Supplement of

An improved global remote-sensing-based surface soil moisture (RSSSM) dataset covering 2003–2018

Yongzhe Chen et al.

Correspondence to: Xiaoming Feng (fengxm@rcees.ac.cn)

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Supplementary texts

Text S1. The reasons for excluding precipitation as a predictor of neural networks

Because it takes at least 3 days for a microwave sensor to cover the whole globe, for 11% of global land, there will be only 5 or less observations for random days within a 10-day period. Hence, our study took the average of these available data, which can generally indicate the mean soil moisture condition during that 10-day period. Then, to see how much can the incorporation of precipitation data improve the neural network training efficiency, we calculated 10-day averaged GPM Final-Run precipitation, which can well indicate the overall precipitation water availability in the 10-day period (for that reason, the antecedent precipitation index is not used, which must be calculated on daily scale, and the attenuation coefficient is hard to determine at global scale (Kohler and Linsley, 1951)). Taking the first independent neural network (NN1-1-1, a primary NN) as an example, we performed contribution tests on all the input features at the global scale (not for each separate zone), including 9 ‘quality impact factors’, four predictor soil moisture products and the probable ancillary soil moisture indicator- precipitation data. For each predictor, we added a random error that is controlled within the standard deviation of the predictor, and then the increased MSE in neural network training can indicate the relative contribution of that variable. The results (Figure S16a) show that precipitation will only contribute to 1.7% of the training efficiency, which is much lower than the contribution of any soil moisture product (the total contribution fraction of the four soil moisture products is 61.2%), and is also lower than that of most ‘quality impact factor’. This suggests that various microwave soil moisture datasets together with several ‘quality impact factors’ of microwave soil moisture retrieval are enough to predict the training target- SMAP soil moisture, and there is no need to add precipitation as another ancillary indicator of soil moisture.

‘Quality impact factors’ are defined in this study as the variables that will have a significant impact on the retrieval errors of soil moisture by microwave remote sensing (section 2.1.2). Although the relative performances of different soil moisture products is related to surface moisture condition (Kim et al., 2015), it is found mainly due to the less vegetation in arid areas. After all, no explicit mechanism can support the idea that the retrieval errors of soil moisture are significantly influenced by water availability. Even if this is true, the soil water availability can already be indicated by
the microwave soil moisture products. Therefore, it is unreasonable to incorporate the precipitation variable as a ‘quality impact factor’. On the other hand, LAI, water area fraction, LST, land use cover, tree cover fraction, non-tree vegetation fraction, topographic complexity, and soil sand/clay fractions all have direct impacts on the microwave soil moisture retrieval errors, with solid physical mechanisms (see section 2.1.2). Therefore, theoretically, these variables should be added to the neural network, even though the land use cover type and soil sand fraction data have been proven to have limited contributions to NN training efficiency.

One may argue that if NARX (nonlinear autoregressive with external input) is applied instead, in which the soil moisture in the previous 10-day period is also incorporated as a predictor, precipitation data can be very beneficial to neural network training. This result is true because precipitation directly contributes to increases in soil moisture. However, NARX is not suitable for global-scale long-term continuous soil moisture mapping because the base map (i.e., the soil moisture at the beginning of the simulation period) is difficult to determine. Moreover, in mid to high latitudes, the lack of soil moisture retrievals over frozen ground in winters will lead to missing data there in summers when soil moisture data are otherwise available. Therefore, if NARX is adopted, we can only estimate long-term soil moisture in the tropics and subtropics with air temperatures consistently higher than 0 °C. Finally, if the soil moisture in the previous phase and the current precipitation amount are both incorporated, they will largely conceal the role of satellite-observed signals. As shown in Figure S16b, the total contribution fraction of all four microwave soil moisture products is reduced to only 10.6%, while the roles of ASCAT, AMSR2-JAXA and AMSR2-LPRM are all negligible. Without taking full advantage of remote sensing, simulations based on previous soil moisture and current precipitation products will lead to errors in regions where soil moisture gains are mostly driven by glacier melting or in places with high levels of radiation-driven surface soil evaporation. The reliability of the derived soil moisture will be reduced in irrigated croplands and afforestation/deforestation areas as well.

On account of all above, precipitation data is neither included as an ancillary soil moisture indicator, nor added as a ‘quality impact factor’ in this study.
Text S2. The screen and processing of ISMN sites’ soil moisture records

It has been acknowledged that the scale difference between the records at ISMN sites and the 0.1° pixel-scale soil moisture data may lead to incomparability, especially for pixels with open water and inundated land (Loew, 2008). If the measurement site is located on land, away from water, yet the corresponding pixel contains much water, the pixel-scale soil moisture can be significantly higher than the site-measured values. Conversely, if the site is in or close to the open water or inundated areas but land also exists in the pixel, the soil moisture measured at the station will be much higher than the average pixel value. The absolute values are unmatchable, and the temporal variations cannot be directly compared as well, because the moisture conditions of riverside (or wetland) soil and the land soil may change with precipitation differently. Therefore, the sites located in the pixels with an average annual maximal water area fraction greater than 5% according to SWAMPS data are excluded (for example, some sites in wetlands in Canada).

Some stations may have two or more sensors, producing multiple soil moisture values at the same time. On this condition, the obviously abnormal values retrieved by one out of the three or more sensors can be excluded by comparison.

Because the ISMN data are in hourly-scale, we first averaged them to daily scale and then to 10-day scale. To ensure data reliability, when calculating daily averages, the days with less than 12 hours with valid records are assigned no data while the soil moisture during a 10-day period can only be obtained by taking the mean value of at least 5 valid daily averages.

The records outside the temporal span of the soil moisture product (2003~2018) or those at the stations covered by rainforests are not utilized as well. This resulted in a collection of more than 100,000 10-day scale surface soil moisture records obtained from 728 stations belonging to 29 networks. There are 19 dense networks (usually with multiple stations within one 0.1° pixel (Dorigo et al., 2015)): AMMA-CATCH (Cappelaere et al., 2009; De Rosnay et al., 2009; Lebel et al., 2009; Mougin et al., 2009; Pellarin et al., 2009), BIEBRZA_S-1 (http://www.igik.edu.pl/en), BNZ-LTER (Van Cleve et al., 2015) (http://www.lter.uaf.edu/), CTP_SMTMN (Yang et al., 2013), FLUXNET-AMERIFLUX (http://ameriflux.lbl.gov/), FR_Aqui (Al-Yaari et al., 2018), HiWATER_EHWSN (Jin et al., 2014; Kang et al., 2014), HOBE (Bircher et al., 2012), HYDROL-NET_PERUGIA (Morbidelli et al., 2014), iRON (Osenga et
al., 2019), MAQU (Su et al., 2011), OZNET (Smith et al., 2012; Young et al., 2008), REMEDHUS (http://campus.usal.es/~hidrus/), SASMAS (Rüdiger et al., 2007), SKKU (Hyunglok et al., 2016), SOILSCAPE (Moghaddam et al., 2010; Moghaddam et al., 2016), SWEX_POLAND (Marczewski et al., 2010), VAS (http://nimbus.uv.es/) and WSMN (http://www.aber.ac.uk/wsmn). The remaining 10 are sparse networks, including ARM (http://www.arm.gov/), CARBOAFRICA (Ardö, 2013), COSMOS (Zreda et al., 2008; Zreda et al., 2012), DAHRA (Tagesson et al., 2015), RSMN (http://assimo.meteoromania.ro), SMOSMANIA (Albergel et al., 2008; Calvet et al., 2007), TERENO (Zacharias et al., 2011), UDC_SMOS (Loew et al., 2009; Schlenz et al., 2012), USCRN (Bell et al., 2013), USDA-ARS (Jackson et al., 2010). The detailed information on the stations of those ISMN networks are included in Table S16.
Supplementary figures

Figure S1. A sketch of the four substeps in boundary fuzzification. The 1° × 1° zones are separated by solid black lines (the 0.1° × 0.1° pixels in one zone are superimposed by light gray mesh). For each substep (subfigures a–d), the soil moisture value within each pixel that is colored in blue is recalculated as the average of its original surface soil moisture and the original soil moisture value in its most adjacent yellow color pixel, weighted by the corresponding numbers labeled (i.e., 2 and 1). In this way, every border of a 1° × 1° zone gets smoothed once (substeps ‘a–d’ are for four borders, respectively, where a~b are for the horizontal borders while c~d are for the vertical borders), but the four corners get smoothed twice (both horizontally and vertically).
Figure S2. The overall data accuracy comparison between RSSSM and the surface soil moisture of ERA5-Land: (a) the scatter plot between RSSSM and the measured soil moisture; (b) the scatter plot between ERA5-Land soil moisture and the measured values. All plots are represented as the density of points in a logarithmic scale.

Figure S3. The comparison between the temporal pattern accuracy of RSSSM and ERA5-Land soil moisture in regions with different Köppen-Geiger climate types. The four evaluation indexes are: (a) correlation coefficient ($r$); (b) RMSE; (c) ubRMSE; (d) Anomalies $r$. The lengths of error bars are 1.5 times of the interquartile range, while the upper, lower boundary and the central lines of the boxes indicate the 75th, 50th and 25th percentile values, with mean values marked by ‘×’ (the form of all the following boxplots are the same).
Figure S4. The comparison between the spatial accuracy of RSSSM and ERA5-Land surface soil moisture data in different 10-day periods of all years (‘D’ represents the ordinal of 10-day period in a year). The three evaluation indexes are: (a) correlation coefficient ($r$); (b) RMSE and (c) ubRMSE.

Figure S5. The overall data accuracy comparison between RSSSM and CCI surface soil moisture: the scatter plot between (a) RSSSM; (b) CCI and the measured values.
Figure S6. The comparison between the temporal accuracy of RSSSM and CCI soil moisture in regions with different Köppen-Geiger climate types. The four evaluation indexes are: (a) $r$; (b) RMSE; (c) ubRMSE; (d) Anomalies $r$. 
Figure S7. The comparison between the spatial accuracy of RSSSM and CCI soil moisture data in different 10-day periods of all years. The three indexes are: (a) correlation coefficient ($r$); (b) RMSE; (c) ubRMSE.

Figure S8. The overall data accuracy of (a) GLEAM v3.3a and (b) GLEAM v3.3b surface soil moisture products (validated against ISMN site measurements).
Figure S9. The comparison between the temporal accuracy of RSSSM and GLEAM soil moisture products (GLEAM v3.3a; GLEAM v3.3b) in different Köppen-Geiger climatic regions. The four evaluation indexes are: (a) $r$ (correlation coefficient); (b) RMSE; (c) ubRMSE and (d) Anomalies $r$.

Figure S10. The comparison between the spatial accuracy of RSSSM and the GLEAM soil moisture products (GLEAM v3.3a, GLEAM v3.3b) in different 10-day periods of all years. The three indexes are: (a) correlation coefficient $r$; (b) RMSE; (c) ubRMSE.
Figure S11. Monthly global spatial pattern of the neural network simulated surface soil moisture (RSSSM, averaged during 2003~2018): (a) for January and February; (b) for March and April; (c) for May and June; (d) for July and August; (e) for September and October; (f) for November and December.

Figure S12. The spatial and temporal pattern comparison between the neural network simulated soil moisture in this study (RSSSM) and other well-acknowledged products: (a) the latitudinal patterns of RSSSM and GLDAS Noah V2.1 surface soil moisture (averaged during 2003~2018); (b) the interannual trends of global mean surface soil moisture derived from RSSSM and GLEAM v3.3a products during 2003~2018. Note that according our validation results, among previous well-known global long-term surface soil moisture products, GLDAS Noah V2.1 has the highest quality in terms of spatial pattern, whereas GLEAM v3.3a can best characterize the temporal variation.
Figure S13. The intra-annual variation of surface soil moisture indicated by RSSSM data product. (a) the global spatial pattern of the lowest trough location in time of the calculated surface soil moisture (unit: 10 days); (b~c) the global spatial pattern of the (b) highest peak and (c) minimum trough surface soil moisture content within a year.
Figure S14. The relationship between precipitation and the calculated surface soil moisture (RSSSM). (a~b) the spatial map and the cumulative frequency curve of the correlation coefficient between the precipitation and the surface soil moisture during 2003~2018; (c) the cumulative frequency curve of the correlation coefficient between the intra-annual variations of precipitation and surface soil moisture fitted by Fourier functions.
Figure S15. The intra-annual variation in the surface soil moisture (RSSSM) decline after 10 consecutive dry days and its relationship with surface soil moisture. (a) the global map of the lowest trough location of the surface soil moisture decline on dry days (unit: 10 days); (b) the correlation coefficient map between the intra-annual variations of surface soil moisture decline on dry days and the surface soil moisture content fitted by Fourier functions; (c) the cumulative frequency curve of the correlation coefficient values in subfigure (b); (d) the global spatial pattern of the intra-annual range of the surface soil moisture decline after 10 dry days.
Figure S16. The role of precipitation data in the soil moisture simulations based on BP neural networks and NARX with microwave soil moisture products incorporated: (a) the contributions of different input features of a primary neural network: NN1-1-1, including 4 predictor soil moisture products, 9 quality impact factors of microwave soil moisture retrieval, plus 1 probable ancillary soil water indicator: 10-day averaged precipitation, to the neural network training efficiency indicated by the increased MSE; (b) the contributions of all the input features to the training efficiency, if NN1-1-1 is changed into a NARX (nonlinear autoregressive with external input), in which the SMAP soil moisture for the previous period is also applied as a predictor.
## Supplementary tables

Table S1. The basic information on the first round of neural network training (the substep 1 and 2).

| Network code a | Training target soil moisture | Network input soil moisture products b | Input LAI product c | Input data's time period d | Number of 10 days’ period |
|----------------|-------------------------------|---------------------------------------|---------------------|---------------------------|--------------------------|
| NN1-1(2)-1     |                               | ASCAT; SMOS; AMSR2-JAXA; AMSR2-LPRM  | 1) PROBA-V;         | 1) 2015D10~2018D36       |                          |
| NN1-1(2)-2     |                               | ASCAT; SMOS; AMSR2-JAXA               |                     |                           |                          |
| NN1-1(2)-3     |                               | ASCAT; SMOS; AMSR2-LPRM               |                     |                           |                          |
| NN1-1(2)-4     | SMAP                          | ASCAT; AMSR2-JAXA; AMSR2-LPRM        | 2) GLASS            | 2) 2015D10~2017D36       | 135                      |
| NN1-1(2)-5     |                               | ASCAT; SMOS                          |                     |                           |                          |
| NN1-1(2)-6     |                               | ASCAT; AMSR2-JAXA                    |                     |                           |                          |
| NN1-1(2)-7     |                               | ASCAT; AMSR2-LPRM                    |                     |                           |                          |
| NN1-1(2)-8c    |                               | ASCAT                                |                     |                           |                          |

a ‘NN’ represents neural network, the first number is the round number, the second one is the number of substep while the last one indicates the priority order of different networks.

b There is no order among different soil moisture products.

c For NN1-1-X (X=1, 2, …, 8), the PROBA-V LAI is used whereas for NN1-2-X (X=1, 2, …, 8), the GLASS LAI is used.

d For NN1-1-X (X=1, 2, …, 8), the time period is 2015D10~2018D36 whereas for NN1-2-X (X=1, 2, …, 8), the time period is 2015D10~2017D36.

e This neural network is optional because it cannot further increase the spatial coverage of simulation outputs.

f D represents the ordinal of ten days’ period in a year. For example, 2015D10 stands for April 1st to April 10th in 2015 while 2018D36 is December 21st to December 31st in 2018.
Table S2. The basic information on the first round of surface soil moisture simulation using the trained neural network (the substep 1 and 2).

