

Most of the equivalent widths are measured with the help of program ares.

When "niji" is noted in the column of rem, they are measured on the

chart displayed by the program Nijiboshi (Hasui 1990)

HD 10361 is a high proper motion star. Measured on UVES spectra. 2016.

HD10361 (K0V, p Er i B)				EW by ares+nijiboshi			
				mÅ	log abund	rem	rem
11.00	4751.822	2.104	-2.090	19.0	6.121		
11.00	6154.226	2.102	-1.560	54.5	6.195		
				average =	6.158		
12.00	4702.991	4.346	-0.666	520.0	7.290		
12.00	5711.088	4.346	-1.833	150.0	7.716		
12.00	6318.717	5.108	-1.730	55.6	7.296		
12.00	6319.237	5.108	-1.950	35.6	7.220		
				average =	7.381		
13.00	6696.023	3.143	-1.347	53.6	6.188		
13.00	6698.673	3.143	-1.647	32.6	6.146		
				average =	6.167		
14.00	4947.607	5.082	-1.760	14.2	6.880		
14.00	5684.484	4.954	-1.650	46.9	7.404		
14.00	6131.573	5.616	-1.556	15.4	7.260		
14.00	6131.852	5.616	-1.615	14.5	7.283		
14.00	6142.483	5.619	-1.295	20.0	7.133		
14.00	6145.016	5.616	-1.310	23.3	7.228		
14.00	6155.134	5.619	-0.754	58.2	7.206		
14.00	6237.319	5.614	-0.975	40.9	7.151		
14.00	6243.815	5.616	-1.242	29.1	7.283		
14.00	6244.466	5.616	-1.093	29.0	7.131		
14.00	6414.980	5.871	-1.035	29.6	7.310		
				average =	7.206		
20.00	5260.387	2.521	-1.719	48.7	6.185		
20.00	5512.980	2.933	-0.464	134.0	6.357		
20.00	5857.451	2.933	0.240	223.0	6.172		
20.00	5867.562	2.933	-1.570	40.4	6.282		
20.00	6102.723	1.879	-0.793	300.0	6.235		
20.00	6122.217	1.886	-0.316	460.0	6.162		
20.00	6156.023	2.521	-2.497	17.8	6.199		
20.00	6166.439	2.521	-1.142	107.0	6.291		
20.00	6169.042	2.523	-0.797	150.0	6.310		
20.00	6439.075	2.526	0.390	290.0	6.158		
20.00	6455.598	2.523	-1.340	83.0	6.409		
20.00	6471.662	2.526	-0.686	124.0	6.316		

20.00	6493.781	2.521	-0.109	212.0	6.337		
20.00	6499.650	2.523	-0.818	117.0	6.368		
20.00	6508.850	2.526	-2.162	19.9	5.940		
				average =	6.248		
21.00	4743.830	1.448	0.422	30.1	3.080		
21.00	5081.574	1.448	0.469	28.0	2.967		
21.00	5356.091	1.865	0.168	10.0	3.115		
21.00	5520.497	1.865	0.293	17.2	3.268		
21.00	5686.847	1.440	0.376	34.1	3.151		
21.00	6210.658	0.000	-1.529	26.1	3.177		
21.00	6239.762	0.000	-1.780	14.3	3.076		
				average =	3.119		
21.01	5239.813	1.455	-0.765	32.4	2.884		
21.01	5526.790	1.768	0.024	57.6	3.004		
21.01	5684.202	1.507	-1.074	26.8	3.088		
21.01	6245.637	1.507	-1.030	24.1	2.944		
21.01	6279.753	1.500	-1.265	20.7	3.072		
				average =	2.998		
22.00	4518.022	0.826	-0.325	111.0	4.860		
22.00	4548.763	0.826	-0.354	99.0	4.738		
22.00	4562.628	0.021	-2.656	44.0	5.023		
22.00	4617.269	1.749	0.389	90.0	4.876		
22.00	4681.909	0.048	-1.071	115.0	4.872		
22.00	4693.665	0.021	-2.710	44.0	5.056		
22.00	4715.302	0.048	-2.680	40.0	4.950		
22.00	4758.118	2.249	0.425	65.0	4.883		
22.00	4759.270	2.256	0.514	69.0	4.885		
22.00	4820.411	1.502	-0.441	70.0	5.020		
22.00	4856.010	2.256	0.440	70.0	4.982		
22.00	4909.098	0.826	-2.401	20.0	5.015		
22.00	4926.148	0.818	-2.170	31.0	5.067		
22.00	4937.726	0.813	-2.254	34.5	5.239		
22.00	4941.571	2.160	-1.010	13.2	4.876		
22.00	4964.717	1.969	-0.820	26.9	4.858		
22.00	4981.731	0.848	0.504	240.0	4.824		
22.00	4989.130	1.981	-0.160	61.3	4.888		
22.00	4991.065	0.836	0.380	204.0	4.777		
22.00	4997.096	0.000	-2.118	69.5	5.029		
22.00	4999.503	0.826	0.250	200.0	4.874		
22.00	5009.645	0.021	-2.259	70.0	5.203		
22.00	5016.161	0.848	-0.574	103.0	4.957		
22.00	5024.844	0.818	-0.602	103.0	4.958		
22.00	5043.584	0.836	-1.733	47.0	5.009		

