Harvard Forest Data Archive HF108-01

Data File:

Name = hf108-01-air-soil-temp-2004-2011.csv
Description = air and soil temperature, 2004-2011
Rows = 61395 Columns = 93
MD5 checksum = 0fd7d084f6c36c8573346d2baca1545c

Variables:

datetime = date and time (EST)
year = year
month = month (number)
week = week. This column is useful for plotting the data.
   (nominalWeek)
ym = year and month. This column is useful for plotting the data.
   (number)
yw = year and week. This column is useful for plotting the data.
   (number)
doy = day of year (nominalDay)
hour = hour in 24-hour format (EST) (number)
daytime = a composite of day (integer) + time (in 1/24ths). The
   value for the initial measurement year is the actual julian day + hours
   (in 1/24ths); subsequent years add 365 to day (for 2005), etc. This
   column is useful for plotting the data. (nominalDay)
meanair1 = the mean hourly air temperature (degrees C; N = 60) in
   plot 1 (celsius)
meanair2 = the mean hourly air temperature (degrees C; N = 60) in
   plot 2 (celsius)
meanair3 = the mean hourly air temperature (degrees C; N = 60) in
   plot 3 (celsius)
meanair4 = the mean hourly air temperature (degrees C; N = 60) in
   plot 4 (celsius)
meanair5 = the mean hourly air temperature (degrees C; N = 60) in
   plot 5 (celsius)
meanair6 = the mean hourly air temperature (degrees C; N = 60) in
   plot 6 (celsius)
meanair7 = the mean hourly air temperature (degrees C; N = 60) in
   plot 7 (celsius)
meanair8 = the mean hourly air temperature (degrees C; N = 60) in
   plot 8 (celsius)
meanmineralsoil1 = the mean hourly soil temperature in the mineral
   layer (degrees C; N = 60) in plot 1 (celsius)
meanmineralsoil2 = the mean hourly soil temperature in the mineral
   layer (degrees C; N = 60) in plot 2 (celsius)
meanmineralsoil3 = the mean hourly soil temperature in the mineral
   layer (degrees C; N = 60) in plot 3 (celsius)
meanmineralsoil4 = the mean hourly soil temperature in the mineral
   layer (degrees C; N = 60) in plot 4 (celsius)
meanmineralsoil5 = the mean hourly soil temperature in the mineral
   layer (degrees C; N = 60) in plot 5 (celsius)

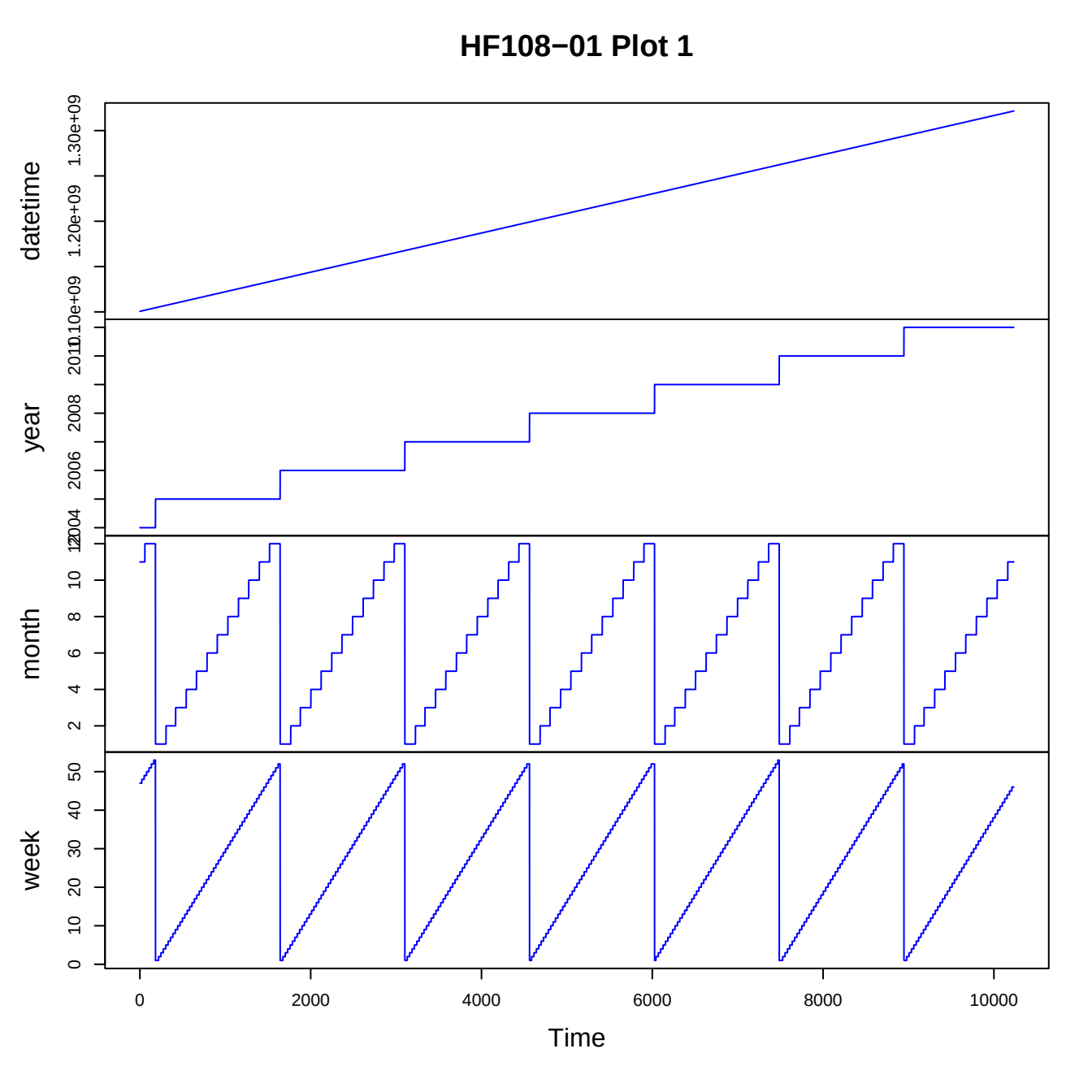
meanmineralsoil6 = the mean hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 6 (celsius)
meanmineralsoil7 = the mean hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 7 (celsius)
meanmineralsoil8 = the mean hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 8 (celsius)
meanorgsoil1 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 1 (celsius)
meanorgsoil2 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 2 (celsius)
meanorgsoil3 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 3 (celsius)
meanorgsoil4 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 4 (celsius)
meanorgsoil5 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 5 (celsius)
meanorgsoil6 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 6 (celsius)
meanorgsoil7 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 7 (celsius)
meanorgsoil8 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 8 (celsius)
meanref = the average internal panel temperature (degrees C) of datalogger 1 for Plots 1–3 (celsius)
meanref2 = the average internal panel temperature (degrees C) of datalogger 2 for Plots 4–6 (celsius)
meanref7 = the average internal panel temperature (degrees C) of the datalogger for Plot 7 (celsius)
meanref8 = the average internal panel temperature (degrees C) of the datalogger for Plot 8 (celsius)
minair1 = the minimum hourly air temperature (degrees C; N = 60) in plot 1 (celsius)
minair2 = the minimum hourly air temperature (degrees C; N = 60) in plot 2 (celsius)
minair3 = the minimum hourly air temperature (degrees C; N = 60) in plot 3 (celsius)
minair4 = the minimum hourly air temperature (degrees C; N = 60) in plot 4 (celsius)
minair5 = the minimum hourly air temperature (degrees C; N = 60) in plot 5 (celsius)
minair6 = the minimum hourly air temperature (degrees C; N = 60) in plot 6 (celsius)
minair7 = the minimum hourly air temperature (degrees C; N = 60) in plot 7 (celsius)
minair8 = the minimum hourly air temperature (degrees C; N = 60) in plot 8 (celsius)
minmineralsoil1 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 1 (celsius)
minmineralsoil2 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 2 (celsius)
minmineralsoil3 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 3 (celsius)

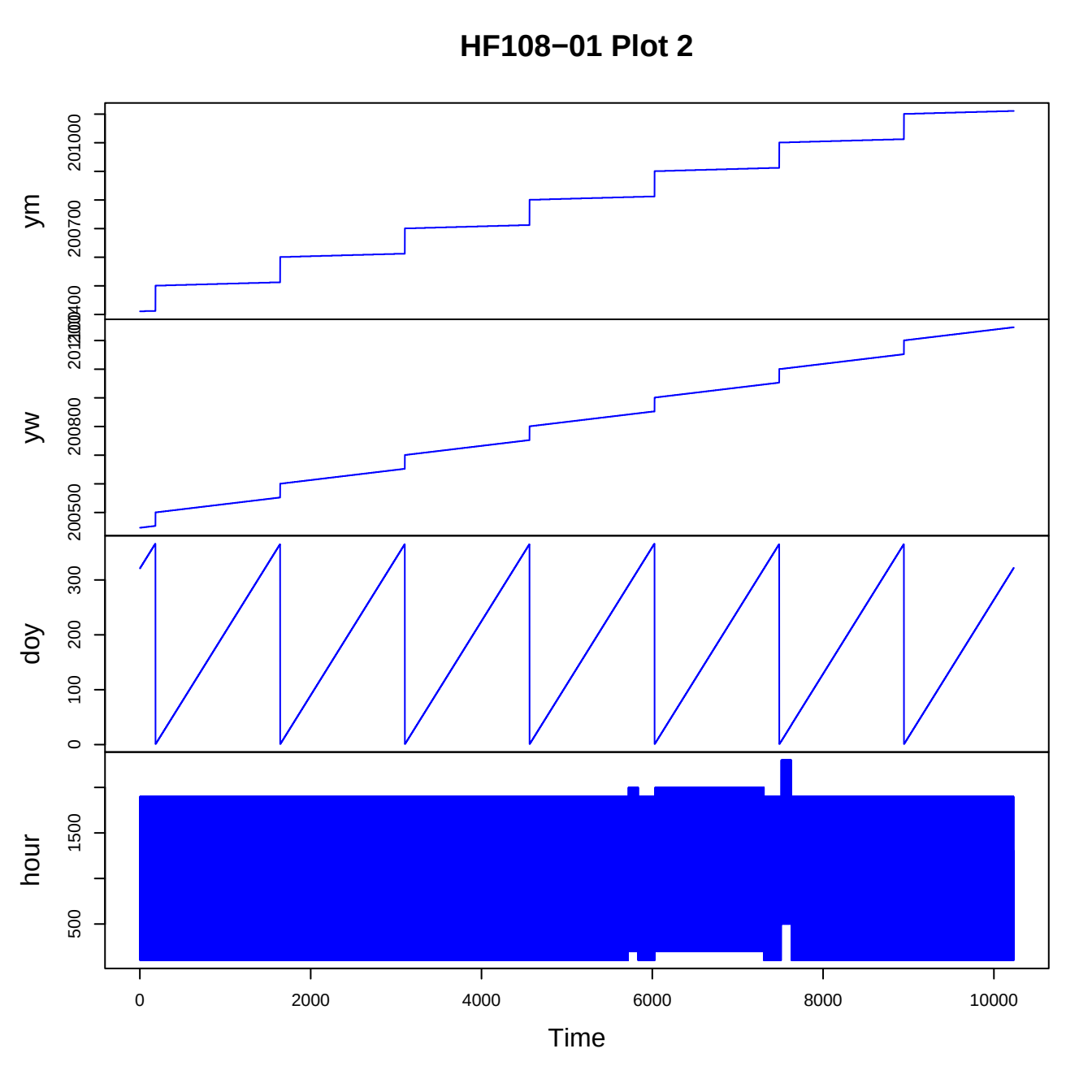
minmineralsoil4 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 4 (celsius)
minmineralsoil5 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 5 (celsius)
minmineralsoil6 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 6 (celsius)
minmineralsoil7 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 7 (celsius)
minmineralsoil8 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 8 (celsius)
minorgsoil1 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 1 (celsius)
minorgsoil2 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 2 (celsius)
minorgsoil3 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 3 (celsius)
minorgsoil4 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 4 (celsius)
minorgsoil5 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 5 (celsius)
minorgsoil6 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 6 (celsius)
minorgsoil7 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 7 (celsius)
minorgsoil8 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 8 (celsius)
minref = the minimum internal temperature (degrees C) of datalogger 1 for Plots 1–3 (celsius)
minref2 = the minimum internal temperature (degrees C) of datalogger 2 for Plots 4–6 (celsius)
minref7 = the minimum internal temperature (degrees C) of the datalogger for Plot 7 (celsius)
minref8 = the minimum internal temperature (degrees C) of the datalogger for Plot 8 (celsius)
maxair1 = the maximum hourly air temperature (degrees C; N = 60) in plot 1 (celsius)
maxair2 = the maximum hourly air temperature (degrees C; N = 60) in plot 2 (celsius)
maxair3 = the maximum hourly air temperature (degrees C; N = 60) in plot 3 (celsius)
maxair4 = the maximum hourly air temperature (degrees C; N = 60) in plot 4 (celsius)
maxair5 = the maximum hourly air temperature (degrees C; N = 60) in plot 5 (celsius)
maxair6 = the maximum hourly air temperature (degrees C; N = 60) in plot 6 (celsius)
maxair7 = the maximum hourly air temperature (degrees C; N = 60) in plot 7 (celsius)
maxair8 = the maximum hourly air temperature (degrees C; N = 60) in plot 8 (celsius)
maxmineralsoil1 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 1 (celsius)