| Available soil moisture products in the pixel a | Order of neural network preference b | Code of the simulated soil moisture product c | Temporal coverage of the simulated product d |
|-----------------------------------------------|-------------------------------------|---------------------------------------------|---------------------------------------------|
| ASCAT; SMOS; AMSR2-JAXA; AMSR2-LPRM           | NN1-1(2)-1, NN1-1(2)-2, NN1-1(2)-3, NN1-1(2)-4, NN1-1(2)-5, NN1-1(2)-6, NN1-1(2)-7, NN1-1(2)-8 | SIM-1-1(2) | 1) 2014D01~2018D36; 2) 2012D19~2013D36 |
| ASCAT; SMOS; AMSR2-JAXA                       | NN1-1(2)-2, NN1-1(2)-5, NN1-1(2)-7, NN1-1(2)-8 | SIM-1-2(2) |                                      |
| ASCAT; SMOS; AMSR2-LPRM                       | NN1-1(2)-3, NN1-1(2)-5, NN1-1(2)-6, NN1-1(2)-7, NN1-1(2)-8 | SIM-1-3(2) |                                      |
| ASCAT; AMSR2-JAXA: AMSR2-LPRM                 | NN1-1(2)-4, NN1-1(2)-6, NN1-1(2)-7, NN1-1(2)-8 | SIM-1-4(2) |                                      |
| ASCAT; SMOS                                   | NN1-1(2)-5, NN1-1(2)-8 | SIM-1-5(2) |                                      |
| ASCAT; AMSR2-JAXA                             | NN1-1(2)-6, NN1-1(2)-8 | SIM-1-6(2) |                                      |
| ASCAT; AMSR2-LPRM                             | NN1-1(2)-7, NN1-1(2)-8 | SIM-1-7(2) |                                      |
| ASCAT e                                      | NN1-1(2)-8 | SIM-1-8(2) |                                      |

a This column indicates the missing soil moisture data in a pixel. For example, ‘ASCAT; SMOS; AMSR2-JAXA; AMSR2-LPRM’ means all data is available; ‘ASCAT; AMSR2-JAXA’ means SMOS and AMSR2-LPRM data are lacking in that specific pixel.
b Order of neural network preference means: if the first neural network (the most preferred one) is available in the zone where the pixel is located, it is applied for soil moisture simulation in that pixel; otherwise, the following neural network is applied if it is available, and so on.
c ‘SIM’ represents the neural network simulated soil moisture, the first number is the round of simulation while the second one indicates the substep.
d For SIM-1-1, the data temporal coverage is 2014D01~2018D36 whereas for SIM-1-2, the data period is 2012D19~2013D36.
e Optional because unhelpful to increasing the spatial coverage of simulation outputs.
f NN1-1-X (X=1, 2, …, 8) are used for soil moisture simulation during substep 1 (the production of SIM-1-1) whereas the neural networks built in substep 2, that are labelled as NN1-2-X (X=1, 2, …, 8), are applied for the calculation of SIM-1-2.
Table S3. The basic information on the second round of neural network training.

| Network code | Training target soil moisture | Network input soil moisture products | Input LAI product | Input data's time period | Number of 10 days' period |
|--------------|-------------------------------|-------------------------------------|-------------------|--------------------------|--------------------------|
| NN2-1        | SIM-1T                        | ASCAT; SMOS; FY; TMI                |                   | 2012D19~2015D10         | 100                      |
| NN2-2        | SMAP                          | ASCAT; SMOS; FY                     |                   | 2015D10~2017D36         | 99                       |
| NN2-3        | SIM-1T                        | ASCAT; SMOS; TMI                    |                   | 2012D19~2015D10         | 100                      |
| NN2-4        | SIM-1T                        | ASCAT; FY; TMI                      |                   | 2012D19~2015D10         | 100                      |
| NN2-5        | SMAP                          | ASCAT; SMOS                         | GLASS             | 2015D10~2017D36         | 99                       |
| NN2-6        | SMAP                          | ASCAT; FY                           |                   | 2015D10~2017D36         | 99                       |
| NN2-7        | SIM-1T                        | ASCAT; TMI                          |                   | 2012D19~2015D10         | 100                      |
| NN2-8        | SMAP                          | ASCAT                               |                   | 2015D10~2017D36         | 99                       |

*Because simulation round 2 does not have multiple substeps, the second number indicating substep is deleted from the codes.*

Table S4. The basic information on the second round of surface soil moisture simulation using the trained neural network

| Available soil moisture products in the pixel | Order of neural network preference | The code of output soil moisture product and its temporal coverage |
|---------------------------------------------|-----------------------------------|---------------------------------------------------------------|
| ASCAT; SMOS; FY; TMI                        | NN2-1, NN2-2, NN2-3, NN2-4, NN2-5, NN2-6, NN2-7, NN2-8 | SIM-2 (2011D20~2012D18)                                      |
| ASCAT; SMOS; FY                              | NN2-2, NN2-5, NN2-6, NN2-8        |                                                               |
| ASCAT; SMOS; TMI                             | NN2-3, NN2-5, NN2-6, NN2-8        |                                                               |
| ASCAT; FY; TMI                               | NN2-4, NN2-6, NN2-7, NN2-8        |                                                               |
| ASCAT; SMOS                                  | NN2-5, NN2-8                       |                                                               |
| ASCAT; FY                                    | NN2-6, NN2-8                       |                                                               |
| ASCAT; TMI                                    | NN2-7, NN2-8                       |                                                               |
| ASCAT                                        | NN2-8                              |                                                               |
### Table S5. The basic information on the third round of neural network training (the substep 1).

| Network code | Training target | Network input soil moisture products | Input LAI product | Input data's time period | Number of 10 days’ period |
|--------------|-----------------|--------------------------------------|-------------------|-------------------------|--------------------------|
| NN3-1-1      | SIM-1T          | ASCAT; SMOS; TMI                      |                   | 2012D19–2015D10         | 100                      |
| NN3-1-2      | SMAP            | ASCAT; SMOS                           |                   | 2015D10–2017D36         | 99                       |
| NN3-1-3      | SIM-1T          | ASCAT; TMI                            | GLASS             | 2012D19–2015D10         | 100                      |
| NN3-1-4      | SIM-2T+SIM-1T   | ASCAT; WINDSAT                        |                   | 2011D20–2012D21         | 38                       |
| NN3-1-5      | SMAP            | ASCAT                                |                   | 2015D10–2017D36         | 99                       |

### Table S6. The basic information on the third round of surface soil moisture simulation using the trained neural network (the substep 1).

| Available soil moisture products in the pixel | Order of neural network preference | The code of output soil moisture product and its temporal coverage |
|----------------------------------------------|-----------------------------------|-----------------------------------------------------------------|
| ASCAT; SMOS; TMI; WINDSAT                    | NN3-1-1, NN3-1-2, NN3-1-3, NN3-1-4, NN3-1-5 | SIM-3-1 (2010D16–2011D19)                                      |
| ASCAT; SMOS; TMI                             | NN3-1-1, NN3-1-2, NN3-1-3, NN3-1-5          |                                                                |
| ASCAT; SMOS; WINDSAT                         | NN3-1-2, NN3-1-4, NN3-1-5                  |                                                                |
| ASCAT; SMOS                                  | NN3-1-2, NN3-1-5                         |                                                                |
| ASCAT; TMI                                   | NN3-1-3, NN3-1-4, NN3-1-5                  |                                                                |
| ASCAT; WINDSAT                               | NN3-1-3, NN3-1-5                         |                                                                |
| ASCAT                                        | NN3-1-5                                 |                                                                |
### Table S7. The basic information on the third round of neural network training (the substep2).

| Network code | Training target | Network input soil moisture products | Input LAI product | Input data's time period | Number of 10 days’ period |
|--------------|-----------------|--------------------------------------|-------------------|-------------------------|--------------------------|
| NN3-2-1      | SIM-2T+SIM-1T   | ASCAT; SMOS; TMI; WINDSAT            |                   | 2011D20–2012D21         | 38                       |
| NN3-2-2      | SIM-1T          | ASCAT; SMOS; TMI                     |                   | 2012D19–2015D10         | 100                      |
| NN3-2-3      | SIM-2T+SIM-1T   | ASCAT; SMOS; WINDSAT                 |                   | 2011D20–2012D21         | 38                       |
| NN3-2-4      | SIM-2T+SIM-1T   | ASCAT; TMI; WINDSAT                  | GLASS             | 2011D20–2012D21         | 38                       |
| NN3-2-5      | SMAP            | ASCAT; SMOS                          |                   | 2015D10–2017D36         | 99                       |
| NN3-2-6<sup>a</sup> | SIM-1T       | ASCAT; TMI                           |                   | 2012D19–2015D10         | 100                      |
| NN3-2-7<sup>a</sup> | SIM-2T+SIM-1T | ASCAT; WINDSAT                      |                   | 2011D20–2012D21         | 38                       |
| NN3-2-8<sup>a</sup> | SMAP           | ASCAT                               |                   | 2015D10–2017D36         | 99                       |

<sup>a</sup> Optional because these neural networks has already been included in substep 1.

### Table S8. The basic information on the third round of surface soil moisture simulation using the trained neural network (the substep2).

| Available soil moisture products in the pixel | Order of neural network preference | The code of output soil moisture product and its temporal coverage |
|----------------------------------------------|-----------------------------------|-----------------------------------------------------------------|
| ASCAT; SMOS; TMI; WINDSAT                    | NN3-2-1, NN3-2-2, NN3-2-3, NN3-2-4, NN3-2-5, NN3-2-6<sup>a</sup>, NN3-2-7<sup>a</sup>, NN3-2-8<sup>a</sup> | SIM-3-2 (2010D16–2011D19)                                        |
| ASCAT; SMOS; TMI                             | NN3-2-2, NN3-2-5, NN3-2-6<sup>a</sup>, NN3-2-8<sup>a</sup> |
| ASCAT; SMOS; WINDSAT                         | NN3-2-3, NN3-2-5, NN3-2-7<sup>a</sup>, NN3-2-8<sup>a</sup> |
| ASCAT; TMI; WINDSAT                          | NN3-2-4, NN3-2-6<sup>a</sup>, NN3-2-7<sup>a</sup>, NN3-2-8<sup>a</sup> |
| ASCAT; SMOS                                  | NN3-2-5, NN3-2-8<sup>a</sup> |
| ASCAT; TMI<sup>a</sup>                       | NN3-2-6<sup>a</sup>, NN3-2-8<sup>a</sup> |
| ASCAT; WINDSAT<sup>a</sup>                   | NN3-2-7<sup>a</sup>, NN3-2-8<sup>a</sup> |
| ASCAT<sup>a</sup>                            | NN3-2-8<sup>a</sup> |

<sup>a</sup> Optional due to repetition.
Table S9. The method applied in combining SIM-3-1 and SIM-3-2 to produce SIM-3.

| Data availability of SIM-3-1 and SIM-3-2 in a specific pixel | The expression for SIM-3 |
|---------------------------------------------------------------|-------------------------|
| No data for SIM-3-2 (SIM-3-1 have data)                       | SIM-3=SIM-3-1           |
| No data for SIM-3-1 (SIM-3-2 have data)                       | SIM-3=SIM-3-2           |
| SIM-3-1 within range; SIM-3-2 within range a                  | SIM-3=(SIM-3-1+SIM-3-2)/2 |
| SIM-3-1 within range; SIM-3-2 out of range                    | SIM-3=SIM-3-1           |
| SIM-3-1 out of range; SIM-3-2 within range                    | SIM-3=SIM-3-2           |
| SIM-3-1>SM_{max} and SIM-3-2>SM_{max} b                       | SIM-3=min(SIM-3-1, SIM-3-2) |
| SIM-3-1< SM_{min} and SIM-3-2< SM_{min} c                      | SIM-3=max(SIM-3-1, SIM-3-2) |
| Other conditions                                              | SIM-3=(SIM-3-1+SIM-3-2)/2 |

a ‘Range’ refers to the data range of SMAP_E surface soil moisture in a specific pixel from April 2015 to 2018.

b ‘SM_{max}’ is the maximum soil moisture value in a specific pixel reported by the SMAP_E dataset.

c ‘SM_{min}’ is the minimum soil moisture value in a specific pixel according to the SMAP_E dataset.
Table S10. The basic information on the fourth round of neural network training (the substep 1).

| Network code | Training target | Network input soil moisture products | Input LAI product | Input data's time period | Number of 10 days' period |
|--------------|-----------------|--------------------------------------|------------------|--------------------------|--------------------------|
| NN4-1-1      |                 | ASCAT; WINDSAT; TMI; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC |                  |                          |                          |
| NN4-1-2      |                 | ASCAT; WINDSAT; TMI; AMSRE-JAXA; AMSRE-LPRM |                  |                          |                          |
| NN4-1-3      |                 | ASCAT; WINDSAT; TMI; AMSRE-JAXA; AMSRE-NSIDC |                  |                          |                          |
| NN4-1-4      |                 | ASCAT; WINDSAT; TMI; AMSRE-JAXA      |                  |                          |                          |
| NN4-1-5      |                 | ASCAT; WINDSAT; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC |                  |                          |                          |
| NN4-1-6      |                 | ASCAT; WINDSAT; AMSRE-JAXA; AMSRE-LPRM |                  |                          |                          |
| NN4-1-7      |                 | ASCAT; WINDSAT; AMSRE-JAXA; AMSRE-NSIDC |                  |                          |                          |
| NN4-1-8      | SIM-3T + SIM-2T | ASCAT; WINDSAT; AMSRE-JAXA |                  |                          |                          |
| NN4-1-9      |                 | ASCAT; TMI; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC | SPOT-VGT | 2010D16–2011D27 | 48                        |
| NN4-1-10     |                 | ASCAT; TMI; AMSRE-JAXA; AMSRE-LPRM |                  |                          |                          |
| NN4-1-11     |                 | ASCAT; TMI; AMSRE-JAXA; AMSRE-NSIDC |                  |                          |                          |
| NN4-1-12     |                 | ASCAT; TMI; AMSRE-JAXA |                  |                          |                          |
| NN4-1-13     |                 | ASCAT; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC |                  |                          |                          |
| NN4-1-14     |                 | ASCAT; AMSRE-JAXA; AMSRE-LPRM |                  |                          |                          |
| NN4-1-15     |                 | ASCAT; AMSRE-JAXA; AMSRE-NSIDC |                  |                          |                          |
| NN4-1-16     |                 | ASCAT; AMSRE-JAXA |                  |                          |                          |
Table S11. The basic information on the fourth round of surface soil moisture simulation using the trained neural network (the substep1).

| Available soil moisture products in the pixel | Order of neural network preference | The code of output soil moisture product and its temporal coverage |
|---------------------------------------------|-----------------------------------|---------------------------------------------------------------|
| ASCAT; WINDSAT; TMI; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC | NN4-1-1, NN4-1-2, NN4-1-3, NN4-1-4, NN4-1-5, | |
| | NN4-1-6, NN4-1-7, NN4-1-8, NN4-1-9, NN4-1-10, | |
| | NN4-1-11, NN4-1-12, NN4-1-13, NN4-1-14, NN4-1-15, NN4-1-16 | SIM-4-1 (2007D01~2010D15) |
| ASCAT; WINDSAT; TMI; AMSRE-JAXA; AMSRE-LPRM | NN4-1-2, NN4-1-4, NN4-1-6, NN4-1-8, | |
| | NN4-1-10, NN4-1-12, NN4-1-14, NN4-1-16 | |
| ASCAT; WINDSAT; TMI; AMSRE-JAXA | NN4-1-3, NN4-1-4, NN4-1-7, NN4-1-8, NN4-1-11, NN4-1-12, NN4-1-15, NN4-1-16 | |
| ASCAT; WINDSAT; TMI; AMSRE-JAXA; AMSRE-NSIDC | NN4-1-4, NN4-1-8, NN4-1-12, NN4-1-16 | |
| ASCAT; WINDSAT; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC | NN4-1-5, NN4-1-6, NN4-1-7, NN4-1-8, NN4-1-13, NN4-1-14, NN4-1-15, NN4-1-16 | |
| ASCAT; WINDSAT; AMSRE-JAXA; AMSRE-LPRM | NN4-1-6, NN4-1-8, NN4-1-14, NN4-1-16 | |
| ASCAT; WINDSAT; AMSRE-JAXA | NN4-1-7, NN4-1-8, NN4-1-15, NN4-1-16 | |
| ASCAT; WINDSAT; AMSRE-JAXA; AMSRE-NSIDC | NN4-1-8, NN4-1-16 | |
| ASCAT; TMI; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC | NN4-1-9, NN4-1-10, NN4-1-11, NN4-1-12, NN4-1-13, NN4-1-14, NN4-1-15, NN4-1-16 | |
| ASCAT; TMI; AMSRE-JAXA; AMSRE-LPRM | NN4-1-10, NN4-1-12, NN4-1-14, NN4-1-16 | |
| ASCAT; TMI; AMSRE-JAXA | NN4-1-11, NN4-1-12, NN4-1-15, NN4-1-16 | |
| ASCAT; TMI; AMSRE-JAXA; AMSRE-NSIDC | NN4-1-12, NN4-1-16 | |
| ASCAT; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC | NN4-1-13, NN4-1-14, NN4-1-15, NN4-1-16 | |
| ASCAT; AMSRE-JAXA; AMSRE-LPRM | NN4-1-14, NN4-1-16 | |
| ASCAT; AMSRE-JAXA; AMSRE-NSIDC | NN4-1-15, NN4-1-16 | |
| ASCAT; AMSRE-JAXA | NN4-1-16 | |
Table S12. The basic information on the fourth round of neural network training (the substep2).

| Network code | Training target | Network input soil moisture products | Input LAI product | Input data's time period | Number of 10 days' period |
|--------------|-----------------|--------------------------------------|-------------------|-------------------------|--------------------------|
| NN4-2-1      | SIM-1T          | ASCAT; TMI                           |                   | 2012D19–2015D10         | 100                      |
| NN4-2-2      | SIM-2T+SIM-1T   | ASCAT; WINDSAT                       | GLASS             | 2011D20–2012D21         | 38                       |
| NN4-2-3\*    | SIM-3T+SIM-2T   | ASCAT; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC | | | |
| NN4-2-4\*    | SIM-3T+SIM-2T   | ASCAT; AMSRE-JAXA; AMSRE-LPRM       | SPOT-VGT          | 2010D16–2011D27         | 48                       |
| NN4-2-5\*    | SIM-3T+SIM-2T   | ASCAT; AMSRE-JAXA; AMSRE-NSIDC      |                   |                         |                          |
| NN4-2-6\*    | SIM-3T+SIM-2T   | ASCAT; AMSRE-JAXA                    |                   |                         |                          |

\* Optional because these neural networks have already been included in substep 1.

