

(Absence of an entry indicates that data were not estimated.)

| Map symbol<br>and soil name | Depth | Cation<br>exchange<br>capacity | Effective<br>cation<br>exchange<br>capacity | Soil<br>reaction | Calcium<br>carbon-<br>ate | Gypsum | Salinity | Sodium<br>adsorp-<br>tion<br>ratio |
|-----------------------------|-------|--------------------------------|---|------------------|---------------------------|--------|----------|------------------------------------|
|                             | In    | meq/100 g                      | meq/100 g                                   | pH               | Pct                       | Pct    | mmhos/cm |                                    |
| AdA:                        |       |                                |   |                  |                           |        |          |                                    |
| Adamstown-----              | 0-16  | 0.0-0.0                        | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 16-38 | 0.0-0.0                        | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 38-76 | 0.0-0.0                        | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
| AdB:                        |       |                                |   |                  |                           |        |          |                                    |
| Adamstown-----              | 0-16  | 0.0-0.0                        | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 16-38 | 0.0-0.0                        | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 38-76 | 0.0-0.0                        | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
| AfB:                        |       |                                |   |                  |                           |        |          |                                    |
| Adamstown-----              | 0-16  | 0.0-0.0                        | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 16-38 | 0.0-0.0                        | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 38-76 | 0.0-0.0                        | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
| Funkstown-----              | 0-12  | 0.0-0.0                        | ---   | 6.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 12-29 | 0.0-0.0                        | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 29-45 | 0.0-0.0                        | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 45-80 | 0.0-0.0                        | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
| ArB:                        |       |                                |   |                  |                           |        |          |                                    |
| Airmont-----                | 0-7   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 7-39  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 39-64 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
| ArD:                        |       |                                |   |                  |                           |        |          |                                    |
| Airmont-----                | 0-7   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 7-39  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 39-64 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
| AtB:                        |       |                                |   |                  |                           |        |          |                                    |
| Athol-----                  | 0-7   | ---                            | 12-16                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 7-47  | 8.0-13                         | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
|                             | 47-61 | 10-12                          | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
|                             | 61-72 | ---                            | 5.0-15                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
| AtC:                        |       |                                |   |                  |                           |        |          |                                    |
| Athol-----                  | 0-7   | ---                            | 12-16                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 7-47  | 8.0-13                         | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
|                             | 47-61 | 10-12                          | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
|                             | 61-72 | ---                            | 5.0-15                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
| BaB:                        |       |                                |   |                  |                           |        |          |                                    |
| Bagtown-----                | 0-8   | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 8-15  | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 15-60 | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 60-73 | ---                            | 10-15                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 73-93 | ---                            | 8.0-15                                      | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| BaC:                        |       |                                |   |                  |                           |        |          |                                    |
| Bagtown-----                | 0-8   | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 8-15  | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 15-60 | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 60-73 | ---                            | 10-15                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 73-93 | ---                            | 8.0-15                                      | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |

Table J2.--Chemical Properties of the Soils--Continued

| Map symbol<br>and soil name | Depth  | Cation<br>exchange<br>capacity | Effective<br>cation<br>exchange<br>capacity | Soil<br>reaction | Calcium<br>carbon-<br>ate | Gypsum | Salinity | Sodium<br>adsorp-<br>tion<br>ratio |
|-----------------------------|--------|--------------------------------|---|------------------|---------------------------|--------|----------|------------------------------------|
|                             | In     | meq/100 g                      | meq/100 g                                   | pH               | Pct                       | Pct    | mmhos/cm |                                    |
| BaD:<br>Bagtown-----        | 0-8    | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 8-15   | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 15-60  | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 60-73  | ---                            | 10-15                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 73-93  | ---                            | 8.0-15                                      | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| BbD:<br>Bagtown-----        | 0-8    | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 8-15   | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 15-60  | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 60-73  | ---                            | 10-15                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 73-93  | ---                            | 8.0-15                                      | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| BbE:<br>Bagtown-----        | 0-8    | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 8-15   | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 15-60  | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 60-73  | ---                            | 10-15                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 73-93  | ---                            | 8.0-15                                      | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| BcB:<br>Baile-----          | 0-14   | ---                            | ---   | 3.6-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 14-26  | ---                            | ---   | 3.6-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 26-51  | ---                            | ---   | 3.6-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 51-60  | ---                            | ---   | 4.5-6.0          | ---                       | ---    | 0        | ---                                |
| Glenville-----              | 0-8    | 10-20                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 8-30   | 10-20                          | 4.0-7.4                                     | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 30-40  | 10-20                          | 4.0-7.4                                     | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 40-70  | 10-20                          | 1.0-5.4                                     | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| BdB:<br>Benevola-----       | 0-8    | ---                            | ---   | 6.1-6.5          | ---                       | ---    | ---      | ---                                |
|                             | 8-33   | ---                            | ---   | 6.6-7.3          | ---                       | ---    | ---      | ---                                |
|                             | 33-57  | ---                            | ---   | 6.1-7.3          | ---                       | ---    | ---      | ---                                |
|                             | 57-115 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
| BdC:<br>Benevola-----       | 0-8    | ---                            | ---   | 6.1-6.5          | ---                       | ---    | ---      | ---                                |
|                             | 8-33   | ---                            | ---   | 6.6-7.3          | ---                       | ---    | ---      | ---                                |
|                             | 33-57  | ---                            | ---   | 6.1-7.3          | ---                       | ---    | ---      | ---                                |
|                             | 57-115 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
| BfA:<br>Bermudian-----      | 0-10   | ---                            | ---   | 4.5-6.0          | ---                       | ---    | 0        | ---                                |
|                             | 10-20  | ---                            | ---   | 4.5-6.0          | ---                       | ---    | 0        | ---                                |
|                             | 20-72  | ---                            | ---   | 4.5-6.0          | ---                       | ---    | 0        | ---                                |
| BgA:<br>Birdsboro-----      | 0-11   | ---                            | 5.0-15                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 11-42  | ---                            | 5.0-15                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 42-72  | ---                            | 5.0-15                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
| BgB:<br>Birdsboro-----      | 0-11   | ---                            | 5.0-15                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 11-42  | ---                            | 5.0-15                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 42-72  | ---                            | 5.0-15                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |







Table J2.--Chemical Properties of the Soils--Continued

| Map symbol<br>and soil name | Depth | Cation<br>exchange<br>capacity | Effective<br>cation<br>exchange<br>capacity | Soil<br>reaction | Calcium<br>carbon-<br>ate | Gypsum | Salinity | Sodium<br>adsorp-<br>tion<br>ratio |
|-----------------------------|-------|--------------------------------|---|------------------|---------------------------|--------|----------|------------------------------------|
|                             | In    | meq/100 g                      | meq/100 g                                   | pH               | Pct                       | Pct    | mmhos/cm |                                    |
| CeC:                        |       |                                |   |                  |                           |        |          |                                    |
| Catoctin-----               | 0-6   | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 6-28  | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 28-38 | ---                            | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | >38   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Spoolsville-----            | 0-10  | ---                            | ---   | 6.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 10-38 | ---                            | ---   | 5.6-7.0          | ---                       | ---    | 0        | ---                                |
|                             | 38-58 | ---                            | ---   | 5.6-6.0          | ---                       | ---    | 0        | ---                                |
|                             | >58   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| CeD:                        |       |                                |   |                  |                           |        |          |                                    |
| Catoctin-----               | 0-6   | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 6-28  | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 28-38 | ---                            | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | >38   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Spoolsville-----            | 0-10  | ---                            | ---   | 6.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 10-38 | ---                            | ---   | 5.6-7.0          | ---                       | ---    | 0        | ---                                |
|                             | 38-58 | ---                            | ---   | 5.6-6.0          | ---                       | ---    | 0        | ---                                |
|                             | >58   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| CeE:                        |       |                                |   |                  |                           |        |          |                                    |
| Catoctin-----               | 0-6   | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 6-28  | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 28-38 | ---                            | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | >38   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Spoolsville-----            | 0-10  | ---                            | ---   | 6.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 10-38 | ---                            | ---   | 5.6-7.0          | ---                       | ---    | 0        | ---                                |
|                             | 38-58 | ---                            | ---   | 5.6-6.0          | ---                       | ---    | 0        | ---                                |
|                             | >58   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| CgA:                        |       |                                |   |                  |                           |        |          |                                    |
| Codorus-----                | 0-7   | ---                            | 15-25                                       | 4.5-6.0          | ---                       | ---    | 0        | ---                                |
|                             | 7-34  | 15-25                          | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 34-72 | 15-25                          | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
| Hatboro-----                | 0-8   | 15-25                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 8-39  | 15-25                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 39-50 | 15-25                          | ---   | 5.6-6.5          | 0                         | 0      | 0        | 0                                  |
|                             | 50-72 | 15-25                          | ---   | 5.6-6.5          | 0                         | 0      | 0        | 0                                  |
| CmA:                        |       |                                |   |                  |                           |        |          |                                    |
| Combs-----                  | 0-13  | 5.0-10                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 13-44 | 5.0-12                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 44-80 | 5.0-20                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
| CnA:                        |       |                                |   |                  |                           |        |          |                                    |
| Combs-----                  | 0-23  | 5.0-12                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 23-44 | 5.0-12                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 44-80 | 5.0-20                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
| CoB:                        |       |                                |   |                  |                           |        |          |                                    |
| Conestoga-----              | 0-10  | ---                            | ---   | 4.5-7.3          | ---                       | ---    | 0        | ---                                |
|                             | 10-38 | ---                            | ---   | 4.5-7.3          | ---                       | ---    | 0        | ---                                |
|                             | 38-75 | ---                            | ---   | 5.6-7.8          | ---                       | ---    | 0        | ---                                |
| Letort-----                 | 0-9   | 7.5-14                         | ---   | 4.5-7.3          | ---                       | ---    | ---      | ---                                |
|                             | 9-32  | 7.2-14                         | ---   | 4.5-7.3          | ---                       | ---    | ---      | ---                                |
|                             | 32-62 | 7.2-14                         | ---   | 5.6-7.8          | ---                       | ---    | ---      | ---                                |