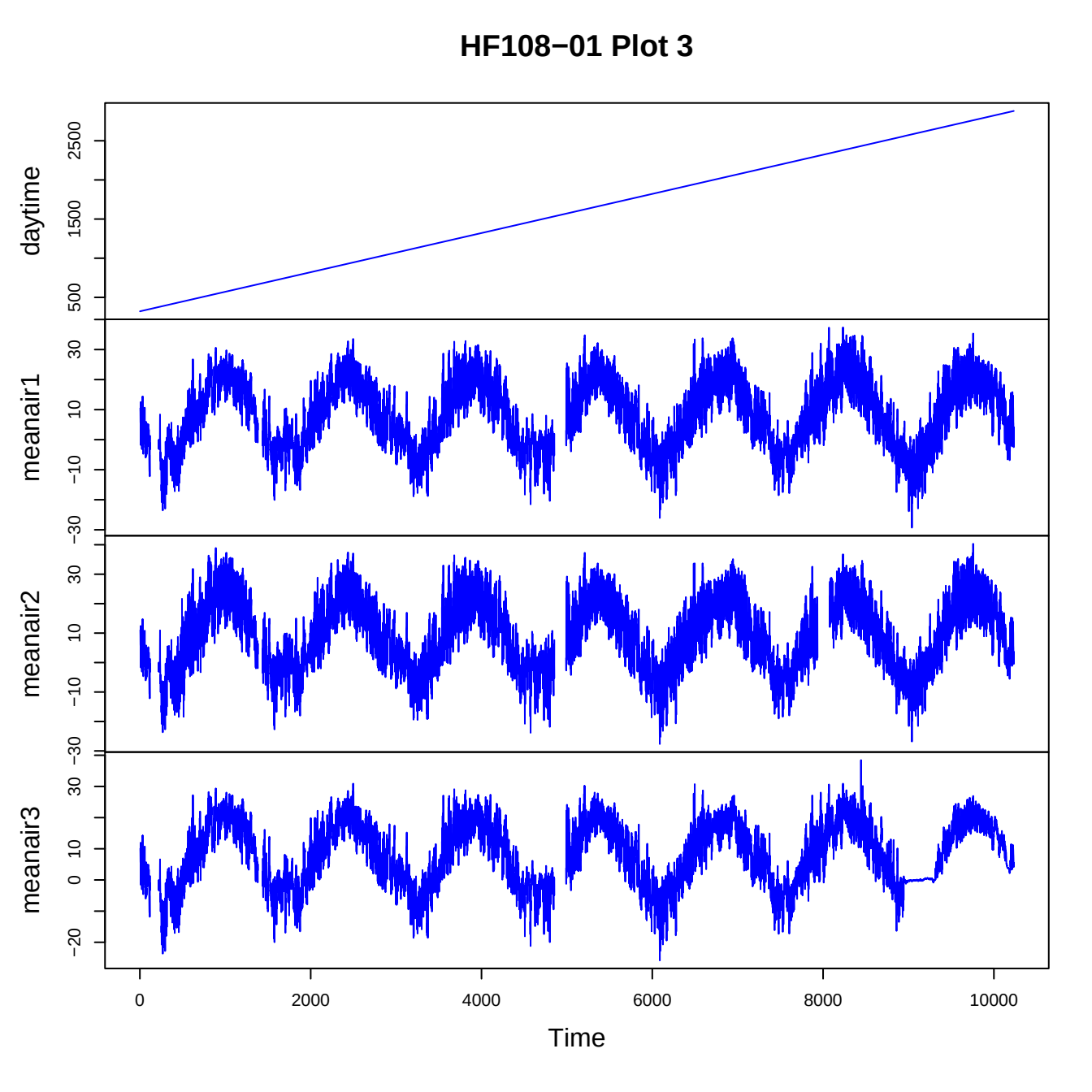
maxmineralsoil2 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 2 (celsius)
maxmineralsoil3 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 3 (celsius)
maxmineralsoil4 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 4 (celsius)
maxmineralsoil5 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 5 (celsius)
maxmineralsoil6 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 6 (celsius)
maxmineralsoil7 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 7 (celsius)
maxmineralsoil8 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 8 (celsius)
maxorgsoil1 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 1 (celsius)
maxorgsoil2 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 2 (celsius)
maxorgsoil3 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 3 (celsius)
maxorgsoil4 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 4 (celsius)
maxorgsoil5 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 5 (celsius)
maxorgsoil6 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 6 (celsius)
maxorgsoil7 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 7 (celsius)
maxorgsoil8 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 8 (celsius)
maxref = the maximum internal temperature (degrees C) of datalogger 1 for Plots 1–3 (celsius)
maxref2 = the maximum internal temperature (degrees C) of datalogger 2 for Plots 4–6 (celsius)
maxref7 = the maximum internal temperature (degrees C) of the datalogger for Plot 7 (celsius)
maxref8 = the maximum internal temperature (degrees C) of the datalogger for Plot 8 (celsius)

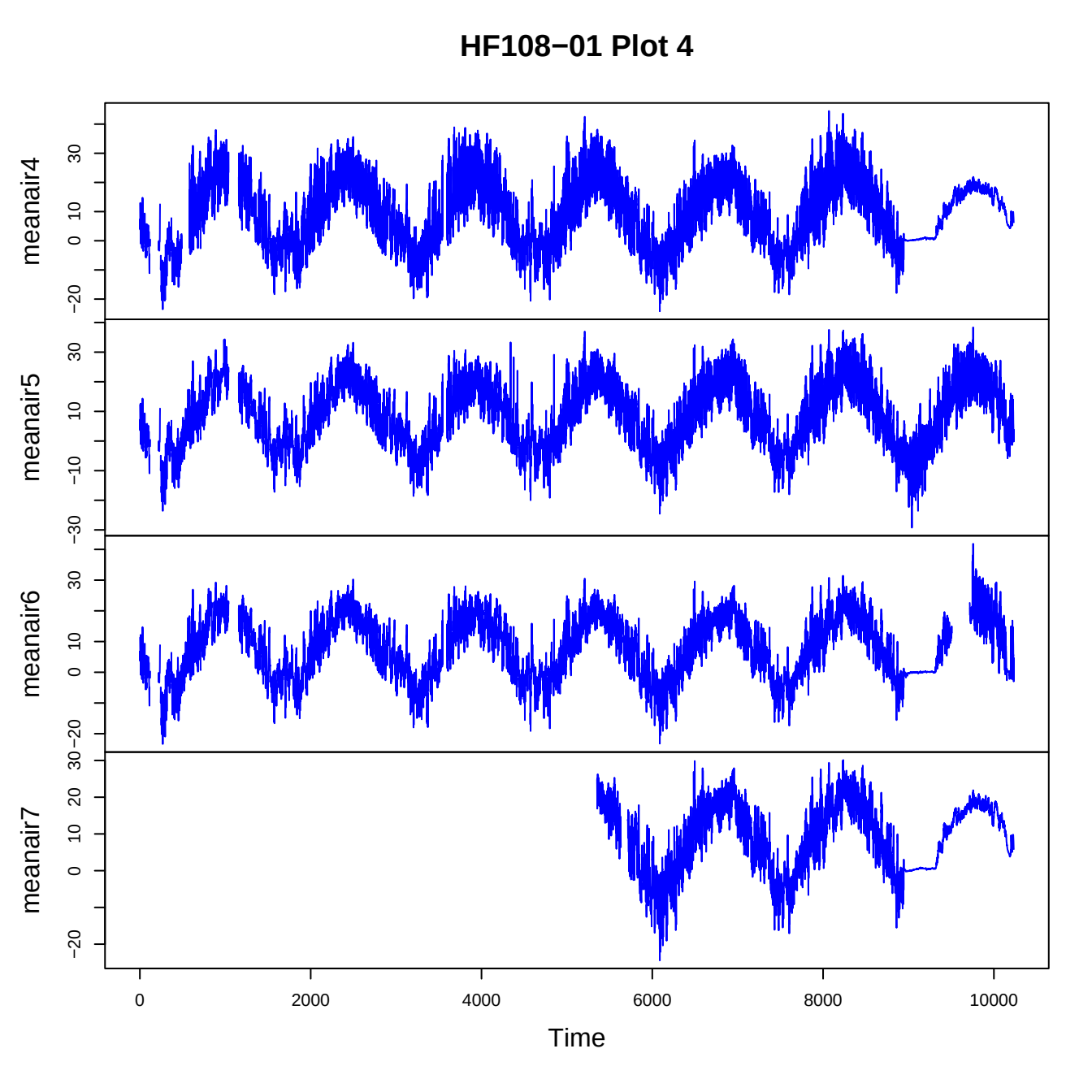
Variable	Min	Median	Mean	Max	NAs
datetime	2004-11-16T13:00			2011-11-18T15:00	0
year	2004.000	2008.000	2007.878	2011.000	0
month	1.000	7.000	6.528	12.000	0
week	1.000	27.000	26.551	53.000	0
ym	200411.000	200805.000	200794.327	201111.000	0
yw	200447.000	200820.000	200814.349	201146.000	0
doy	1.000	183.000	183.209	366.000	0
hour	100.000	1300.000	1250.007	2400.000	0
daytime	321.540	1600.580	1600.714	2880.620	0
meanair1	−29.940	8.510	8.065	38.500	1778
meanair2	−27.670	8.420	8.201	42.550	2837
meanair3	−25.820	8.490	7.923	38.450	1785
meanair4	−24.190	8.730	8.599	44.500	2666
meanair5	−29.550	8.520	8.206	47.800	2116
meanair6	−23.410	7.830	7.709	44.530	3366
meanair7	−24.430	10.030	8.814	31.990	32594
meanair8	−26.880	9.260	8.173	34.590	32831
meanminerals	−2.870	8.600	8.845	26.420	2860
meanminerals	−5.870	9.330	9.233	29.750	1778
meanminerals	−29.680	8.370	8.502	38.840	3266
meanminerals	−27.100	9.690	9.613	49.000	2690
meanminerals	−1.470	8.850	8.956	39.350	2136
meanminerals	−1.160	8.270	8.407	47.340	2116
meanminerals	−29.100	10.200	9.766	40.210	32593
meanminerals	−2.651	8.820	8.958	76.900	34072
meanorgsoil1	−2.530	9.750	9.417	30.810	32087
meanorgsoil2	−26.300	10.285	9.591	71.000	32087
meanorgsoil3	−3.070	8.050	7.952	54.900	32087
meanorgsoil4	−0.520	9.780	9.401	39.110	32087
meanorgsoil5	−30.120	9.800	9.076	37.990	32087
meanorgsoil6	−27.600	8.950	8.547	39.870	32087
meanorgsoil7	−9.180	9.940	9.549	26.130	32593
meanorgsoil8	−2.890	9.420	9.014	25.270	32831
meanref	−54.140	9.030	8.729	42.900	1756
meanref2	−24.210	8.060	8.047	40.430	3365
meanref7	−13.480	10.340	9.194	32.200	32594
meanref8	−27.230	9.590	8.409	35.320	32831
minair1	−26.360	7.940	7.500	36.300	1777
minair2	−28.010	7.800	7.459	37.940	2836
minair3	−55.300	8.060	7.456	39.590	1837
minair4	−27.300	7.930	7.751	40.400	2726
minair5	−24.930	8.100	7.810	38.650	2176
minair6	−34.330	7.910	7.491	31.200	2177
minair7	−26.350	9.530	8.389	39.060	32645
minair8	−25.750	9.090	8.084	32.090	32883
minmineralso	−2.160	9.005	9.059	25.760	34119
minmineralso	−25.280	9.335	9.130	33.330	1829
minmineralso	−36.660	8.340	8.440	21.780	3318
minmineralso	−10.960	9.290	9.167	41.390	2750