Table S13. The basic information on the fourth round of surface soil moisture simulation using the trained neural network (the substep2)\*.

| Available soil moisture products in the pixel | Order of neural network preference | The code of output soil moisture product and its temporal coverage |
|---------------------------------------------|-----------------------------------|-----------------------------------------------------------------|
| ASCAT; TMI; WINDSAT; (AMSRE-JAXA); (AMSRE-LPRM); (AMSRE-NSIDC)\* | NN4-2-1, NN4-2-2                  | NN4-2-1 SIM-4-2 (2007D01–2010D15)                                 |
| ASCAT; TMI; (AMSRE-JAXA); (AMSRE-LPRM); (AMSRE-NSIDC)\* | NN4-2-1                           |                                                                |
| ASCAT; WINDSAT; (AMSRE-JAXA); (AMSRE-LPRM); (AMSRE-NSIDC)\* | NN4-2-2                           |                                                                |

\* There are actually several optional conditions in this simulation, but are omitted in this table.

\* The meaning of the parentheses is: whether the soil moisture products in the parentheses are available in the pixel or not does not make a difference.
Table S14. The basic information on the fifth round of neural network training.

| Network code | Training target | Network input soil moisture products | Input LAI product | Input data's time period | Number of 10 days' period |
|--------------|-----------------|-------------------------------------|-------------------|--------------------------|--------------------------|
| NN5-1        |                 | WINDSAT; TMI; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC |                  |                          |                          |
| NN5-2        |                 | WINDSAT; TMI; AMSRE-JAXA; AMSRE-LPRM |                  |                          |                          |
| NN5-3        |                 | WINDSAT; TMI; AMSRE-JAXA; AMSRE-NSIDC  |                  |                          |                          |
| NN5-4        |                 | WINDSAT; TMI; AMSRE-JAXA              |                  |                          |                          |
| NN5-5        |                 | WINDSAT; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC |              |                          |                          |
| NN5-6        | SIM-4T          | WINDSAT; AMSRE-JAXA; AMSRE-LPRM      |                  |                          |                          |
| NN5-7        | +               | WINDSAT; AMSRE-JAXA; AMSRE-NSIDC     |                  |                          |                          |
| NN5-8        | SIM-3T          | WINDSAT; AMSRE-JAXA                  |                  | SPOT-VGT                  | 2007D01–2011D27           | 171                       |
| NN5-9        | +               | TMI; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC |            |                          |                          |
| NN5-10       | SIM-2T          | TMI; AMSRE-JAXA; AMSRE-LPRM          |                  |                          |                          |
| NN5-11       |                 | TMI; AMSRE-JAXA; AMSRE-NSIDC         |                  |                          |                          |
| NN5-12       |                 | TMI; AMSRE-JAXA                      |                  |                          |                          |
| NN5-13       |                 | AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC  |                  |                          |                          |
| NN5-14       |                 | AMSRE-JAXA; AMSRE-LPRM               |                  |                          |                          |
| NN5-15       |                 | AMSRE-JAXA; AMSRE-NSIDC              |                  |                          |                          |

*a Optional neural networks are excluded from this table for simplicity.*
Table S15. The basic information on the fifth round of surface soil moisture simulation using the trained neural networks.

| Available soil moisture products in the pixel | Order of neural network preference | The code of output soil moisture product and its temporal coverage |
|---------------------------------------------|-----------------------------------|---------------------------------------------------------------|
| WINDSAT; TMI; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC | NN5-1, NN5-2, NN5-3, NN5-4, NN5-5, NN5-6, NN5-7, NN5-8, NN5-9, NN5-10, NN5-11, NN5-12, NN5-13, NN5-14, NN5-15 | |
| WINDSAT; TMI; AMSRE-JAXA; AMSRE-LPRM | NN5-2, NN5-4, NN5-6, NN5-8, NN5-10, NN5-12, NN5-14 | |
| WINDSAT; TMI; AMSRE-JAXA; AMSRE-NSIDC | NN5-3, NN5-4, NN5-7, NN5-8, NN5-11, NN5-12, NN5-15 | |
| WINDSAT; TMI; AMSRE-JAXA | NN5-4, NN5-8, NN5-12 | |
| WINDSAT; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC | NN5-5, NN5-6, NN5-7, NN5-8, NN5-13, NN5-14, NN5-15 | |
| WINDSAT; AMSRE-JAXA; AMSRE-LPRM | NN5-6, NN5-8, NN5-14 | |
| WINDSAT; AMSRE-JAXA; AMSRE-NSIDC | NN5-7, NN5-8, NN5-15 | SIM-5 (2003D01–2006D36) |
| WINDSAT; AMSRE-JAXA | NN5-8 | |
| TMI; AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC | NN5-9, NN5-10, NN5-11, NN5-12, NN5-13, NN5-14, NN5-15 | |
| TMI; AMSRE-JAXA; AMSRE-LPRM | NN5-10, NN5-12, NN5-14 | |
| TMI; AMSRE-JAXA; AMSRE-NSIDC | NN5-11, NN5-12, NN5-15 | |
| TMI; AMSRE-JAXA | NN5-12 | |
| AMSRE-JAXA; AMSRE-LPRM; AMSRE-NSIDC | NN5-13, NN5-14, NN5-15 | |
| AMSRE-JAXA; AMSRE-LPRM | NN5-14 | |
| AMSRE-JAXA; AMSRE-NSIDC | NN5-15 | |

*a Optional conditions are omitted in this table.
Table S16. The basic information of the ISMN stations and the temporal range of the data used for soil moisture data validation a.