Table J2.--Chemical Properties of the Soils--Continued

| Map symbol<br>and soil name | Depth | Cation<br>exchange<br>capacity | Effective<br>cation<br>exchange<br>capacity | Soil<br>reaction | Calcium<br>carbon-<br>ate | Gypsum | Salinity | Sodium<br>adsorp-<br>tion<br>ratio |
|-----------------------------|-------|--------------------------------|---|------------------|---------------------------|--------|----------|------------------------------------|
|                             | In    | meq/100 g                      | meq/100 g                                   | pH               | Pct                       | Pct    | mmhos/cm |                                    |
| Rock Outcrop-----           | 0-60  | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| DoB:                        |       |                                |   |                  |                           |        |          |                                    |
| Downsville-----             | 0-10  | 8.0-15                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 10-18 | ---                            | 8.0-15                                      | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 18-30 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 30-87 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 87-99 | ---                            | 6.0-15                                      | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| DoC:                        |       |                                |   |                  |                           |        |          |                                    |
| Downsville-----             | 0-10  | 8.0-15                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 10-18 | ---                            | 8.0-15                                      | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 18-30 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 30-87 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 87-99 | ---                            | 6.0-15                                      | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| DqA:                        |       |                                |   |                  |                           |        |          |                                    |
| Dryrun-----                 | 0-12  | 12-20                          | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | 12-27 | 12-25                          | ---   | 5.1-6.0          | ---                       | ---    | 0        | ---                                |
|                             | 27-43 | ---                            | 12-25                                       | 4.5-5.5          | ---                       | ---    | 0        | 0                                  |
|                             | 43-74 | ---                            | 12-25                                       | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
| DtA:                        |       |                                |   |                  |                           |        |          |                                    |
| Duffield-----               | 0-10  | 15-20                          | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 10-56 | 10-25                          | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 56-65 | 10-25                          | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
| Ryder-----                  | 0-8   | 10-25                          | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 8-30  | 8.0-20                         | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 30-38 | 8.0-20                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 38-48 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| DtB:                        |       |                                |   |                  |                           |        |          |                                    |
| Duffield-----               | 0-9   | 15-20                          | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 9-54  | 10-25                          | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 54-65 | 10-25                          | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
| Ryder-----                  | 0-8   | 10-25                          | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 8-30  | 8.0-20                         | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 30-38 | 8.0-20                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 38-48 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| DtC:                        |       |                                |   |                  |                           |        |          |                                    |
| Duffield-----               | 0-7   | 15-20                          | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 7-54  | 10-25                          | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 54-65 | 10-25                          | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
| Ryder-----                  | 0-8   | 10-25                          | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 8-30  | 8.0-20                         | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 30-38 | 8.0-20                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 38-48 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| DuB:                        |       |                                |   |                  |                           |        |          |                                    |
| Duffield-----               | 0-9   | 15-20                          | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 9-54  | 10-25                          | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 54-65 | 10-25                          | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
| Ryder-----                  | 0-8   | 10-25                          | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 8-30  | 8.0-20                         | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 30-35 | 8.0-20                         | ---   | 5.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 35-45 | ---                            | 0.1-0.2                                     | ---              | ---                       | ---    | ---      | ---                                |



