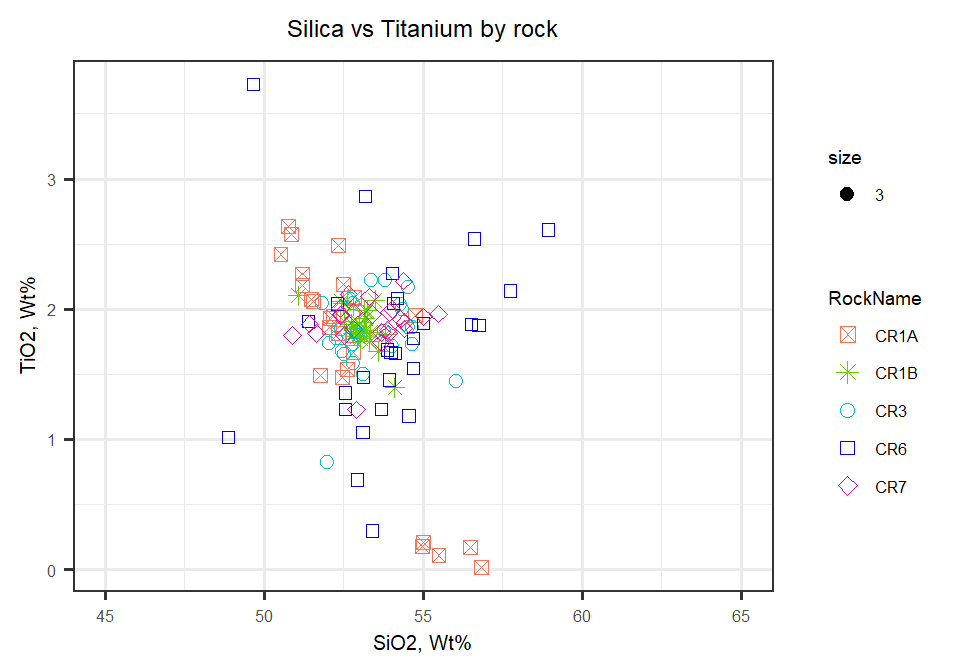
Now to look at plots of all rocks together

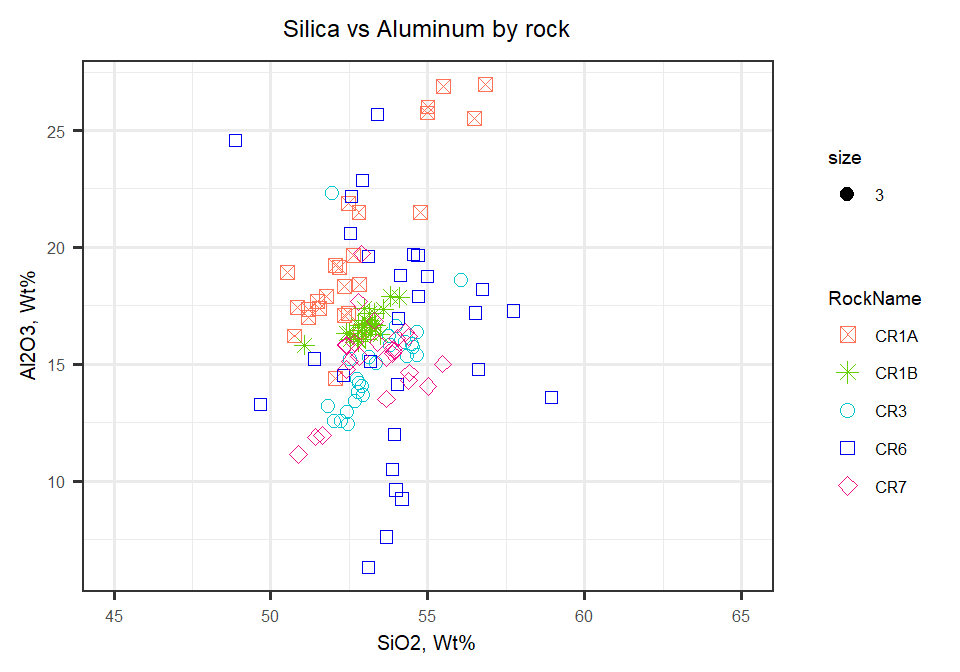


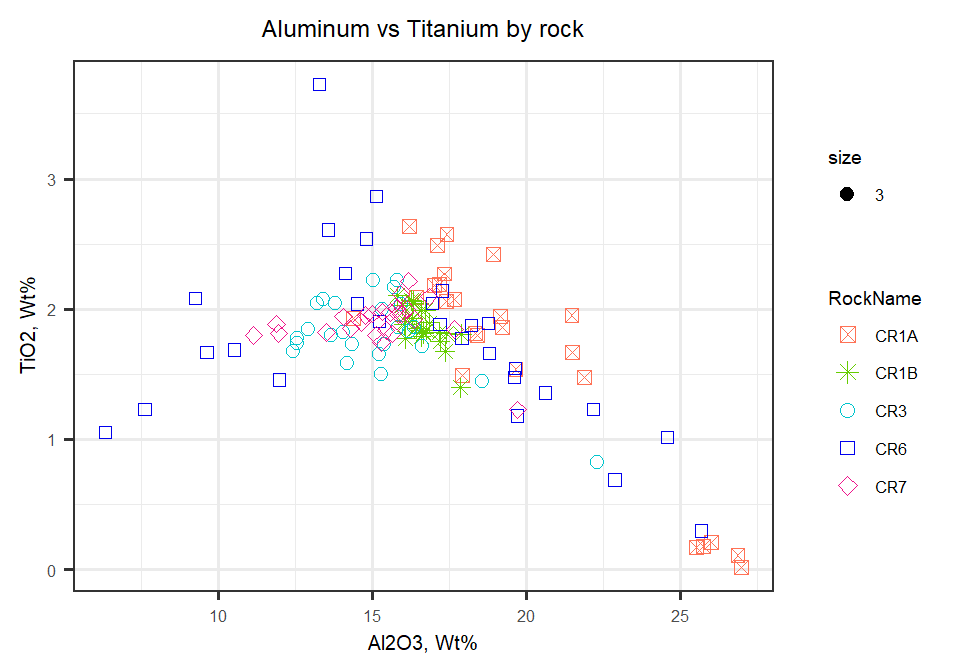












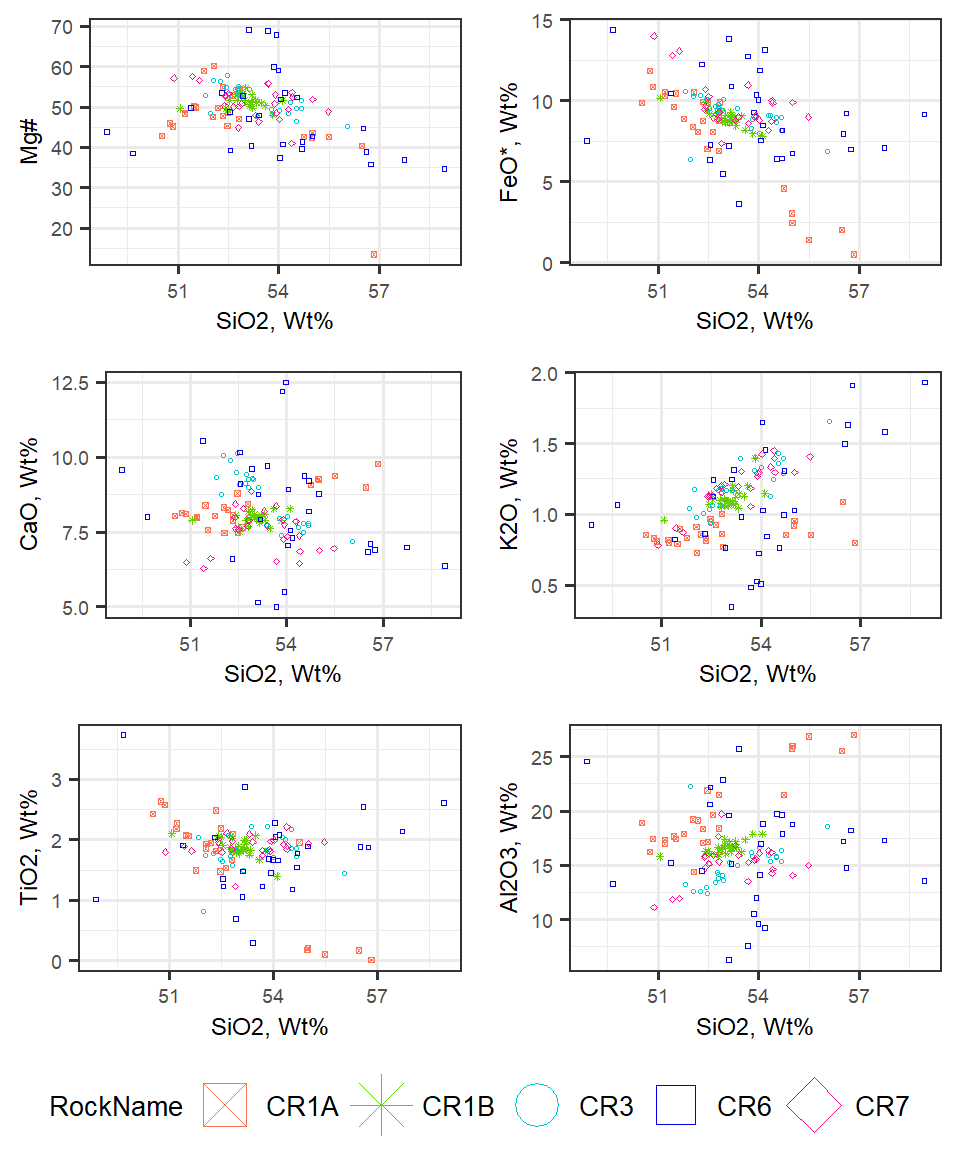
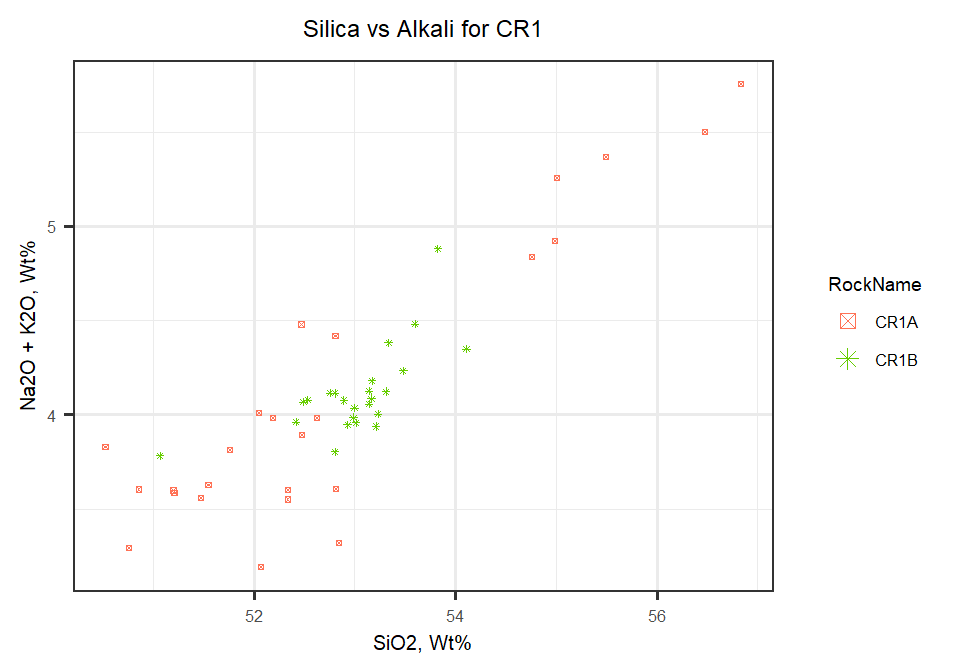
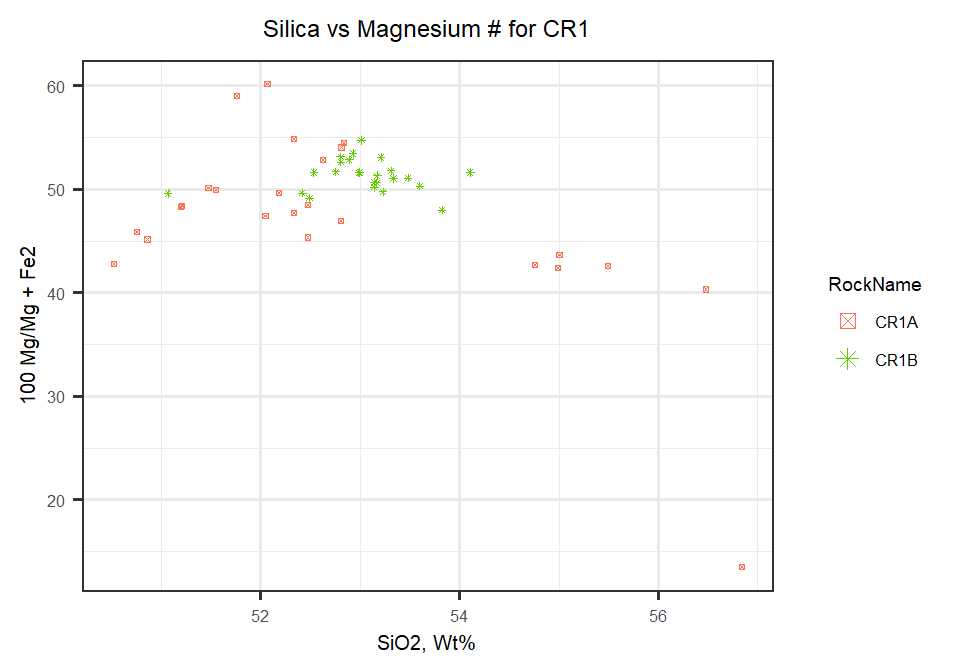
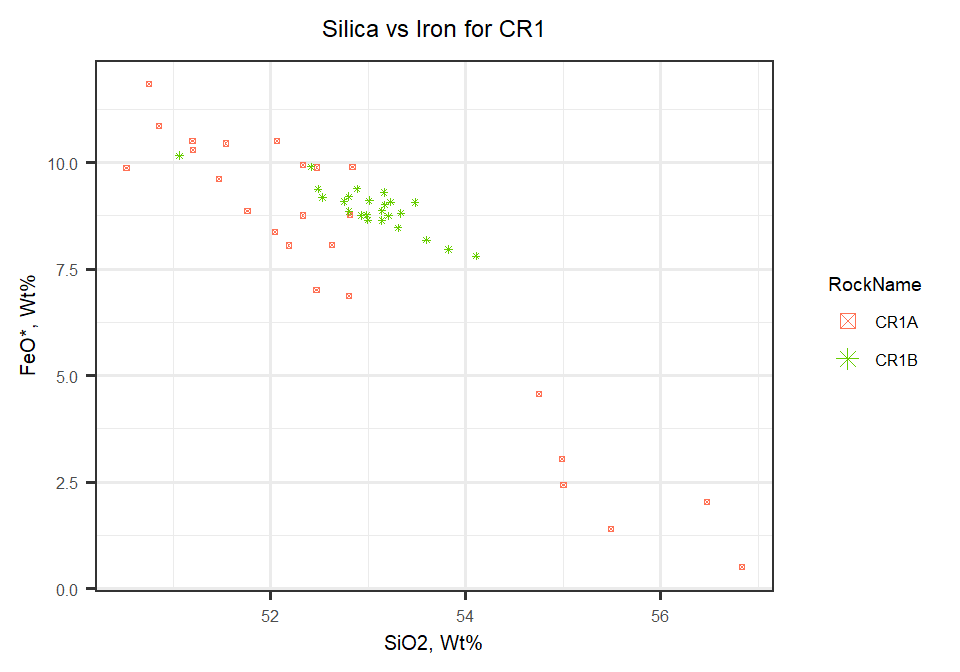
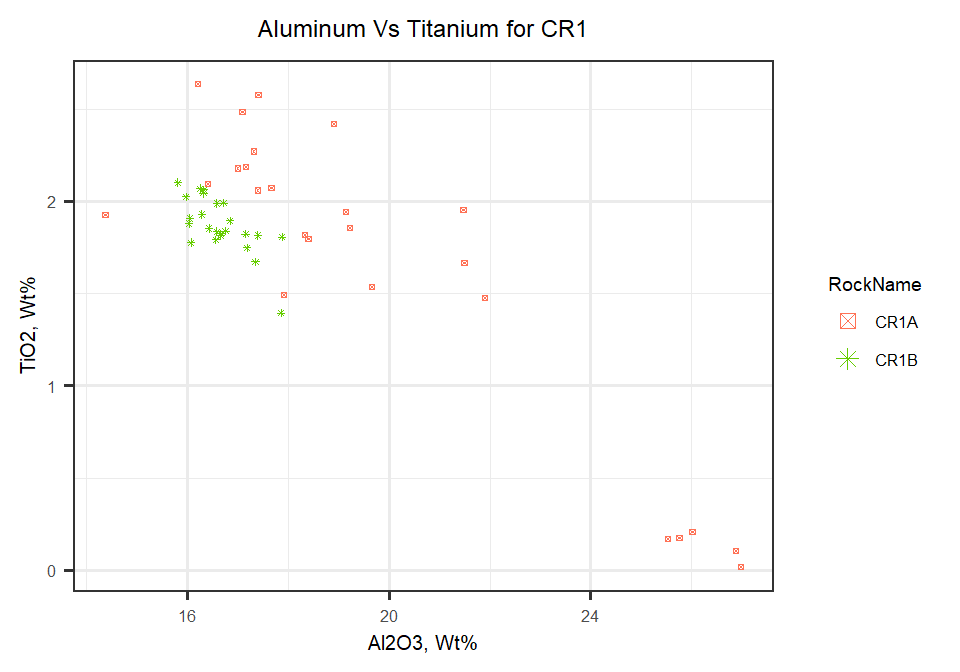


Figure 2: Major elements plotted against SiO2. All Wt% except Mg#

