

SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m

Assumptions for shadow calculations

Maximum distance for influence
 Calculate only when more than 20 % of sun is covered by the blade
 Please look in WTG table

Minimum sun height over horizon for influence 3 °
 Day step for calculation 1 days
 Time step for calculation 1 minutes

Sunshine probability S (Average daily sunshine hours) []
 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 1.53 2.61 5.25 7.49 7.98 8.86 8.35 6.69 5.02 3.43 1.63 1.29

Operational hours are calculated from WTGs in calculation and wind distribution:

EmdEuropeEra5_N60.258865_E015.285248 (3)

Operational time
 N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 794 792 535 461 445 531 665 989 1,218 805 673 636 8,542

Idle start wind speed: Cut in wind speed from power curve
 A ZVI (Zones of Visual Influence) calculation is performed before flicker calculation so non visible WTG do not contribute to calculated flicker values. A WTG will be visible if it is visible from any part of the receiver window. The ZVI calculation is based on the following assumptions:
 Height contours used: Height Contours: 211018_Hight_data_siksberget_optim
 Receptor grid resolution: 1.0 m

All coordinates are in Swedish UTM 33-SWREF99 (SE)

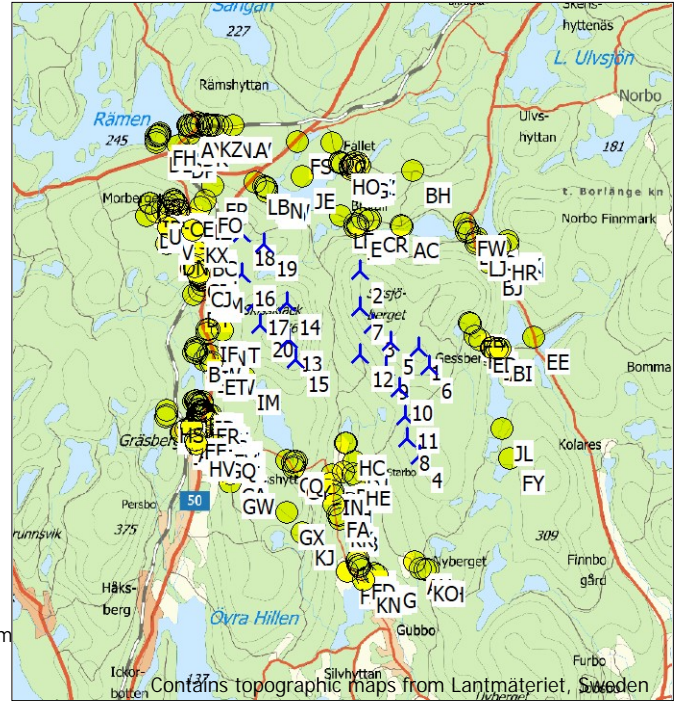
WTGs

Row	Easting	Northing	Z [m]	Row data/Description	WTG type		Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Shadow data	
					Valid	Manufact.					Calculation distance [m]	RPM [RPM]
1	518,499	6,679,179	346.2	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
2	516,959	6,681,219	333.5	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
3	517,274	6,679,786	335.0	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
4	518,555	6,676,331	282.5	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
5	517,781	6,679,325	322.5	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
6	518,779	6,678,699	317.8	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
7	516,935	6,680,237	324.5	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
8	518,219	6,676,779	262.0	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
9	517,643	6,678,682	299.1	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
10	518,019	6,678,099	275.6	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
11	518,146	6,677,376	247.2	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
12	516,934	6,678,984	252.3	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
13	515,059	6,679,379	365.5	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
14	515,019	6,680,379	355.0	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
15	515,259	6,678,859	335.1	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
16	513,819	6,681,119	313.1	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
17	514,159	6,680,359	315.0	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
18	513,799	6,682,179	280.0	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
19	514,389	6,681,913	290.0	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	
20	514,299	6,679,779	321.4	VESTAS 210 (modified) 5600...No	VESTAS	210 (modified)-5,600	5,600	210.0	165.0	2,041	-	

Shadow receptor-Input

No.	Name	Easting	Northing	Z [m]	Width [m]	Height [m]	Elevation a.g.l. [m]	Slope of window [°]	Direction mode	Eye height (ZVI) a.g.l. [m]
A	PERSBO 21:11>1	512,341	6,676,980	228.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
B	PERSBO 41:6>1	512,589	6,679,110	228.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
C	PERSBO 56:3>1	512,680	6,677,541	226.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
D	PERSBO 2:14>1	512,692	6,676,720	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
E	PERSBO 5:22>1	512,718	6,677,484	222.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
F	PERSBO 5:11>1	512,758	6,677,448	222.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0

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Scale 1:200,000
 ▲ New WTG
 ● Shadow receptor

SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m

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No.	Name	Easting	Northing	Z	Width	Height	Elevation	Slope of	Direction mode	Eye height
				[m]	[m]	[m]	a.g.l.	[°]		[m]
G	PERSBO 2:35>1	512,766	6,676,815	219.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
H	PERSBO 12:13>6	512,777	6,677,658	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
I	PERSBO 5:14>1	512,792	6,677,381	222.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
J	PERSBO 5:26>1	512,808	6,677,405	223.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
K	PERSBO 2:41>1	512,938	6,676,727	222.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
L	PERSBO 21:4>1	513,002	6,677,182	230.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
M	PERSBO 61:2>1	513,006	6,677,357	230.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
N	PERSBO 2:25>1	513,034	6,676,567	222.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
O	PERSBO 10:6>1	513,074	6,677,095	232.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
P	PERSBO 2:28>1	513,210	6,676,725	231.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
Q	SKISSHYTTAN 1:27>1	515,276	6,676,156	249.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
R	SKISSHYTTAN 1:61>1	516,251	6,675,266	152.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
S	SKISSHYTTAN 1:50>1	516,975	6,673,364	159.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
T	MORBERGET 2:12>1	511,387	6,682,977	321.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
U	MORBERGET 3:3>1	511,526	6,682,742	331.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
V	MORBERGET 8:3>1	511,872	6,682,325	316.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
W	MORBERGET 8:2>1	512,054	6,682,796	308.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
X	MORBERGET 2:6>1	512,142	6,682,774	306.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
Y	HALVARSGÅRDARNA 28:14>1	512,450	6,684,981	247.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
Z	MORBERGET 10:4>1	512,666	6,682,119	294.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AA	PERSBO 10:5>1	512,673	6,681,135	290.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AB	PERSBO 6:2>1	512,692	6,681,008	283.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AC	ULVSHYTTAN 7:71>1	518,018	6,682,403	201.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AD	SKISSHYTTAN 1:75>1	520,469	6,679,179	216.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AE	SKISSHYTTAN 1:77>1	520,603	6,679,164	216.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AF	GESSBERG 3:12>1	520,671	6,681,900	193.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AG	PERSBO 21:11>1	512,347	6,676,988	227.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AH	PERSBO 21:11>1	512,346	6,676,982	228.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AI	PERSBO 41:10>1	512,609	6,679,016	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AJ	PERSBO 2:43>1	512,610	6,676,741	217.6	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AK	PERSBO 2:72>1	512,619	6,676,600	217.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AL	PERSBO 5:13>1	512,709	6,677,364	219.6	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AM	PERSBO 12:27>1	512,762	6,677,718	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AN	PERSBO 56:8>1	512,762	6,677,504	222.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AO	PERSBO 5:23>1	512,845	6,677,380	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AP	PERSBO 5:24>1	512,869	6,677,386	225.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AQ	PERSBO 8:20>1	512,926	6,678,969	229.6	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AR	PERSBO 5:25>1	512,932	6,677,396	227.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AS	PERSBO 21:4>1	513,007	6,677,182	230.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AT	PERSBO 8:19>1	513,004	6,678,728	232.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AU	PERSBO 14:8>1	513,343	6,677,006	243.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AV	SKISSHYTTAN 1:55>1	516,929	6,673,401	157.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AW	SKISSHYTTAN 1:48>1	517,183	6,673,079	160.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AX	GUBBO 1:33>1	518,426	6,673,488	199.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AY	HALVARSGÅRDARNA 28:7>1	512,381	6,685,031	247.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
AZ	MORBERGET 10:2>1	512,597	6,681,960	297.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BA	MORBERGET 11:2>1	512,639	6,681,844	297.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BB	MORBERGET 10:3>1	512,657	6,682,068	296.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BC	MORBERGET 11:6>1	512,675	6,681,918	295.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BD	PERSBO 16:3>1	512,770	6,680,815	271.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BE	HALVARSGÅRDARNA 1:25>1	512,965	6,685,028	251.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BF	FALLET 1:2>1	516,441	6,684,053	217.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BG	FALLET 2:8>1	516,679	6,683,980	217.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BH	ULVSHYTTAN 7:73>1	518,320	6,683,856	240.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BI	SKISSHYTTAN 1:78>1	520,667	6,679,169	220.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BJ	SKISSHYTTAN 1:40>1	520,391	6,681,423	207.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BK	PERSBO 21:8>1	512,434	6,676,998	221.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BL	PERSBO 2:66>1	512,569	6,676,777	215.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BM	PERSBO 3:23>1	512,579	6,679,140	230.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BN	PERSBO 12:13>6	512,676	6,677,671	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BO	PERSBO 12:23>1	512,782	6,677,695	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BP	PERSBO 5:9>1	512,808	6,677,446	224.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BQ	PERSBO 2:37>1	512,868	6,676,717	220.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BR	PERSBO 2:37>1	512,868	6,676,724	220.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0

To be continued on next page...

SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m

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No.	Name	Eastings	Northing	Z	Width	Height	Elevation	Slope of	Direction mode	Eye height
				[m]	[m]	[m]	a.g.l.	[°]		(ZVI) a.g.l.
							[m]			[m]
BS	PERSBO 8:20>1	512,932	6,678,972	230.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BT	PERSBO 8:20>1	512,937	6,678,972	230.6	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BU	PERSBO 61:2>1	513,006	6,677,363	231.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BV	PERSBO 8:2>1	513,011	6,678,966	236.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BW	PERSBO 8:3>1	513,017	6,678,786	233.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BX	PERSBO 2:29>1	513,158	6,676,705	230.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BY	PERSBO 2:20>1	513,320	6,676,693	238.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
BZ	PERSBO 2:20>1	513,322	6,676,700	238.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CA	PERSBO 7:3>1	513,488	6,675,883	250.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CB	SKISSHYTTAN 1:27>1	515,005	6,676,179	249.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CC	NEDRA STARBO 3:13>1	516,925	6,673,553	162.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CD	MORBERGET 8:8>1	511,814	6,681,920	335.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CE	MORBERGET 2:8>1	512,090	6,682,961	305.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CF	MORBERGET 2:5>1	512,136	6,682,805	306.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CG	MORBERGET 1:2>1	512,426	6,682,576	295.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CH	HALVARSGÅRDARNA 28:32>1	512,493	6,685,020	247.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CI	PERSBO 11:10>1	512,568	6,681,296	300.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CJ	PERSBO 10:5>1	512,657	6,681,110	290.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CK	PERSBO 19:6>1	512,707	6,680,946	278.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CL	PERSBO 6:6>1	512,766	6,680,977	280.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CM	PERSBO 19:7>1	512,782	6,680,933	277.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CN	HALVARSGÅRDARNA 27:13>1	513,057	6,685,053	248.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CO	ULVSHYTTAN 11:1>1	514,479	6,683,282	210.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CP	FALLET 2:9>1	516,673	6,683,933	218.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CQ	FALLET 2:7>1	516,727	6,683,992	219.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CR	ULVSHYTTAN 7:66>1	517,200	6,682,555	205.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CS	ULVSHYTTAN 7:70>1	518,056	6,682,390	200.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CT	PERSBO 10:3>1	512,443	6,676,882	221.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CU	PERSBO 12:22>1	512,528	6,677,719	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CV	PERSBO 2:16>1	512,601	6,676,707	217.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CW	PERSBO 2:72>1	512,613	6,676,600	217.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CX	PERSBO 2:18>1	512,638	6,676,784	218.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CY	PERSBO 15:4>1	512,733	6,677,325	222.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
CZ	PERSBO 12:13>6	512,787	6,677,659	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DA	PERSBO 5:26>1	512,804	6,677,405	222.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DB	PERSBO 5:26>1	512,813	6,677,402	223.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DC	PERSBO 9:6>1	512,811	6,678,818	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DD	PERSBO 2:25>1	513,032	6,676,571	222.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DE	PERSBO 10:6>1	513,079	6,677,090	232.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DF	SKISSHYTTAN 1:27>1	515,226	6,676,157	247.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DG	SKISSHYTTAN 1:27>1	516,240	6,675,793	150.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DH	SKISSHYTTAN 1:62>1	516,258	6,675,374	150.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DI	SKISSHYTTAN 1:27>1	516,534	6,675,876	161.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DJ	GUBBO 1:28>1	516,798	6,676,161	170.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DK	MORBERGET 3:7>1	511,290	6,682,659	335.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DL	MORBERGET 6:7>1	511,530	6,684,640	250.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DM	MORBERGET 6:11>1	511,586	6,684,753	247.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DN	MORBERGET 8:6>1	511,892	6,681,940	337.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DO	MORBERGET 9:2>1	511,892	6,682,650	318.6	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DP	GRÅNGSHAMMAR 1:14>1	512,109	6,684,500	247.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DQ	MORBERGET 8:7>1	512,113	6,682,711	306.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DR	GRÅNGSHAMMAR 1:35>1	512,421	6,684,807	247.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DS	MORBERGET 11:5>1	512,541	6,681,961	298.6	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DT	PERSBO 3:12>1	512,548	6,680,559	267.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DU	HALVARSGÅRDARNA 5:9>1	512,643	6,685,011	247.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DV	HALVARSGÅRDARNA 19:16>1	513,545	6,685,020	260.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DW	SVARTBÄCKEN 1:1>1	514,439	6,683,422	210.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DX	FALLET 2:14>1	516,783	6,684,069	220.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DY	FALLET 2:3>1	516,820	6,683,945	222.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
DZ	FALLET 2:2>1	516,873	6,684,055	226.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EA	ULVSHYTTAN 7:57>1	516,878	6,682,427	202.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EB	ULVSHYTTAN 7:75>1	517,020	6,682,569	205.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EC	GESSBERG 3:15>1	519,834	6,682,251	208.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
ED	STARBOGÅRD 2:8>1	520,160	6,679,387	256.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0

To be continued on next page...

SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m

...continued from previous page

No.	Name	Easting	Northing	Z	Width	Height	Elevation	Slope of	Direction mode	Eye height
				[m]	[m]	[m]	a.g.l.	[°]		[m]
EE	GUBBO 1:30>1	521,561	6,679,480	197.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EF	PERSBO 21:3>1	512,496	6,677,069	217.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EG	PERSBO 12:3>1	512,602	6,677,733	227.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EH	PERSBO 2:16>1	512,602	6,676,711	217.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EI	PERSBO 2:72>1	512,614	6,676,612	217.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EJ	PERSBO 2:2>1	512,653	6,676,579	218.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EK	PERSBO 5:21>1	512,665	6,677,365	219.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EL	PERSBO 2:15>1	512,673	6,676,777	219.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EM	PERSBO 7:15>1	512,676	6,676,864	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EN	PERSBO 2:14>1	512,684	6,676,724	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EO	PERSBO 5:10>1	512,710	6,677,422	221.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EP	PERSBO 2:35>1	512,768	6,676,809	219.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EQ	PERSBO 5:14>1	512,787	6,677,381	222.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
ER	PERSBO 5:8>1	512,812	6,677,472	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
ES	PERSBO 5:23>1	512,845	6,677,376	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
ET	PERSBO 8:3>1	513,019	6,678,789	234.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EU	PERSBO 2:69>1	513,092	6,676,703	227.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EV	PERSBO 2:71>1	513,253	6,676,773	235.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EW	PERSBO 2:71>1	513,254	6,676,741	234.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EX	PERSBO 2:54>1	513,308	6,676,763	238.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EY	PERSBO 2:62>1	513,330	6,676,831	241.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
EZ	PERSBO 2:62>1	513,356	6,676,824	242.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FA	SKISSHYTTAN 1:60>1	516,275	6,674,980	157.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FB	SKISSHYTTAN 1:74>1	516,858	6,675,754	170.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FC	SKISSHYTTAN 1:52>1	516,913	6,673,496	160.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FD	SKISSHYTTAN 1:51>1	516,940	6,673,357	154.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FE	GUBBO 1:27>1	518,788	6,673,289	214.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FF	GUBBO 1:32>1	519,837	6,679,860	297.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FG	MORBERGET 6:16>1	511,523	6,684,581	250.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FH	MORBERGET 6:4>1	511,626	6,684,825	247.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FI	MORBERGET 3:4>1	511,882	6,682,759	320.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FJ	MORBERGET 11:6>1	512,659	6,681,923	296.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FK	PERSBO 21:5>1	512,677	6,681,089	289.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FL	SKISSHYTTAN 1:20>1	512,701	6,680,664	269.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FM	HALVARSGÅRDARNA 5:3>1	512,714	6,685,065	248.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FN	PERSBO 6:6>1	512,753	6,681,003	283.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FO	MORBERGET 1:3>1	512,835	6,683,062	275.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FP	MORBERGET 1:1>3	513,021	6,683,428	250.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FO	HALVARSGÅRDARNA 27:11>1	513,259	6,684,998	253.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FR	ULVSHYTTAN 11:1>1	514,473	6,683,380	210.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FS	ULVSHYTTAN 13:1>1	515,257	6,684,610	213.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FT	FALLET 2:13>1	516,411	6,684,060	216.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FU	ULVSHYTTAN 7:68>1	516,888	6,682,359	194.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FV	ULVSHYTTAN 7:17>19	517,150	6,682,520	201.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FW	ULVSHYTTAN 7:54>1	519,725	6,682,452	197.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FX	GESSBERG 3:16>1	519,797	6,682,306	200.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FY	GUBBO 1:15>2	520,948	6,676,256	242.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
FZ	GESSBERG 3:11>1	520,033	6,681,994	197.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GA	PERSBO 5:6>1	511,786	6,677,327	266.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GB	PERSBO 56:4>1	511,828	6,677,359	265.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GC	PERSBO 21:8>1	512,430	6,677,000	221.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GD	PERSBO 7:18>1	512,475	6,676,819	218.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GE	PERSBO 41:8>1	512,525	6,679,038	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GF	PERSBO 5:21>1	512,668	6,677,363	219.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GG	PERSBO 56:11>1	512,702	6,677,619	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GH	PERSBO 5:13>1	512,714	6,677,364	219.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GI	PERSBO 2:53>1	512,737	6,676,521	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GJ	PERSBO 2:53>1	512,750	6,676,537	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GK	PERSBO 2:35>1	512,771	6,676,819	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GL	PERSBO 12:13>6	512,790	6,677,662	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GM	PERSBO 5:9>1	512,803	6,677,448	224.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GN	PERSBO 24:3>1	512,886	6,679,519	245.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GO	PERSBO 2:39>1	512,964	6,676,684	222.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GP	PERSBO 2:25>1	513,036	6,676,563	222.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0

To be continued on next page...

SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m

...continued from previous page

No.	Name	Eastings	Northing	Z	Width	Height	Elevation	Slope of	Direction mode	Eye height
				[m]	[m]	[m]	a.g.l.	[°]		[m]
GQ	PERSBO 2:21>1	513,138	6,676,566	225.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GR	PERSBO 2:29>1	513,159	6,676,697	229.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GS	PERSBO 2:28>1	513,212	6,676,721	231.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GT	SKISSHYTTAN 1:27>1	513,312	6,679,611	266.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GU	PERSBO 2:22>1	513,380	6,676,729	242.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GV	PERSBO 3:5>1	513,456	6,676,114	245.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GW	PERSBO 64:128>1	513,519	6,675,602	252.6	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GX	SKISSHYTTAN 1:27>1	515,023	6,674,792	276.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GY	SKISSHYTTAN 1:27>1	515,202	6,675,988	237.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
GZ	SKISSHYTTAN 1:27>1	515,217	6,676,043	242.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HA	SKISSHYTTAN 1:58>1	516,424	6,674,695	150.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HB	SKISSHYTTAN 1:57>1	516,429	6,674,601	150.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HC	GUBBO 1:31>1	516,607	6,676,647	167.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HD	STARBOGÅRD 2:6>1	516,639	6,673,242	150.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HE	SKISSHYTTAN 1:73>1	516,787	6,675,847	170.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HF	SKISSHYTTAN 1:49>1	517,030	6,673,269	158.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HG	NEDRA STARBO 5:5>1	517,444	6,673,152	168.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HH	GUBBO 1:27>1	518,726	6,673,281	208.6	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HI	MORBERGET 7:3>1	511,285	6,682,639	336.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HJ	MORBERGET 3:9>1	511,850	6,682,838	320.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HK	MORBERGET 3:2>1	511,875	6,682,946	315.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HL	MORBERGET 9:2>1	511,916	6,682,664	318.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HM	PERSBO 53:1>1	512,622	6,681,712	291.6	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HN	SVARTBÄCKEN 1:1>1	514,373	6,683,431	214.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HO	FALLET 2:13>1	516,383	6,684,069	216.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HP	FALLET 2:7>1	516,740	6,683,991	219.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HQ	GESSBERG 3:14>1	520,048	6,682,088	196.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HR	GESSBERG 3:12>1	520,636	6,681,846	193.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HS	PERSBO 13:9>1	511,832	6,677,496	265.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HT	PERSBO 12:22>1	512,529	6,677,728	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HU	PERSBO 3:23>1	512,591	6,679,145	230.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HV	PERSBO 2:72>1	512,609	6,676,611	217.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HW	PERSBO 41:9>1	512,613	6,679,068	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HX	PERSBO 2:2>1	512,643	6,676,579	218.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HY	PERSBO 5:21>1	512,660	6,677,366	219.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
HZ	PERSBO 2:14>1	512,681	6,676,736	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IA	PERSBO 2:59>1	512,692	6,676,549	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IB	PERSBO 5:13>1	512,718	6,677,364	219.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IC	PERSBO 5:11>1	512,739	6,677,464	222.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
ID	PERSBO 12:13>6	512,786	6,677,665	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IE	PERSBO 2:34>1	512,807	6,676,521	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IF	PERSBO 24:2>1	512,892	6,679,633	250.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IG	PERSBO 2:39>1	512,961	6,676,681	221.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IH	PERSBO 10:6>1	513,093	6,677,054	232.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
II	PERSBO 2:69>1	513,096	6,676,704	227.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IJ	PERSBO 2:71>1	513,245	6,676,736	233.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IK	PERSBO 2:22>1	513,375	6,676,730	242.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IL	PERSBO 64:128>1	513,510	6,675,573	251.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IM	SKISSHYTTAN 1:2>1	513,887	6,678,377	266.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IN	SKISSHYTTAN 1:63>1	516,168	6,675,564	157.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IO	NEDRA STARBO 5:5>1	517,370	6,673,179	167.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IP	MORBERGET 2:12>1	511,369	6,682,979	321.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IQ	MORBERGET 6:5>1	511,532	6,684,751	247.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IR	MORBERGET 2:9>1	511,986	6,683,015	307.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IS	MORBERGET 2:11>1	511,994	6,683,066	307.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IT	MORBERGET 2:10>1	512,046	6,683,032	306.6	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IU	MORBERGET 4:3>1	512,060	6,682,613	307.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IV	HALVARSGÅRDARNA 28:14>1	512,419	6,685,003	247.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IW	MORBERGET 12:3>1	512,588	6,682,054	298.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IX	HALVARSGÅRDARNA 28:16>1	512,616	6,685,095	248.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IY	PERSBO 20:9>1	512,692	6,681,054	286.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
IZ	MORBERGET 1:1>1	512,701	6,682,888	287.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JA	PERSBO 20:13>1	512,734	6,681,028	285.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JB	SÖR SELLNÄS 1:4>1	512,893	6,685,032	250.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0

To be continued on next page...

SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m

...continued from previous page

No.	Name	Easting	Northing	Z	Width	Height	Elevation	Slope of	Direction mode	Eye height
				[m]	[m]	[m]	a.g.l.	[°]		[m]
JC	SÖR SELLNÄS 1:7>1	512,920	6,685,047	252.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JD	HALVARSGÅRDARNA 27:9>1	513,150	6,685,039	250.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JE	ULVSHYTTAN 7:79>1	515,401	6,683,706	217.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JF	FALLET 1:2>1	516,460	6,684,035	216.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JG	FALLET 2:6>1	516,778	6,683,997	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JH	ULVSHYTTAN 7:68>1	516,810	6,682,348	196.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JI	FALLET 2:12>1	516,935	6,683,977	228.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JJ	SKISSHYTTAN 1:81>1	520,431	6,679,190	216.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JK	SKISSHYTTAN 1:76>1	520,570	6,679,171	213.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JL	GUBBO 1:32>1	520,737	6,677,063	227.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JM	GESSBERG 3:3>1	520,860	6,681,916	202.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JN	PERSBO 17:13>1	512,221	6,676,896	237.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JO	PERSBO 17:13>1	512,226	6,676,898	237.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JP	PERSBO 21:8>1	512,430	6,676,997	221.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JQ	PERSBO 7:18>1	512,471	6,676,817	218.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JR	PERSBO 21:3>1	512,493	6,677,076	217.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JS	PERSBO 12:3>1	512,611	6,677,734	227.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JT	PERSBO 2:18>1	512,637	6,676,789	218.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JU	PERSBO 12:30>1	512,649	6,677,711	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JV	PERSBO 56:3>1	512,676	6,677,541	226.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JW	PERSBO 2:67>1	512,688	6,676,596	219.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JX	PERSBO 2:59>1	512,697	6,676,552	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JY	PERSBO 56:8>1	512,760	6,677,500	222.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
JZ	PERSBO 2:32>1	512,757	6,676,685	220.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KA	PERSBO 5:8>1	512,808	6,677,473	225.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KB	PERSBO 23:1>1	512,945	6,679,637	254.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KC	PERSBO 10:6>1	513,080	6,677,096	232.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KD	PERSBO 2:69>1	513,094	6,676,698	227.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KE	PERSBO 2:21>1	513,139	6,676,563	225.4	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KF	PERSBO 2:71>1	513,255	6,676,770	235.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KG	PERSBO 2:62>1	513,363	6,676,817	243.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KH	PERSBO 8:9>1	513,507	6,675,826	250.6	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KI	SKISSHYTTAN 1:27>1	515,170	6,676,140	243.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KJ	SKISSHYTTAN 1:80>1	515,448	6,674,248	258.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KK	SKISSHYTTAN 1:59>1	516,387	6,674,738	155.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KL	GUBBO 1:31>1	516,594	6,676,656	167.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KM	GUBBO 1:31>1	516,601	6,676,634	167.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KN	NEDRA STARBO 1:8>1	517,078	6,672,999	147.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KO	SKISSHYTTAN 1:71>1	518,586	6,673,317	201.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KP	GUBBO 1:32>1	519,881	6,679,818	289.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KQ	STARBOGÅRD 2:9>1	519,996	6,679,478	275.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KR	MORBERGET 6:11>1	511,595	6,684,778	250.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KS	MORBERGET 6:4>1	511,618	6,684,827	247.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KT	MORBERGET 6:12>1	511,624	6,684,776	250.3	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KU	MORBERGET 3:6>1	511,697	6,682,782	324.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KV	MORBERGET 4:2>1	511,958	6,682,511	315.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KW	HALVARSGÅRDARNA 28:7>1	512,357	6,685,043	247.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KX	MORBERGET 5:2>1	512,492	6,682,256	299.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KY	HALVARSGÅRDARNA 28:20>1	512,565	6,685,060	247.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
KZ	SÖR SELLNÄS 1:5>1	512,864	6,685,063	252.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
LA	HALVARSGÅRDARNA 19:16>1	513,580	6,685,033	260.9	5.0	5.0	2.0	0.0	"Green house mode"	2.0
LB	ULVSHYTTAN 12:2>1	514,142	6,683,556	219.2	5.0	5.0	2.0	0.0	"Green house mode"	2.0
LC	ULVSHYTTAN 8:1>1	516,185	6,684,582	219.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
LD	ULVSHYTTAN 8:1>1	516,202	6,684,600	218.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
LE	ULVSHYTTAN 7:67>1	516,424	6,682,648	212.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
LF	FALLET 2:5>1	516,713	6,683,892	222.1	5.0	5.0	2.0	0.0	"Green house mode"	2.0
LG	FALLET 2:4>1	516,775	6,683,910	221.7	5.0	5.0	2.0	0.0	"Green house mode"	2.0
LH	ULVSHYTTAN 7:56>1	516,819	6,682,441	205.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
LI	GESSBERG 3:13>1	519,774	6,682,223	207.5	5.0	5.0	2.0	0.0	"Green house mode"	2.0
LJ	GESSBERG 3:11>1	520,031	6,681,954	195.0	5.0	5.0	2.0	0.0	"Green house mode"	2.0
LK	GESSBERG 3:3>1	520,857	6,682,009	210.8	5.0	5.0	2.0	0.0	"Green house mode"	2.0

SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m

Calculation Results

Shadow receptor

No.	Name	Shadow, worst case		Shadow, expected values	
		Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]
A	PERSBO 21:11>1	0:00	0	0:00	0:00
B	PERSBO 41:6>1	35:44	101	0:28	10:29
C	PERSBO 56:3>1	0:00	0	0:00	0:00
D	PERSBO 2:14>1	0:00	0	0:00	0:00
E	PERSBO 5:22>1	0:00	0	0:00	0:00
F	PERSBO 5:11>1	0:00	0	0:00	0:00
G	PERSBO 2:35>1	0:00	0	0:00	0:00
H	PERSBO 12:13>6	0:00	0	0:00	0:00
I	PERSBO 5:14>1	0:00	0	0:00	0:00
J	PERSBO 5:26>1	0:00	0	0:00	0:00
K	PERSBO 2:41>1	0:00	0	0:00	0:00
L	PERSBO 21:4>1	0:00	0	0:00	0:00
M	PERSBO 61:2>1	0:00	0	0:00	0:00
N	PERSBO 2:25>1	0:00	0	0:00	0:00
O	PERSBO 10:6>1	0:00	0	0:00	0:00
P	PERSBO 2:28>1	0:00	0	0:00	0:00
Q	SKISSHYTTAN 1:27>1	0:00	0	0:00	0:00
R	SKISSHYTTAN 1:61>1	0:00	0	0:00	0:00
S	SKISSHYTTAN 1:50>1	0:00	0	0:00	0:00
T	MORBERGET 2:12>1	0:00	0	0:00	0:00
U	MORBERGET 3:3>1	0:00	0	0:00	0:00
V	MORBERGET 8:3>1	6:57	27	0:24	1:41
W	MORBERGET 8:2>1	8:33	30	0:26	1:52
X	MORBERGET 2:6>1	9:59	33	0:28	2:11
Y	HALVARSGÅRDARNA 28:14>1	0:00	0	0:00	0:00
Z	MORBERGET 10:4>1	63:24	129	0:44	14:48
AA	PERSBO 10:5>1	79:13	189	0:43	21:12
AB	PERSBO 6:2>1	81:19	205	0:44	20:47
AC	ULVSHYTTAN 7:71>1	17:27	43	0:31	3:30
AD	SKISSHYTTAN 1:75>1	23:18	68	0:28	6:03
AE	SKISSHYTTAN 1:77>1	10:59	32	0:26	2:44
AF	GESSBERG 3:12>1	0:00	0	0:00	0:00
AG	PERSBO 21:11>1	0:00	0	0:00	0:00
AH	PERSBO 21:11>1	0:00	0	0:00	0:00
AI	PERSBO 41:10>1	20:42	58	0:28	5:58
AJ	PERSBO 2:43>1	0:00	0	0:00	0:00
AK	PERSBO 2:72>1	0:00	0	0:00	0:00
AL	PERSBO 5:13>1	0:00	0	0:00	0:00
AM	PERSBO 12:27>1	0:00	0	0:00	0:00
AN	PERSBO 56:8>1	0:00	0	0:00	0:00
AO	PERSBO 5:23>1	0:00	0	0:00	0:00
AP	PERSBO 5:24>1	0:00	0	0:00	0:00
AQ	PERSBO 8:20>1	36:26	74	0:33	10:58
AR	PERSBO 5:25>1	0:00	0	0:00	0:00
AS	PERSBO 21:4>1	0:00	0	0:00	0:00
AT	PERSBO 8:19>1	10:50	36	0:23	3:19
AU	PERSBO 14:8>1	0:00	0	0:00	0:00
AV	SKISSHYTTAN 1:55>1	0:00	0	0:00	0:00
AW	SKISSHYTTAN 1:48>1	0:00	0	0:00	0:00
AX	GUBBO 1:33>1	0:00	0	0:00	0:00
AY	HALVARSGÅRDARNA 28:7>1	0:00	0	0:00	0:00
AZ	MORBERGET 10:2>1	59:08	131	0:41	14:24
BA	MORBERGET 11:2>1	66:40	146	0:42	16:33
BB	MORBERGET 10:3>1	63:22	132	0:43	15:01
BC	MORBERGET 11:6>1	69:08	146	0:43	16:56
BD	PERSBO 16:3>1	112:06	201	1:06	29:32
BE	HALVARSGÅRDARNA 1:25>1	0:00	0	0:00	0:00
BF	FALLET 1:2>1	0:00	0	0:00	0:00
BG	FALLET 2:8>1	0:00	0	0:00	0:00
BH	ULVSHYTTAN 7:73>1	0:00	0	0:00	0:00
BI	SKISSHYTTAN 1:78>1	10:17	31	0:26	2:33
BJ	SKISSHYTTAN 1:40>1	0:00	0	0:00	0:00

To be continued on next page...

SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m
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No.	Name	Shadow, worst case			Shadow, expected values	
		Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]	Shadow hours
BK	PERSBO 21:8>1	0:00	0	0:00	0:00	
BL	PERSBO 2:66>1	0:00	0	0:00	0:00	
BM	PERSBO 3:23>1	37:46	103	0:28	11:05	
BN	PERSBO 12:13>6	0:00	0	0:00	0:00	
BO	PERSBO 12:23>1	0:00	0	0:00	0:00	
BP	PERSBO 5:9>1	0:00	0	0:00	0:00	
BQ	PERSBO 2:37>1	0:00	0	0:00	0:00	
BR	PERSBO 2:37>1	0:00	0	0:00	0:00	
BS	PERSBO 8:20>1	36:34	74	0:34	11:00	
BT	PERSBO 8:20>1	36:29	74	0:34	10:59	
BU	PERSBO 61:2>1	0:00	0	0:00	0:00	
BV	PERSBO 8:2>1	33:54	68	0:35	10:15	
BW	PERSBO 8:3>1	15:36	43	0:27	4:46	
BX	PERSBO 2:29>1	0:00	0	0:00	0:00	
BY	PERSBO 2:20>1	0:00	0	0:00	0:00	
BZ	PERSBO 2:20>1	0:00	0	0:00	0:00	
CA	PERSBO 7:3>1	0:00	0	0:00	0:00	
CB	SKISSHYTTAN 1:27>1	0:00	0	0:00	0:00	
CC	NEDRA STARBO 3:13>1	0:00	0	0:00	0:00	
CD	MORBERGET 8:8>1	5:29	24	0:21	1:29	
CE	MORBERGET 2:8>1	8:35	30	0:26	1:44	
CF	MORBERGET 2:5>1	9:45	32	0:28	2:07	
CG	MORBERGET 1:2>1	29:32	82	0:35	5:39	
CH	HALVARSGÅRDARNA 28:32>1	0:00	0	0:00	0:00	
CI	PERSBO 11:10>1	86:23	201	0:39	23:08	
CJ	PERSBO 10:5>1	76:43	189	0:43	20:37	
CK	PERSBO 19:6>1	83:34	180	0:44	21:26	
CL	PERSBO 6:6>1	91:19	189	0:47	23:22	
CM	PERSBO 19:7>1	98:18	194	0:56	25:25	
CN	HALVARSGÅRDARNA 27:13>1	0:00	0	0:00	0:00	
CO	ULVSHYTTAN 11:1>1	75:57	123	1:07	12:14	
CP	FALLET 2:9>1	0:00	0	0:00	0:00	
CQ	FALLET 2:7>1	0:00	0	0:00	0:00	
CR	ULVSHYTTAN 7:66>1	31:00	64	0:38	4:57	
CS	ULVSHYTTAN 7:70>1	16:52	42	0:31	3:24	
CT	PERSBO 10:3>1	0:00	0	0:00	0:00	
CU	PERSBO 12:22>1	0:00	0	0:00	0:00	
CV	PERSBO 2:16>1	0:00	0	0:00	0:00	
CW	PERSBO 2:72>1	0:00	0	0:00	0:00	
CX	PERSBO 2:18>1	0:00	0	0:00	0:00	
CY	PERSBO 15:4>1	0:00	0	0:00	0:00	
CZ	PERSBO 12:13>6	0:00	0	0:00	0:00	
DA	PERSBO 5:26>1	0:00	0	0:00	0:00	
DB	PERSBO 5:26>1	0:00	0	0:00	0:00	
DC	PERSBO 9:6>1	29:58	68	0:30	9:04	
DD	PERSBO 2:25>1	0:00	0	0:00	0:00	
DE	PERSBO 10:6>1	0:00	0	0:00	0:00	
DF	SKISSHYTTAN 1:27>1	0:00	0	0:00	0:00	
DG	SKISSHYTTAN 1:27>1	0:00	0	0:00	0:00	
DH	SKISSHYTTAN 1:62>1	0:00	0	0:00	0:00	
DI	SKISSHYTTAN 1:27>1	27:59	87	0:28	8:19	
DJ	GUBBO 1:28>1	54:34	137	0:34	15:46	
DK	MORBERGET 3:7>1	0:00	0	0:00	0:00	
DL	MORBERGET 6:7>1	0:00	0	0:00	0:00	
DM	MORBERGET 6:11>1	0:00	0	0:00	0:00	
DN	MORBERGET 8:6>1	6:00	26	0:23	1:38	
DO	MORBERGET 9:2>1	6:29	26	0:24	1:27	
DP	GRÅNGSHAMMAR 1:14>1	0:00	0	0:00	0:00	
DQ	MORBERGET 8:7>1	9:41	31	0:28	2:08	
DR	GRÅNGSHAMMAR 1:35>1	0:00	0	0:00	0:00	
DS	MORBERGET 11:5>1	53:46	126	0:39	13:04	
DT	PERSBO 3:12>1	67:09	163	0:37	17:54	
DU	HALVARSGÅRDARNA 5:9>1	0:00	0	0:00	0:00	

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SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m
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No.	Name	Shadow, worst case		Shadow, expected values	
		Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]
DV	HALVARSGÅRDARNA 19:16>1	0:00	0	0:00	0:00
DW	SVARTBÄCKEN 1:1>1	70:34	111	1:04	10:53
DX	FALLET 2:14>1	0:00	0	0:00	0:00
DY	FALLET 2:3>1	0:00	0	0:00	0:00
DZ	FALLET 2:2>1	0:00	0	0:00	0:00
EA	ULVSHYTTAN 7:57>1	35:37	66	0:42	5:55
EB	ULVSHYTTAN 7:75>1	32:36	68	0:38	5:08
EC	GESSBERG 3:15>1	0:00	0	0:00	0:00
ED	STARBOGÅRD 2:8>1	30:58	78	0:32	7:49
EE	GUBBO 1:30>1	0:00	0	0:00	0:00
EF	PERSBO 21:3>1	0:00	0	0:00	0:00
EG	PERSBO 12:3>1	0:00	0	0:00	0:00
EH	PERSBO 2:16>1	0:00	0	0:00	0:00
EI	PERSBO 2:72>1	0:00	0	0:00	0:00
EJ	PERSBO 2:2>1	0:00	0	0:00	0:00
EK	PERSBO 5:21>1	0:00	0	0:00	0:00
EL	PERSBO 2:15>1	0:00	0	0:00	0:00
EM	PERSBO 7:15>1	0:00	0	0:00	0:00
EN	PERSBO 2:14>1	0:00	0	0:00	0:00
EO	PERSBO 5:10>1	0:00	0	0:00	0:00
EP	PERSBO 2:35>1	0:00	0	0:00	0:00
EQ	PERSBO 5:14>1	0:00	0	0:00	0:00
ER	PERSBO 5:8>1	0:00	0	0:00	0:00
ES	PERSBO 5:23>1	0:00	0	0:00	0:00
ET	PERSBO 8:3>1	15:47	43	0:27	4:49
EU	PERSBO 2:69>1	0:00	0	0:00	0:00
EV	PERSBO 2:71>1	0:00	0	0:00	0:00
EW	PERSBO 2:71>1	0:00	0	0:00	0:00
EX	PERSBO 2:54>1	0:00	0	0:00	0:00
EY	PERSBO 2:62>1	0:00	0	0:00	0:00
EZ	PERSBO 2:62>1	0:00	0	0:00	0:00
FA	SKISSHYTTAN 1:60>1	0:00	0	0:00	0:00
FB	SKISSHYTTAN 1:74>1	37:02	99	0:29	10:48
FC	SKISSHYTTAN 1:52>1	0:00	0	0:00	0:00
FD	SKISSHYTTAN 1:51>1	0:00	0	0:00	0:00
FE	GUBBO 1:27>1	0:00	0	0:00	0:00
FF	GUBBO 1:32>1	38:27	93	0:33	7:54
FG	MORBERGET 6:16>1	0:00	0	0:00	0:00
FH	MORBERGET 6:4>1	0:00	0	0:00	0:00
FI	MORBERGET 3:4>1	6:05	25	0:23	1:20
FJ	MORBERGET 11:6>1	67:01	143	0:43	16:24
FK	PERSBO 21:5>1	74:51	186	0:43	20:04
FL	SKISSHYTTAN 1:20>1	89:29	186	0:43	23:41
FM	HALVARSGÅRDARNA 5:3>1	0:00	0	0:00	0:00
FN	PERSBO 6:6>1	87:10	185	0:46	22:10
FO	MORBERGET 1:3>1	36:46	56	0:58	6:11
FP	MORBERGET 1:1>3	29:02	65	0:35	4:07
FQ	HALVARSGÅRDARNA 27:11>1	0:00	0	0:00	0:00
FR	ULVSHYTTAN 11:1>1	71:16	115	1:04	11:09
FS	ULVSHYTTAN 13:1>1	0:00	0	0:00	0:00
FT	FALLET 2:13>1	0:00	0	0:00	0:00
FU	ULVSHYTTAN 7:68>1	36:42	64	0:44	6:26
FV	ULVSHYTTAN 7:17>19	31:55	65	0:38	5:12
FW	ULVSHYTTAN 7:54>1	0:00	0	0:00	0:00
FX	GESSBERG 3:16>1	0:00	0	0:00	0:00
FY	GUBBO 1:15>2	0:00	0	0:00	0:00
FZ	GESSBERG 3:11>1	0:00	0	0:00	0:00
GA	PERSBO 5:6>1	0:00	0	0:00	0:00
GB	PERSBO 56:4>1	0:00	0	0:00	0:00
GC	PERSBO 21:8>1	0:00	0	0:00	0:00
GD	PERSBO 7:18>1	0:00	0	0:00	0:00
GE	PERSBO 41:8>1	17:13	50	0:27	4:53
GF	PERSBO 5:21>1	0:00	0	0:00	0:00