Table J2.--Chemical Properties of the Soils--Continued

| Map symbol<br>and soil name | Depth | Cation<br>exchange<br>capacity | Effective<br>cation<br>exchange<br>capacity | Soil<br>reaction | Calcium<br>carbon-<br>ate | Gypsum | Salinity | Sodium<br>adsorp-<br>tion<br>ratio |
|-----------------------------|-------|--------------------------------|---|------------------|---------------------------|--------|----------|------------------------------------|
|                             | In    | meq/100 g                      | meq/100 g                                   | pH               | Pct                       | Pct    | mmhos/cm |                                    |
| ErE:<br>Edgemont-----       | 0-2   | ---                            | 10-15                                       | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 2-38  | ---                            | 8.0-16                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 38-72 | ---                            | 11-14                                       | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
| Rock Outcrop-----           | 0-60  | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| FoB:<br>Foxville-----       | 0-4   | ---                            | 10-20                                       | 3.5-4.4          | 0                         | 0      | 0        | 0                                  |
|                             | 4-43  | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 43-58 | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
| FxA:<br>Foxville-----       | 0-4   | ---                            | 10-20                                       | 3.5-4.4          | 0                         | 0      | 0        | 0                                  |
|                             | 4-43  | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 43-58 | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
| Hatboro-----                | 0-8   | 15-25                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 8-38  | 15-25                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 38-72 | 15-25                          | ---   | 5.6-6.5          | 0                         | 0      | 0        | 0                                  |
| GaB:<br>Gaila-----          | 0-8   | ---                            | 0.0-35                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 8-17  | ---                            | 0.0-35                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 17-20 | ---                            | 0.0-35                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 20-76 | ---                            | 0.0-35                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
| GaC:<br>Gaila-----          | 0-8   | ---                            | 0.0-35                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 8-17  | ---                            | 0.0-35                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 17-20 | ---                            | 0.0-35                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 20-76 | ---                            | 0.0-35                                      | 3.6-5.5          | 0                         | 0      | 0        | 0                                  |
| GeB:<br>Glenelg-----        | 0-6   | ---                            | 3.8-7.3                                     | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 6-24  | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 24-60 | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
| GfB:<br>Glenelg-----        | 0-8   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 8-28  | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 28-60 | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
| GgB:<br>Glenelg-----        | 0-6   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 6-24  | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 24-65 | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
| GgC:<br>Glenelg-----        | 0-6   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 6-24  | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 24-65 | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
| GhB:<br>Glenelg-----        | 0-6   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 6-24  | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 24-65 | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |

Table J2.--Chemical Properties of the Soils--Continued

| Map symbol<br>and soil name | Depth | Cation<br>exchange<br>capacity | Effective<br>cation<br>exchange<br>capacity | Soil<br>reaction | Calcium<br>carbon-<br>ate | Gypsum | Salinity | Sodium<br>adsorp-<br>tion<br>ratio |
|-----------------------------|-------|--------------------------------|---|------------------|---------------------------|--------|----------|------------------------------------|
|                             | In    | meq/100 g                      | meq/100 g                                   | pH               | Pct                       | Pct    | mmhos/cm |                                    |
| Blocktown-----              | 0-6   | ---                            | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | 6-17  | ---                            | ---   | 5.6-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 17-21 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
|                             | 21-25 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| GhC:<br>Glenelg-----        | 0-6   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 6-24  | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 24-65 | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
| Blocktown-----              | 0-6   | ---                            | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | 6-17  | ---                            | ---   | 5.6-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 17-21 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
|                             | 21-25 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| GmB:<br>Glenelg-----        | 0-6   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 6-24  | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 24-65 | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
| Mt.airy-----                | 0-7   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 7-22  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | >22   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| GnB:<br>Glenelg-----        | 0-6   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 6-24  | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 24-65 | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
| Mt.airy-----                | 0-7   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 7-22  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | >22   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Urban Land-----             | 0-6   | ---                            | ---   | ---              | ---                       | ---    | 0        | ---                                |
| GoB:<br>Glenville-----      | 0-8   | 10-20                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 8-30  | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 30-40 | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 40-70 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| GoC:<br>Glenville-----      | 0-8   | 10-20                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 8-30  | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 30-40 | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 40-70 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| GuB:<br>Glenville-----      | 0-8   | 10-20                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 8-30  | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 30-40 | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 40-70 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| Baile-----                  | 0-8   | ---                            | ---   | 3.6-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 8-31  | ---                            | ---   | 3.6-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 31-62 | ---                            | ---   | 3.6-5.5          | ---                       | ---    | 0        | ---                                |
| GvA:<br>Glenville-----      | 0-8   | 10-20                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 8-30  | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 30-40 | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 40-70 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |





Table J2.--Chemical Properties of the Soils--Continued

| Map symbol<br>and soil name | Depth | Cation<br>exchange<br>capacity | Effective<br>cation<br>exchange<br>capacity | Soil<br>reaction | Calcium<br>carbon-<br>ate | Gypsum | Salinity | Sodium<br>adsorp-<br>tion<br>ratio |
|-----------------------------|-------|--------------------------------|---|------------------|---------------------------|--------|----------|------------------------------------|
|                             | In    | meq/100 g                      | meq/100 g                                   | pH               | Pct                       | Pct    | mmhos/cm |                                    |
| KeD:                        |       |                                |   |                  |                           |        |          |                                    |
| Klinesville-----            | 0-8   | ---                            | 4.0-12                                      | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 8-14  | ---                            | 4.0-12                                      | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | >14   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| KnB:                        |       |                                |   |                  |                           |        |          |                                    |
| Klinesville-----            | 0-8   | ---                            | 4.0-12                                      | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 8-14  | ---                            | 4.0-12                                      | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | ---   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| KnC:                        |       |                                |   |                  |                           |        |          |                                    |
| Klinesville-----            | 0-8   | ---                            | 4.0-12                                      | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 8-14  | ---                            | 4.0-12                                      | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | ---   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| KrF:                        |       |                                |   |                  |                           |        |          |                                    |
| Klinesville-----            | 0-8   | ---                            | 4.0-12                                      | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 8-14  | ---                            | 4.0-12                                      | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | >14   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Rock Outcrop-----           | 0-60  | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| LaB:                        |       |                                |   |                  |                           |        |          |                                    |
| Lantz-----                  | 0-9   | 15-30                          | ---   | 5.6-6.5          | 0                         | 0      | 0        | 0                                  |
|                             | 9-47  | 20-40                          | ---   | 5.6-6.5          | 0                         | 0      | 0        | 0                                  |
|                             | 47-52 | 20-40                          | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 52-62 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Rohrersville-----           | 0-9   | ---                            | 10-15                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 9-43  | 10-15                          | ---   | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 43-62 | 15-30                          | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
|                             | 62-70 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| LeB:                        |       |                                |   |                  |                           |        |          |                                    |
| Leetonia-----               | 0-8   | ---                            | 1.0-3.5                                     | 3.5-5.0          | ---                       | ---    | 0        | ---                                |
|                             | 8-24  | ---                            | 0.6-3.4                                     | 3.5-5.0          | ---                       | ---    | 0        | ---                                |
|                             | 24-56 | ---                            | 0.6-2.4                                     | 3.5-5.0          | ---                       | ---    | 0        | ---                                |
|                             | >56   | ---                            | 0.1-0.2                                     | ---              | ---                       | ---    | ---      | ---                                |
| LgB:                        |       |                                |   |                  |                           |        |          |                                    |
| Legore-----                 | 0-10  | ---                            | ---   | 5.1-6.0          | ---                       | ---    | 0        | ---                                |
|                             | 10-30 | ---                            | ---   | 5.6-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 30-60 | ---                            | ---   | 5.6-6.5          | ---                       | ---    | 0        | ---                                |
| LnB:                        |       |                                |   |                  |                           |        |          |                                    |
| Legore-----                 | 0-10  | ---                            | ---   | 5.1-6.0          | ---                       | ---    | 0        | ---                                |
|                             | 10-30 | ---                            | ---   | 5.6-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 30-60 | ---                            | ---   | 5.6-6.5          | ---                       | ---    | 0        | ---                                |
| Montalto-----               | 0-15  | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 15-42 | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 42-72 | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
| LnD:                        |       |                                |   |                  |                           |        |          |                                    |
| Legore-----                 | 0-10  | ---                            | ---   | 5.1-6.0          | ---                       | ---    | 0        | ---                                |
|                             | 10-30 | ---                            | ---   | 5.6-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 30-60 | ---                            | ---   | 5.6-6.5          | ---                       | ---    | 0        | ---                                |
| Montalto-----               | 0-15  | ---                            | ---   | 4.5-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 15-42 | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 42-72 | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |