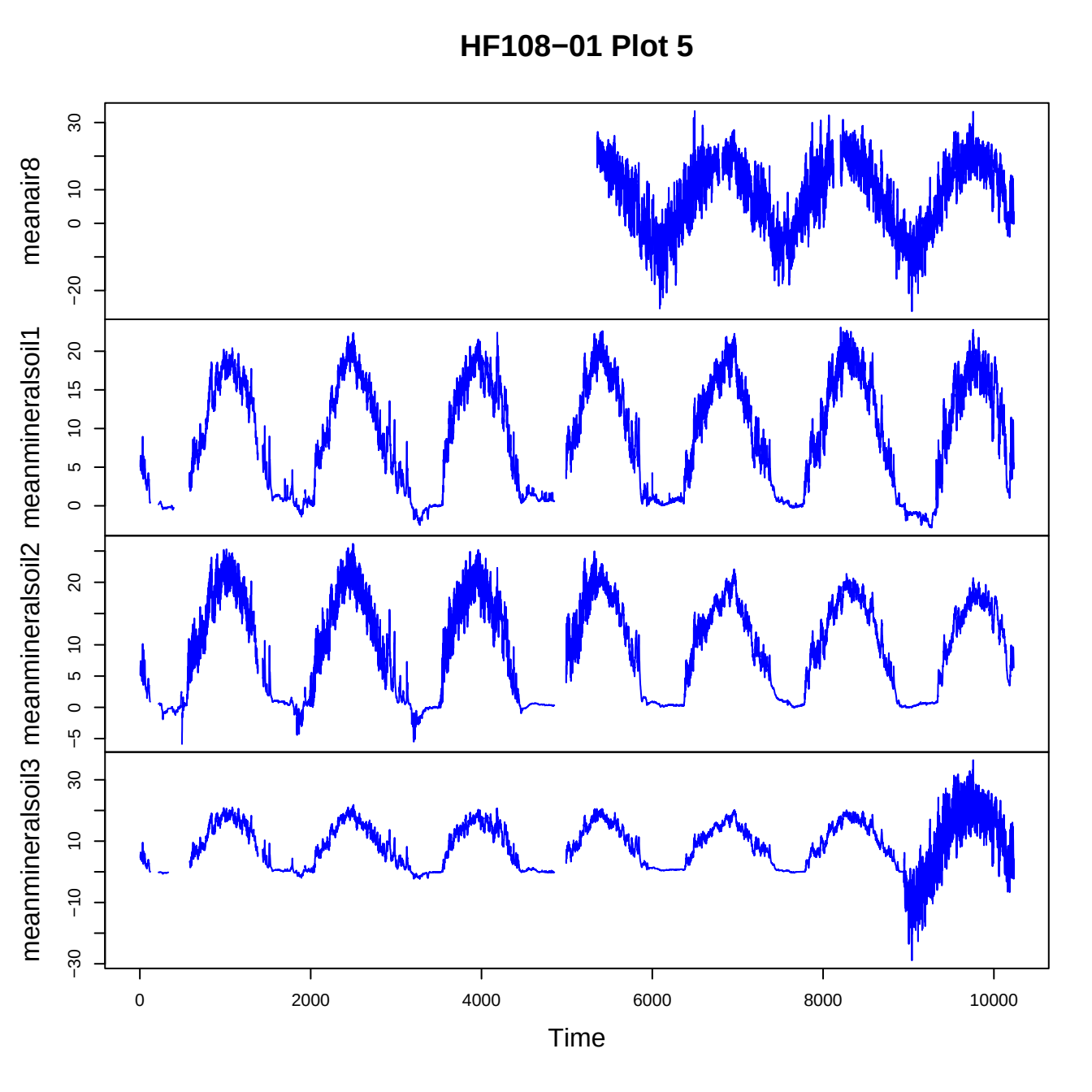
Variable	Min	Median	Mean	Max	NAs
minmineralso	−26.510	8.740	8.808	40.180	2196
minmineralso	−25.410	7.970	8.158	46.270	2176
minmineralso	−2.540	10.245	9.872	39.390	32645
minmineralso	−1.210	9.570	9.258	28.520	32885
minorgsoil1	−26.060	8.510	8.833	40.690	2910
minorgsoil2	−2.410	10.280	9.682	30.840	32139
minorgsoil3	−105.300	7.070	7.464	26.200	34118
minorgsoil4	−24.640	9.510	8.961	84.100	32139
minorgsoil5	−1.390	9.900	9.386	53.190	32139
minorgsoil6	−108.100	8.765	8.442	43.110	32139
minorgsoil7	−27.070	9.870	9.331	38.480	32645
minorgsoil8	−26.610	9.010	8.611	37.160	32883
minref	−54.140	9.040	8.573	41.590	1807
minref2	−24.410	8.330	8.012	37.020	2176
minref7	−26.580	9.845	8.780	37.440	32645
minref8	−17.170	9.650	8.612	34.990	32883
maxair1	−25.710	8.820	8.626	48.840	3807
maxair2	−27.160	9.170	8.913	132.600	2879
maxair3	−25.480	8.850	8.230	130.700	1828
maxair4	−23.350	9.240	9.374	129.800	2721
maxair5	−24.030	9.240	8.916	123.200	2124
maxair6	−26.620	8.900	8.308	122.500	2124
maxair7	−23.530	10.390	9.296	36.210	32596
maxair8	−25.070	10.030	9.025	36.560	32834
maxmineralso	−10.000	8.880	9.185	43.030	2860
maxmineralso	−25.790	9.670	9.417	35.720	1779
maxmineralso	−2.320	8.550	8.702	147.700	3265
maxmineralso	−3.350	10.090	9.954	131.500	2696
maxmineralso	−10.050	8.990	9.025	125.600	2124
maxmineralso	−26.970	8.560	8.577	133.600	2124
maxmineralso	−1.450	10.260	9.855	21.520	32596
maxmineralso	−0.930	9.650	9.319	21.790	32836
maxorgsoil1	−12.710	10.130	9.811	77.800	32088
maxorgsoil2	−26.740	10.530	9.710	79.500	32088
maxorgsoil3	−3.310	8.580	8.460	115.300	32088
maxorgsoil4	−2.720	10.680	10.069	35.130	32088
maxorgsoil5	−12.600	10.470	9.794	33.260	32088
maxorgsoil6	−26.240	9.820	9.353	45.880	32088
maxorgsoil7	−3.060	10.270	9.713	24.590	32594
maxorgsoil8	−2.800	9.710	9.173	25.600	32832
maxref	−54.140	9.630	9.271	43.740	1756
maxref2	−27.230	8.880	8.412	120.100	2122
maxref7	−13.410	10.490	9.358	32.310	32594
maxref8	−16.950	10.130	8.985	35.420	32832

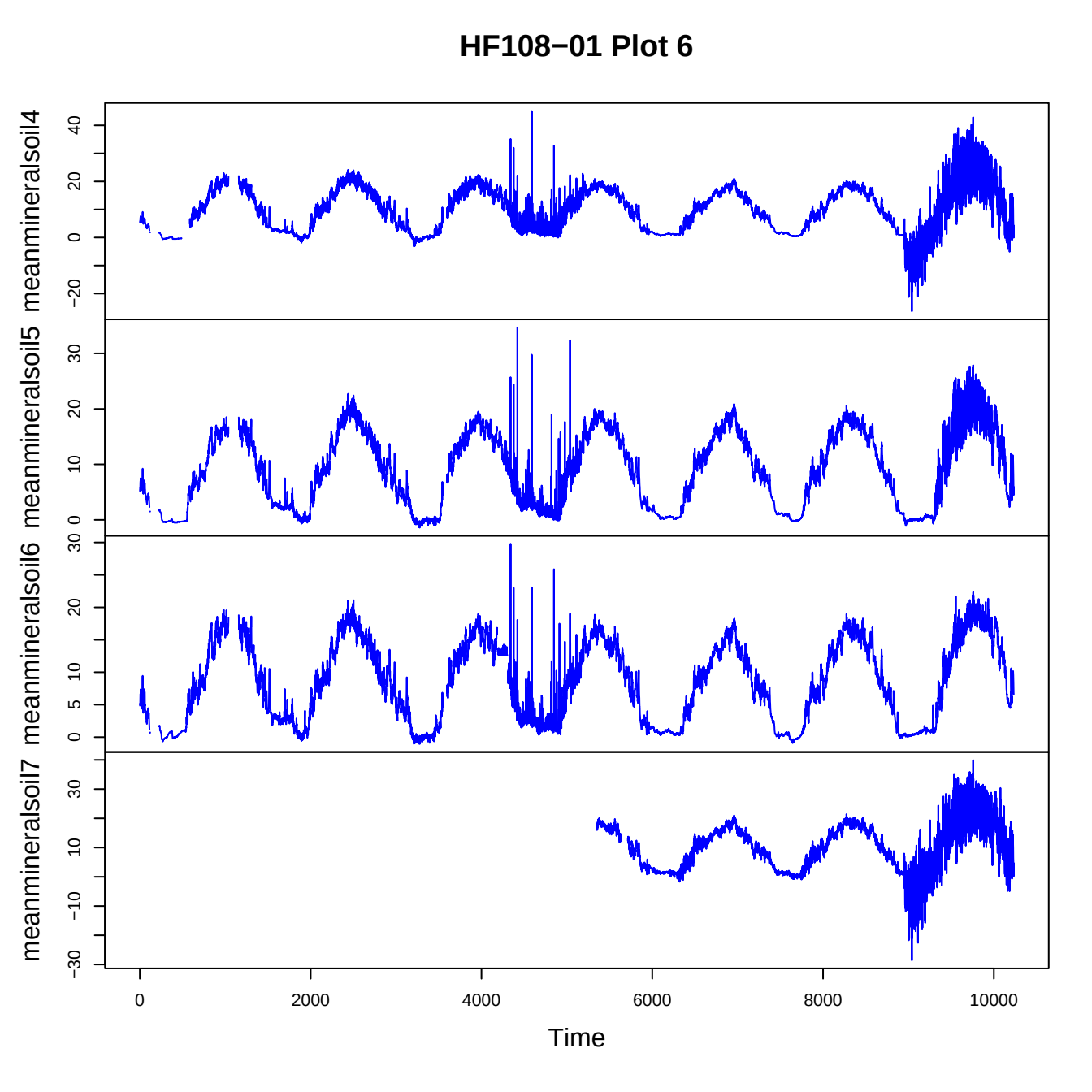

HF108−01 Plot 1
datetime
1.10e+09
1.20e+09
1.30e+09
year
2004
2006
2008
2010
month
2
4
6
8
10
12
week
0
10
20
30
40
50
0
2000
4000
6000
8000
10000
Time

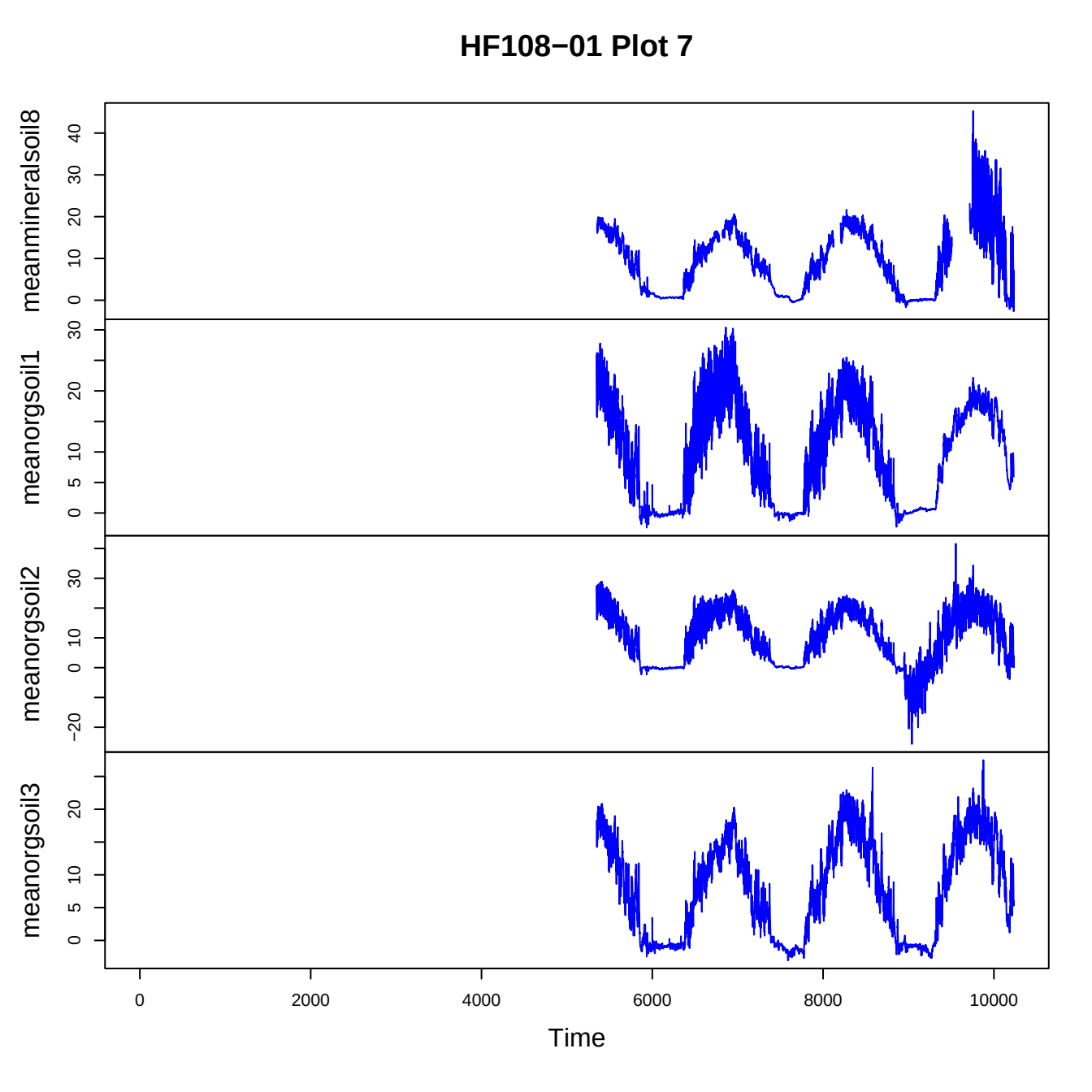

HF108−01 Plot 2
ym
201000
200700
200400
yw
200800
200500
doy
0
100
200
300
hour
1500
500
0
2000
4000
6000
8000
10000
Time