| Network     | Station       | Climate_Koppen | Sensor       | Latitude | Longitude | Depth_min | Depth_max | Year_start | Year_end |
|-------------|---------------|----------------|--------------|----------|-----------|-----------|-----------|------------|----------|
| AMMA-CATCH  | Banizoubou    | BSh            | CS616-1      | 13.533   | 2.660     | 0.05      | 0.05      | 2006       | 2014     |
| AMMA-CATCH  | Belefoungou-Mid | Aw             | CS616       | 9.795    | 1.710     | 0.05      | 0.05      | 2006       | 2014     |
| AMMA-CATCH  | Belefoungou-Top | Aw             | CS616      | 9.790    | 1.710     | 0.05      | 0.05      | 2006       | 2014     |
| AMMA-CATCH  | Nalohou-Mid    | Aw             | CS616       | 9.745    | 1.605     | 0.05      | 0.05      | 2006       | 2009     |
| AMMA-CATCH  | Nalohou-Top     | Aw             | CS616       | 9.744    | 1.606     | 0.05      | 0.05      | 2006       | 2014     |
| AMMA-CATCH  | Tondikiboro    | BSh            | CS616-1     | 13.548   | 2.696     | 0.05      | 0.05      | 2006       | 2014     |
| AMMA-CATCH  | Wankama        | BSh            | CS616-1     | 13.646   | 2.632     | 0.05      | 0.05      | 2006       | 2014     |
| ARM         | Anthony        | Cfa            | SMP1-A       | 37.213   | -98.097   | 0.025     | 0.025     | 2012       | 2014     |
| ARM         | Ashton         | Cfa            | Water-Matric-Potential-Sensor-229L-E | 37.133 | -97.266   | 0.05      | 0.05      | 2003       | 2015     |
| ARM         | Byron          | Cfa            | Water-Matric-Potential-Sensor-229L-E | 36.881 | -98.285   | 0.05      | 0.05      | 2003       | 2015     |
| ARM         | Coldwater      | Cfa            | Water-Matric-Potential-Sensor-229L-E | 37.333 | -99.309   | 0.05      | 0.05      | 2003       | 2009     |
| ARM         | Cordell        | Cfa            | Water-Matric-Potential-Sensor-229L-E | 35.354 | -98.977   | 0.05      | 0.05      | 2003       | 2009     |
| ARM         | Cyril          | Cfa            | Water-Matric-Potential-Sensor-229L-E | 34.883 | -98.205   | 0.05      | 0.05      | 2003       | 2007     |
| ARM         | Earlsboro      | Cfa            | Water-Matric-Potential-Sensor-229L-E | 35.269 | -96.740   | 0.05      | 0.05      | 2004       | 2009     |
| ARM         | ElkFalls       | Cfa            | Water-Matric-Potential-Sensor-229L-E | 37.383 | -96.180   | 0.05      | 0.05      | 2003       | 2011     |
| ARM         | ElReno         | Cfa            | Water-Matric-Potential-Sensor-229L-E | 35.557 | -98.017   | 0.05      | 0.05      | 2003       | 2008     |
| ARM         | Halstead       | Cfa            | Water-Matric-Potential-Sensor-229L-E | 38.114 | -97.513   | 0.05      | 0.05      | 2003       | 2007     |
| ARM         | Hillsboro      | Cfa            | Water-Matric-Potential-Sensor-229L-E | 38.306 | -97.301   | 0.05      | 0.05      | 2003       | 2009     |
| ARM         | Lamont-CF1     | Cfa            | Water-Matric-Potential-Sensor-229L-E | 36.605 | -97.485   | 0.05      | 0.05      | 2003       | 2015     |
| ARM         | Lamont-CF2     | Cfa            | SMP1-A       | 36.607   | -97.488   | 0.025     | 0.025     | 2010       | 2012     |
| ARM         | Larned         | Cfa            | Water-Matric-Potential-Sensor-229L-E | 38.202 | -99.316   | 0.05      | 0.05      | 2003       | 2009     |
| ARM         | LeRoy          | Cfa            | Water-Matric-Potential-Sensor-229L-E | 38.201 | -95.597   | 0.05      | 0.05      | 2003       | 2009     |
| ARM         | Meeker         | Cfa            | Water-Matric-Potential-Sensor-229L-E | 35.564 | -96.988   | 0.05      | 0.05      | 2003       | 2011     |
| Site         | City       | Climate Zone | Sensor Type                       | WT | MT  | SC | Year 1  | Year 2  | Year 3  |
|--------------|------------|--------------|-----------------------------------|----|-----|----|---------|---------|---------|
| ARM          | Morris     | Cfa          | Water-Metric-Potential-Sensor-229L-E | 35.688 | -95.856 | 0.05 | 0.05 | 2003 | 2003 |
| ARM          | Newkirk    | Cfa          | SMP1-A                            | 36.926 | -97.082 | 0.025 | 0.025 | 2011 | 2014 |
| ARM          | Okmulgee   | Cfa          | SMP1-A                            | 35.615 | -96.065 | 0.025 | 0.025 | 2010 | 2014 |
| ARM          | Omega      | Cfa          | SMP1-A                            | 35.880 | -98.173 | 0.025 | 0.025 | 2011 | 2014 |
| ARM          | Pawhuska   | Cfa          | Water-Metric-Potential-Sensor-229L-E | 36.841 | -96.427 | 0.05 | 0.05 | 2003 | 2015 |
| ARM          | Plevna     | Cfa          | Water-Metric-Potential-Sensor-229L-E | 37.953 | -98.329 | 0.05 | 0.05 | 2003 | 2008 |
| ARM          | Ringwood   | Cfa          | Water-Metric-Potential-Sensor-229L-E | 36.431 | -98.284 | 0.05 | 0.05 | 2013 | 2003 |
| ARM          | Towanda    | Cfa          | Water-Metric-Potential-Sensor-229L-E | 37.842 | -97.020 | 0.05 | 0.05 | 2011 | 2003 |
| ARM          | Tyro       | Cfa          | Water-Metric-Potential-Sensor-229L-E | 37.068 | -95.788 | 0.05 | 0.05 | 2011 | 2003 |
| ARM          | ValleyFloor| Dfc          | SMP1-A                            | 40.462 | -106.817 | 0.025 | 0.025 | 2010 | 2011 |
| ARM          | Vici       | Cfa          | Water-Metric-Potential-Sensor-229L-E | 36.061 | -99.134 | 0.05 | 0.05 | 2003 | 2011 |
| ARM          | Waukomis   | Cfa          | SMP1-A                            | 36.311 | -97.928 | 0.025 | 0.025 | 2011 | 2014 |
| BIEBRZA_S-1  | grassland-soil-1 | Dfb | GS-3 | 53.635 | 22.981 | 0.05 | 0.05 | 2015 | 2018 |
| BIEBRZA_S-1  | grassland-soil-2 | Dfb | GS-3 | 53.634 | 22.981 | 0.05 | 0.05 | 2015 | 2018 |
| BIEBRZA_S-1  | grassland-soil-3 | Dfb | GS-3 | 53.633 | 22.982 | 0.05 | 0.05 | 2015 | 2018 |
| BIEBRZA_S-1  | grassland-soil-4 | Dfb | GS-3 | 53.632 | 22.982 | 0.05 | 0.05 | 2015 | 2018 |
| BIEBRZA_S-1  | grassland-soil-5 | Dfb | GS-3 | 53.631 | 22.982 | 0.05 | 0.05 | 2015 | 2018 |
| BIEBRZA_S-1  | grassland-soil-6 | Dfb | GS-3 | 53.635 | 22.979 | 0.05 | 0.05 | 2015 | 2018 |
| BIEBRZA_S-1  | grassland-soil-7 | Dfb | GS-3 | 53.634 | 22.980 | 0.05 | 0.05 | 2015 | 2018 |
| BIEBRZA_S-1  | grassland-soil-8 | Dfb | GS-3 | 53.633 | 22.980 | 0.05 | 0.05 | 2015 | 2018 |
| BIEBRZA_S-1  | grassland-soil-9 | Dfb | GS-3 | 53.632 | 22.980 | 0.05 | 0.05 | 2015 | 2018 |
| BNZ-LTER     | CRREL-Met  | Dfc          | CS615                             | 65.154 | -147.490 | 0.05 | 0.05 | 2003 | 2012 |
| BNZ-LTER     | FP1A       | Dfc          | CS615                             | 64.699 | -148.258 | 0.05 | 0.05 | 2003 | 2012 |
| BNZ-LTER     | FP2A       | Dfc          | CS615                             | 64.699 | -148.252 | 0.05 | 0.05 | 2003 | 2012 |
| BNZ-LTER     | FP3A       | Dfc          | CS615                             | 64.723 | -148.151 | 0.05 | 0.05 | 2003 | 2012 |
| BNZ-LTER     | FP4A       | Dfc          | CS615                             | 64.679 | -148.237 | 0.05 | 0.05 | 2003 | 2012 |
| Location        | Experiment | Type | CarboAfrica | Date | ET | EC | TM |
|-----------------|------------|------|-------------|------|----|----|----|
| BNZ-LTER        | FP5A       | Dfc  | CS615       | 64.681 | -148.249 | 0.05 | 0.05 | 2003 | 2012 |
| BNZ-LTER        | LTER1      | Dfc  | CS615       | 64.743 | -148.316 | 0.05 | 0.05 | 2003 | 2012 |
| BNZ-LTER        | LTER2      | Dfc  | CS615       | 64.699 | -148.255 | 0.05 | 0.05 | 2004 | 2012 |
| BNZ-LTER        | UP1A       | Dfc  | CS615       | 64.736 | -148.303 | 0.05 | 0.05 | 2003 | 2012 |
| BNZ-LTER        | UP2A       | Dfc  | CS615       | 64.695 | -148.356 | 0.05 | 0.05 | 2003 | 2012 |
| BNZ-LTER        | UP3A       | Dfc  | CS615       | 64.767 | -148.280 | 0.05 | 0.05 | 2003 | 2008 |
| CARBOAFRICA     | SD-DEM     | BWh  | CS616       | 13.283 | 30.478    | 0.05 | 0.05 | 2005 | 2010 |
| COSMOS          | SantaFeWatershed-SF1 | BSk | Cosmic-ray-Probe | 35.679 | -105.827 | 0 | 0.04 | 2010 | 2010 |
| CTP_SMTMN       | L01        | ET   | EC-TM       | 31.946 | 91.721    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L02        | ET   | EC-TM       | 31.890 | 91.700    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L03        | ET   | EC-TM       | 31.843 | 91.706    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L04-M02    | ET   | 5TM         | 31.806 | 91.750    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L05-M06    | ET   | 5TM         | 31.754 | 91.783    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L06-M10    | ET   | 5TM         | 31.722 | 91.811    | 0 | 0.05 | 2011 | 2016 |
| CTP_SMTMN       | L07-M13    | ET   | 5TM         | 31.678 | 91.842    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L08-M14    | ET   | 5TM         | 31.662 | 91.795    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L09-M16    | ET   | 5TM         | 31.639 | 91.755    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L10-M17    | ET   | 5TM         | 31.614 | 91.740    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L11-M21    | ET   | 5TM         | 31.587 | 91.793    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L12-M22    | ET   | 5TM         | 31.574 | 91.913    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L13        | ET   | EC-TM       | 31.546 | 91.985    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L14        | ET   | EC-TM       | 31.527 | 92.050    | 0 | 0.05 | 2010 | 2016 |
| CTP_SMTMN       | L15        | ET   | EC-TM       | 31.463 | 92.017    | 0 | 0.05 | 2011 | 2016 |
| CTP_SMTMN       | L16        | ET   | 5TM         | 31.410 | 91.971    | 0 | 0.05 | 2011 | 2016 |
| CTP_SMTMN       | L17        | ET   | 5TM         | 31.373 | 91.976    | 0 | 0.05 | 2012 | 2016 |
| CTP_SMTMN       | L18        | ET   | EC-TM       | 31.332 | 92.041    | 0 | 0.05 | 2010 | 2016 |
| Model         | Area | Type | Location | pH  | Conductivity | Year1 | Year2 |
|---------------|------|------|----------|-----|--------------|-------|-------|
| CTP_SMTMN L19 | ET   |      | EC-TM    | 31.274 | 92.109 | 0 | 0.05 | 2010 2013 |
| CTP_SMTMN L20 | ET   |      | 5TM      | 31.232 | 92.164 | 0 | 0.05 | 2011 2016 |
| CTP_SMTMN L21 | ET   |      | EC-TM    | 31.172 | 92.197 | 0 | 0.05 | 2010 2016 |
| CTP_SMTMN L22 | ET   |      | EC-TM    | 31.128 | 92.250 | 0 | 0.05 | 2010 2016 |
| CTP_SMTMN L23 | ET   |      | EC-TM    | 31.107 | 92.309 | 0 | 0.05 | 2010 2016 |
| CTP_SMTMN L24 | ET   |      | EC-TM    | 31.713 | 92.458 | 0 | 0.05 | 2010 2016 |
| CTP_SMTMN L25 | ET   |      | 5TM      | 31.683 | 92.405 | 0 | 0.05 | 2011 2016 |
| CTP_SMTMN L26 | ET   |      | 5TM      | 31.640 | 92.331 | 0 | 0.05 | 2011 2016 |
| CTP_SMTMN L27 | ET   |      | EC-TM    | 31.587 | 92.241 | 0 | 0.05 | 2011 2016 |
| CTP_SMTMN L28 | ET   |      | EC-TM    | 31.541 | 92.206 | 0 | 0.05 | 2010 2015 |
| CTP_SMTMN L29 | ET   |      | EC-TM    | 31.496 | 92.133 | 0 | 0.05 | 2011 2016 |
| CTP_SMTMN L30 | ET   |      | EC-TM    | 31.469 | 91.899 | 0 | 0.05 | 2010 2016 |
| CTP_SMTMN L31 | ET   |      | EC-TM    | 31.301 | 91.848 | 0 | 0.05 | 2010 2016 |
| CTP_SMTMN L32 | ET   |      | EC-TM    | 31.259 | 91.799 | 0 | 0.05 | 2010 2016 |
| CTP_SMTMN L33 | ET   |      | EC-TM    | 31.175 | 91.760 | 0 | 0.05 | 2010 2016 |
| CTP_SMTMN L34 | ET   |      | EC-TM    | 31.129 | 91.726 | 0 | 0.05 | 2010 2016 |
| CTP_SMTMN L35 | ET   |      | EC-TM    | 31.089 | 91.688 | 0 | 0.05 | 2010 2016 |
| CTP_SMTMN L36 | ET   |      | EC-TM    | 31.033 | 91.679 | 0 | 0.05 | 2010 2016 |
| CTP_SMTMN M01 | ET   |      | 5TM      | 31.782 | 91.730 | 0 | 0.05 | 2011 2016 |
| CTP_SMTMN M02 | ET   |      | 5TM      | 31.816 | 91.796 | 0 | 0.05 | 2011 2016 |
| CTP_SMTMN M03 | ET   |      | 5TM      | 31.808 | 91.846 | 0 | 0.05 | 2011 2016 |
| CTP_SMTMN M04 | ET   |      | 5TM      | 31.743 | 91.725 | 0 | 0.05 | 2011 2016 |
| CTP_SMTMN M05 | ET   |      | 5TM      | 31.732 | 91.766 | 0 | 0.05 | 2011 2016 |
| CTP_SMTMN M06 | ET   |      | 5TM      | 31.736 | 91.870 | 0 | 0.05 | 2011 2016 |
| CTP_SMTMN M07 | ET   |      | 5TM      | 31.685 | 91.719 | 0 | 0.05 | 2011 2014 |
| Site Name   | Station | Type | Start Year | End Year | Start Month | End Month | Start Day | End Day |
|------------|---------|------|------------|----------|-------------|-----------|-----------|--------|
| CTP_SMTMN  | M11-S09 | ET   | 5TM        | 2011     | 11          | 1          | 0         | 0.05   |
| CTP_SMTMN  | M12-S08 | ET   | 5TM        | 2011     | 11          | 1          | 0         | 0.05   |
| CTP_SMTMN  | M15     | ET   | 5TM        | 2011     | 11          | 1          | 0         | 0.05   |
| CTP_SMTMN  | M18     | ET   | 5TM        | 2011     | 11          | 1          | 0         | 0.05   |
| CTP_SMTMN  | M19     | ET   | 5TM        | 2011     | 11          | 1          | 0         | 0.05   |
| CTP_SMTMN  | M20     | ET   | 5TM        | 2011     | 11          | 1          | 0         | 0.05   |
| CTP_SMTMN  | S02     | ET   | 5TM        | 2011     | 11          | 1          | 0         | 0.05   |
| CTP_SMTMN  | S03     | ET   | EC-TM      | 2012     | 12          | 1          | 0         | 0.05   |
| CTP_SMTMN  | S04     | ET   | 5TM        | 2012     | 12          | 1          | 0         | 0.05   |
| CTP_SMTMN  | S05     | ET   | 5TM        | 2012     | 12          | 1          | 0         | 0.05   |
| CTP_SMTMN  | S06     | ET   | 5TM        | 2012     | 12          | 1          | 0         | 0.05   |
| CTP_SMTMN  | S07     | ET   | EC-TM      | 2012     | 12          | 1          | 0         | 0.05   |
| DAHRA      | DAHRA   | BSh  | ThetaProbe-ML2X | 2004 | 04 | 15.404 | -15.432 | 0.05 | 0.05 |
| FLUXNET-AMERI | TonziRanch | Csa | ThetaProbe-ML2X | 38.432 | 0 | 38.432 | -120.966 | 0 | 0 |
| FLUXNET-AMERI | VairaRanch | Csa | ThetaProbe-ML2X | 38.413 | 0 | 38.413 | -120.951 | 0 | 0 |
| FR_Aqui    | fraye   | Cfb  | ThetaProbe-ML2X | 44.467 | 0 | 44.467 | -0.727 | 0.05 | 0.05 |
| FR_Aqui    | grandcal| Cfb  | ThetaProbe-ML2X | 44.472 | 0 | 44.472 | -0.768 | 0.05 | 0.05 |
| FR_Aqui    | hillan  | Cfb  | ThetaProbe-ML2X | 44.491 | 0 | 44.491 | -0.757 | 0.05 | 0.05 |
| FR_Aqui    | hillan2 | Cfb  | ThetaProbe-ML2X | 44.491 | 0 | 44.491 | -0.758 | 0.05 | 0.05 |
| FR_Aqui    | parcmeteo | Cfb | ThetaProbe-ML2X | 44.790 | 0 | 44.790 | -0.577 | 0.01 | 0.01 |
| HiWATER_EHWSN | BD-0002 | BSk | FM100 | 38.860 | 100.336 | 0.04 | 0.04 |
| HiWATER_EHWSN | BD-0003 | BSk | FM100 | 38.880 | 100.356 | 0.04 | 0.04 |
| HiWATER_EHWSN | BD-0004 | BSk | FM100 | 38.854 | 100.377 | 0.04 | 0.04 |
| HiWATER_EHWSN | BD-0005 | BSk | FM100 | 38.853 | 100.361 | 0.04 | 0.04 |
| HiWATER_EHWSN | BD    | BSk | FM100 |   |   |  |  |
|---------------|-------|-----|-------|---|---|---|---|
| HiWATER_EHWSN | BD-0006 | BSk | FM100 | 38.879 | 100.366 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0007 | BSk | FM100 | 38.854 | 100.383 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0010 | BSk | FM100 | 38.880 | 100.349 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0011 | BSk | FM100 | 38.859 | 100.366 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0014 | BSk | FM100 | 38.863 | 100.361 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0015 | BSk | FM100 | 38.862 | 100.347 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0016 | BSk | FM100 | 38.870 | 100.353 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0017 | BSk | FM100 | 38.853 | 100.351 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0018 | BSk | FM100 | 38.871 | 100.350 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0019 | BSk | FM100 | 38.859 | 100.375 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0020 | BSk | FM100 | 38.873 | 100.379 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0021 | BSk | FM100 | 38.870 | 100.369 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0022 | BSk | FM100 | 38.861 | 100.382 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0024 | BSk | FM100 | 38.859 | 100.360 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0028 | BSk | FM100 | 38.856 | 100.354 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0029 | BSk | FM100 | 38.865 | 100.365 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0030 | BSk | FM100 | 38.875 | 100.369 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0032 | BSk | FM100 | 38.863 | 100.355 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0034 | BSk | FM100 | 38.876 | 100.340 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0035 | BSk | FM100 | 38.861 | 100.375 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0036 | BSk | FM100 | 38.859 | 100.356 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0037 | BSk | FM100 | 38.878 | 100.369 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0038 | BSk | FM100 | 38.866 | 100.352 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0039 | BSk | FM100 | 38.864 | 100.358 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0040 | BSk | FM100 | 38.877 | 100.366 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | BD-0041 | BSk | FM100 | 38.874 | 100.349 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | BD-0043  | BSk | FM100 | 38.856 | 100.382 | 0.04 | 0.04 | 2012 | 2012 |