Now to compare CR1A to CR1B Harker Diagrams  








Taking a look at comparing CR2A to CR2B in Bulk Composition (bulk data for CR2 not yet available)

Table indicating mean averages for elements by rock

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** | **CR1A** | **CR1B** | **CR3** | **CR6** | **CR7** |
| n | 25 | 24 | 25 | 28 | 25 |
| M SiO2 | 52.8 | 53 | 53.3 | 53.9 | 53.3 |
| SD SiO2 | 1.77 | 0.575 | 1.07 | 2.14 | 1.13 |
| M TiO2 | 1.64 | 1.87 | 1.81 | 1.76 | 1.9 |
| SD TiO2 | 0.829 | 0.152 | 0.294 | 0.689 | 0.178 |
| M Al2O3 | 19.8 | 16.7 | 15.1 | 16.3 | 15.2 |
| SD Al2O3 | 3.68 | 0.568 | 2.13 | 4.94 | 1.8 |
| M Cr | 0.0311 | 0.0264 | 0.0285 | 0.0322 | 0.0261 |
| SD Cr | 0.0208 | 0.0132 | 0.0214 | 0.0318 | 0.018 |
| M MgO | 4.32 | 5.29 | 5.59 | 5.33 | 5.88 |
| SD MgO | 2.26 | 0.437 | 1.25 | 3.99 | 1.82 |