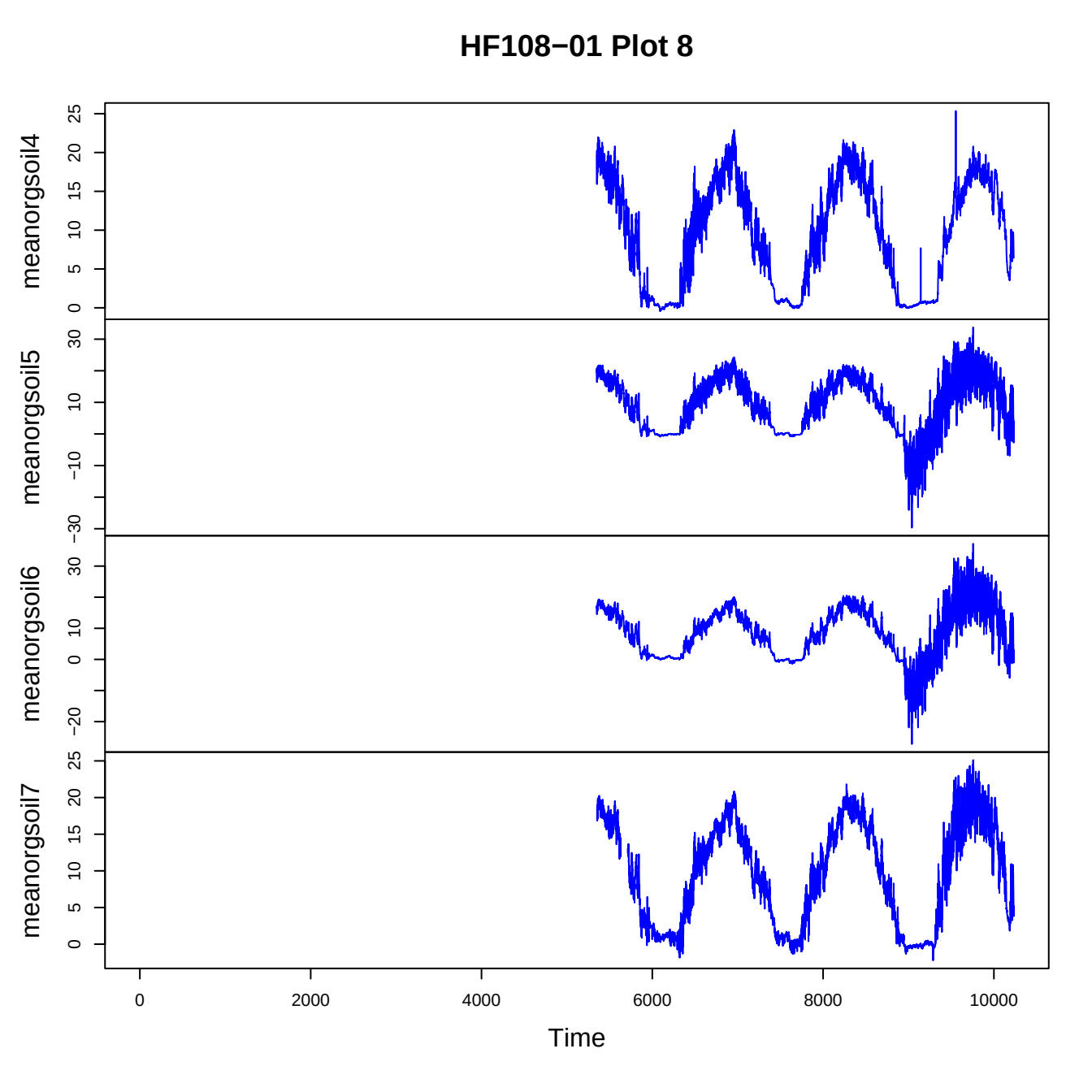

HF108−01 Plot 3
daytime
meanair1
meanair2
meanair3
Time
0
2000
4000
6000
8000
10000

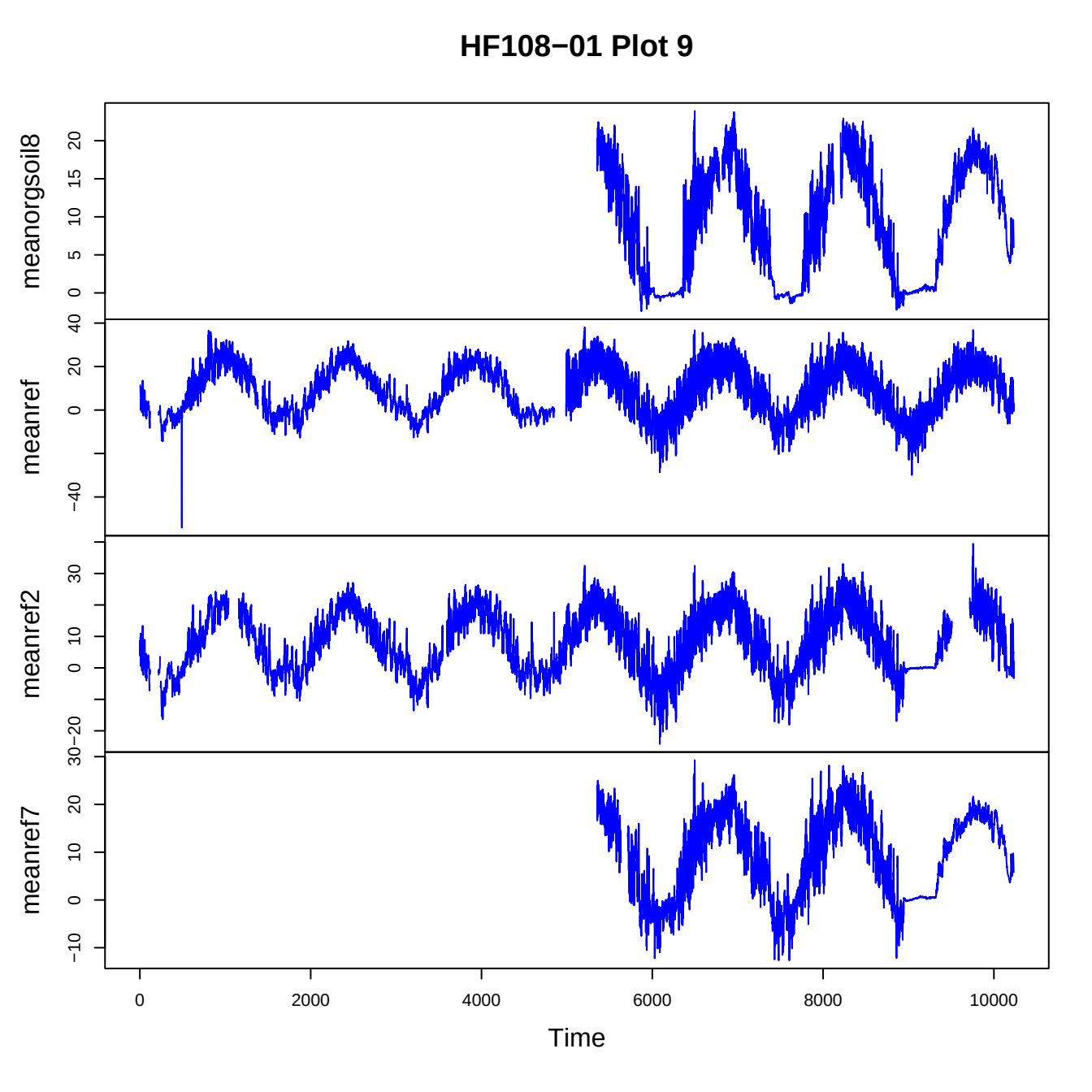

HF108−01 Plot 4
meanair4
meanair5
meanair6
meanair7
30
10
0
−20
−10
−30
20
0
2000
4000
6000
8000
10000
Time

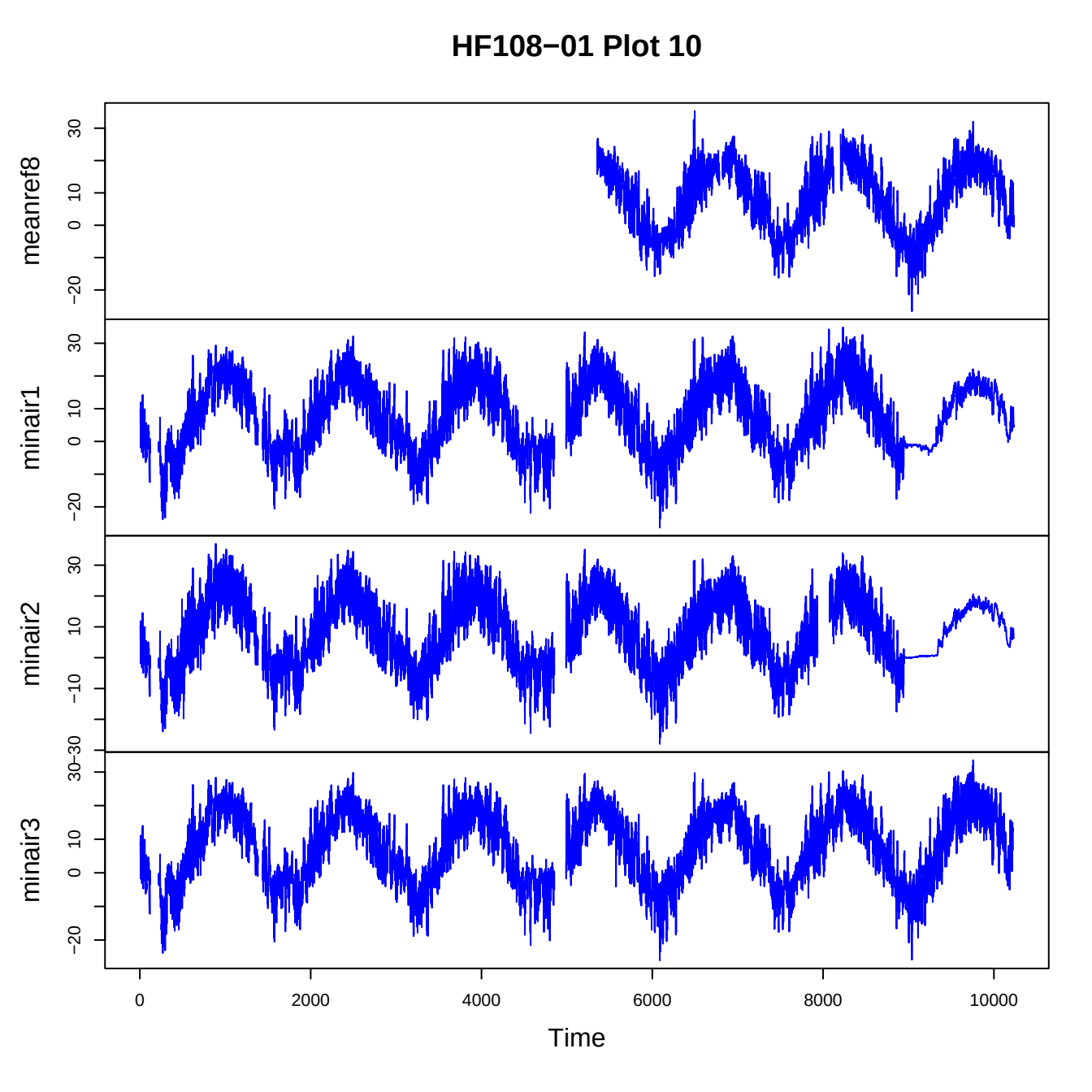

HF108−01 Plot 5
meanair8
meanmineralsoil1
meanmineralsoil2
meanmineralsoil3
Time
0
2000
4000
6000
8000
10000

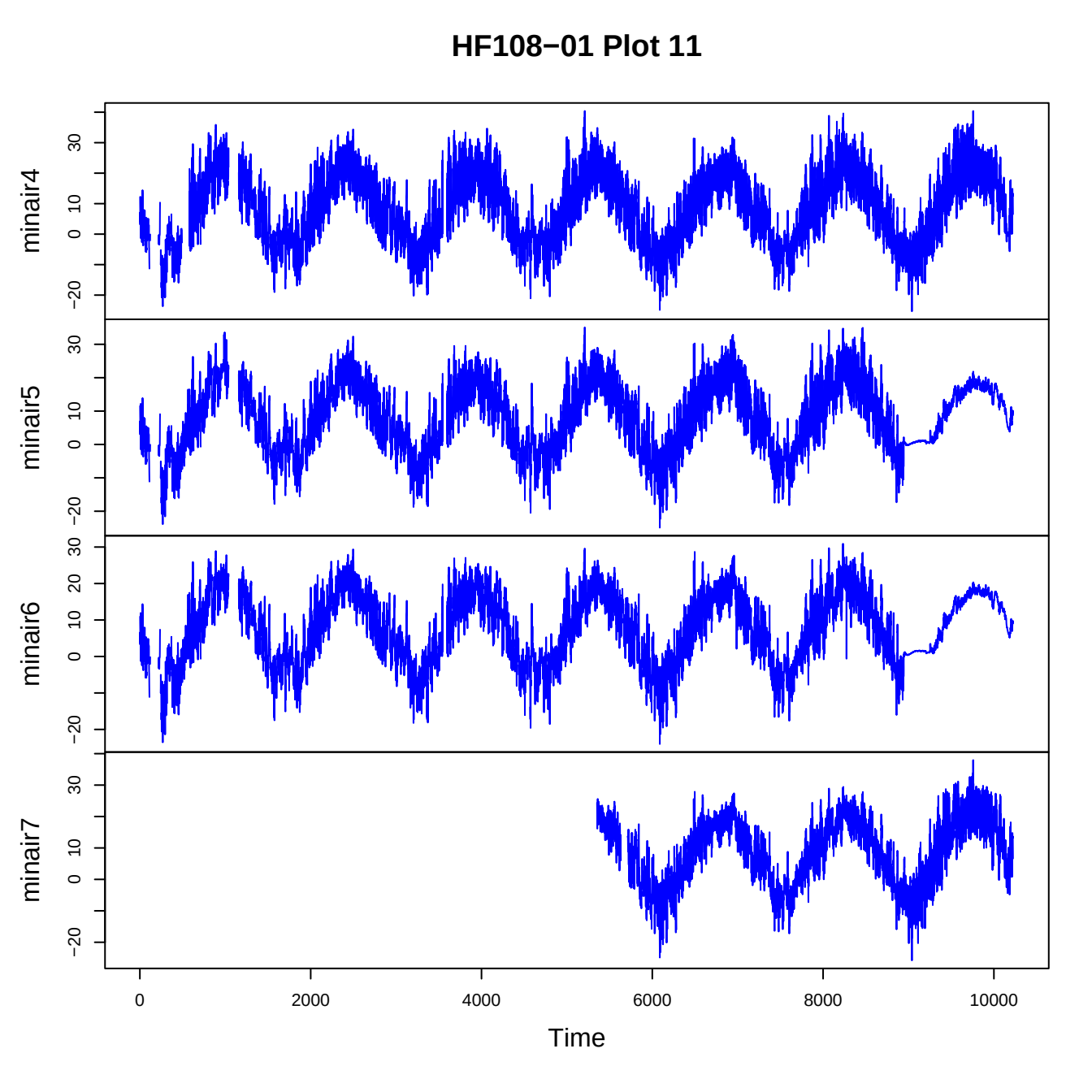

HF108−01 Plot 6
meanmineralsoil4
meanmineralsoil5
meanmineralsoil6
meanmineralsoil7
40
20
0
−20
30
20
10
0
30
20
10
5
0
30
10
−10
−30
0
2000
4000
6000
8000
10000
Time