22.00	5109.431	1.443	-1.435	21.0	4.756		
22.00	5147.478	0.000	-2.012	78.0	5.082		
22.00	5152.184	0.021	-2.024	76.0	5.076		
22.00	5219.702	0.021	-2.292	70.9	5.216		
22.00	5223.620	2.092	-0.490	35.0	4.819		
22.00	5230.968	2.239	-1.108	7.2	4.733		
22.00	5247.289	2.103	-0.640	29.0	4.851		
22.00	5250.921	0.826	-2.363	22.0	5.005		
22.00	5259.973	2.738	-0.180	20.0	4.863		
22.00	5288.794	2.427	-1.077	11.1	5.123		
22.00	5295.775	1.067	-1.633	42.3	5.042		
22.00	5313.236	1.067	-2.658	10.7	5.164		
22.00	5351.068	2.778	0.010	21.5	4.752		
22.00	5366.639	0.818	-2.583	18.0	5.079		
22.00	5384.630	0.826	-2.910	10.6	5.130		
22.00	5426.250	0.021	-3.006	36.7	5.078		
22.00	5453.643	1.443	-1.610	23.0	4.956		
22.00	5460.499	0.048	-2.804	43.5	5.063		
22.00	5465.772	1.067	-3.117	6.6	5.373		
22.00	5471.193	1.443	-1.400	30.3	4.920		
22.00	5474.223	1.460	-1.230	30.8	4.794		
22.00	5481.860	1.430	-1.295	38.0	5.006		
22.00	5490.148	1.460	-0.933	54.0	4.993		
22.00	5490.846	0.048	-3.350	19.0	4.990		
22.00	5530.440	3.351	-0.302	12.0	5.381		
22.00	5648.565	2.495	-0.260	28.7	4.856		
22.00	5662.150	2.318	0.010	47.0	4.758		
22.00	5679.916	2.472	-0.570	16.1	4.812		
22.00	5689.460	2.297	-0.360	32.3	4.821		
22.00	5702.656	2.292	-0.590	21.9	4.805		
22.00	5713.880	2.289	-1.127	12.5	5.050		
22.00	5716.445	2.297	-0.720	18.9	4.857		
22.00	5720.436	2.292	-0.900	13.5	4.852		
22.00	5739.469	2.249	-0.600	23.7	4.842		
22.00	5880.269	1.053	-2.045	27.5	5.035		
22.00	5903.315	1.067	-2.145	22.6	5.021		
22.00	5918.535	1.067	-1.460	42.2	4.807		
22.00	5922.109	1.046	-1.466	53.9	5.033		
22.00	5937.809	1.067	-1.890	29.9	4.950		
22.00	5940.649	0.048	-3.822	7.3	4.929		
22.00	5941.751	1.053	-1.510	56.0	5.128		
22.00	5944.660	0.000	-4.059	6.9	5.084		
22.00	5953.160	1.887	-0.329	62.0	5.052		
22.00	5965.828	1.879	-0.409	59.0	5.054		
22.00	5978.541	1.873	-0.496	52.3	4.982		
22.00	6031.670	0.048	-4.199	5.0	5.121		
22.00	6064.626	1.046	-1.944	33.2	5.051		