|-----------------|----------|-----|-------|--------|---------|------|------|------|------|
| HiWATER_EHWSN   | BD-0045  | BSk | FM100 | 38.868 | 100.353 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | BD-0046  | BSk | FM100 | 38.854 | 100.357 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | BD-0048  | BSk | FM100 | 38.860 | 100.385 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | BD-0049  | BSk | FM100 | 38.859 | 100.386 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0001  | BSk | FM100 | 38.874 | 100.375 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0002  | BSk | FM100 | 38.882 | 100.349 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0003  | BSk | FM100 | 38.869 | 100.363 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0004  | BSk | FM100 | 38.881 | 100.345 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0006  | BSk | FM100 | 38.873 | 100.358 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0007  | BSk | FM100 | 38.883 | 100.393 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0009  | BSk | FM100 | 38.856 | 100.386 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0010  | BSk | FM100 | 38.881 | 100.365 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0011  | BSk | FM100 | 38.876 | 100.377 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0012  | BSk | FM100 | 38.879 | 100.371 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0014  | BSk | FM100 | 38.870 | 100.344 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0015  | BSk | FM100 | 38.873 | 100.351 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0016  | BSk | FM100 | 38.879 | 100.398 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0017  | BSk | FM100 | 38.889 | 100.360 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0018  | BSk | FM100 | 38.894 | 100.362 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0020  | BSk | FM100 | 38.873 | 100.364 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0022  | BSk | FM100 | 38.883 | 100.368 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0024  | BSk | FM100 | 38.879 | 100.375 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0026  | BSk | FM100 | 38.862 | 100.390 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0028  | BSk | FM100 | 38.874 | 100.385 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN   | HD-0029  | BSk | FM100 | 38.870 | 100.388 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0031 | BSk | FM100 | 38.896 | 100.357 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0033 | BSk | FM100 | 38.849 | 100.383 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0034 | BSk | FM100 | 38.870 | 100.378 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0036 | BSk | FM100 | 38.881 | 100.360 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0038 | BSk | FM100 | 38.886 | 100.363 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0039 | BSk | FM100 | 38.886 | 100.372 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0042 | BSk | FM100 | 38.884 | 100.377 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0044 | BSk | FM100 | 38.871 | 100.360 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0045 | BSk | FM100 | 38.868 | 100.382 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0046 | BSk | FM100 | 38.851 | 100.385 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0048 | BSk | FM100 | 38.874 | 100.356 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0051 | BSk | FM100 | 38.873 | 100.340 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0054 | BSk | FM100 | 38.870 | 100.394 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0056 | BSk | FM100 | 38.878 | 100.382 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0057 | BSk | FM100 | 38.871 | 100.386 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0058 | BSk | FM100 | 38.870 | 100.381 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | HD-0059 | BSk | FM100 | 38.867 | 100.334 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-001 | BSk | SPADE-Time-Domain-Transmissivity | 38.857 | 100.371 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-002 | BSk | SPADE-Time-Domain-Transmissivity | 38.851 | 100.371 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-003 | BSk | SPADE-Time-Domain-Transmissivity | 38.852 | 100.366 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-004 | BSk | SPADE-Time-Domain-Transmissivity | 38.855 | 100.372 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-005 | BSk | SPADE-Time-Domain-Transmissivity | 38.855 | 100.372 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-006 | BSk | SPADE-Time-Domain-Transmissivity | 38.856 | 100.372 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-007 | BSk | SPADE-Time-Domain-Transmissivity | 38.850 | 100.366 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-008 | BSk | SPADE-Time-Domain-Transmissivity | 38.851 | 100.372 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-009 | BSk | SPADE-Time-Domain-Transmissivity | 38.854 | 100.373 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-010 | BSk | SPADE-Time-Domain-Transmissivity | 38.851 | 100.369 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-011 | BSk | SPADE-Time-Domain-Transmissivity | 38.852 | 100.367 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-012 | BSk | SPADE-Time-Domain-Transmissivity | 38.855 | 100.375 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-013 | BSk | SPADE-Time-Domain-Transmissivity | 38.851 | 100.370 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-014 | BSk | SPADE-Time-Domain-Transmissivity | 38.851 | 100.370 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-015 | BSk | SPADE-Time-Domain-Transmissivity | 38.857 | 100.369 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-016 | BSk | SPADE-Time-Domain-Transmissivity | 38.857 | 100.367 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-017 | BSk | SPADE-Time-Domain-Transmissivity | 38.852 | 100.373 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-018 | BSk | SPADE-Time-Domain-Transmissivity | 38.857 | 100.372 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-019 | BSk | SPADE-Time-Domain-Transmissivity | 38.857 | 100.368 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-020 | BSk | SPADE-Time-Domain-Transmissivity | 38.857 | 100.370 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-021 | BSk | SPADE-Time-Domain-Transmissivity | 38.851 | 100.367 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-022 | BSk | SPADE-Time-Domain-Transmissivity | 38.852 | 100.367 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-023 | BSk | SPADE-Time-Domain-Transmissivity | 38.856 | 100.368 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-024 | BSk | SPADE-Time-Domain-Transmissivity | 38.857 | 100.372 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-025 | BSk | SPADE-Time-Domain-Transmissivity | 38.856 | 100.367 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-026 | BSk | SPADE-Time-Domain-Transmissivity | 38.852 | 100.372 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-027 | BSk | SPADE-Time-Domain-Transmissivity | 38.857 | 100.368 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-028 | BSk | SPADE-Time-Domain-Transmissivity | 38.851 | 100.372 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-029 | BSk | SPADE-Time-Domain-Transmissivity | 38.855 | 100.373 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-030 | BSk | SPADE-Time-Domain-Transmissivity | 38.856 | 100.375 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-031 | BSk | SPADE-Time-Domain-Transmissivity | 38.852 | 100.370 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-032 | BSk | SPADE-Time-Domain-Transmissivity | 38.853 | 100.367 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-033 | BSk | SPADE-Time-Domain-Transmissivity | 38.856 | 100.373 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-034 | BSk | SPADE-Time-Domain-Transmissivity | 38.853 | 100.368 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-035 | BSk | SPADE-Time-Domain-Transmissivity | 38.853 | 100.374 | 0.04 | 0.04 | 2012 2012 |
| HiWATER_EHWSN | SoilNET-036 | BSk | SPADE-Time-Domain-Transmissivity | 38.851 | 100.373 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-037 | BSk | SPADE-Time-Domain-Transmissivity | 38.856 | 100.375 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-038 | BSk | SPADE-Time-Domain-Transmissivity | 38.854 | 100.373 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-039 | BSk | SPADE-Time-Domain-Transmissivity | 38.854 | 100.369 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-040 | BSk | SPADE-Time-Domain-Transmissivity | 38.856 | 100.375 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-041 | BSk | SPADE-Time-Domain-Transmissivity | 38.857 | 100.369 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-042 | BSk | SPADE-Time-Domain-Transmissivity | 38.853 | 100.368 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-043 | BSk | SPADE-Time-Domain-Transmissivity | 38.855 | 100.367 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-044 | BSk | SPADE-Time-Domain-Transmissivity | 38.851 | 100.374 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-045 | BSk | SPADE-Time-Domain-Transmissivity | 38.853 | 100.373 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-046 | BSk | SPADE-Time-Domain-Transmissivity | 38.857 | 100.368 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-047 | BSk | SPADE-Time-Domain-Transmissivity | 38.857 | 100.375 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-048 | BSk | SPADE-Time-Domain-Transmissivity | 38.856 | 100.369 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-049 | BSk | SPADE-Time-Domain-Transmissivity | 38.856 | 100.366 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-050 | BSk | SPADE-Time-Domain-Transmissivity | 38.855 | 100.375 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | SoilNET-051 | BSk | SPADE-Time-Domain-Transmissivity | 38.856 | 100.371 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-01 | BSk | Hydaprobe-II | 38.870 | 100.372 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-02 | BSk | Hydaprobe-II | 38.865 | 100.356 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-03 | BSk | Hydaprobe-II | 38.859 | 100.345 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-04 | BSk | Hydaprobe-II | 38.877 | 100.355 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-06 | BSk | Hydaprobe-II | 38.867 | 100.361 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-07 | BSk | Hydaprobe-II | 38.877 | 100.380 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-10 | BSk | Hydaprobe-II | 38.872 | 100.367 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-12 | BSk | Hydaprobe-II | 38.870 | 100.356 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-14 | BSk | Hydaprobe-II | 38.872 | 100.344 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-15 | BSk | Hydaprobe-II | 38.858 | 100.380 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-16 | BSk | Hydraprobe-II | 38.863 | 100.366 | 0.04 | 0.04 | 2012 | 2012 |
|---------------|-------------|-----|---------------|--------|---------|------|------|------|------|
| HiWATER_EHWSN | WATERNET-17 | BSk | Hydraprobe-II | 38.859 | 100.370 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-18 | BSk | Hydraprobe-II | 38.845 | 100.381 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-19 | BSk | Hydraprobe-II | 38.851 | 100.349 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-20 | BSk | Hydraprobe-II | 38.854 | 100.359 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-21 | BSk | Hydraprobe-II | 38.865 | 100.374 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-22 | BSk | Hydraprobe-II | 38.878 | 100.362 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-23 | BSk | Hydraprobe-II | 38.878 | 100.352 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-24 | BSk | Hydraprobe-II | 38.857 | 100.352 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-25 | BSk | Hydraprobe-II | 38.855 | 100.380 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-26 | BSk | Hydraprobe-II | 38.861 | 100.353 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-27 | BSk | Hydraprobe-II | 38.863 | 100.378 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-28 | BSk | Hydraprobe-II | 38.875 | 100.373 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-29 | BSk | Hydraprobe-II | 38.867 | 100.370 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-30 | BSk | Hydraprobe-II | 38.861 | 100.362 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-31 | BSk | Hydraprobe-II | 38.870 | 100.352 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-32 | BSk | Hydraprobe-II | 38.851 | 100.361 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-33 | BSk | Hydraprobe-II | 38.865 | 100.381 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-34 | BSk | Hydraprobe-II | 38.863 | 100.347 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-35 | BSk | Hydraprobe-II | 38.863 | 100.370 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-36 | BSk | Hydraprobe-II | 38.867 | 100.379 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-37 | BSk | Hydraprobe-II | 38.860 | 100.357 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-38 | BSk | Hydraprobe-II | 38.880 | 100.384 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-39 | BSk | Hydraprobe-II | 38.857 | 100.356 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-40 | BSk | Hydraprobe-II | 38.879 | 100.378 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET-41 | BSk | Hydraprobe-II | 38.853 | 100.376 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.850 | 100.379 | 0.04 | 0.04 | 2012 | 2012 |
|---------------|------------|----|--------------|--------|---------|------|------|------|------|
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.851 | 100.373 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.853 | 100.372 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.855 | 100.374 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.848 | 100.370 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.858 | 100.374 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.852 | 100.368 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.855 | 100.370 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.852 | 100.371 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.858 | 100.377 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.868 | 100.346 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.874 | 100.361 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.881 | 100.352 | 0.04 | 0.04 | 2012 | 2012 |
| HiWATER_EHWSN | WATERNET   | BS | Hydaprobe-II | 38.880 | 100.369 | 0.04 | 0.04 | 2012 | 2012 |
| HOBE          | S1.01      | Cfb| Decagon-5TE-A| 56.019 | 9.181   | 0    | 0.05 | 2009 | 2016 |
| HOBE          | S1.02      | Cfb| Decagon-5TE-A| 56.038 | 9.161   | 0    | 0.05 | 2009 | 2016 |
| HOBE          | S1.03      | Cfb| Decagon-5TE-A| 56.028 | 9.165   | 0    | 0.05 | 2009 | 2015 |
| HOBE          | S1.04      | Cfb| Decagon-5TE-A| 56.073 | 9.334   | 0    | 0.05 | 2009 | 2015 |
| HOBE          | S1.05      | Cfb| Decagon-5TE-A| 56.033 | 9.191   | 0    | 0.05 | 2009 | 2016 |
| HOBE          | S1.06      | Cfb| Decagon-5TE-A| 56.051 | 9.161   | 0    | 0.05 | 2009 | 2017 |
| HOBE          | S1.07      | Cfb| Decagon-5TE-A| 56.043 | 9.141   | 0    | 0.05 | 2009 | 2016 |
| HOBE          | S1.08      | Cfb| Decagon-5TE-A| 56.047 | 9.124   | 0    | 0.05 | 2009 | 2017 |
| HOBE          | S1.09      | Cfb| Decagon-5TE-A| 56.036 | 9.130   | 0    | 0.05 | 2009 | 2017 |
| HOBE          | S1.1       | Cfb| Decagon-5TE-A| 56.035 | 9.239   | 0    | 0.05 | 2009 | 2016 |
| HOBE          | S2.01      | Cfb| Decagon-5TE-A| 55.940 | 9.221   | 0    | 0.05 | 2009 | 2016 |
| HOBE          | S2.02      | Cfb| Decagon-5TE-A| 55.984 | 9.162   | 0    | 0.05 | 2009 | 2015 |