Table J2.--Chemical Properties of the Soils--Continued

| Map symbol<br>and soil name | Depth | Cation<br>exchange<br>capacity | Effective<br>cation<br>exchange<br>capacity | Soil<br>reaction | Calcium<br>carbon-<br>ate | Gypsum | Salinity | Sodium<br>adsorp-<br>tion<br>ratio |
|-----------------------------|-------|--------------------------------|---|------------------|---------------------------|--------|----------|------------------------------------|
|                             | In    | meq/100 g                      | meq/100 g                                   | pH               | Pct                       | Pct    | mmhos/cm |                                    |
| LqB:                        |       |                                |   |                  |                           |        |          |                                    |
| Lehigh-----                 | 0-9   | 10-20                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 9-30  | 10-25                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 30-42 | 10-25                          | ---   | 4.5-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 42-52 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| LsA:                        |       |                                |   |                  |                           |        |          |                                    |
| Lindside-----               | 0-13  | 15-30                          | ---   | 6.1-7.8          | 0                         | 0      | 0        | 0                                  |
|                             | 13-46 | 15-25                          | ---   | 5.1-7.8          | 0                         | 0      | 0        | 0                                  |
|                             | 46-65 | 8.0-25                         | ---   | 5.6-7.8          | 0                         | 0      | 0        | 0                                  |
| LyB:                        |       |                                |   |                  |                           |        |          |                                    |
| Linganore-----              | 0-13  | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 13-25 | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 25-36 | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | >36   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Hyattstown-----             | 0-9   | ---                            | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | 9-14  | ---                            | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | 14-18 | ---                            | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | 18-26 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
|                             | 26-30 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| LyC:                        |       |                                |   |                  |                           |        |          |                                    |
| Linganore-----              | 0-13  | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 13-25 | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | 25-36 | ---                            | ---   | 5.1-6.5          | ---                       | ---    | 0        | ---                                |
|                             | >36   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Hyattstown-----             | 0-9   | ---                            | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | 9-14  | ---                            | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | 14-18 | ---                            | ---   | 5.6-7.3          | ---                       | ---    | 0        | ---                                |
|                             | 18-26 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
|                             | 26-30 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| MaA:                        |       |                                |   |                  |                           |        |          |                                    |
| Melvin-----                 | 0-8   | ---                            | ---   | 5.6-7.8          | ---                       | ---    | 0        | ---                                |
|                             | 8-46  | ---                            | ---   | 5.6-7.8          | ---                       | ---    | 0        | ---                                |
|                             | 46-60 | ---                            | ---   | 5.6-7.8          | ---                       | ---    | 0        | ---                                |
| Lindside-----               | 0-13  | 15-30                          | ---   | 6.1-7.8          | 0                         | 0      | 0        | 0                                  |
|                             | 13-46 | 15-25                          | ---   | 5.1-7.8          | 0                         | 0      | 0        | 0                                  |
|                             | 46-65 | 8.0-25                         | ---   | 5.6-7.8          | 0                         | 0      | 0        | 0                                  |
| MbA:                        |       |                                |   |                  |                           |        |          |                                    |
| Morven-----                 | 0-4   | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |
|                             | 4-9   | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |
|                             | 9-20  | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |
|                             | 20-35 | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |
|                             | 35-46 | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |
|                             | 46-62 | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |
| MbB:                        |       |                                |   |                  |                           |        |          |                                    |
| Morven-----                 | 0-4   | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |
|                             | 4-9   | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |
|                             | 9-20  | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |
|                             | 20-35 | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |
|                             | 35-46 | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |
|                             | 46-62 | ---                            | ---   | 5.1-6.0          | ---                       | ---    | ---      | ---                                |

