22.00	6091.171	2.267	-0.423	36.1	4.960		
22.00	6092.792	1.887	-1.379	15.8	4.953		
22.00	6098.658	3.062	-0.010	14.3	4.819		
22.00	6126.216	1.067	-1.425	57.2	5.094		
22.00	6220.474	2.677	-0.140	23.9	4.794		
22.00	6258.102	1.443	-0.355	90.0	4.961		
22.00	6266.011	1.749	-2.501	6.0	5.429		
22.00	6273.388	0.021	-4.248	3.8	4.995		
22.00	6312.236	1.460	-1.552	28.7	4.990		
22.00	6325.164	0.021	-3.972	9.5	5.150		
22.00	6336.099	1.443	-1.743	21.7	4.990		
22.00	6508.120	1.430	-2.146	11.3	5.011		
22.00	6554.223	1.443	-1.218	48.1	5.063		
22.00	6556.062	1.460	-1.074	53.5	5.055		
22.00	6599.105	0.900	-2.085	37.4	5.073		
22.00	6668.376	3.583	0.204	8.2	4.882		
				average =	4.978		
22.01	4708.662	1.237	-2.340	36.6	4.774		
22.01	5336.771	1.582	-1.590	54.2	4.789		
				average =	4.782		
23.00	4189.836	0.287	-1.501	47.0	4.333		
23.00	4379.230	0.301	0.580	179.0	4.004		
23.00	4392.065	0.267	-1.932	66.0	5.203		
23.00	4419.930	0.275	-1.340	35.0	3.795		
23.00	4437.834	0.287	-0.660	84.0	4.314		
23.00	4452.006	1.868	0.640	62.0	4.280		
23.00	4468.000	1.849	-0.170	15.0	3.801		
23.00	4560.718	1.950	0.340	27.0	3.775		
23.00	4577.174	0.000	-1.048	78.0	4.292		
23.00	4586.374	0.040	-0.790	103.0	4.494		
23.00	4594.124	0.069	-0.670	123.0	4.627		
23.00	4619.780	0.040	-1.800	38.0	4.044		
23.00	4624.407	1.051	-1.220	18.0	4.054		
23.00	4635.177	0.069	-1.920	31.0	4.012		
23.00	4710.556	2.130	-0.120	9.4	3.792	13.8	
23.00	4832.426	0.000	-1.505	49.0	3.959		
23.00	4875.493	0.040	-0.810	100.0	4.409		
23.00	4881.556	0.069	-0.660	125.0	4.574		
23.00	5584.492	1.064	-1.202	15.9	3.892	19	
23.00	5592.972	0.040	-3.230	4.8	4.156		
23.00	5604.931	1.043	-1.280	13.0	3.836		
23.00	5626.018	1.043	-1.240	18.4	3.985	23.4	hfs, round
23.00	5627.633	1.081	-0.363	64.0	4.227		
23.00	5646.108	1.051	-1.190	20.5	4.007	22	
23.00	5657.435	1.064	-1.020	27.0	4.026	28	