| Site    | Code | Type | Equipment                | Begin  | End    |
|---------|------|------|--------------------------|--------|--------|
| HOBE    | S2.03| Cfb  | Decagon-5TE-A            | 55.982 | 9.153  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2016   |
| HOBE    | S2.04| Cfb  | Decagon-5TE-A            | 55.976 | 9.098  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2010   | 2016   |
| HOBE    | S2.05| Cfb  | Decagon-5TE-A            | 55.976 | 9.097  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2017   |
| HOBE    | S2.06| Cfb  | Decagon-5TE              | 55.979 | 9.087  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2011   |
| HOBE    | S2.06b| Cfb  | Decagon-5TE-A            | 55.980 | 9.082  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2011   | 2017   |
| HOBE    | S2.07| Cfb  | Decagon-5TE-A            | 55.948 | 9.034  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2017   |
| HOBE    | S2.08| Cfb  | Decagon-5TE-A            | 55.940 | 9.034  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2012   |
| HOBE    | S2.08b| Cfb  | Decagon-5TE-A           | 55.940 | 9.031  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2012   | 2016   |
| HOBE    | S2.09| Cfb  | Decagon-5TE-A            | 55.928 | 9.115  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2016   |
| HOBE    | S2.1 | Cfb  | Decagon-5TE-A            | 55.986 | 9.091  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2010   | 2016   |
| HOBE    | S2.11| Cfb  | Decagon-5TE-A            | 55.970 | 9.023  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2016   |
| HOBE    | S3.01| Cfb  | Decagon-5TE-A            | 55.881 | 9.014  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2017   |
| HOBE    | S3.02| Cfb  | Decagon-5TE-A            | 55.935 | 8.922  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2017   |
| HOBE    | S3.03| Cfb  | Decagon-5TE-A            | 55.912 | 8.946  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2015   |
| HOBE    | S3.04| Cfb  | Decagon-5TE-A            | 55.911 | 8.936  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2016   |
| HOBE    | S3.05| Cfb  | Decagon-5TE-A            | 55.903 | 8.918  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2016   |
| HOBE    | S3.06| Cfb  | Decagon-5TE-A            | 55.912 | 8.883  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2016   |
| HOBE    | S3.07| Cfb  | Decagon-5TE-A            | 55.910 | 8.854  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2017   |
| HOBE    | S3.08| Cfb  | Decagon-5TE-A            | 55.878 | 9.268  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2016   |
| HOBE    | S3.09| Cfb  | Decagon-5TE-A            | 55.861 | 9.295  |
|         |      |      |                          | 0      | 0.05   |
|         |      |      |                          | 2009   | 2016   |
| HYDROL-NET_PE RUGIA | Water-Engineering-Experimental-Field-1 | Cfb | TDR-Soil-Moisture-Equipment-Corp.-TRASE-BE | 43.117 | 12.352  |
|         |      |      |                          | 0.05   | 0.05   |
|         |      |      |                          | 2010   | 2013   |
| HYDROL-NET_PE RUGIA | Water-Engineering-Experimental-Field-2 | Cfb | TDR-Soil-Moisture-Equipment-Corp.-TRASE-BE | 43.117 | 12.352  |
|         |      |      |                          | 0.05   | 0.05   |
|         |      |      |                          | 2012   | 2013   |
| iRON    | BrushCreek | Dfc | EC5-I                 | 39.234 | -106.908 |
|         |      |      |                          | 0.05   | 0.05   |
|         |      |      |                          | 2015   | 2018   |
| iRON    | GlassierRanch | Dfc | EC5                 | 39.379 | -107.090 |
|         |      |      |                          | 0.05   | 0.05   |
|         |      |      |                          | 2015   | 2018   |
| iRON | Location                        | Type | Model | Start Year | End Year |
|------|---------------------------------|------|-------|------------|----------|
| iRON | GlenwoodSprings                 | Dfc  | EC5   | 2015       | 2018     |
| iRON | IndependencePass               | Dfc  | EC5   | 2017       | 2018     |
| iRON | NorthstarAspenGrove             | Dfc  | EC5   | 2015       | 2018     |
| iRON | NorthstarTransitionZone        | Dfc  | EC5   | 2015       | 2018     |
| iRON | SkyMountain                    | Dfc  | EC5   | 2012       | 2018     |
| iRON | SmugglerMountain               | Dfc  | EC5   | 2013       | 2018     |
| iRON | SpringValley                   | Dfc  | EC5-I | 2016       | 2018     |
| MAQU | CST-01                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | CST-02                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | CST-03                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | CST-04                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | CST-05                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-01                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-02                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-03                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-04                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-05                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-06                         | ET   | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-07                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-08                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-09                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-10                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-11                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| MAQU | NST-12                         | Dwc  | ECH20-EC-TM | 2008   | 2009     |
| MAQU | NST-13                         | Dwc  | ECH20-EC-TM | 2008   | 2010     |
| Location          | Code   | Geology | Instrument                  | Depth | Width  | Error | Error | Start Year | End Year |
|-------------------|--------|---------|-----------------------------|-------|--------|-------|-------|------------|----------|
| MAQU, NST-14      | Dwc    |         | ECH20-EC-TM                 | 33.917| 102.117| 0.05  | 0.05  | 2008       | 2010     |
| MAQU, NST-15      | Dwc    |         | ECH20-EC-TM                 | 33.850| 101.883| 0.05  | 0.05  | 2010       | 2010     |
| OZNET, Alabama    | Cf     |         | Stevens-Hydra-Probe        | -35.324| 147.535| 0     | 0.05  | 2006       | 2018     |
| OZNET, Banwerrin  | BS     |         | Stevens-Hydra-Probe        | -34.655| 146.110| 0     | 0.05  | 2006       | 2016     |
| OZNET, Benwerrin  | Cf     |         | Stevens-Hydra-Probe        | -35.316| 147.344| 0     | 0.05  | 2006       | 2013     |
| OZNET, Bundure    | BS     |         | Stevens-Hydra-Probe        | -35.110| 145.936| 0     | 0.05  | 2006       | 2018     |
| OZNET, Cheverelis | BS     |         | Stevens-Hydra-Probe        | -35.005| 146.310| 0     | 0.05  | 2006       | 2018     |
| OZNET, Cox       | Cf     |         | Stevens-Hydra-Probe        | -35.390| 147.457| 0     | 0.05  | 2006       | 2018     |
| OZNET, Dry-Lake   | BS     |         | Stevens-Hydra-Probe        | -34.728| 146.293| 0     | 0.05  | 2006       | 2018     |
| OZNET, Eulo       | BS     |         | Stevens-Hydra-Probe        | -34.719| 146.020| 0     | 0.05  | 2006       | 2018     |
| OZNET, Evergreen  | Cf     |         | Stevens-Hydra-Probe        | -35.239| 147.533| 0     | 0.05  | 2006       | 2016     |
| OZNET, Kyeamba-Mouth | Cf |         | Stevens-Hydra-Probe       | -35.125| 147.497| 0     | 0.05  | 2006       | 2018     |
| OZNET, Samarra    | Cf     |         | Stevens-Hydra-Probe        | -35.228| 147.485| 0     | 0.05  | 2006       | 2018     |
| OZNET, S-Coleambally | Bs |         | Stevens-Hydra-Probe       | -34.843| 145.867| 0     | 0.05  | 2006       | 2018     |
| OZNET, Silver-Springs | Cf |         | Stevens-Hydra-Probe       | -35.272| 147.429| 0     | 0.05  | 2006       | 2018     |
| OZNET, Spring-Bank | BS |         | Stevens-Hydra-Probe        | -35.070| 146.169| 0     | 0.05  | 2006       | 2018     |
| OZNET, Uri-Park   | BS     |         | Stevens-Hydra-Probe        | -34.629| 145.849| 0     | 0.05  | 2006       | 2018     |
| OZNET, Widgiewa   | BS     |         | Stevens-Hydra-Probe        | -35.090| 146.306| 0     | 0.05  | 2006       | 2018     |
| OZNET, Wollumbi   | Cf     |         | Stevens-Hydra-Probe        | -35.394| 147.566| 0     | 0.05  | 2006       | 2018     |
| OZNET, Wynella    | BS     |         | Stevens-Hydra-Probe        | -34.847| 146.414| 0     | 0.05  | 2006       | 2018     |
| OZNET, Yamma-coona | BS |         | Stevens-Hydra-Probe        | -34.968| 146.016| 0     | 0.05  | 2006       | 2018     |
| OZNET, Yamma-Road | BS     |         | Stevens-Hydra-Probe        | -34.852| 146.115| 0     | 0.05  | 2006       | 2018     |
| REMEDHUS, Canizal  | Cs     |         | Stevens-Hydra-Probe        | 41.196| -5.360 | 0      | 0.05  | 2007       | 2018     |
| REMEDHUS, Carramedina | Cs |         | Stevens-Hydra-Probe        | 41.312| -5.161 | 0      | 0.05  | 2005       | 2010     |
| REMEDHUS, Carreteror | Cs |         | Stevens-Hydra-Probe        | 41.265| -5.380 | 0      | 0.05  | 2005       | 2018     |
| REMEDHUS, CasaGorrizo | Cs |         | Stevens-Hydra-Probe        | 41.234| -5.472 | 0      | 0.05  | 2005       | 2007     |
| Location         | Station Code | Code | Station Name | Period |
|------------------|--------------|------|--------------|--------|
| CasaPeriles      | Csb          | Stevens-Hydra-Probe | 41.394 -5.321 | 0 | 0.05 | 2005 | 2018 |
| ConcejodelMonte  | Csb          | Stevens-Hydra-Probe | 41.300 -5.247 | 0 | 0.05 | 2005 | 2018 |
| ElCoto           | Csb          | Stevens-Hydra-Probe | 41.381 -5.429 | 0 | 0.05 | 2005 | 2018 |
| ElTomillar       | Csb          | Stevens-Hydra-Probe | 41.349 -5.490 | 0 | 0.05 | 2009 | 2018 |
| Granja-g         | Csb          | Stevens-Hydra-Probe | 41.306 -5.376 | 0 | 0.05 | 2005 | 2018 |
| GranjaToresana   | Csb          | Stevens-Hydra-Probe | 41.464 -5.449 | 0 | 0.05 | 2005 | 2007 |
| Guarena          | Csb          | Stevens-Hydra-Probe | 41.200 -5.297 | 0 | 0.05 | 2005 | 2012 |
| Guarrati         | Csb          | Stevens-Hydra-Probe | 41.289 -5.467 | 0 | 0.05 | 2005 | 2018 |
| LaAtalaya        | Csb          | Stevens-Hydra-Probe | 41.149 -5.398 | 0 | 0.05 | 2005 | 2017 |
| LaCruzdElias     | Csb          | Stevens-Hydra-Probe | 41.285 -5.300 | 0 | 0.05 | 2005 | 2018 |
| LasArenas        | Csb          | Stevens-Hydra-Probe | 41.373 -5.549 | 0 | 0.05 | 2005 | 2018 |
| LasBodegas       | Csb          | Stevens-Hydra-Probe | 41.183 -5.477 | 0 | 0.05 | 2005 | 2018 |
| LasBrozas        | Csb          | Stevens-Hydra-Probe | 41.446 -5.359 | 0 | 0.05 | 2005 | 2018 |
| LasEritas        | Csb          | Stevens-Hydra-Probe | 41.205 -5.416 | 0 | 0.05 | 2012 | 2018 |
| LasTresRayas     | Csb          | Stevens-Hydra-Probe | 41.275 -5.592 | 0 | 0.05 | 2011 | 2018 |
| LasVacas         | Csb          | Stevens-Hydra-Probe | 41.347 -5.225 | 0 | 0.05 | 2005 | 2018 |
| LasVictorias     | Csb          | Stevens-Hydra-Probe | 41.424 -5.374 | 0 | 0.05 | 2005 | 2018 |
| LlanosdelaBoveda | Csb          | Stevens-Hydra-Probe | 41.358 -5.331 | 0 | 0.05 | 2005 | 2018 |
| Paredinas        | Csb          | Stevens-Hydra-Probe | 41.456 -5.411 | 0 | 0.05 | 2005 | 2018 |
| Zamarron         | Csb          | Stevens-Hydra-Probe | 41.239 -5.544 | 0 | 0.05 | 2005 | 2018 |
| Adamclisi        | Cfa          | 5TM   | 44.088 -27.966 | 0 | 0.05 | 2014 | 2015 |
| Alexandria       | Cfa          | 5TM   | 43.978 -25.353 | 0 | 0.05 | 2014 | 2018 |
| Bacles           | Cfa          | 5TM   | 44.476 -23.113 | 0 | 0.05 | 2014 | 2018 |
| Banloc           | Cfb          | 5TM   | 45.383 -21.136 | 0 | 0.05 | 2014 | 2018 |
| Barlad           | Cfb          | 5TM   | 46.233 -27.644 | 0 | 0.05 | 2014 | 2018 |
| Calarasi         | Cfa          | 5TM   | 44.206 -27.339 | 0 | 0.05 | 2014 | 2018 |
| Location                | Climate | Type | 5TM | 21.542 | 0.05 | 2015 | 2018 |
|-------------------------|---------|------|-----|--------|------|------|------|
| ChisineuCris            | Cfb     | 5TM  | 46.519 | 21.542 | 0.05 | 2015 | 2018 |
| Corugea                 | Cfa     | 5TM  | 44.734 | 28.342 | 0.05 | 2014 | 2018 |
| Cotnari                 | Dfb     | 5TM  | 47.358 | 26.925 | 0.05 | 2014 | 2018 |
| Darabani                | Cfb     | 5TM  | 48.195 | 26.573 | 0.05 | 2015 | 2018 |
| Dej                     | Dfb     | 5TM  | 47.128 | 23.899 | 0.05 | 2014 | 2018 |
| Dumbraveni              | Dfb     | 5TM  | 46.228 | 24.592 | 0.05 | 2014 | 2018 |
| Iasi                    | Dfb     | 5TM  | 47.163 | 27.625 | 0.05 | 2014 | 2018 |
| Oradea                  | Cfb     | 5TM  | 47.036 | 21.896 | 0.05 | 2014 | 2018 |
| RosioriideVede          | Cfa     | 5TM  | 44.107 | 24.979 | 0.05 | 2014 | 2018 |
| SannicolauMare          | Cfb     | 5TM  | 46.072 | 20.602 | 0.05 | 2015 | 2018 |
| SatuMare                | Cfb     | 5TM  | 47.721 | 22.887 | 0.05 | 2014 | 2018 |
| Slatina                 | Cfa     | 5TM  | 44.442 | 24.354 | 0.05 | 2014 | 2018 |
| Slobozia                | Cfa     | 5TM  | 44.553 | 27.384 | 0.05 | 2014 | 2017 |
| Tecuci                  | Cfb     | 5TM  | 45.842 | 27.409 | 0.05 | 2014 | 2018 |
| BlueWrenPk              | Cfa     | CS616| -32.383| 150.489| 0.05 | 2006 | 2007 |
| Brunbrae                | Cfa     | CS616| -31.933| 150.134| 0.05 | 2006 | 2007 |
| Cullingral              | Cfa     | CS616| -32.158| 150.334| 0.05 | 2006 | 2007 |
| Cumbo                   | Cfa     | CS616| -32.406| 149.882| 0.05 | 2006 | 2007 |
| Dales                   | Cfa     | CS616| -31.947| 150.432| 0.05 | 2006 | 2007 |
| Illogan                 | Cfa     | CS616| -32.149| 150.070| 0.05 | 2006 | 2007 |
| Kilwirrin               | Cfa     | CS616| -32.042| 150.070| 0.05 | 2006 | 2007 |
| MaramPk                 | Cfa     | CS616| -32.242| 150.311| 0.05 | 2006 | 2007 |
| MerriwaPk               | Cfa     | CS616| -32.112| 150.375| 0.05 | 2006 | 2007 |
| Midlothian              | Cfa     | CS616| -32.022| 150.351| 0.05 | 2006 | 2007 |
| Nagoli                  | Cfa     | CS616| -32.021| 150.011| 0.05 | 2006 | 2007 |
| PembrokeSth             | Cfa     | CS616| -32.039| 150.146| 0.05 | 2006 | 2007 |
| Location                        | Station Code | Wind Type | Temperature Anomaly | Pressure Anomaly | Year Start | Year End |
|--------------------------------|--------------|-----------|---------------------|------------------|------------|----------|
| SASMAS Roscommon               | Cfa          | CS616     | -32.161             | 150.070          | 2006       | 2007     |
| SASMAS Widden                  | Cfb          | CS616     | -32.526             | 150.359          | 2006       | 2007     |
| SKKU SKKU-Jinwicheon-1         | Cwa          | 5TM       | 37.292              | 126.973          | 2014       | 2014     |
| SKKU SKKU-Jinwicheon-2         | Cwa          | 5TM       | 37.295              | 126.973          | 2014       | 2014     |
| SKKU SKKU-Jinwicheon-3         | Cwa          | 5TM       | 37.290              | 126.967          | 2014       | 2014     |
| SKKU SKKU-Jinwicheon-4         | Cwa          | 5TM       | 37.290              | 126.966          | 2014       | 2014     |
| SKKU SKKU-Jinwicheon-6         | Cwa          | 5TM       | 37.293              | 126.966          | 2014       | 2014     |
| SMOSMANIA Barnas                | Cfb          | ThetaProbe-ML2X | 44.666             | 4.160            | 2008       | 2016     |
| SMOSMANIA Berzeme              | Cfb          | ThetaProbe-ML2X | 44.628             | 4.567            | 2008       | 2015     |
| SMOSMANIA CabrieresAvignon     | Csa          | ThetaProbe-ML2X | 43.884             | 5.165            | 2008       | 2017     |
| SMOSMANIA Condom               | Cfb          | ThetaProbe-ML2X | 43.974             | 0.336            | 2007       | 2017     |
| SMOSMANIA CreondArmagnac       | Cfb          | ThetaProbe-ML2X | 43.994             | -0.047           | 2007       | 2017     |
| SMOSMANIA LaGrandCombe         | Csb          | ThetaProbe-ML2X | 44.243             | 4.010            | 2008       | 2017     |
| SMOSMANIA Lahas                | Cfb          | ThetaProbe-ML2X | 43.547             | 0.888            | 2007       | 2017     |