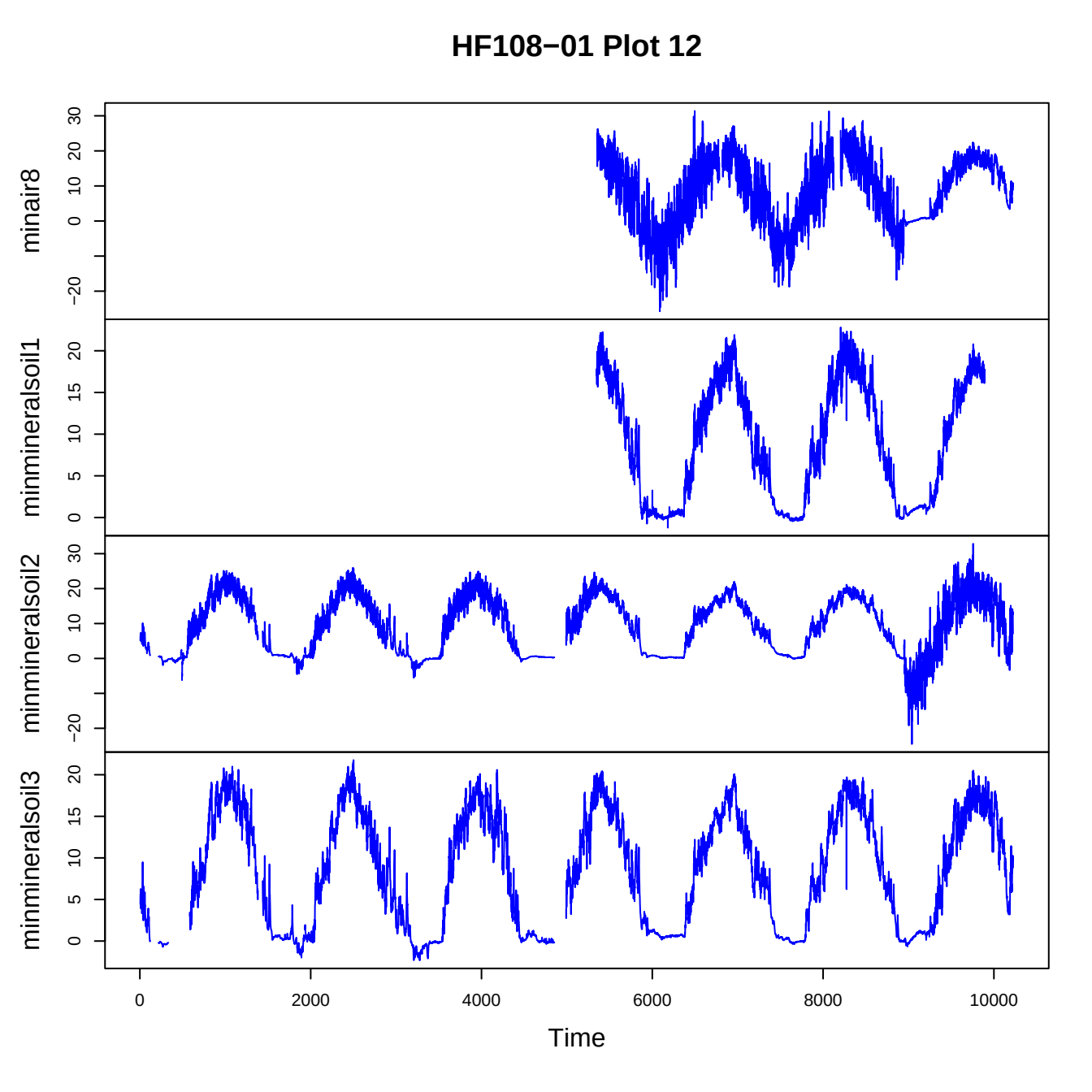

HF108−01 Plot 7
meanmineralsoil8
meanorgsoil1
meanorgsoil2
meanorgsoil3
0
10
20
30
40
0
5
10
20
30
−20
0
10
30
0
5
10
20
0
2000
4000
6000
8000
10000
Time

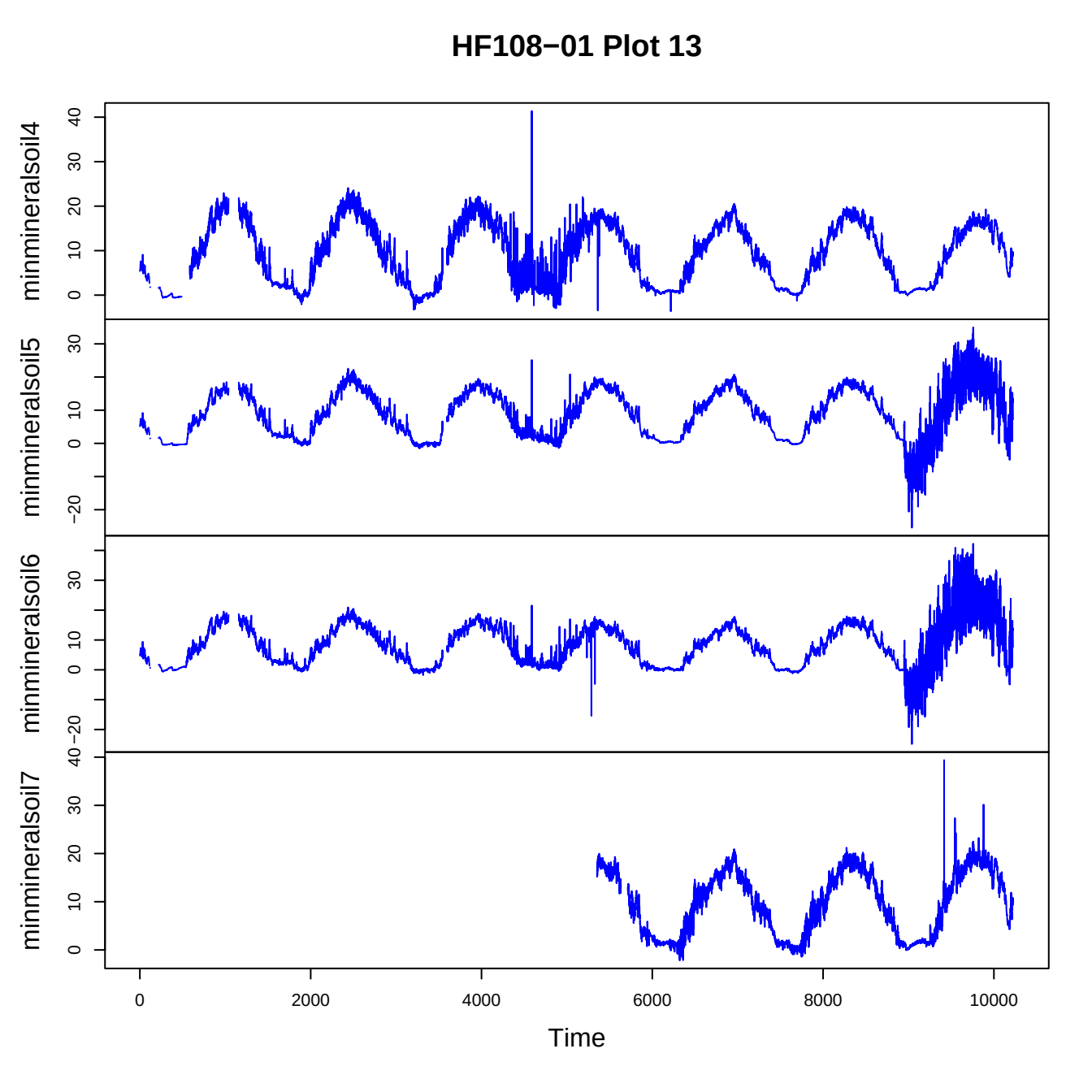

HF108−01 Plot 8
meanorgsoil4
meanorgsoil5
meanorgsoil6
meanorgsoil7
0
5
10
15
20
25
−30
−10
10
30
−20
0
2000
4000
6000
8000
10000
Time

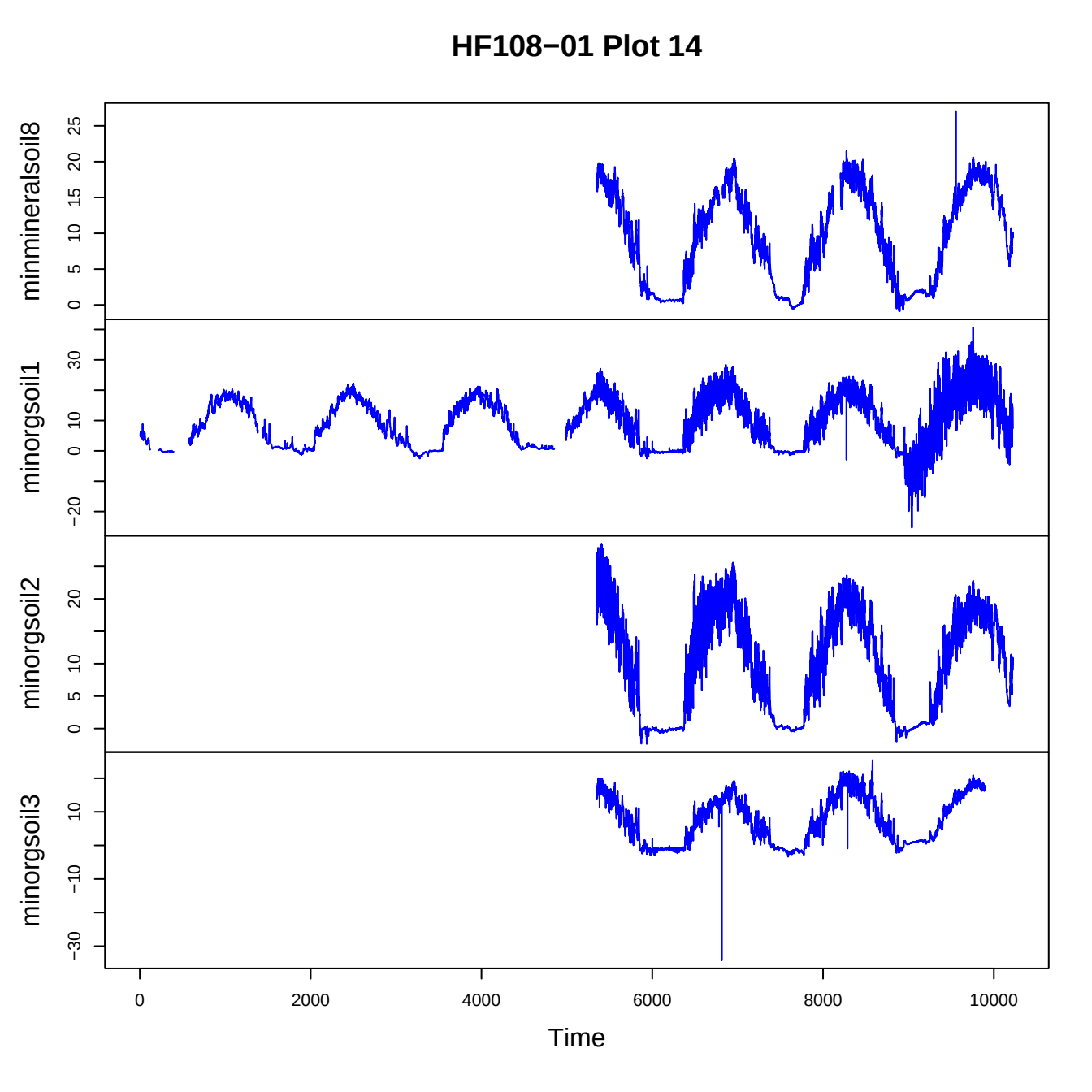

HF108−01 Plot 9
meanorgsoil8
meanref
meanref2
meanref7
Time
0
2000
4000
6000
8000
10000