23.00	5668.361	1.081	-1.030	25.8	4.023	26.4	
23.00	5670.853	1.081	-0.420	65.0	4.324		no wing
23.00	5698.520	1.064	-0.111	98.0	4.533		
23.00	5703.575	1.051	-0.211	72.0	4.196		
23.00	5727.048	1.081	-0.012	95.0	4.407		no wing
23.00	5727.652	1.051	-0.870	38.7	4.132		
23.00	5731.241	1.064	-0.730	52.5	4.331		
23.00	5737.059	1.064	-0.740	45.1	4.160		
23.00	5743.447	1.081	-0.970	29.4	4.048		
23.00	5748.896	1.893	-0.850	5.4	3.921		
23.00	6002.295	1.218	-1.780	4.1	3.946		
23.00	6039.722	1.064	-0.650	40.3	3.937		
23.00	6058.139	1.043	-1.374	14.3	3.950		
23.00	6081.441	1.051	-0.579	47.7	4.013		
23.00	6090.214	1.081	-0.062	73.0	4.054		no wing
23.00	6111.645	1.043	-0.715	46.5	4.111		
23.00	6119.523	1.064	-0.320	55.8	3.943		
23.00	6135.361	1.051	-0.746	39.0	3.983		
23.00	6150.157	0.301	-1.780	46.5	4.344		
23.00	6189.364	0.275	-2.970	6.8	4.288		
23.00	6199.197	0.287	-1.300	64.0	4.244		
23.00	6213.866	0.301	-2.050	31.6	4.264		
23.00	6224.529	0.287	-2.010	35.0	4.286		
23.00	6233.164	0.275	-2.070	31.0	4.237		
23.00	6240.140	0.267	-2.590	15.0	4.295		
23.00	6242.829	0.262	-1.550	51.7	4.178		
23.00	6243.105	0.301	-0.980	93.0	4.491		
23.00	6251.827	0.287	-1.340	65.4	4.309		
23.00	6256.887	0.275	-2.010	25.7	4.044		
23.00	6266.307	0.275	-2.290	21.3	4.204		
23.00	6274.649	0.267	-1.670	42.7	4.095		
23.00	6285.150	0.275	-1.510	49.4	4.096		
23.00	6292.825	0.287	-1.470	51.0	4.106		
23.00	6296.487	0.301	-1.590	46.5	4.139		
23.00	6326.840	1.868	-0.810	8.8	4.054	9.7 !!	
23.00	6349.475	1.853	-0.890	5.7	3.906	ok	
23.00	6531.415	1.218	-0.840	28.7	4.001	30 !!	
23.00	6543.500	1.195	-1.660	8.7	4.124	8 !!	
23.00	6605.967	1.195	-1.320	13.7	4.011	14.5 !!	
				average =	4.150		
24.00	4700.611	2.710	-1.255	27.5	5.433		
24.00	4708.013	3.168	0.110	76.0	5.430		
24.00	4718.420	3.195	0.090	92.0	5.681		
24.00	4730.710	3.079	-0.192	60.1	5.564		
24.00	4801.025	3.122	-0.131	60.0	5.520		
24.00	4953.717	3.122	-1.550	10.5	5.579		

24.00	5091.884	1.004	-3.039	38.6	5.567		
24.00	5214.132	3.369	-0.740	27.1	5.590		
24.00	5220.892	3.385	-1.034	20.1	5.690		
24.00	5238.961	2.709	-1.305	31.3	5.517		
24.00	5247.565	0.961	-1.640	130.0	5.634		
24.00	5287.178	3.438	-0.907	19.2	5.565		
24.00	5293.376	3.375	-1.360	8.9	5.561		
24.00	5296.691	0.983	-1.400	155.0	5.610		
24.00	5300.745	0.983	-2.120	95.0	5.738		
24.00	5304.180	3.464	-0.692	23.5	5.493		
24.00	5312.856	3.449	-0.562	30.2	5.507		
24.00	5318.771	3.438	-0.688	27.0	5.548		
24.00	5345.796	1.004	-0.980	225.0	5.586		
24.00	5348.315	1.004	-1.290	165.0	5.582		
24.00	5628.643	3.422	-0.772	23.9	5.556		
24.00	5694.740	3.857	-0.310	28.0	5.613		
24.00	5719.816	3.013	-1.660	10.7	5.533		
24.00	5729.206	3.845	-1.058	5.4	5.506		
24.00	5838.669	3.011	-1.780	10.2	5.621		
24.00	5844.595	3.013	-1.760	10.7	5.628		
24.00	5982.874	3.168	-2.021	6.5	5.805	6.5-8.5	
24.00	6330.091	0.941	-2.920	59.4	5.701		58
24.00	6501.185	0.983	-4.295	13.1	5.962		14.4
24.00	6529.178	3.892	-1.300	3.5	5.565		3.5
24.00	6537.921	1.004	-4.069	13.8	5.786		14.4
24.00	6630.011	1.030	-3.560	24.9	5.640		25
24.00	6661.075	4.193	-0.190	18.0	5.556		19
24.00	6669.281	4.175	-0.560	9.3	5.570		9
				average =	5.601		
24.01	5313.563	4.074	-1.779	18.1	5.793		
				average =	5.793		
25.00	4739.087	2.941	-0.490	74.5	5.414		
25.00	4761.512	2.953	-0.138	96.0	5.407		
25.00	4762.367	2.888	0.425	140.0	5.224		
25.00	5004.892	2.920	-1.630	22.6	5.256		
25.00	5117.934	3.134	-1.140	34.3	5.288		
25.00	5377.637	3.844	-0.109	55.6	5.525		
25.00	5399.499	3.853	-0.287	53.5	5.664		
25.00	5420.355	2.143	-1.462	129.0	5.969		hfs heavy
25.00	5432.546	0.000	-3.795	117.0	6.119		
25.00	5470.637	2.164	-1.702	110.0	6.211		hfs
25.00	5516.774	2.178	-1.847	88.0	5.932		hfs
25.00	5537.760	2.187	-2.017	77.0	6.067		hfs