| SMOSMANIA LezignanCorbieres    | Csb          | ThetaProbe-ML2X | 43.173             | 2.728            | 2007       | 2017     |
| SMOSMANIA Mazan-Abbaye          | Cfb          | ThetaProbe-ML2X | 44.734             | 4.084            | 2008       | 2017     |
| SMOSMANIA Mejannes-le-Clap     | Csb          | ThetaProbe-ML2X | 44.222             | 4.345            | 2008       | 2017     |
| SMOSMANIA Montaut              | Cfb          | ThetaProbe-ML2X | 43.192             | 1.644            | 2007       | 2017     |
| SMOSMANIA Mouthoumet           | Cfa          | ThetaProbe-ML2X | 42.960             | 2.530            | 2007       | 2016     |
| SMOSMANIA Narbonne             | Csb          | ThetaProbe-ML2X | 43.150             | 2.957            | 2007       | 2017     |
| SMOSMANIA PeyrusseGrande       | Cfb          | ThetaProbe-ML2X | 43.666             | 0.222            | 2007       | 2017     |
| SMOSMANIA Pezenas              | Csa          | ThetaProbe-ML3 | 43.437             | 3.400            | 2016       | 2017     |
| SMOSMANIA Pezenas-old          | Csa          | ThetaProbe-ML2X | 43.438             | 3.403            | 2008       | 2016     |
| SMOSMANIA Prades-le-Lez        | Csa          | ThetaProbe-ML2X | 43.717             | 3.858            | 2008       | 2015     |
| SMOSMANIA Sabres               | Cfb          | ThetaProbe-ML2X | 44.148             | -0.846           | 2007       | 2017     |
| SMOSMANIA SaintFelixdeLauragais| Cfb          | ThetaProbe-ML2X | 43.442             | 1.880            | 2007       | 2017     |
| Location       | City     | Climate | Instrument | ThetaProbe-ML2X | EC5 | EC5 | YearStart | YearEnd |
|----------------|----------|---------|------------|-----------------|-----|-----|-----------|---------|
| SMOSMANIA      | Savenes  | Cfb     | ThetaProbe-ML2X | 43.825          | 1.177 | 0.05 | 0.05     | 2007    |
| SMOSMANIA      | Urgons   | Cfb     | ThetaProbe-ML2X | 43.640          | -0.435 | 0.05 | 0.05     | 2007    |
| SMOSMANIA      | Villevielle | CsA  | ThetaProbe-ML2X | 43.795          | 4.091  | 0.05 | 0.05     | 2008    |
| SOILSCAPE      | node101  | Cfa     | EC5        | 36.002          | -98.631 | 0.04 | 0.04     | 2012    |
| SOILSCAPE      | node1017 | CsA     | EC5        | 38.388          | -120.906 | 0.05 | 0.05     | 2014    |
| SOILSCAPE      | node1018 | CsA     | EC5        | 38.389          | -120.905 | 0.05 | 0.05     | 2013    |
| SOILSCAPE      | node1019 | CsA     | EC5        | 38.387          | -120.907  | 0.05 | 0.05     | 2013    |
| SOILSCAPE      | node102  | Cfa     | EC5        | 36.002          | -98.630   | 0.04 | 0.04     | 2012    |
| SOILSCAPE      | node1020 | CsA     | EC5        | 38.388          | -120.905 | 0.05 | 0.05     | 2013    |
| SOILSCAPE      | node1021 | CsA     | EC5        | 38.388          | -120.906 | 0.05 | 0.05     | 2013    |
| SOILSCAPE      | node1022 | CsA     | EC5        | 38.388          | -120.905 | 0.05 | 0.05     | 2013    |
| SOILSCAPE      | node1023 | CsA     | EC5        | 38.388          | -120.906 | 0.05 | 0.05     | 2014    |
| SOILSCAPE      | node1024 | CsA     | EC5        | 38.388          | -120.906 | 0.05 | 0.05     | 2013    |
| SOILSCAPE      | node1025 | CsA     | EC5        | 38.387          | -120.905 | 0.05 | 0.05     | 2014    |
| SOILSCAPE      | node1026 | CsA     | EC5        | 38.387          | -120.906 | 0.05 | 0.05     | 2014    |
| SOILSCAPE      | node1027 | CsA     | EC5        | 38.387          | -120.905 | 0.05 | 0.05     | 2013    |
| SOILSCAPE      | node1028 | CsA     | EC5        | 38.387          | -120.905 | 0.05 | 0.05     | 2013    |
| SOILSCAPE      | node1029 | CsA     | EC5        | 38.387          | -120.905 | 0.05 | 0.05     | 2014    |
| SOILSCAPE      | node103  | Cfa     | EC5        | 36.002          | -98.629   | 0.04 | 0.04     | 2012    |
| SOILSCAPE      | node1030 | CsA     | EC5        | 38.387          | -120.905 | 0.05 | 0.05     | 2014    |
| SOILSCAPE      | node1031 | CsA     | EC5        | 38.387          | -120.904 | 0.05 | 0.05     | 2013    |
| SOILSCAPE      | node104  | Cfa     | EC5        | 36.002          | -98.628   | 0.04 | 0.04     | 2012    |
| SOILSCAPE      | node105  | Cfa     | EC5        | 36.001          | -98.631   | 0.04 | 0.04     | 2012    |
| SOILSCAPE      | node106  | Cfa     | EC5        | 36.002          | -98.630   | 0.04 | 0.04     | 2012    |
| SOILSCAPE      | node107  | Cfa     | EC5        | 36.002          | -98.629   | 0.04 | 0.04     | 2012    |
| SOILSCAPE      | node108  | Cfa     | EC5        | 36.001          | -98.628   | 0.04 | 0.04     | 2012    |
| SOILSCAPE | node | | | |
| SOILSCAPE | node109 | Cfa | EC5 | 36.001 | -98.631 | 0.04 | 0.04 | 2012 | 2014 |
| SOILSCAPE | node110 | Cfa | EC5 | 36.001 | -98.630 | 0.04 | 0.04 | 2012 | 2013 |
| SOILSCAPE | node111 | Cfa | EC5 | 36.001 | -98.629 | 0.04 | 0.04 | 2012 | 2016 |
| SOILSCAPE | node112 | Cfa | EC5 | 36.001 | -98.628 | 0.04 | 0.04 | 2012 | 2016 |
| SOILSCAPE | node113 | Cfa | EC5 | 36.001 | -98.628 | 0.04 | 0.04 | 2012 | 2014 |
| SOILSCAPE | node114 | Cfa | EC5 | 36.001 | -98.632 | 0.04 | 0.04 | 2012 | 2016 |
| SOILSCAPE | node115 | Cfa | EC5 | 36.001 | -98.632 | 0.04 | 0.04 | 2012 | 2016 |
| SOILSCAPE | node116 | Cfa | EC5 | 36.000 | -98.631 | 0.04 | 0.04 | 2012 | 2016 |
| SOILSCAPE | node117 | Cfa | EC5 | 36.000 | -98.630 | 0.04 | 0.04 | 2012 | 2014 |
| SOILSCAPE | node118 | Cfa | EC5 | 36.000 | -98.629 | 0.04 | 0.04 | 2012 | 2015 |
| SOILSCAPE | node119 | Cfa | EC5 | 36.000 | -98.628 | 0.04 | 0.04 | 2013 | 2016 |
| SOILSCAPE | node120 | Cfa | EC5 | 36.000 | -98.628 | 0.04 | 0.04 | 2012 | 2016 |
| SOILSCAPE | node1201 | Csa | EC5 | 38.471 | -120.993 | 0.05 | 0.05 | 2015 | 2016 |
| SOILSCAPE | node1202 | Csa | EC5 | 38.471 | -120.994 | 0.05 | 0.05 | 2016 | 2016 |
| SOILSCAPE | node1205 | Csa | EC5 | 38.472 | -120.994 | 0.05 | 0.05 | 2015 | 2016 |
| SOILSCAPE | node1206 | Csa | EC5 | 38.472 | -120.994 | 0.05 | 0.05 | 2016 | 2016 |
| SOILSCAPE | node121 | Cfa | EC5 | 36.000 | -98.632 | 0.04 | 0.04 | 2012 | 2016 |
| SOILSCAPE | node1400 | BSk | EC5 | 31.736 | -109.942 | 0.05 | 0.05 | 2015 | 2017 |
| SOILSCAPE | node1401 | BSk | EC5 | 31.737 | -109.943 | 0.05 | 0.05 | 2015 | 2017 |
| SOILSCAPE | node1402 | BSk | EC5 | 31.737 | -109.943 | 0.05 | 0.05 | 2015 | 2017 |
| SOILSCAPE | node1403 | BSk | EC5 | 31.737 | -109.943 | 0.05 | 0.05 | 2015 | 2017 |
| SOILSCAPE | node1404 | BSk | EC5 | 31.736 | -109.941 | 0.05 | 0.05 | 2016 | 2017 |
| SOILSCAPE | node1405 | BSk | EC5 | 31.736 | -109.941 | 0.05 | 0.05 | 2015 | 2016 |
| SOILSCAPE | node1406 | BSk | EC5 | 31.737 | -109.944 | 0.05 | 0.05 | 2015 | 2016 |
| SOILSCAPE | node1407 | BSk | EC5 | 31.737 | -109.947 | 0.05 | 0.05 | 2015 | 2017 |
| SOILSCAPE | node1408 | BSk | EC5 | 31.737 | -109.947 | 0.05 | 0.05 | 2015 | 2017 |
| SOILSCAPE     | node1409 | BSk | EC5 | 31.738 | -109.947 | 0.05 | 0.05 | 2015   | 2017   |
|--------------|----------|-----|-----|--------|----------|------|------|--------|--------|
| SOILSCAPE    | node1500 | BSk | EC5 | 31.744 | -110.052 | 0.05 | 0.05 | 2015   | 2017   |
| SOILSCAPE    | node1501 | BSk | EC5 | 31.742 | -110.053 | 0.05 | 0.05 | 2015   | 2016   |
| SOILSCAPE    | node1502 | BSk | EC5 | 31.743 | -110.053 | 0.05 | 0.05 | 2016   | 2017   |
| SOILSCAPE    | node1503 | BSk | EC5 | 31.743 | -110.053 | 0.05 | 0.05 | 2015   | 2017   |
| SOILSCAPE    | node1504 | BSk | EC5 | 31.743 | -110.053 | 0.05 | 0.05 | 2016   | 2017   |
| SOILSCAPE    | node1505 | BSk | EC5 | 31.744 | -110.052 | 0.05 | 0.05 | 2015   | 2017   |
| SOILSCAPE    | node1506 | BSk | EC5 | 31.744 | -110.053 | 0.05 | 0.05 | 2015   | 2017   |
| SOILSCAPE    | node1507 | BSk | EC5 | 31.743 | -110.053 | 0.05 | 0.05 | 2015   | 2017   |
| SOILSCAPE    | node401  | Csa | EC5 | 38.432 | -120.965 | 0.05 | 0.05 | 2013   | 2017   |
| SOILSCAPE    | node402  | Csa | EC5 | 38.432 | -120.965 | 0.05 | 0.05 | 2012   | 2013   |
| SOILSCAPE    | node403  | Csa | EC5 | 38.432 | -120.965 | 0.05 | 0.05 | 2012   | 2017   |
| SOILSCAPE    | node404  | Csa | EC5 | 38.432 | -120.965 | 0.05 | 0.05 | 2012   | 2016   |
| SOILSCAPE    | node405  | Csa | EC5 | 38.432 | -120.964 | 0.05 | 0.05 | 2012   | 2017   |
| SOILSCAPE    | node406  | Csa | EC5 | 38.433 | -120.965 | 0.05 | 0.05 | 2012   | 2017   |
| SOILSCAPE    | node408  | Csa | EC5 | 38.433 | -120.967 | 0.05 | 0.05 | 2013   | 2017   |
| SOILSCAPE    | node409  | Csa | EC5 | 38.433 | -120.967 | 0.05 | 0.05 | 2012   | 2015   |
| SOILSCAPE    | node410  | Csa | EC5 | 38.434 | -120.967 | 0.05 | 0.05 | 2012   | 2016   |
| SOILSCAPE    | node411  | Csa | EC5 | 38.431 | -120.966 | 0.05 | 0.05 | 2012   | 2015   |
| SOILSCAPE    | node412  | Csa | EC5 | 38.431 | -120.967 | 0.05 | 0.05 | 2012   | 2016   |
| SOILSCAPE    | node413  | Csa | EC5 | 38.431 | -120.968 | 0.05 | 0.05 | 2012   | 2017   |
| SOILSCAPE    | node414  | Csa | EC5 | 38.430 | -120.967 | 0.05 | 0.05 | 2012   | 2016   |
| SOILSCAPE    | node415  | Csa | EC5 | 38.431 | -120.967 | 0.05 | 0.05 | 2012   | 2017   |
| SOILSCAPE    | node416  | Csa | EC5 | 38.431 | -120.967 | 0.05 | 0.05 | 2012   | 2017   |
| SOILSCAPE    | node417  | Csa | EC5 | 38.431 | -120.967 | 0.05 | 0.05 | 2012   | 2017   |
| SOILSCAPE    | node418  | Csa | EC5 | 38.431 | -120.968 | 0.05 | 0.05 | 2012   | 2017   |
| SOILSCAPE node | Csa | EC5 | Start | End | Year1 | Year2 |
|----------------|-----|-----|-------|-----|-------|-------|
| 419            | Csa | EC5 | -120.967 | 0.05 | 2012  | 2017  |
| 420            | Csa | EC5 | -120.968 | 0.05 | 2012  | 2017  |
| 501            | Csa | EC5 | -120.788 | 0.05 | 2013  | 2016  |
| 502            | Csa | EC5 | -120.787 | 0.05 | 2012  | 2016  |
| 503            | Csa | EC5 | -120.786 | 0.05 | 2012  | 2016  |
| 504            | Csa | EC5 | -120.786 | 0.05 | 2012  | 2016  |
| 505            | Csa | EC5 | -120.786 | 0.05 | 2013  | 2016  |
| 506            | Csa | EC5 | -120.785 | 0.05 | 2013  | 2016  |
| 507            | Csa | EC5 | -120.789 | 0.05 | 2013  | 2015  |
| 508            | Csa | EC5 | -120.789 | 0.05 | 2013  | 2015  |
| 509            | Csa | EC5 | -120.786 | 0.05 | 2013  | 2016  |
| 510            | Csa | EC5 | -120.785 | 0.05 | 2013  | 2016  |
| 511            | Csa | EC5 | -120.788 | 0.05 | 2013  | 2016  |
| 512            | Csa | EC5 | -120.786 | 0.05 | 2013  | 2016  |
| 513            | Csa | EC5 | -120.786 | 0.05 | 2013  | 2016  |
| 514            | Csa | EC5 | -120.789 | 0.05 | 2013  | 2016  |
| 515            | Csa | EC5 | -120.788 | 0.05 | 2013  | 2016  |
| 516            | Csa | EC5 | -120.788 | 0.05 | 2013  | 2015  |
| 517            | Csa | EC5 | -120.788 | 0.05 | 2013  | 2015  |
| 518            | Csa | EC5 | -120.787 | 0.05 | 2013  | 2016  |
| 701            | Csa | EC5 | -120.804 | 0.05 | 2013  | 2016  |
| 702            | Csa | EC5 | -120.807 | 0.05 | 2013  | 2016  |
| 703            | Csa | EC5 | -120.806 | 0.05 | 2013  | 2015  |
| 704            | Csa | EC5 | -120.807 | 0.05 | 2013  | 2015  |
| 705            | Csa | EC5 | -120.807 | 0.05 | 2013  | 2015  |
| 706            | Csa | EC5 | -120.805 | 0.05 | 2013  | 2015  |
| SOILSCAPE  | node    | Type | EC  | Depth | Start | End   | Year1 | Year2 |
|------------|---------|------|-----|-------|-------|-------|-------|-------|
| SOILSCAPE  | node707 | Csa  | EC5 | -120.806 | 0.05  | 0.05  | 2013  | 2015  |
| SOILSCAPE  | node708 | Csa  | EC5 | -120.806 | 0.05  | 0.05  | 2012  | 2017  |
| SOILSCAPE  | node709 | Csa  | EC5 | -120.807 | 0.05  | 0.05  | 2012  | 2016  |
| SOILSCAPE  | node710 | Csa  | EC5 | -120.805 | 0.05  | 0.05  | 2012  | 2017  |
| SOILSCAPE  | node711 | Csa  | EC5 | -120.803 | 0.05  | 0.05  | 2012  | 2013  |
| SOILSCAPE  | node712 | Csa  | EC5 | -120.804 | 0.05  | 0.05  | 2012  | 2017  |
| SOILSCAPE  | node713 | Csa  | EC5 | -120.805 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node715 | Csa  | EC5 | -120.802 | 0.05  | 0.05  | 2013  | 2014  |
| SOILSCAPE  | node900 | Csa  | EC5 | -120.906 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node901 | Csa  | EC5 | -120.906 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node902 | Csa  | EC5 | -120.905 | 0.05  | 0.05  | 2013  | 2016  |
| SOILSCAPE  | node903 | Csa  | EC5 | -120.905 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node904 | Csa  | EC5 | -120.905 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node905 | Csa  | EC5 | -120.905 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node906 | Csa  | EC5 | -120.906 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node907 | Csa  | EC5 | -120.906 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node908 | Csa  | EC5 | -120.905 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node909 | Csa  | EC5 | -120.904 | 0.05  | 0.05  | 2013  | 2016  |
| SOILSCAPE  | node910 | Csa  | EC5 | -120.905 | 0.05  | 0.05  | 2013  | 2015  |
| SOILSCAPE  | node911 | Csa  | EC5 | -120.906 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node912 | Csa  | EC5 | -120.905 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node913 | Csa  | EC5 | -120.905 | 0.05  | 0.05  | 2015  | 2017  |
| SOILSCAPE  | node914 | Csa  | EC5 | -120.906 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node915 | Csa  | EC5 | -120.906 | 0.05  | 0.05  | 2013  | 2017  |
| SOILSCAPE  | node916 | Csa  | EC5 | -120.906 | 0.05  | 0.05  | 2013  | 2016  |
| SWEX_POLAND | MarshBubnow,Polesie | Dfb | D-LOG-mpts | 51.375 | 23.279 | 0 | 0.02 | 2006 | 2009 |
| Location                  | Station Type | Site Name  | Instrument                  | Value       | Value       | Value | Year 1 | Year 2 |
|---------------------------|--------------|------------|-----------------------------|-------------|-------------|-------|--------|--------|
| Trzebieszow, Podlasie     | Dfb          |            | D-LOG-mpts                  | 51.987      | 22.565      | 0     | 0.02   | 2006   | 2009   |
| Gevenich                  | Cfb          |            | Hydraprobe-II-Sdi-12-A      | 50.989      | 6.324       | 0.05  | 0.05   | 2011   | 2018   |
| Merzenhausen              | Cfb          |            | Hydraprobe-II-Sdi-12-A      | 50.930      | 6.297       | 0.05  | 0.05   | 2011   | 2018   |
| Schoeneseiffen            | Cfb          |            | Hydraprobe-II-Sdi-12-A      | 50.515      | 6.376       | 0.05  | 0.05   | 2010   | 2017   |
| Selhausen                 | Cfb          |            | Hydraprobe-II-Sdi-12-A      | 50.869      | 6.450       | 0.05  | 0.05   | 2013   | 2017   |
| Wildenrath                | Cfb          |            | Hydraprobe-II-Sdi-12-A      | 51.133      | 6.169       | 0.05  | 0.05   | 2012   | 2018   |
| Engersdorf                | Cfb          |            | IMKO-TDR-1                  | 48.453      | 12.635      | 0.05  | 0.05   | 2008   | 2011   |
| Erlbach                   | Cfb          |            | EC5-I                       | 48.307      | 12.828      | 0.05  | 0.05   | 2010   | 2011   |
| Frieding                  | Cfb          |            | IMKO-TDR-1                  | 48.337      | 12.833      | 0.05  | 0.05   | 2008   | 2011   |
| Harbach                   | Cfb          |            | EC5-I                       | 48.425      | 12.619      | 0.05  | 0.05   | 2010   | 2011   |
| Karolinenfeld             | Cfb          |            | EC5-I                       | 47.865      | 12.078      | 0.05  | 0.05   | 2008   | 2010   |
| Lochheim                  | Cfb          |            | IMKO-TDR-1                  | 48.270      | 12.497      | 0.05  | 0.05   | 2008   | 2011   |
| Neusling                  | Cfb          |            | IMKO-TDR-1                  | 48.695      | 12.877      | 0.05  | 0.05   | 2007   | 2011   |
| Puch                      | Cfb          |            | IMKO-TDR-1                  | 48.187      | 11.217      | 0.05  | 0.05   | 2009   | 2010   |
| Rothenfeld                | Cfb          |            | EC5-I                       | 47.971      | 11.224      | 0.05  | 0.05   | 2008   | 2010   |
| Steinbeissen              | Cfb          |            | IMKO-TDR-1                  | 48.609      | 12.733      | 0.05  | 0.05   | 2008   | 2008   |
| Wettkam                   | Cfb          |            | EC5-I                       | 47.913      | 11.649      | 0.05  | 0.05   | 2008   | 2008   |
| Aberdeen-35-WNW           | Dfb          |            | Stevens-Hydraprobe-II-Sdi-12| 45.712      | -99.130     | 0.05  | 0.05   | 2009   | 2018   |