To be continued on next page...

SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m

...continued from previous page

No.	Name	Shadow, worst case		Shadow, expected values	
		Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]
GG	PERSBO 56:11>1	0:00	0	0:00	0:00
GH	PERSBO 5:13>1	0:00	0	0:00	0:00
GI	PERSBO 2:53>1	0:00	0	0:00	0:00
GJ	PERSBO 2:53>1	0:00	0	0:00	0:00
GK	PERSBO 2:35>1	0:00	0	0:00	0:00
GL	PERSBO 12:13>6	0:00	0	0:00	0:00
GM	PERSBO 5:9>1	0:00	0	0:00	0:00
GN	PERSBO 24:3>1	57:21	120	0:35	16:48
GO	PERSBO 2:39>1	0:00	0	0:00	0:00
GP	PERSBO 2:25>1	0:00	0	0:00	0:00
GQ	PERSBO 2:21>1	0:00	0	0:00	0:00
GR	PERSBO 2:29>1	0:00	0	0:00	0:00
GS	PERSBO 2:28>1	0:00	0	0:00	0:00
GT	SKISSHYTTAN 1:27>1	85:51	126	1:13	23:33
GU	PERSBO 2:22>1	0:00	0	0:00	0:00
GV	PERSBO 3:5>1	0:00	0	0:00	0:00
GW	PERSBO 64:128>1	0:00	0	0:00	0:00
GX	SKISSHYTTAN 1:27>1	0:00	0	0:00	0:00
GY	SKISSHYTTAN 1:27>1	0:00	0	0:00	0:00
GZ	SKISSHYTTAN 1:27>1	0:00	0	0:00	0:00
HA	SKISSHYTTAN 1:58>1	0:00	0	0:00	0:00
HB	SKISSHYTTAN 1:57>1	0:00	0	0:00	0:00
HC	GUBBO 1:31>1	53:50	145	0:31	14:58
HD	STARBOGÅRD 2:6>1	0:00	0	0:00	0:00
HE	SKISSHYTTAN 1:73>1	45:51	110	0:31	13:26
HF	SKISSHYTTAN 1:49>1	0:00	0	0:00	0:00
HG	NEDRA STARBO 5:5>1	0:00	0	0:00	0:00
HH	GUBBO 1:27>1	0:00	0	0:00	0:00
HI	MORBERGET 7:3>1	0:00	0	0:00	0:00
HJ	MORBERGET 3:9>1	0:00	0	0:00	0:00
HK	MORBERGET 3:2>1	0:00	0	0:00	0:00
HL	MORBERGET 9:2>1	6:44	26	0:24	1:30
HM	PERSBO 53:1>1	69:56	155	0:40	18:12
HN	SVARTBÄCKEN 1:1>1	72:59	108	1:06	11:06
HO	FALLET 2:13>1	0:00	0	0:00	0:00
HP	FALLET 2:7>1	0:00	0	0:00	0:00
HQ	GESSBERG 3:14>1	0:00	0	0:00	0:00
HR	GESSBERG 3:12>1	0:00	0	0:00	0:00
HS	PERSBO 13:9>1	0:00	0	0:00	0:00
HT	PERSBO 12:22>1	0:00	0	0:00	0:00
HU	PERSBO 3:23>1	37:29	103	0:28	11:00
HV	PERSBO 2:72>1	0:00	0	0:00	0:00
HW	PERSBO 41:9>1	32:29	96	0:28	9:31
HX	PERSBO 2:2>1	0:00	0	0:00	0:00
HY	PERSBO 5:21>1	0:00	0	0:00	0:00
HZ	PERSBO 2:14>1	0:00	0	0:00	0:00
IA	PERSBO 2:59>1	0:00	0	0:00	0:00
IB	PERSBO 5:13>1	0:00	0	0:00	0:00
IC	PERSBO 5:11>1	0:00	0	0:00	0:00
ID	PERSBO 12:13>6	0:00	0	0:00	0:00
IE	PERSBO 2:34>1	0:00	0	0:00	0:00
IF	PERSBO 24:2>1	66:06	132	0:36	19:24
IG	PERSBO 2:39>1	0:00	0	0:00	0:00
IH	PERSBO 10:6>1	0:00	0	0:00	0:00
II	PERSBO 2:69>1	0:00	0	0:00	0:00
IJ	PERSBO 2:71>1	0:00	0	0:00	0:00
IK	PERSBO 2:22>1	0:00	0	0:00	0:00
IL	PERSBO 64:128>1	0:00	0	0:00	0:00
IM	SKISSHYTTAN 1:2>1	29:28	65	0:35	8:16
IN	SKISSHYTTAN 1:63>1	0:00	0	0:00	0:00
IO	NEDRA STARBO 5:5>1	0:00	0	0:00	0:00
IP	MORBERGET 2:12>1	0:00	0	0:00	0:00
IQ	MORBERGET 6:5>1	0:00	0	0:00	0:00

To be continued on next page...

SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m

...continued from previous page

No.	Name	Shadow, worst case		Shadow, expected values	
		Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]
IR	MORBERGET 2:9>1	7:10	28	0:24	1:26
IS	MORBERGET 2:11>1	7:02	27	0:24	1:21
IT	MORBERGET 2:10>1	7:44	28	0:25	1:30
IU	MORBERGET 4:3>1	9:14	30	0:28	2:05
IV	HALVARSGÅRDARNA 28:14>1	0:00	0	0:00	0:00
IW	MORBERGET 12:3>1	56:17	125	0:41	13:21
IX	HALVARSGÅRDARNA 28:16>1	0:00	0	0:00	0:00
IY	PERSBO 20:9>1	72:42	179	0:44	19:30
IZ	MORBERGET 1:1>1	26:29	51	0:46	5:03
JA	PERSBO 20:13>1	84:33	202	0:46	21:28
JB	SÖR SELLNÄS 1:4>1	0:00	0	0:00	0:00
JC	SÖR SELLNÄS 1:7>1	0:00	0	0:00	0:00
JD	HALVARSGÅRDARNA 27:9>1	0:00	0	0:00	0:00
JE	ULVSHYTTAN 7:79>1	0:00	0	0:00	0:00
JF	FALLET 1:2>1	0:00	0	0:00	0:00
JG	FALLET 2:6>1	0:00	0	0:00	0:00
JH	ULVSHYTTAN 7:68>1	36:59	65	0:44	6:25
JI	FALLET 2:12>1	0:00	0	0:00	0:00
JJ	SKISSHYTTAN 1:81>1	24:11	70	0:28	6:18
JK	SKISSHYTTAN 1:76>1	11:16	33	0:26	2:48
JL	GUBBO 1:32>1	0:00	0	0:00	0:00
JM	GESSBERG 3:3>1	0:00	0	0:00	0:00
JN	PERSBO 17:13>1	0:00	0	0:00	0:00
JO	PERSBO 17:13>1	0:00	0	0:00	0:00
JP	PERSBO 21:8>1	0:00	0	0:00	0:00
JQ	PERSBO 7:18>1	0:00	0	0:00	0:00
JR	PERSBO 21:3>1	0:00	0	0:00	0:00
JS	PERSBO 12:3>1	0:00	0	0:00	0:00
JT	PERSBO 2:18>1	0:00	0	0:00	0:00
JU	PERSBO 12:30>1	0:00	0	0:00	0:00
JV	PERSBO 56:3>1	0:00	0	0:00	0:00
JW	PERSBO 2:67>1	0:00	0	0:00	0:00
JX	PERSBO 2:59>1	0:00	0	0:00	0:00
JY	PERSBO 56:8>1	0:00	0	0:00	0:00
JZ	PERSBO 2:32>1	0:00	0	0:00	0:00
KA	PERSBO 5:8>1	0:00	0	0:00	0:00
KB	PERSBO 23:1>1	67:41	131	0:38	19:52
KC	PERSBO 10:6>1	0:00	0	0:00	0:00
KD	PERSBO 2:69>1	0:00	0	0:00	0:00
KE	PERSBO 2:21>1	0:00	0	0:00	0:00
KF	PERSBO 2:71>1	0:00	0	0:00	0:00
KG	PERSBO 2:62>1	0:00	0	0:00	0:00
KH	PERSBO 8:9>1	0:00	0	0:00	0:00
KI	SKISSHYTTAN 1:27>1	0:00	0	0:00	0:00
KJ	SKISSHYTTAN 1:80>1	0:00	0	0:00	0:00
KK	SKISSHYTTAN 1:59>1	0:00	0	0:00	0:00
KL	GUBBO 1:31>1	51:55	140	0:31	14:22
KM	GUBBO 1:31>1	53:49	145	0:31	15:00
KN	NEDRA STARBO 1:8>1	0:00	0	0:00	0:00
KO	SKISSHYTTAN 1:71>1	0:00	0	0:00	0:00
KP	GUBBO 1:32>1	37:06	89	0:33	7:54
KQ	STARBOGÅRD 2:9>1	36:32	85	0:34	8:44
KR	MORBERGET 6:11>1	0:00	0	0:00	0:00
KS	MORBERGET 6:4>1	0:00	0	0:00	0:00
KT	MORBERGET 6:12>1	0:00	0	0:00	0:00
KU	MORBERGET 3:6>1	0:00	0	0:00	0:00
KV	MORBERGET 4:2>1	7:39	29	0:26	1:48
KW	HALVARSGÅRDARNA 28:7>1	0:00	0	0:00	0:00
KX	MORBERGET 5:2>1	44:06	104	0:38	9:43
KY	HALVARSGÅRDARNA 28:20>1	0:00	0	0:00	0:00
KZ	SÖR SELLNÄS 1:5>1	0:00	0	0:00	0:00
LA	HALVARSGÅRDARNA 19:16>1	0:00	0	0:00	0:00
LB	ULVSHYTTAN 12:2>1	79:34	92	1:07	11:33

To be continued on next page...

SHADOW - Main Result

Calculation: 2309 - adding 30 min value in 230222_Siksberget_Shadow_Layout230125_20WTGs_HH165_RD210_TotalHeight_270_SEILME_realCase_ZVI_2m
...continued from previous page

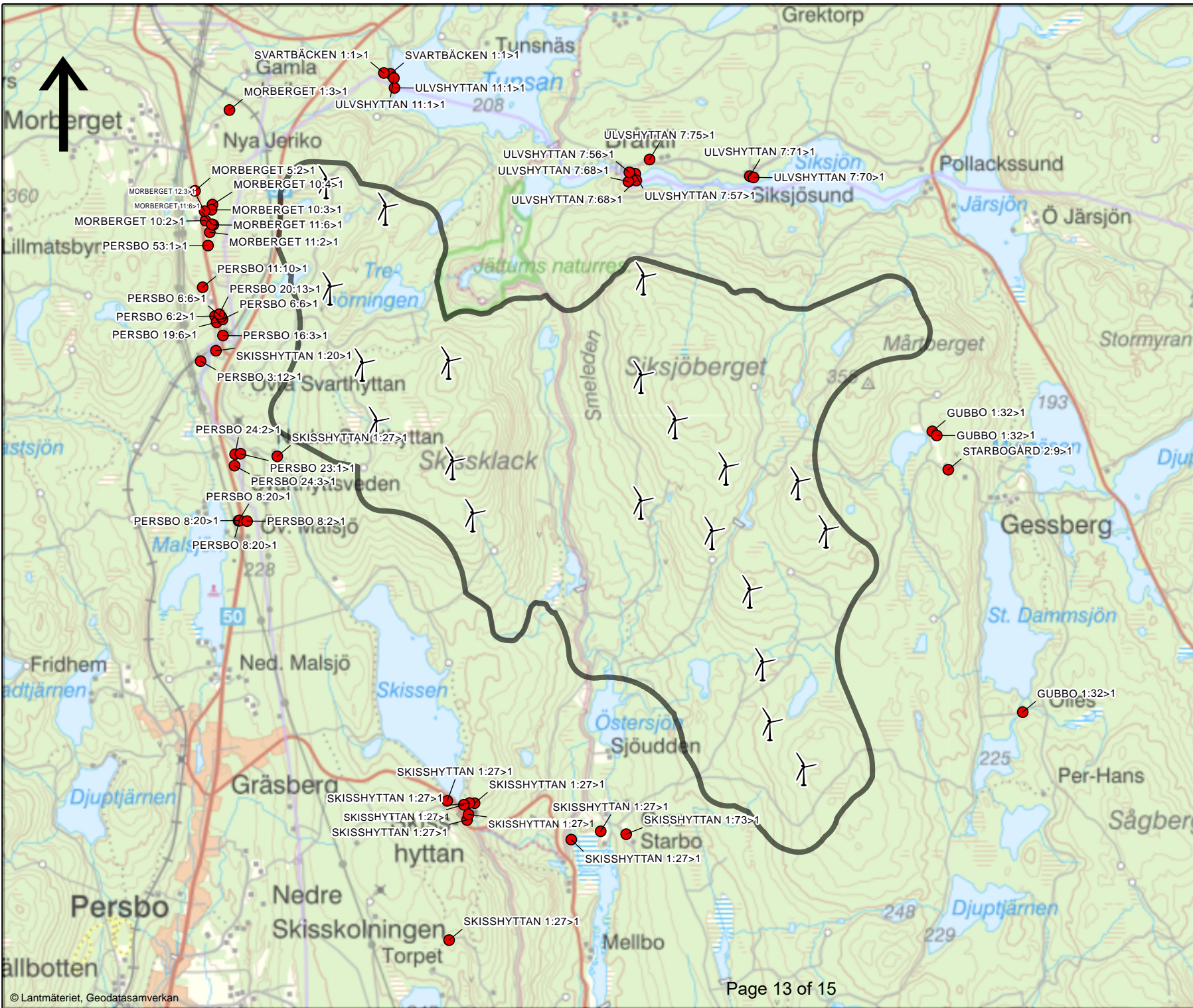
No.	Name	Shadow, worst case			Shadow, expected values	
		Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]	Shadow hours per year [h/year]
LC	ULVSHYTTAN 8:1>1	0:00	0	0:00	0:00	0:00
LD	ULVSHYTTAN 8:1>1	0:00	0	0:00	0:00	0:00
LE	ULVSHYTTAN 7:67>1	25:07	58	0:33	3:42	3:42
LF	FALLET 2:5>1	0:00	0	0:00	0:00	0:00
LG	FALLET 2:4>1	0:00	0	0:00	0:00	0:00
LH	ULVSHYTTAN 7:56>1	35:02	67	0:41	5:43	5:43
LI	GESSBERG 3:13>1	0:00	0	0:00	0:00	0:00
LJ	GESSBERG 3:11>1	0:00	0	0:00	0:00	0:00
LK	GESSBERG 3:3>1	0:00	0	0:00	0:00	0:00

Total amount of flickering on the shadow receptors caused by each WTG

No.	Name	Worst case [h/year]	Expected [h/year]
1	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (87)	60:31	15:23
2	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (88)	162:40	27:02
3	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (89)	0:00	0:00
4	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (90)	52:56	14:14
5	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (91)	0:00	0:00
6	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (92)	79:30	17:18
7	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (93)	0:00	0:00
8	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (94)	108:58	32:12
9	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (95)	0:00	0:00
10	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (96)	0:00	0:00
11	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (97)	35:33	10:27
12	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (98)	0:00	0:00
13	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (99)	12:47	3:09
14	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (100)	19:28	5:36
15	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (101)	29:28	8:16
16	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (102)	267:40	67:08
17	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (103)	146:34	38:28
18	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (104)	396:13	87:55
19	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (105)	236:47	49:58
20	VESTAS 210 (modified) 5600 210.0 !O! hub: 165.0 m (TOT: 270.0 m) (106)	198:01	52:53

Total times in Receptor wise and WTG wise tables can differ, as a WTG can lead to flicker at 2 or more receptors simultaneously and/or receptors may receive flicker from 2 or more WTGs simultaneously.