25.00	6605.504	4.435	-1.248	9.8	5.952		
				average =	5.694		
Fe I	HD 10361			EW	HD10361	niji	
26.00	4325.762	1.608	0.006	1850.0	7.090	niji	
26.00	4383.545	1.485	0.200	2830.0	7.149	niji	
26.00	4404.750	1.557	-0.142	1810.0	7.163	niji	
26.00	4415.122	1.608	-0.615	1050.0	7.204	niji	
26.00	4445.471	0.087	-5.441	63.3	7.550		
26.00	4602.001	1.608	-3.154	90.0	7.327	niji	
26.00	4602.941	1.485	-2.209	210.0	7.296	niji	
26.00	4716.837	3.251	-3.410	9.8	7.324		
26.00	4735.843	4.076	-1.325	51.7	7.400		
26.00	4813.113	3.274	-2.890	28.9	7.474		
26.00	4848.883	2.279	-3.137	55.4	7.267		
26.00	4855.673	3.368	-1.772	86.0	7.644	niji	
26.00	4859.741	2.875	-0.764	280.0	7.127	niji	
26.00	4869.463	3.546	-2.520	34.2	7.553		
26.00	4875.877	3.332	-2.020	76.0	7.445	niji	
26.00	4885.430	3.882	-0.971	80.0	7.263	niji	hfs
26.00	4907.732	3.430	-1.840	77.1	7.359		
26.00	4908.599	2.484	-4.160	10.9	7.274		
26.00	4909.383	3.929	-1.231	61.6	7.246		
26.00	4910.017	3.397	-1.408	103.0	7.506	niji	
26.00	4910.325	4.191	-0.459	84.0	7.082	niji	
26.00	4910.565	4.218	-0.433	79.0	7.018	niji	
26.00	4911.779	3.928	-1.790	50.4	7.454		
26.00	4917.230	4.191	-1.180	70.1	7.381		
26.00	4950.106	3.417	-1.670	103.0	7.487	niji	
26.00	4962.572	4.178	-1.182	59.7	7.388		:
26.00	4966.088	3.332	-0.871	187.0	7.220	niji	
26.00	4970.646	3.960	-1.873	37.3	7.377		
26.00	4985.253	3.928	-0.560	140.0	7.552	niji	
26.00	4988.950	4.154	-0.890	98.0	7.409	niji	
26.00	5001.863	3.881	0.010	203.0	7.023	niji	
26.00	5004.044	4.209	-1.400	55.3	7.383		
26.00	5016.478	4.256	-1.690	34.9	7.355		
26.00	5025.303	4.284	-2.040	23.4	7.479		
26.00	5058.496	3.642	-2.830	23.4	7.639		
26.00	5068.766	2.940	-1.042	200.0	7.062	niji	
26.00	5088.153	4.154	-1.780	54.2	7.715		
26.00	5096.998	4.283	-0.268	113.0	7.304	niji	
26.00	5115.777	3.573	-2.740	29.7	7.666		
26.00	5141.739	2.424	-1.964	125.0	7.223	niji	
26.00	5197.936	4.301	-1.640	41.4	7.465		
26.00	5217.389	3.211	-1.070	173.0	7.183	niji	
26.00	5221.036	4.294	-1.580	22.3	7.041		