| Arco-17-SW                | Dsb          |            | Stevens-Hydraprobe-II-Sdi-12| 43.462      | -113.556    | 0.05  | 0.05   | 2011   | 2018   |
| Asheville-13-S            | Cfb          |            | Stevens-Hydraprobe-II-Sdi-12| 35.419      | -82.557     | 0.05  | 0.05   | 2010   | 2018   |
| Asheville-8-SSW           | Cfb          |            | Stevens-Hydraprobe-II-Sdi-12| 35.495      | -82.614     | 0.05  | 0.05   | 2010   | 2016   |
| Austin-33-NW              | Cfa          |            | Stevens-Hydraprobe-II-Sdi-12| 30.622      | -98.085     | 0.05  | 0.05   | 2010   | 2018   |
| Avondale-2-N              | Cfa          |            | Stevens-Hydraprobe-II-Sdi-12| 39.859      | -75.786     | 0.05  | 0.05   | 2011   | 2018   |
| Baker-5-W                 | BSk          |            | Stevens-Hydraprobe-II-Sdi-12| 39.012      | -114.209    | 0.05  | 0.05   | 2011   | 2018   |
| Batesville-8-WNW          | Cfa          |            | Stevens-Hydraprobe-II-Sdi-12| 35.820      | -91.781     | 0.05  | 0.05   | 2009   | 2018   |
| Bedford-5-WNW             | Cfa          |            | Stevens-Hydraprobe-II-Sdi-12| 38.888      | -86.571     | 0.05  | 0.05   | 2009   | 2018   |
| USCRN          | Location                | Station Type | Observation Type | Value   | Value 2 | Value 3 | Value 4 | Value 5 | Value 6 | Value 7 | Value 8 | Value 9 | Value 10 | Value 11 | Value 12 | Year 1 | Year 2 |
|---------------|-------------------------|--------------|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| USCRN         | Blackville-3-W          | Cfa          | Stevens-Hydraprobe-II-Sdi-12 | 33.355  | -81.328 | 0.05    | 0.05    | 2009    | 2018    |
| USCRN         | Bodega-6-WSW            | Csb          | Stevens-Hydraprobe-II-Sdi-12 | 38.321  | -123.075| 0.05    | 0.05    | 2011    | 2018    |
| USCRN         | Boulder-14-W            | Dfc          | Stevens-Hydraprobe-II-Sdi-12 | 40.035  | -105.541| 0.05    | 0.05    | 2011    | 2018    |
| USCRN         | Bowling-Green-21-NNE    | Cfa          | Stevens-Hydraprobe-II-Sdi-12 | 37.250  | -86.233 | 0.05    | 0.05    | 2009    | 2018    |
| USCRN         | Brigham-City-28-WNW     | BSk          | Stevens-Hydraprobe-II-Sdi-12 | 41.616  | -112.544| 0.05    | 0.05    | 2011    | 2018    |
| USCRN         | Bronte-11-NNE           | BSk          | Stevens-Hydraprobe-II-Sdi-12 | 32.041  | -100.250| 0.05    | 0.05    | 2010    | 2018    |
| USCRN         | Brunswick-23-S          | Cfa          | Stevens-Hydraprobe-II-Sdi-12 | 30.808  | -81.460 | 0.05    | 0.05    | 2010    | 2018    |
| USCRN         | Buffalo-13-ESE          | BSk          | Stevens-Hydraprobe-II-Sdi-12 | 45.516  | -103.302| 0.05    | 0.05    | 2010    | 2018    |
| USCRN         | Cape-Charles-5-ENE      | Cfa          | Stevens-Hydraprobe-II-Sdi-12 | 37.291  | -75.927 | 0.05    | 0.05    | 2011    | 2018    |
| USCRN         | Champaign-9-SW          | Dfa          | Stevens-Hydraprobe-II-Sdi-12 | 40.053  | -88.373 | 0.05    | 0.05    | 2009    | 2018    |
| USCRN         | Charlottesville-2-SSE    | Cfa          | Stevens-Hydraprobe-II-Sdi-12 | 37.998  | -78.466 | 0.05    | 0.05    | 2011    | 2018    |
| USCRN         | Chatham-1-SE            | Dfb          | Stevens-Hydraprobe-II-Sdi-12 | 46.335  | -86.920 | 0.05    | 0.05    | 2011    | 2018    |
| USCRN         | Chillicothe-22-ENE      | Dfa          | Stevens-Hydraprobe-II-Sdi-12 | 39.867  | -93.147 | 0.05    | 0.05    | 2009    | 2018    |
| USCRN         | Cortez-8-SE             | BSk          | Stevens-Hydraprobe-II-Sdi-12 | 37.255  | -108.504| 0.05    | 0.05    | 2010    | 2018    |
| USCRN         | Corvallis-10-SSW        | Csb          | Stevens-Hydraprobe-II-Sdi-12 | 44.419  | -123.326| 0.05    | 0.05    | 2009    | 2018    |
| USCRN         | Coshocton-8-NNE         | Cfa          | Stevens-Hydraprobe-II-Sdi-12 | 40.367  | -81.783 | 0.05    | 0.05    | 2009    | 2018    |
| USCRN         | Crossville-7-NW         | Cfa          | Stevens-Hydraprobe-II-Sdi-12 | 36.014  | -85.135 | 0.05    | 0.05    | 2009    | 2018    |
| USCRN         | Darrington-21-NNE       | Dfc          | Stevens-Hydraprobe-II-Sdi-12 | 48.541  | -121.446| 0.05    | 0.05    | 2011    | 2018    |
| USCRN         | Denio-52-WSW            | Dsb          | Stevens-Hydraprobe-II-Sdi-12 | 41.848  | -119.636| 0.05    | 0.05    | 2011    | 2018    |
| USCRN         | Des-Moines-17-E         | Dfa          | Stevens-Hydraprobe-II-Sdi-12 | 41.556  | -93.286 | 0.05    | 0.05    | 2009    | 2018    |
| USCRN         | Dillon-18-WSW           | BSk          | Stevens-Hydraprobe-II-Sdi-12 | 45.158  | -113.006| 0.05    | 0.05    | 2011    | 2018    |
| USCRN         | Dinosaur-2-E            | BSk          | Stevens-Hydraprobe-II-Sdi-12 | 40.245  | -108.968| 0.05    | 0.05    | 2011    | 2018    |
| USCRN         | Durham-11-W             | Cfa          | Stevens-Hydraprobe-II-Sdi-12 | 35.971  | -79.093 | 0.05    | 0.05    | 2010    | 2018    |
| USCRN         | Edinburg-17-NNE         | Cfa          | Stevens-Hydraprobe-II-Sdi-12 | 26.526  | -98.063 | 0.05    | 0.05    | 2010    | 2018    |
| USCRN     | Location          | Climate | Station Type | Precipitation (mm) | Temperature (°C) | Year 1 | Year 2 |
|-----------|-------------------|---------|--------------|--------------------|------------------|--------|--------|
| Elgin-5-S | BSk               |         | Stevens-Hydroprobe-II-Sdi-12 | 31.591 | -110.509 | 0.05  | 0.05  |
| Elkins-21-ENE | Cfb              |         | Stevens-Hydroprobe-II-Sdi-12 | 39.013 | -79.474 | 0.05  | 0.05  |
| Everglades-City-5-NE | Aw |         | Stevens-Hydroprobe-II-Sdi-12 | 25.900 | -81.318 | 0.05  | 0.05  |
| Fairhope-3-NE | Cfa             |         | Stevens-Hydroprobe-II-Sdi-12 | 30.549 | -87.876 | 0.05  | 0.05  |
| Fallbrook-5-NE | Csa             |         | Stevens-Hydroprobe-II-Sdi-12 | 33.439 | -117.190 | 0.05  | 0.05  |
| Gadsden-19-N | Cfa             |         | Stevens-Hydroprobe-II-Sdi-12 | 34.285 | -85.962 | 0.05  | 0.05  |
| Gaylord-9-SSW | Dfb            |         | Stevens-Hydroprobe-II-Sdi-12 | 44.908 | -84.720 | 0.05  | 0.05  |
| Goodridge-12-NNW | Dfb         |         | Stevens-Hydroprobe-II-Sdi-12 | 48.306 | -95.874 | 0.05  | 0.05  |
| Goodwell-2-E | BSk             |         | Stevens-Hydroprobe-II-Sdi-12 | 36.599 | -101.595 | 0.05  | 0.05  |
| Goodwell-2-SE | BSk             |         | Stevens-Hydroprobe-II-Sdi-12 | 36.568 | -101.610 | 0.05  | 0.05  |
| Harrison-20-SSE | BSk           |         | Stevens-Hydroprobe-II-Sdi-12 | 42.425 | -103.736 | 0.05  | 0.05  |
| Holly-Springs-4-N | Cfa          |         | Stevens-Hydroprobe-II-Sdi-12 | 34.822 | -89.435 | 0.05  | 0.05  |
| Ithaca-13-E | Dfb              |         | Stevens-Hydroprobe-II-Sdi-12 | 42.440 | -76.246 | 0.05  | 0.05  |
| Jamestown-38-WSW | Dfb          |         | Stevens-Hydroprobe-II-Sdi-12 | 46.770 | -99.478 | 0.05  | 0.05  |
| John-Day-35-WNW | Csb        |         | Stevens-Hydroprobe-II-Sdi-12 | 44.556 | -119.646 | 0.05  | 0.05  |
| Joplin-24-N | Cfa              |         | Stevens-Hydroprobe-II-Sdi-12 | 37.428 | -94.583 | 0.05  | 0.05  |
| Kenai-29-ENE | Dfc              |         | Stevens-Hydroprobe-II-Sdi-12 | 60.726 | -150.451 | 0.05  | 0.05  |
| Kingston-1-NW | Cfb             |         | Stevens-Hydroprobe-II-Sdi-12 | 41.491 | -71.541 | 0.05  | 0.05  |
| Kingston-1-W | Cfb              |         | Stevens-Hydroprobe-II-Sdi-12 | 41.478 | -71.542 | 0.05  | 0.05  |
| Lafayette-13-SE | Cfa            |         | Stevens-Hydroprobe-II-Sdi-12 | 30.092 | -91.873 | 0.05  | 0.05  |
| La-Junta-17-WSW | BSk         |         | Stevens-Hydroprobe-II-Sdi-12 | 37.864 | -103.822 | 0.05  | 0.05  |
| Lander-11-SSE | BSk             |         | Stevens-Hydroprobe-II-Sdi-12 | 42.675 | -108.669 | 0.05  | 0.05  |
| Las-Cruces-20-N | BWk         |         | Stevens-Hydroprobe-II-Sdi-12 | 32.614 | -106.741 | 0.05  | 0.05  |
| Lewistown-42-WSW | BSk        |         | Stevens-Hydroprobe-II-Sdi-12 | 46.885 | -110.290 | 0.05  | 0.05  |
| Limestone-4-NNW | Dfb           |         | Stevens-Hydroprobe-II-Sdi-12 | 46.960 | -67.883 | 0.05  | 0.05  |
| Lincoln-11-SW | Dfa              |         | Stevens-Hydroprobe-II-Sdi-12 | 40.695 | -96.854 | 0.05  | 0.05  |
| USCRN  | Site Description | Climate Type | Station Code | Latitude  | Longitude | Elevation | Pressure | Temperature | Wind Direction | Year 1 | Year 2 |
|--------|-----------------|--------------|--------------|-----------|-----------|-----------|----------|-------------|----------------|--------|--------|
| Lincoln-8-ENE | Dfa | Stevens-Hydraprobe-II-Sdi-12 | 40.848 | -96.565 | 0.05 | 0.05 | 2009 | 2018 |
| Los-Alamos-13-W | Cfb | Stevens-Hydraprobe-II-Sdi-12 | 35.858 | -106.521 | 0.05 | 0.05 | 2010 | 2018 |
| Manhattan-6-SSW | Cfa | Stevens-Hydraprobe-II-Sdi-12 | 39.103 | -96.610 | 0.05 | 0.05 | 2009 | 2018 |
| McClellanville-7-NE | Cfa | Stevens-Hydraprobe-II-Sdi-12 | 33.153 | -79.364 | 0.05 | 0.05 | 2009 | 2018 |
| Medora-7-E | Dfb | Stevens-Hydraprobe-II-Sdi-12 | 46.895 | -103.377 | 0.05 | 0.05 | 2010 | 2018 |
| Merced-23-WSW | BSk | Stevens-Hydraprobe-II-Sdi-12 | 37.238 | -120.883 | 0.05 | 0.05 | 2011 | 2018 |
| Mercury-3-SSW | BWk | Stevens-Hydraprobe-II-Sdi-12 | 36.624 | -116.023 | 0.05 | 0.05 | 2010 | 2018 |
| Monahans-6-ENE | BWh | Stevens-Hydraprobe-II-Sdi-12 | 31.622 | -102.807 | 0.05 | 0.05 | 2010 | 2018 |
| Monroe-26-N | Cfa | Stevens-Hydraprobe-II-Sdi-12 | 32.883 | -92.117 | 0.05 | 0.05 | 2009 | 2018 |
| Montrose-11-ENE | Dfb | Stevens-Hydraprobe-II-Sdi-12 | 38.544 | -107.693 | 0.05 | 0.05 | 2010 | 2018 |
| Moose-1-NNE | Dfc | Stevens-Hydraprobe-II-Sdi-12 | 43.662 | -110.712 | 0.05 | 0.05 | 2011 | 2018 |
| Muleshoe-19-S | BSk | Stevens-Hydraprobe-II-Sdi-12 | 33.956 | -102.774 | 0.05 | 0.05 | 2010 | 2018 |
| Murphy-10-W | BSk | Stevens-Hydraprobe-II-Sdi-12 | 43.204 | -116.751 | 0.05 | 0.05 | 2011 | 2018 |
| Necedah-5-WNW | Dfb | Stevens-Hydraprobe-II-Sdi-12 | 44.060 | -90.174 | 0.05 | 0.05 | 2009 | 2018 |
| Newton-11-SW | Cfa | Stevens-Hydraprobe-II-Sdi-12 | 31.192 | -84.447 | 0.05 | 0.05 | 2010 | 2017 |
| Newton-5-ENE | Cfa | Stevens-Hydraprobe-II-Sdi-12 | 32.338 | -89.070 | 0.05 | 0.05 | 2009 | 2018 |
| Newton-8-W | Cfa | Stevens-Hydraprobe-II-Sdi-12 | 31.313 | -84.471 | 0.05 | 0.05 | 2010 | 2018 |
| Northgate-5-ESW | Dfb | Stevens-Hydraprobe-II-Sdi-12 | 48.968 | -102.170 | 0.05 | 0.05 | 2010 | 2018 |
| Nunn-7-NNE | BSk | Stevens-Hydraprobe-II-Sdi-12 | 40.807 | -104.755 | 0.05 | 0.05 | 2011 | 2018 |
| Oakley-19-SSW | BSk | Stevens-Hydraprobe-II-Sdi-12 | 38.870 | -100.963 | 0.05 | 0.05 | 2009 | 2018 |
| Old-Town-2-W | Dfb | Stevens-Hydraprobe-II-Sdi-12 | 44.928 | -68.701 | 0.05 | 0.05 | 2010 | 2016 |
| Palestine-6-WNW | Cfa | Stevens-Hydraprobe-II-Sdi-12 | 31.780 | -95.723 | 0.05 | 0.05 | 2009 | 2016 |
| Panther-Junction-2-N | BWh | Stevens-Hydraprobe-II-Sdi-12 | 29.348 | -103.209 | 0.05 | 0.05 | 2010 | 2018 |
| Pierre-24-S | Dwa | Stevens-Hydraprobe-II-Sdi-12 | 44.019 | -100.353 | 0.05 | 0.05 | 2010 | 2018 |
| Port-Aransas-32-NNE | Cfa | Stevens-Hydraprobe-II-Sdi-12 | 28.305 | -96.823 | 0.05 | 0.05 | 2011 | 2017 |
| Quinault-4-NE | Cfb | Stevens-Hydraprobe-II-Sdi-12 | 47.514 | -123.812 | 0.05 | 0.05 | 2011 | 2018 |
| USCRN   | Location                          | Climate | Station Type | WAF   | WSDF   | Yr1 | Yr2 |
|---------|-----------------------------------|---------|--------------|-------|--------|-----|-----|
| USCRN   | Redding-12-WNW                    | Csb     | Stevens-Hydroprobe-II-Sdi-12 | 40.651 | -122.607 | 0.05 | 0.05 |
| USCRN   | Riley-10-WSW                      | BSk     | Stevens-Hydroprobe-II-Sdi-12 | 43.471 | -119.692 | 0.05 | 0.05 |
| USCRN   | Salem-10-W                        | CfA     | Stevens-Hydroprobe-II-Sdi-12 | 37.634 | -91.723  | 0.05 | 0.05 |
| USCRN   | Sandstone-6-W                     | Dfb     | Stevens-Hydroprobe-II-Sdi-12 | 46.114 | -92.994  | 0.05 | 0.05 |
| USCRN   | Santa-Barbara-11-W                | Csb     | Stevens-Hydroprobe-II-Sdi-12 | 34.414 | -119.880 | 0.05 | 0.05 |
| USCRN   | Sebring-23-SSE                    | CfA     | Stevens-Hydroprobe-II-Sdi-12 | 27.153 | -81.369  | 0.05 | 0.05 |
| USCRN   | Selma-13-WNW                      | CfA     | Stevens-Hydroprobe-II-Sdi-12 | 32.457 | -87.242  | 0.05 | 0.05 |
| USCRN   | Shabbona-5-NNE                    | Dfa     | Stevens-Hydroprobe-II-Sdi-12 | 41.843 | -88.851  | 0.05 | 0.05 |
| USCRN   | Sioux-Falls-14-NNE                | Dfa     | Stevens-Hydroprobe-II-Sdi-12 | 43.735 | -96.622  | 0.05 | 0.05 |
| USCRN   | Socorro-20-N                      | BSk     | Stevens-Hydroprobe-II-Sdi-12 | 34.356 | -106.886 | 0.05 | 0.05 |
| USCRN   | Spokane-17-SSW                    | Csb     | Stevens-Hydroprobe-II-Sdi-12 | 47.417 | -117.526 | 0.05 | 0.05 |
| USCRN   | St.-Mary-1-SSW                    | Dfb     | Stevens-Hydroprobe-II-Sdi-12 | 48.741 | -113.433 | 0.05 | 0.05 |
| USCRN   | Stillwater-2-W                    | CfA     | Stevens-Hydroprobe-II-Sdi-12 | 36.118 | -97.091  | 0.05 | 0.05 |
| USCRN   | Stillwater-5-WNW                  | CfA     | Stevens-Hydroprobe-II-Sdi-12 | 36.135 | -97.108  | 0.05 | 0.05 |
| USCRN   | Stovepipe-Wells-1-SW              | BWK     | Stevens-Hydroprobe-II-Sdi-12 | 36.602 | -117.145 | 0.05 | 0.05 |
| USCRN   | Sundance-8-NNW                    | BSk     | Stevens-Hydroprobe-II-Sdi-12 | 44.517 | -104.436 | 0.05 | 0.05 |
| USCRN   | Titusville-7-E                    | CfA     | Stevens-Hydroprobe-II-Sdi-12 | 28.616 | -80.693  | 0.05 | 0.05 |
| USCRN   | Tucson-11-W                       | BSf     | Stevens-Hydroprobe-II-Sdi-12 | 32.240 | -111.170 | 0.05 | 0.05 |
| USCRN   | Versailles-3-NNW                  | CfA     | Stevens-Hydroprobe-II-Sdi-12 | 38.095 | -84.747  | 0.05 | 0.05 |
| USCRN   | Watkinsville-5-SSE                | CfA     | Stevens-Hydroprobe-II-Sdi-12 | 33.784 | -83.390  | 0.05 | 0.05 |
| USCRN   | Whitman-5-ENE                     | Dfa     | Stevens-Hydroprobe-II-Sdi-12 | 42.068 | -101.445 | 0.05 | 0.05 |
| USCRN   | Williams-35-NNW                   | Csa     | Stevens-Hydroprobe-II-Sdi-12 | 35.755 | -112.337 | 0.05 | 0.05 |
| USCRN   | Wolf-Point-29-ENE                 | BSk     | Stevens-Hydroprobe-II-Sdi-12 | 48.308 | -105.102 | 0.05 | 0.05 |
| USCRN   | Wolf-Point-34-NE                  | BSk     | Stevens-Hydroprobe-II-Sdi-12 | 48.489 | -105.210 | 0.05 | 0.05 |
| USCRN   | Yosemite-Village-12-W             | Csb     | Stevens-Hydroprobe-II-Sdi-12 | 37.759 | -119.821 | 0.05 | 0.05 |
| USCRN   | Yuma-27-ENE                       | BWK     | Stevens-Hydroprobe-II-Sdi-12 | 32.835 | -114.188 | 0.05 | 0.05 |
| USDA-ARS     | Location        | Climate | Soil Type | Probe Type         | Depth_min | Depth_max | Start Year | End Year |
|--------------|----------------|---------|-----------|--------------------|-----------|-----------|------------|----------|
| LittleRiver  | USDA-ARS       | Cfa     |           | Hydroprobe-Analog-(2.5-Volt)-area-weighted-average | 31.650    | -83.610   | 0          | 0.05     |
| LittleWashita| USDA-ARS       | Cfa     |           | Hydroprobe-Analog-(2.5-Volt)-area-weighted-average | 34.950    | -98.100   | 0          | 0.05     |
| ReynoldsCreek| USDA-ARS       | BSk     |           | Hydroprobe-Analog-(2.5-Volt)-area-weighted-average | 43.150    | -116.775  | 0          | 0.05     |
| WalnutGulch  | USDA-ARS       | BSk     |           | Hydroprobe-Analog-(2.5-Volt)-area-weighted-average | 31.722    | -110.018  | 0          | 0.05     |
| MelbexI      | VAS            | Csa     |           | Stevens-Hydra-Probe | 39.549    | -1.276    | 0          | 0.05     |
| MelbexII     | VAS            | Csa     |           | ThetaProbe-ML2X    | 39.522    | -1.292    | 0          | 0.05     |
| WSMN-1       | WSMN           | Cfb     |           | CS655              | 52.432    | -4.021    | 0.05       | 0.05     |
| WSMN-2       | WSMN           | Cfb     |           | CS655              | 52.432    | -4.022    | 0.05       | 0.05     |
| WSMN-3       | WSMN           | Cfb     |           | CS615              | 52.422    | -4.068    | 0.025      | 0.025    |
| WSMN-4       | WSMN           | Cfb     |           | CS615              | 52.421    | -4.071    | 0.025      | 0.025    |

*Climate_Köppen is the Köppen-Geiger climate classification type; Depth_min and Depth_max are the minimum and maximum soil depth (unit: m); Year_start and Year_end indicate the temporal range of the data used for soil moisture validation.*
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