Table J2.--Chemical Properties of the Soils--Continued

| Map symbol<br>and soil name | Depth | Cation<br>exchange<br>capacity | Effective<br>cation<br>exchange<br>capacity | Soil<br>reaction | Calcium<br>carbon-<br>ate | Gypsum | Salinity | Sodium<br>adsorp-<br>tion<br>ratio |
|-----------------------------|-------|--------------------------------|---|------------------|---------------------------|--------|----------|------------------------------------|
|                             | In    | meq/100 g                      | meq/100 g                                   | pH               | Pct                       | Pct    | mmhos/cm |                                    |
| StC:                        |       |                                |   |                  |                           |        |          |                                    |
| Stumptown-----              | 0-13  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 13-20 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 20-25 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 25-33 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
|                             | 33-37 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Rock Outcrop-----           | 0-60  | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| StD:                        |       |                                |   |                  |                           |        |          |                                    |
| Stumptown-----              | 0-13  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 13-20 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 20-25 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 25-33 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
|                             | 33-37 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Rock Outcrop-----           | 0-60  | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| SuD:                        |       |                                |   |                  |                           |        |          |                                    |
| Stumptown-----              | 0-13  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 13-20 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 20-25 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 25-33 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
|                             | 33-37 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Bagtown-----                | 0-8   | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 8-15  | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 15-60 | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 60-73 | ---                            | 10-15                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 73-93 | ---                            | 8.0-15                                      | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| Rock Outcrop-----           | 0-60  | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| SuF:                        |       |                                |   |                  |                           |        |          |                                    |
| Stumptown-----              | 0-13  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 13-20 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 20-25 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | ---      | ---                                |
|                             | 25-33 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
|                             | 33-37 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Bagtown-----                | 0-8   | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 8-15  | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 15-60 | ---                            | 15-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 60-73 | ---                            | 10-15                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 73-93 | ---                            | 8.0-15                                      | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| Rock Outcrop-----           | 0-60  | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| TaB:                        |       |                                |   |                  |                           |        |          |                                    |
| Thurmont-----               | 0-11  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 11-22 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 22-41 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 41-84 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
| TaC:                        |       |                                |   |                  |                           |        |          |                                    |
| Thurmont-----               | 0-11  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 11-22 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 22-41 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 41-84 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |

Table J2.--Chemical Properties of the Soils--Continued

| Map symbol<br>and soil name | Depth | Cation<br>exchange<br>capacity | Effective<br>cation<br>exchange<br>capacity | Soil<br>reaction | Calcium<br>carbon-<br>ate | Gypsum | Salinity | Sodium<br>adsorp-<br>tion<br>ratio |
|-----------------------------|-------|--------------------------------|---|------------------|---------------------------|--------|----------|------------------------------------|
|                             | In    | meq/100 g                      | meq/100 g                                   | pH               | Pct                       | Pct    | mmhos/cm |                                    |
| ThB:                        |       |                                |   |                  |                           |        |          |                                    |
| Thurmont-----               | 0-11  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 11-22 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 22-41 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 41-84 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
| ToA:                        |       |                                |   |                  |                           |        |          |                                    |
| Trego-----                  | 0-9   | 10-20                          | ---   | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 9-21  | 10-20                          | ---   | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 21-38 | ---                            | 10-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 38-96 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| ToB:                        |       |                                |   |                  |                           |        |          |                                    |
| Trego-----                  | 0-9   | 10-20                          | ---   | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 9-21  | 10-20                          | ---   | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 21-38 | ---                            | 10-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 38-96 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| TqB:                        |       |                                |   |                  |                           |        |          |                                    |
| Trego-----                  | 0-9   | 10-20                          | ---   | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 9-21  | 10-20                          | ---   | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 21-38 | ---                            | 10-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 38-96 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| TrB:                        |       |                                |   |                  |                           |        |          |                                    |
| Trego-----                  | 0-9   | 10-20                          | ---   | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 9-21  | 10-20                          | ---   | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 21-38 | ---                            | 10-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 38-96 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| TxB:                        |       |                                |   |                  |                           |        |          |                                    |
| Trego-----                  | 0-9   | 10-20                          | ---   | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 9-21  | 10-20                          | ---   | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 21-38 | ---                            | 10-30                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
|                             | 38-96 | ---                            | 10-20                                       | 4.5-5.5          | 0                         | 0      | 0        | 0                                  |
| Foxville-----               | 0-4   | ---                            | 10-20                                       | 3.5-4.4          | 0                         | 0      | 0        | 0                                  |
|                             | 4-43  | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
|                             | 43-58 | ---                            | 10-20                                       | 4.5-6.0          | 0                         | 0      | 0        | 0                                  |
| UdB:                        |       |                                |   |                  |                           |        |          |                                    |
| Udorthents-----             | 0-2   | ---                            | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
|                             | 2-65  | ---                            | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
| UdC:                        |       |                                |   |                  |                           |        |          |                                    |
| Udorthents-----             | 0-2   | ---                            | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
|                             | 2-65  | ---                            | ---   | 5.1-6.5          | 0                         | 0      | 0        | 0                                  |
| UrA:                        |       |                                |   |                  |                           |        |          |                                    |
| Urban Land-----             | 0-6   | ---                            | ---   | ---              | ---                       | ---    | 0        | ---                                |
| UrC:                        |       |                                |   |                  |                           |        |          |                                    |
| Urban Land-----             | 0-6   | ---                            | ---   | ---              | ---                       | ---    | 0        | ---                                |
| W:                          |       |                                |   |                  |                           |        |          |                                    |
| Water-----                  | ---   | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| WaA:                        |       |                                |   |                  |                           |        |          |                                    |
| Walkersville-----           | 0-11  | 10-20                          | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 11-30 | 20-40                          | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 30-72 | 20-40                          | ---   | 5.1-7.3          | 0                         | 0      | 0        | 0                                  |



Table J2.--Chemical Properties of the Soils--Continued

| Map symbol<br>and soil name | Depth | Cation<br>exchange<br>capacity | Effective<br>cation<br>exchange<br>capacity | Soil<br>reaction | Calcium<br>carbon-<br>ate | Gypsum | Salinity | Sodium<br>adsorp-<br>tion<br>ratio |
|-----------------------------|-------|--------------------------------|---|------------------|---------------------------|--------|----------|------------------------------------|
|                             | In    | meq/100 g                      | meq/100 g                                   | pH               | Pct                       | Pct    | mmhos/cm |                                    |
| Cardiff-----                | 0-7   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 7-21  | ---                            | ---   | 4.5-5.0          | ---                       | ---    | 0        | ---                                |
|                             | 21-48 | ---                            | ---   | 4.5-5.0          | ---                       | ---    | 0        | ---                                |
|                             | 48-52 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| WrC:<br>Whiteford-----      | 0-10  | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 10-37 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 37-40 | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 40-44 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| Cardiff-----                | 0-7   | ---                            | ---   | 4.5-5.5          | ---                       | ---    | 0        | ---                                |
|                             | 7-21  | ---                            | ---   | 4.5-5.0          | ---                       | ---    | 0        | ---                                |
|                             | 21-48 | ---                            | ---   | 4.5-5.0          | ---                       | ---    | 0        | ---                                |
|                             | 48-52 | ---                            | ---   | ---              | ---                       | ---    | ---      | ---                                |
| WtB:<br>Wiltshire-----      | 0-10  | ---                            | 0.3-0.6                                     | 6.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 10-29 | ---                            | 0.2-0.4                                     | 6.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 29-43 | ---                            | 0.2-0.4                                     | 6.1-6.5          | 0                         | 0      | 0        | 0                                  |
|                             | 43-98 | ---                            | 0.1-0.4                                     | 5.1-6.0          | 0                         | 0      | 0        | 0                                  |
| Funkstown-----              | 0-12  | 0.0-0.0                        | ---   | 6.6-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 12-29 | 0.0-0.0                        | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 29-45 | 0.0-0.0                        | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |
|                             | 45-80 | 0.0-0.0                        | ---   | 6.1-7.3          | 0                         | 0      | 0        | 0                                  |