26.00	5225.526	0.110	-4.789	105.0	7.536	niji	
26.00	5232.940	2.940	-0.058	640.0	7.136	niji	
26.00	5236.202	4.186	-1.497	34.3	7.184		
26.00	5242.491	3.634	-0.967	97.3	7.230		
26.00	5247.050	0.087	-4.946	93.0	7.481	niji	
26.00	5250.209	0.121	-4.938	97.0	7.574	niji	
26.00	5250.646	2.198	-2.181	142.0	7.344	niji	
26.00	5253.021	2.279	-3.940	34.2	7.520		
26.00	5253.462	3.283	-1.573	97.0	7.155	niji	
26.00	5262.881	3.251	-2.660	26.1	7.124		
26.00	5285.127	4.434	-1.640	30.1	7.377		
26.00	5294.547	3.640	-2.860	18.5	7.500		
26.00	5295.312	4.415	-1.690	31.0	7.428		
26.00	5307.361	1.608	-2.987	110.0	7.310	niji	
26.00	5321.108	4.434	-0.951	47.4	7.013		
26.00	5322.041	2.279	-2.803	74.4	7.267		
26.00	5324.179	3.211	-0.103	550.0	7.288	niji	
26.00	5326.142	3.573	-2.071	38.0	7.207		
26.00	5332.900	1.557	-2.777	117.0	7.123	niji	
26.00	5358.113	3.301	-3.635	14.3	7.768		
26.00	5364.871	4.445	0.228	183.0	7.121	niji	
26.00	5365.399	3.573	-1.020	77.5	7.086		
26.00	5367.466	4.415	0.443	230.0	7.093	niji	
26.00	5379.574	3.694	-1.514	66.7	7.349		
26.00	5386.333	4.154	-1.770	37.7	7.364		
26.00	5389.479	4.415	-0.410	103.0	7.185	niji	
26.00	5393.167	3.241	-0.715	273.0	7.284	niji	
26.00	5405.775	0.990	-1.844	585.0	7.220	niji	
26.00	5415.199	4.386	0.642	280.0	7.071	niji	
26.00	5417.033	4.415	-1.680	45.6	7.698		
26.00	5421.850	4.549	-1.780	15.0	7.232		
26.00	5422.150	4.320	-2.260	10.7	7.305		
26.00	5434.524	1.011	-2.122	430.0	7.238	niji	
26.00	5436.295	4.386	-1.540	42.1	7.471		
26.00	5436.588	2.279	-2.964	75.8	7.417		
26.00	5464.280	4.143	-1.402	38.2	7.140		
26.00	5473.900	4.154	-0.760	102.0	7.331	niji	
26.00	5483.099	4.154	-1.407	50.5	7.267		
26.00	5491.832	4.186	-2.188	13.8	7.245		
26.00	5501.465	0.958	-3.047	186.0	7.292	niji	
26.00	5524.250	4.154	-2.830	7.5	7.520		
26.00	5536.580	2.831	-3.810	11.4	7.298		
26.00	5539.280	3.642	-2.660	21.2	7.374		
26.00	5539.817	4.294	-2.530	8.4	7.435		
26.00	5543.936	4.217	-1.140	69.8	7.371		
26.00	5549.949	3.694	-2.910	13.9	7.435		
26.00	5552.692	4.955	-1.990	7.8	7.549		