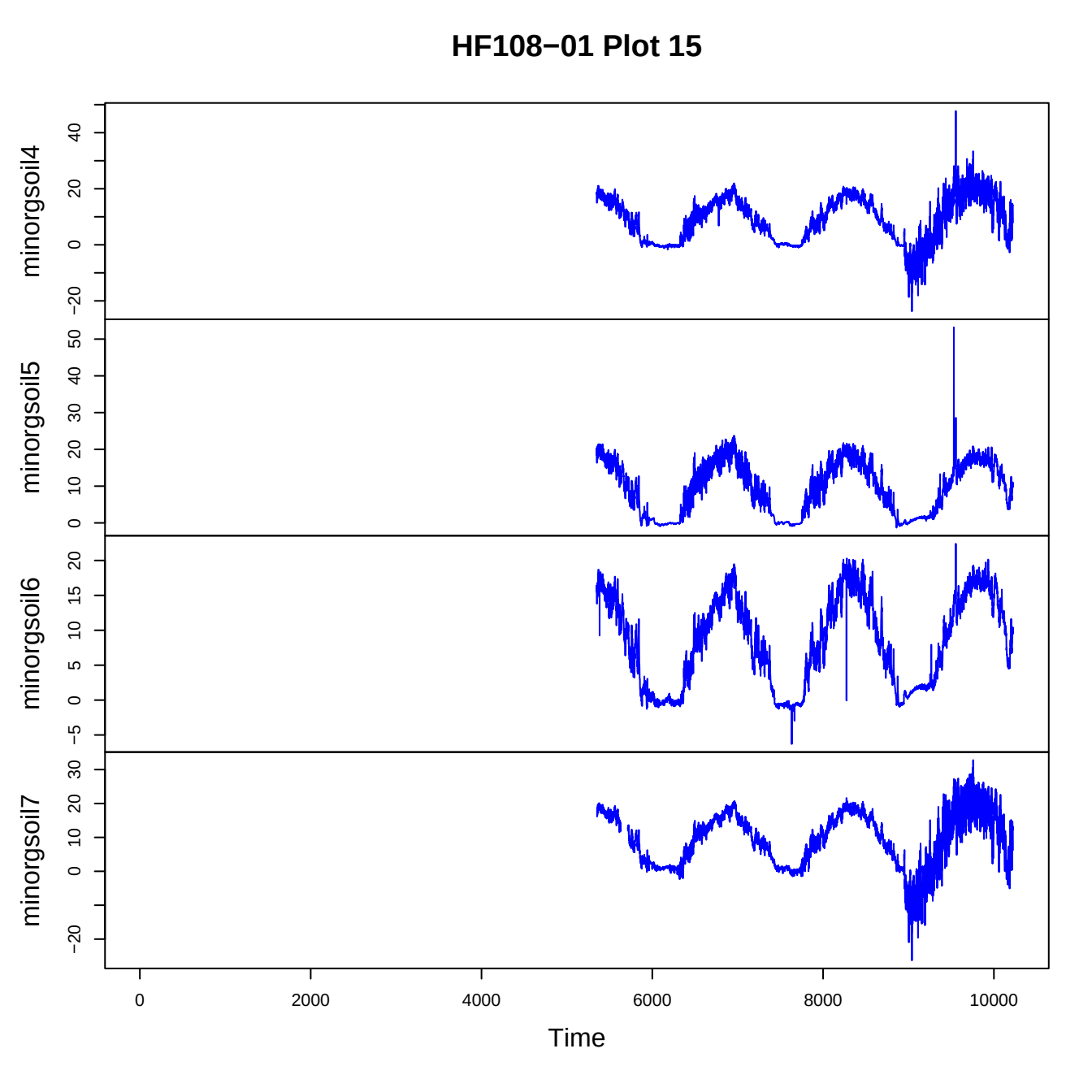

HF108−01 Plot 10
meanref8
minair1
minair2
minair3
30
10
0
−20
−10
30−30
0
2000
4000
6000
8000
10000
Time

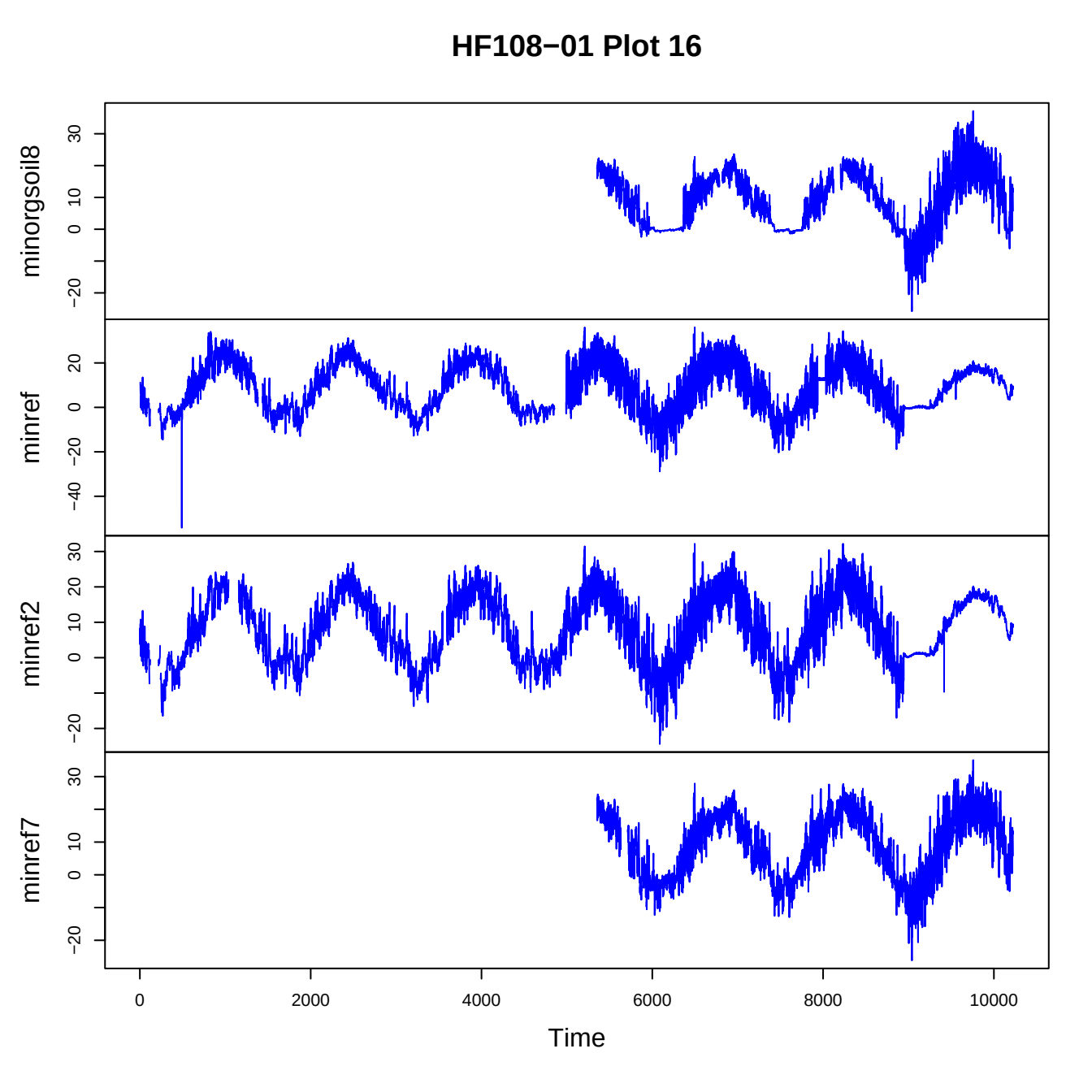

HF108−01 Plot 11
minair4
minair5
minair6
minair7
30
10
0
−20
20
0
2000
4000
6000
8000
10000
Time

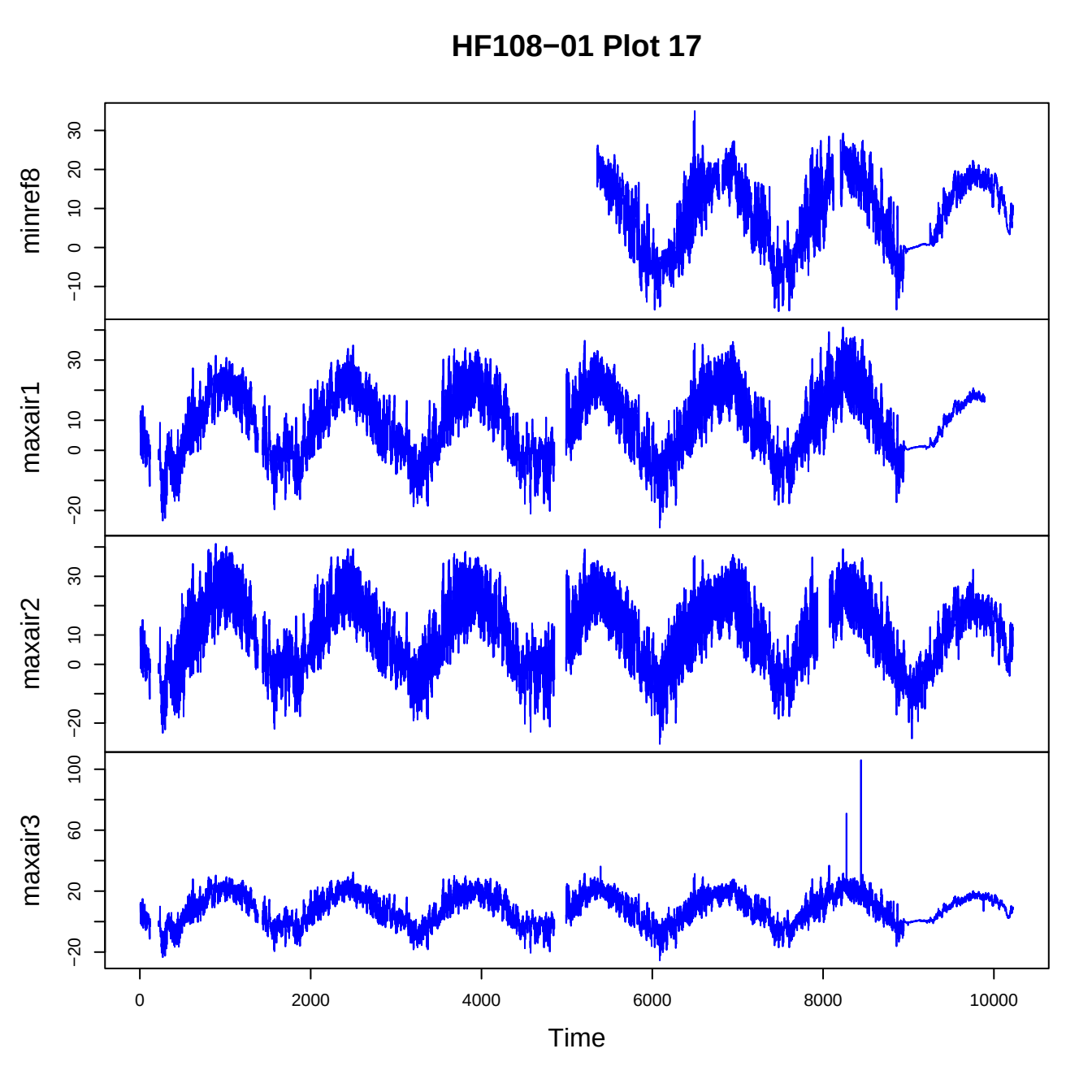

HF108−01 Plot 12
minair8
minmineralsoil1
minmineralsoil2
minmineralsoil3
Time
0
2000
4000
6000
8000
10000