| M CaO | 8.33 | 7.95 | 8.62 | 8.24 | 7.48 |
| SD CaO | 0.635 | 0.201 | 0.913 | 1.89 | 0.706 |
| M MnO | 0.11 | 0.147 | 0.162 | 0.158 | 0.168 |
| SD MnO | 0.0548 | 0.0177 | 0.037 | 0.0653 | 0.0384 |
| M FeO | 7.7 | 8.93 | 9.12 | 8.95 | 9.73 |
| SD FeO | 3.35 | 0.532 | 1.03 | 2.71 | 1.56 |
| M Na2O | 3.24 | 3 | 2.95 | 2.87 | 2.86 |
| SD Na2O | 0.71 | 0.169 | 0.363 | 0.651 | 0.324 |
| M K2O | 0.868 | 1.11 | 1.21 | 1.09 | 1.2 |
| SD K2O | 0.0811 | 0.0804 | 0.172 | 0.423 | 0.168 |
| M S | 0.00635 | 0.00881 | 0.00736 | 0.00902 | 0.00784 |
| SD S | 0.00691 | 0.00909 | 0.00832 | 0.00941 | 0.00776 |
| M P2O5 | 0.302 | 0.349 | 0.346 | 0.301 | 0.349 |
| SD P2O5 | 0.154 | 0.0345 | 0.0821 | 0.135 | 0.0699 |
| M MgN | 47.1 | 51.3 | 51.7 | 47.8 | 51.1 |
| SD MgN | 8.7 | 1.54 | 3.39 | 10.1 | 4.01 |
| M Total | 99.3 | 98.8 | 98.9 | 99.1 | 98.8 |
| SD Total | 0.369 | 0.384 | 0.252 | 0.398 | 0.331 |