26.00	5560.211	4.434	-1.190	54.3	7.365		
26.00	5569.618	3.417	-0.486	270.0	7.171	niji	
26.00	5579.340	4.231	-2.400	11.8	7.395		
26.00	5586.756	3.368	-0.120	420.0	7.180	niji	
26.00	5592.645	4.294	-2.004	9.6	6.981		
26.00	5609.961	3.640	-3.240	6.8	7.339		
26.00	5611.356	3.635	-2.990	12.4	7.386		
26.00	5618.632	4.209	-1.276	51.3	7.201		
26.00	5621.603	5.106	-1.787	8.2	7.524		
26.00	5633.946	4.991	-0.270	70.4	7.344		
26.00	5636.696	3.640	-2.610	23.9	7.396		
26.00	5638.262	4.220	-0.870	100.0	7.476	niji	
26.00	5639.551	0.000	-7.455	2.8	7.077		
26.00	5640.307	4.638	-1.374	16.2	6.970		
26.00	5649.987	5.099	-0.920	34.7	7.466		
26.00	5651.469	4.473	-2.000	20.9	7.552		
26.00	5652.318	4.260	-1.950	27.4	7.448		
26.00	5653.865	4.386	-1.640	39.4	7.506		
26.00	5655.176	5.064	-0.640	52.0	7.517		
26.00	5661.345	4.284	-1.736	25.9	7.222		
26.00	5677.684	4.103	-2.700	8.4	7.386		
26.00	5686.530	4.548	-0.446	75.8	7.254		
26.00	5698.020	3.640	-2.680	20.5	7.362		
26.00	5704.733	5.033	-1.409	18.6	7.491		
26.00	5709.932	4.256	-2.340	10.3	7.285		
26.00	5712.131	3.417	-1.990	61.2	7.205		
26.00	5731.762	4.256	-1.300	63.5	7.470		
26.00	5732.296	4.991	-1.560	13.6	7.431		
26.00	5741.848	4.256	-1.854	37.0	7.553		
26.00	5742.960	4.178	-2.510	13.9	7.524		
26.00	5752.032	4.549	-1.177	57.1	7.661		
26.00	5753.122	4.260	-0.688	95.0	7.271	niji	
26.00	5754.403	3.642	-2.700	18.3	7.314		
26.00	5838.372	3.943	-2.340	23.1	7.370		
26.00	5849.683	3.694	-2.990	9.6	7.307		
26.00	5853.148	1.485	-5.280	18.1	7.506		
26.00	5855.076	4.608	-1.478	22.8	7.209		
26.00	5856.088	4.294	-1.328	36.2	7.110		
26.00	5859.586	4.549	-0.419	83.0	7.289	niji	
26.00	5861.109	4.283	-2.450	10.3	7.418		
26.00	5862.357	4.549	-0.127	110.0	7.339	niji	
26.00	5880.027	4.558	-1.940	13.5	7.336		
26.00	5902.473	4.593	-1.810	13.9	7.293		
26.00	5905.671	4.652	-0.730	61.1	7.203		
26.00	5907.863	3.695	-3.512	9.2	7.810		
26.00	5916.247	2.453	-2.994	69.6	7.481		
26.00	5929.677	4.548	-1.410	40.0	7.448		