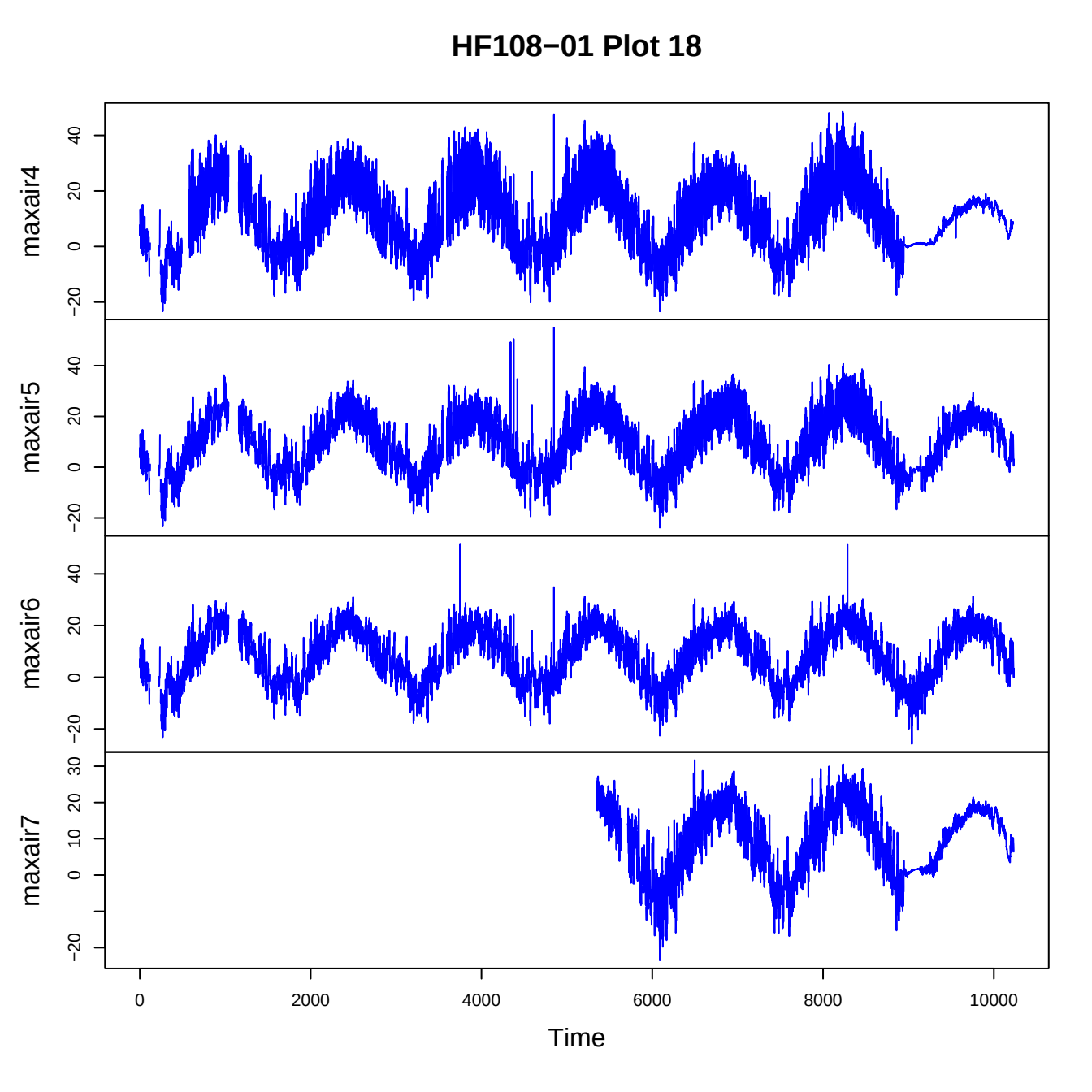

HF108−01 Plot 13
minmineralsoil4
minmineralsoil5
minmineralsoil6
minmineralsoil7
0
10
20
30
40
−20
0
10
30
−20
0
10
30
0
10
20
30
40
0
2000
4000
6000
8000
10000
Time

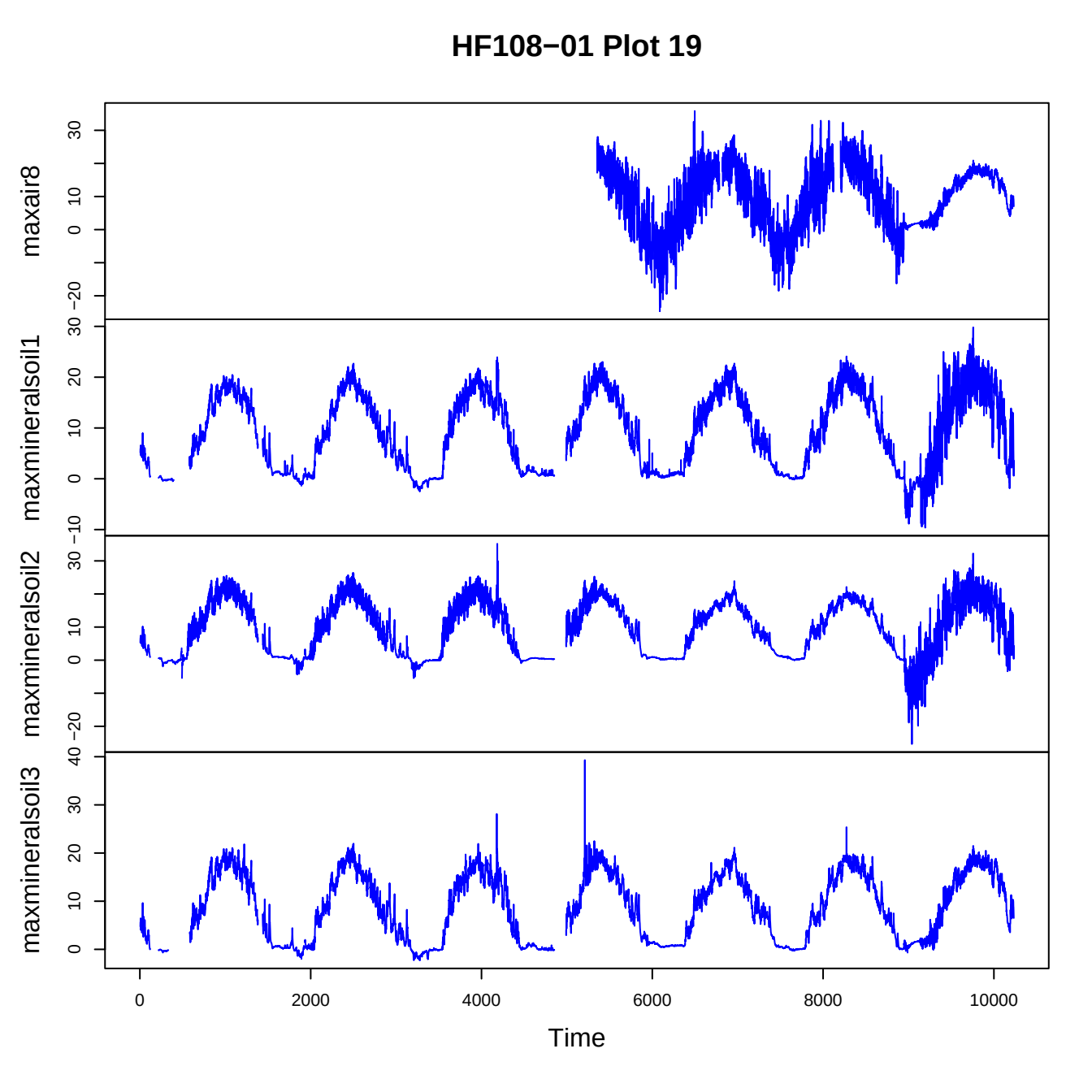

HF108−01 Plot 14
minmineralsoil8
minorgsoil1
minorgsoil2
minorgsoil3
0
5
10
15
20
25
−20
0
10
30
0
5
10
20
−30
−10
10
0
2000
4000
6000
8000
10000
Time

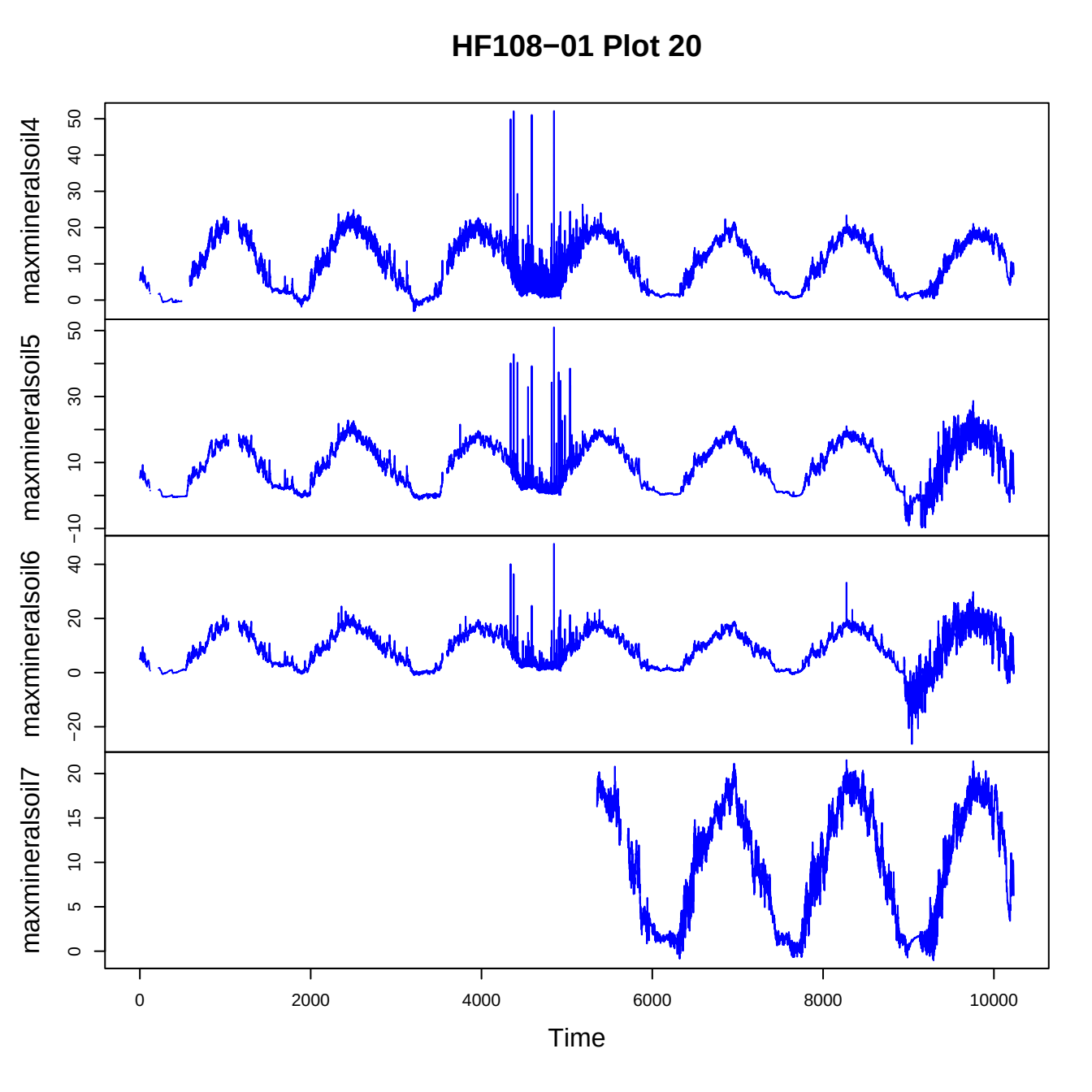

HF108−01 Plot 15
minorgsoil4
minorgsoil5
minorgsoil6
minorgsoil7
Time
0
2000
4000
6000
8000
10000

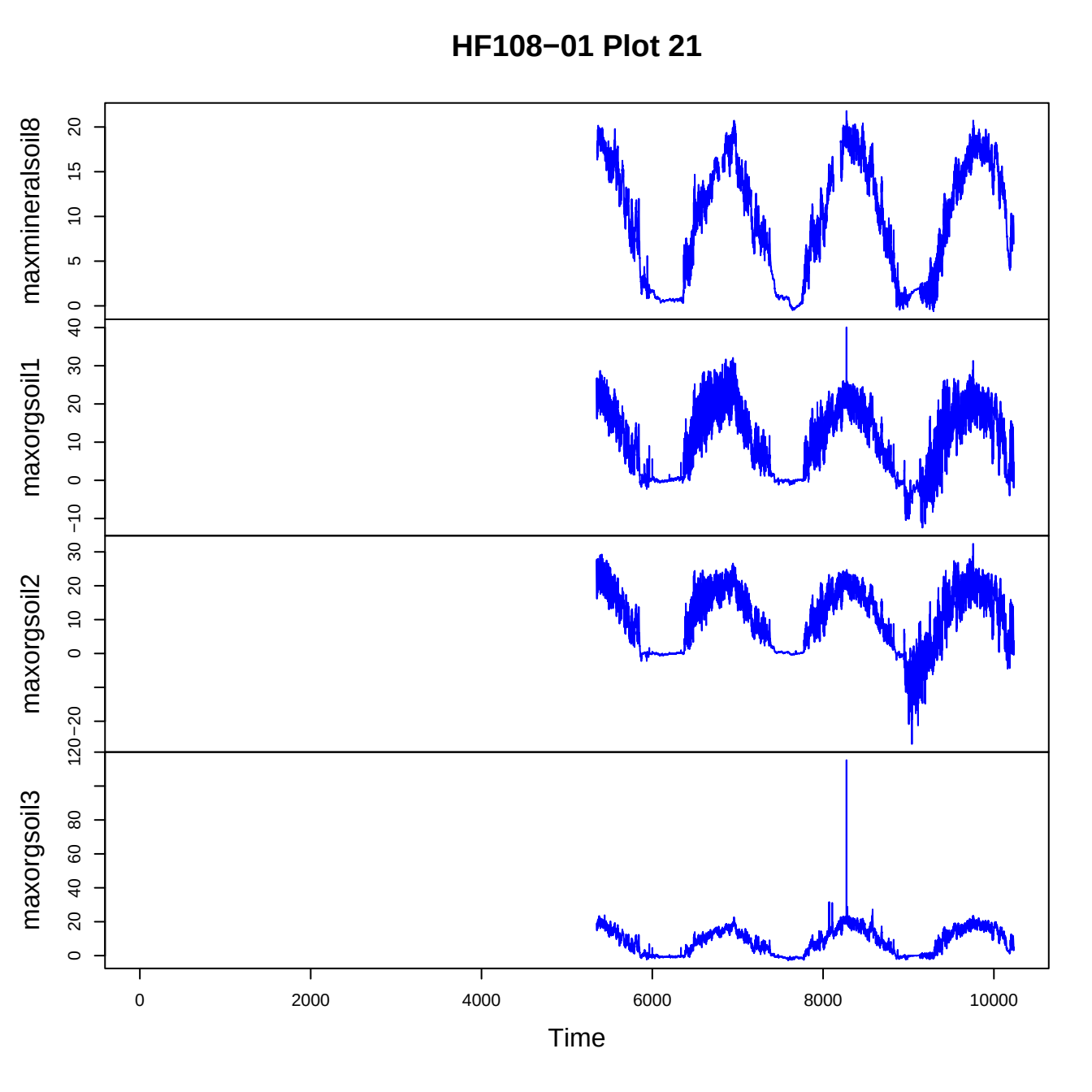

HF108−01 Plot 16
minorgsoil8
minref
minref2
minref7
30
10
0
−20
20
−40
Time
0
2000
4000
6000
8000
10000