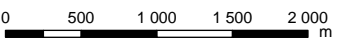
The calculation of the total expected values for a given receptor assumes a weighted average directional reduction for all WTGs contributing to shadow flicker within the same day. In the case where shadow flicker from different WTGs is not concurrent within the day, the total expected time at a given receptor may deviate marginally from the individual flicker time caused by each turbine separately.



SKUGGBERÄKNING

Fastigheter där Boverkets rekommendationer överskrids eller tangeras

Skala (A4): 1:50 000



TECKENFÖRKLARING

- Byggnader
- Layout
- Projektområde Siksberget

WindPRO referens	Fastighetsnamn	Easting	Northing	Överskrids 30-min värdet	Max shadow hours per day	Överskrids 8-timmarsvärdet	Shadow hours per year
-	-	<i>meter</i>	<i>meter</i>	<i>ja/nej</i>	<i>tt:mm</i>	<i>ja/nej</i>	<i>tt:mm</i>
BD	PERSBO 16:3>1	512770	6680815	ja	01:06	ja	29:32
CM	PERSBO 19:7>1	512782	6680933	ja	00:56	ja	25:25
FL	SKISSHYTTAN 1:20>1	512701	6680664	ja	00:43	ja	23:41
GT	SKISSHYTTAN 1:27>1	513312	6679611	ja	01:13	ja	23:33
CL	PERSBO 6:6>1	512766	6680977	ja	00:47	ja	23:22
CI	PERSBO 11:10>1	512568	6681296	ja	00:39	ja	23:08
FN	PERSBO 6:6>1	512753	6681003	ja	00:46	ja	22:10
JA	PERSBO 20:13>1	512734	6681028	ja	00:46	ja	21:28
CK	PERSBO 19:6>1	512707	6680946	ja	00:44	ja	21:26
AA	PERSBO 10:5>1	512673	6681135	ja	00:43	ja	21:12
AB	PERSBO 6:2>1	512692	6681008	ja	00:44	ja	20:47
CJ	PERSBO 10:5>1	512657	6681110	ja	00:43	ja	20:37
FK	PERSBO 21:5>1	512677	6681089	ja	00:43	ja	20:04
KB	PERSBO 23:1>1	512945	6679637	ja	00:38	ja	19:52
IY	PERSBO 20:9>1	512692	6681054	ja	00:44	ja	19:30
IF	PERSBO 24:2>1	512892	6679633	ja	00:36	ja	19:24
HM	PERSBO 53:1>1	512622	6681712	ja	00:40	ja	18:12
DT	PERSBO 3:12>1	512548	6680559	ja	00:37	ja	17:54
BC	MORBERGET 11:6>1	512675	6681918	ja	00:43	ja	16:56
GN	PERSBO 24:3>1	512886	6679519	ja	00:35	ja	16:48
BA	MORBERGET 11:2>1	512639	6681844	ja	00:42	ja	16:33
FJ	MORBERGET 11:6>1	512659	6681923	ja	00:43	ja	16:24
DJ	GUBBO 1:28>1	516798	6676161	ja	00:34	ja	15:46
BB	MORBERGET 10:3>1	512657	6682068	ja	00:43	ja	15:01
KM	GUBBO 1:31>1	516601	6676634	ja	00:31	ja	15:00
HC	GUBBO 1:31>1	516607	6676647	ja	00:31	ja	14:58
Z	MORBERGET 10:4>1	512666	6682119	ja	00:44	ja	14:48
AZ	MORBERGET 10:2>1	512597	6681960	ja	00:41	ja	14:24
KL	GUBBO 1:31>1	516594	6676656	ja	00:31	ja	14:22
HE	SKISSHYTTAN 1:73>1	516787	6675847	ja	00:31	ja	13:26
IW	MORBERGET 12:3>1	512588	6682054	ja	00:41	ja	13:21
DS	MORBERGET 11:5>1	512541	6681961	ja	00:39	ja	13:04
CO	ULVSHYTTAN 11:1>1	514479	6683282	ja	01:07	ja	12:14
LB	ULVSHYTTAN 12:2>1	514142	6683556	ja	01:07	ja	11:33
FR	ULVSHYTTAN 11:1>1	514473	6683380	ja	01:04	ja	11:09
HN	SVARTBÄCKEN 1:1>1	514373	6683431	ja	01:06	ja	11:06
BM	PERSBO 3:23>1	512579	6679140	nej	00:28	ja	11:05
BS	PERSBO 8:20>1	512932	6678972	ja	00:34	ja	11:00
HU	PERSBO 3:23>1	512591	6679145	nej	00:28	ja	11:00
BT	PERSBO 8:20>1	512937	6678972	ja	00:34	ja	10:59
AQ	PERSBO 8:20>1	512926	6678969	ja	00:33	ja	10:58

DW	SVARTBÄCKEN 1:1>1	514439	6683422	ja	01:04	ja	10:53
FB	SKISSHYTTAN 1:74>1	516858	6675754	nej	00:29	ja	10:48
B	PERSBO 41:6>1	512589	6679110	nej	00:28	ja	10:29
BV	PERSBO 8:2>1	513011	6678966	ja	00:35	ja	10:15
KX	MORBERGET 5:2>1	512492	6682256	ja	00:38	ja	09:43
HW	PERSBO 41:9>1	512613	6679068	nej	00:28	ja	09:31
DC	PERSBO 9:6>1	512811	6678818	nej	00:30	ja	09:04
KQ	STARBOGÅRD 2:9>1	519996	6679478	ja	00:34	ja	08:44
DI	SKISSHYTTAN 1:27>1	516534	6675876	nej	00:28	ja	08:19
IM	SKISSHYTTAN 1:2>1	513887	6678377	ja	00:35	ja	08:16
FF	GUBBO 1:32>1	519837	6679860	ja	00:33	nej	07:54
KP	GUBBO 1:32>1	519881	6679818	ja	00:33	nej	07:54
ED	STARBOGÅRD 2:8>1	520160	6679387	ja	00:32	nej	07:49
FU	ULVSHYTTAN 7:68>1	516888	6682359	ja	00:44	nej	06:26
JH	ULVSHYTTAN 7:68>1	516810	6682348	ja	00:44	nej	06:25
FO	MORBERGET 1:3>1	512835	6683062	ja	00:58	nej	06:11
EA	ULVSHYTTAN 7:57>1	516878	6682427	ja	00:42	nej	05:55
LH	ULVSHYTTAN 7:56>1	516819	6682441	ja	00:41	nej	05:43
CG	MORBERGET 1:2>1	512426	6682576	ja	00:35	nej	05:39
FV	ULVSHYTTAN 7:17>19	517150	6682520	ja	00:38	nej	05:12
EB	ULVSHYTTAN 7:75>1	517020	6682569	ja	00:38	nej	05:08
IZ	MORBERGET 1:1>1	512701	6682888	ja	00:46	nej	05:03
CR	ULVSHYTTAN 7:66>1	517200	6682555	ja	00:38	nej	04:57
FP	MORBERGET 1:1>3	513021	6683428	ja	00:35	nej	04:07
LE	ULVSHYTTAN 7:67>1	516424	6682648	ja	00:33	nej	03:42
AC	ULVSHYTTAN 7:71>1	518018	6682403	ja	00:31	nej	03:30
CS	ULVSHYTTAN 7:70>1	518056	6682390	ja	00:31	nej	03:24