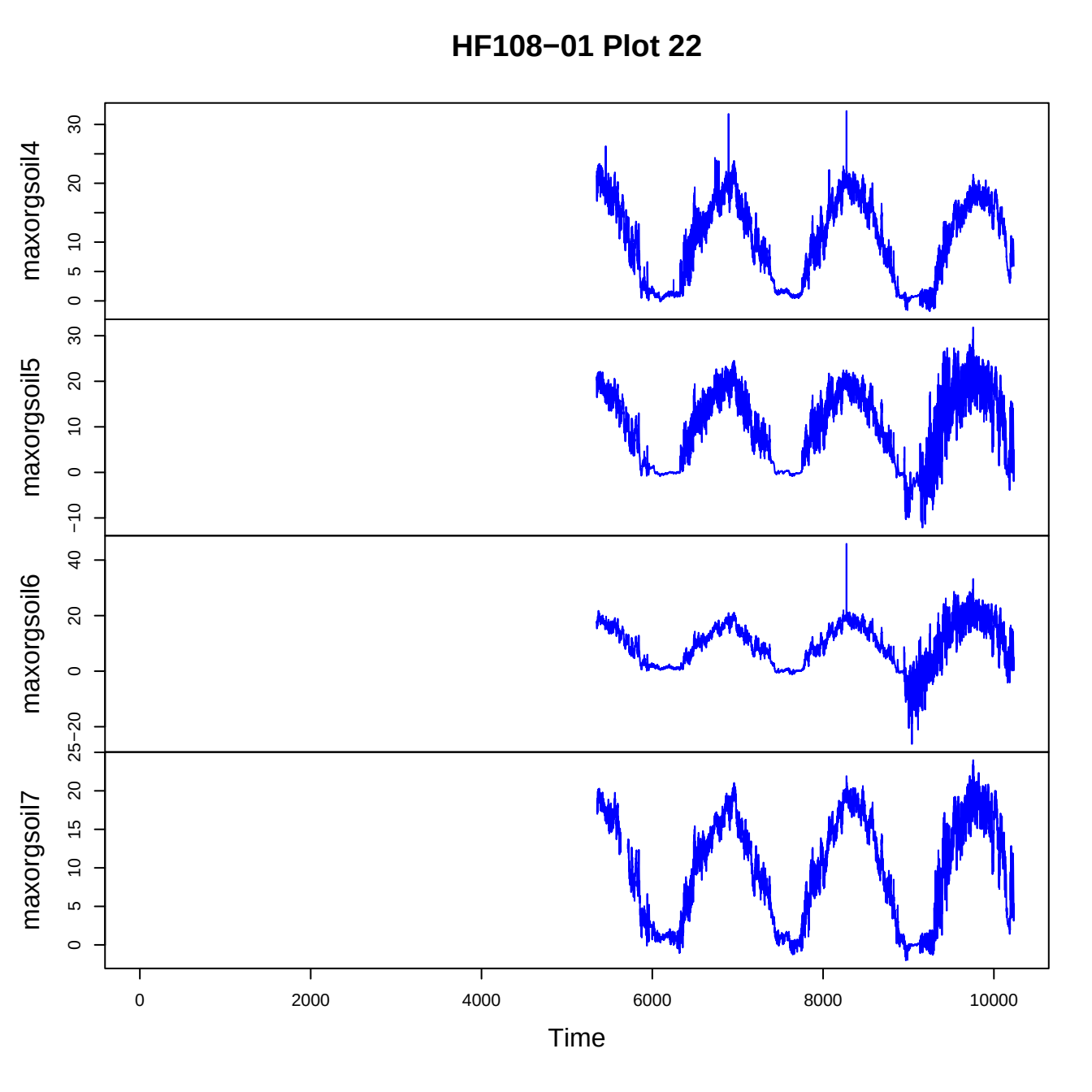

HF108−01 Plot 17
minref8
maxair1
maxair2
maxair3
Time
0
2000
4000
6000
8000
10000

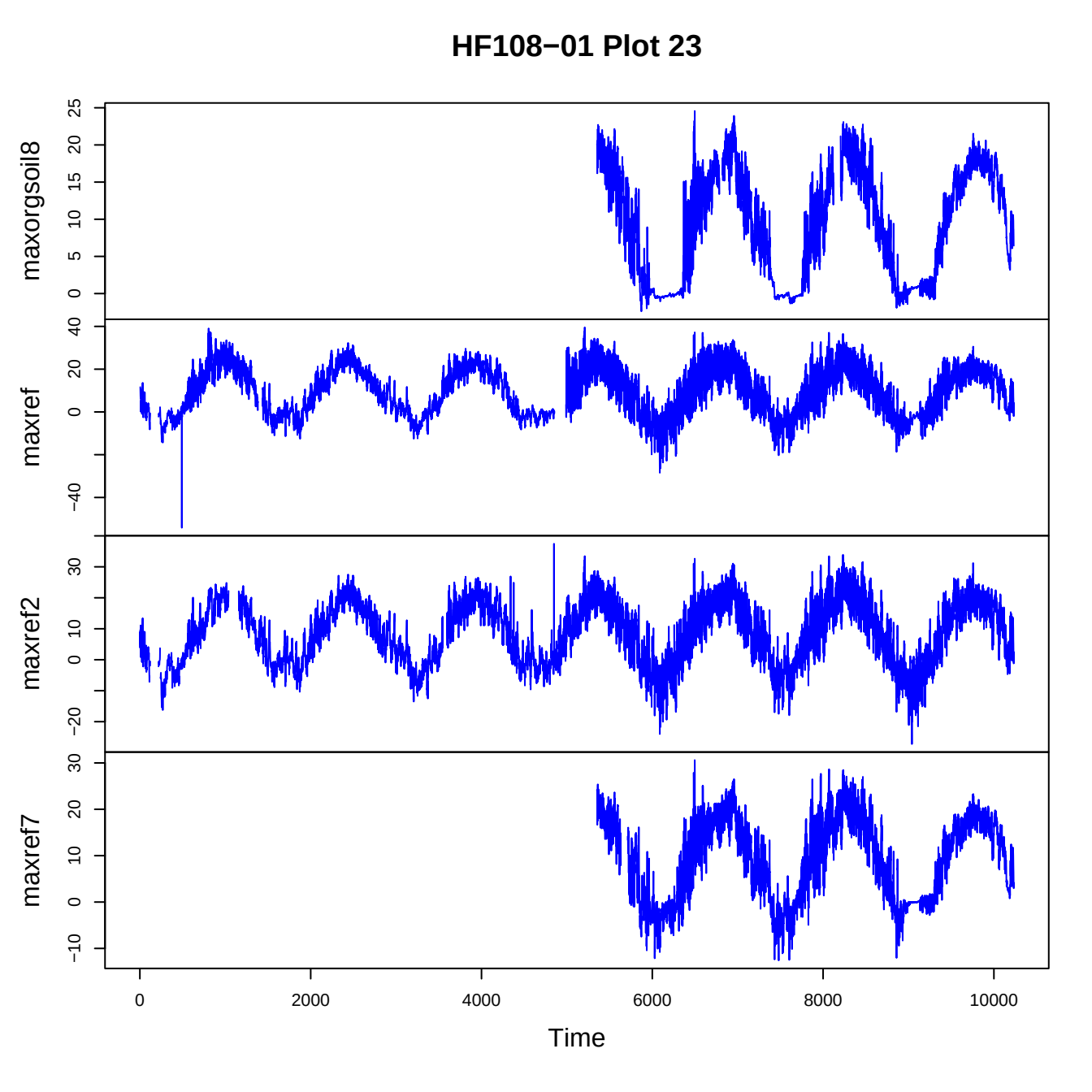

HF108−01 Plot 18
maxair4
maxair5
maxair6
maxair7
40
20
0
−20
30
10
0
2000
4000
6000
8000
10000
Time

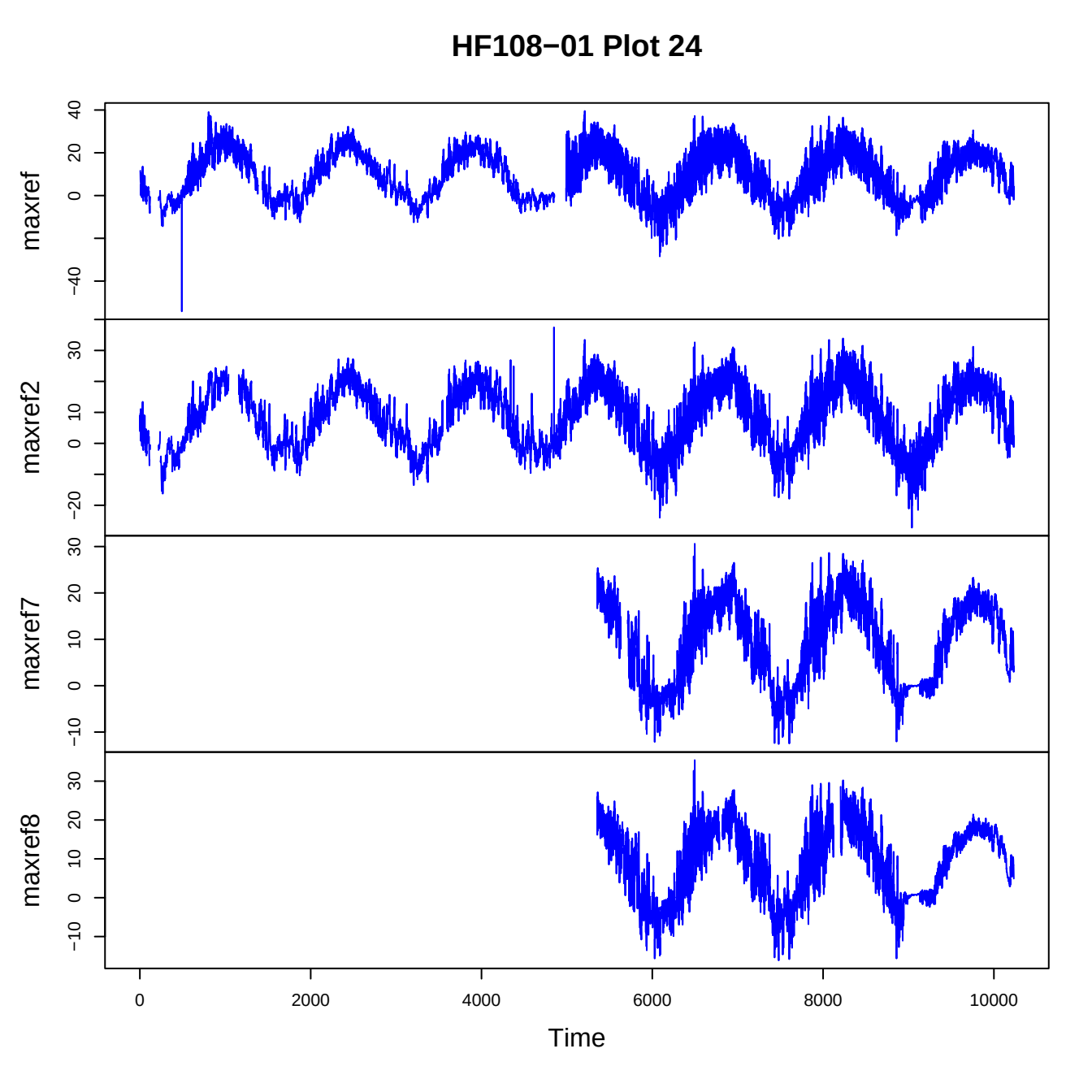

HF108−01 Plot 19
maxair8
maxmineralsoil1
maxmineralsoil2
maxmineralsoil3
30
10
0
−20
30
20
10
0
−10
30
10
0
−20
40
30
20
10
0
0
2000
4000
6000
8000
10000
Time


HF108−01 Plot 20
maxmineralsoil4
maxmineralsoil5
maxmineralsoil6
maxmineralsoil7
0
10
20
30
40
50
−10
−20
5
15
0
2000
4000
6000
8000
10000
Time


HF108−01 Plot 21
maxmineralsoil8
maxorgsoil1
maxorgsoil2
maxorgsoil3
Time
0
2000
4000
6000
8000
10000


HF108−01 Plot 22
maxorgsoil4
maxorgsoil5
maxorgsoil6
maxorgsoil7
0
5
10
20
30
−10
40
−20
25
15
0
2000
4000
6000
8000
10000
Time


HF108−01 Plot 23
maxorgsoil8
maxref
maxref2
maxref7
Time
0
2000
4000
6000
8000
10000


HF108−01 Plot 24
maxref
maxref2
maxref7
maxref8
40
20
0
−40
30
10
−20
−10
0
2000
4000
6000
8000
10000
Time