26.00	5930.180	4.652	-0.230	115.0	7.306	niji	
26.00	5934.655	3.928	-1.170	112.1	7.471		
26.00	5940.991	4.178	-2.150	26.9	7.538		
26.00	5943.578	2.198	-4.178	18.7	7.216		
26.00	5952.718	3.984	-1.440	72.4	7.362		
26.00	5956.694	0.859	-4.605	75.0	7.518	niji	
26.00	5976.777	3.943	-1.243	74.5	7.399		
26.00	5984.815	4.733	-0.196	107.5	7.501		
26.00	6003.011	3.881	-1.120	115.0	7.415	niji	
26.00	6007.960	4.652	-0.597	64.0	7.295		
26.00	6008.556	3.884	-0.986	122.0	7.644	niji	
26.00	6012.210	2.223	-4.038	32.3	7.465		
26.00	6015.244	2.223	-4.680	8.5	7.316		
26.00	6024.058	4.548	-0.120	148.0	7.387	niji	
26.00	6027.051	4.076	-1.089	67.7	7.398		
26.00	6034.035	4.312	-2.420	9.5	7.377		
26.00	6065.482	2.608	-1.530	180.0	7.259	niji	
26.00	6078.491	4.796	-0.321	92.0	7.518	niji	
26.00	6079.008	4.652	-1.120	48.3	7.399		
26.00	6082.710	2.223	-3.573	48.9	7.383		
26.00	6093.643	4.607	-1.500	31.1	7.418		
26.00	6094.373	4.652	-1.940	20.1	7.636		
26.00	6097.081	2.176	-4.652	5.1	6.986		
26.00	6098.244	4.558	-1.880	17.2	7.400		
26.00	6120.246	0.915	-5.950	13.3	7.340		
26.00	6127.906	4.143	-1.399	51.8	7.434		
26.00	6136.615	2.453	-1.400	230.0	7.225	niji	
26.00	6145.410	3.368	-3.700	4.5	7.280	niji	
26.00	6151.617	2.176	-3.299	65.1	7.404		
26.00	6157.728	4.076	-1.260	65.7	7.525		
26.00	6165.360	4.143	-1.474	45.8	7.361		
26.00	6173.334	2.223	-2.880	84.6	7.375		
26.00	6187.398	2.832	-4.148	6.5	7.319		
26.00	6187.989	3.943	-1.720	57.2	7.385		
26.00	6199.506	2.559	-4.430	7.6	7.372		
26.00	6200.313	2.608	-2.437	97.0	7.473	niji	
26.00	6220.780	3.881	-2.460	25.4	7.470		
26.00	6221.672	0.859	-6.613	5.0	7.447		
26.00	6226.734	3.883	-2.220	34.6	7.432		
26.00	6229.226	2.845	-2.805	52.7	7.351		
26.00	6232.640	3.654	-1.223	115.0	7.541	niji	
26.00	6240.646	2.223	-3.233	63.6	7.353		
26.00	6246.318	3.602	-0.733	190.0	7.230	niji	
26.00	6252.555	2.404	-1.687	185.0	7.238	niji	
26.00	6265.132	2.176	-2.550	120.0	7.426	niji	
26.00	6270.223	2.858	-2.464	63.2	7.231		
26.00	6271.278	3.332	-2.703	31.2	7.255		

26.00	6301.500	3.654	-0.718	190.0	7.553	niji	
26.00	6302.494	3.686	-0.973	110.0	7.268	niji	
26.00	6322.685	2.588	-2.426	98.0	7.444	niji	
26.00	6335.330	2.198	-2.177	135.0	7.202	niji	
26.00	6336.823	3.686	-0.856	162.0	7.271	niji	
26.00	6338.876	4.795	-1.060	43.6	7.390		
26.00	6355.028	2.845	-2.350	78.7	7.370		
26.00	6364.364	4.795	-1.430	28.4	7.471		
26.00	6380.743	4.186	-1.376	53.6	7.482		
26.00	6392.538	2.279	-4.030	28.7	7.400		
26.00	6393.600	2.433	-1.432	225.0	7.187	niji	
26.00	6408.018	3.686	-1.018	130.0	7.485	niji	
26.00	6411.648	3.654	-0.595	220.0	7.268	niji	
26.00	6421.350	2.279	-2.027	148.0	7.205	niji	
26.00	6475.624	2.559	-2.942	69.3	7.487		
26.00	6481.870	2.279	-2.984	80.0	7.410		
26.00	6494.980	2.404	-1.273	300.0	7.270	niji	
26.00	6496.466	4.795	-0.570	64.8	7.228		
26.00	6498.938	0.958	-4.699	70.1	7.546		
26.00	6518.366	2.831	-2.460	70.4	7.314		
26.00	6533.928	4.558	-1.460	41.1	7.491		
26.00	6538.494	4.143	-2.807	6.3	7.379	niji	
26.00	6569.214	4.733	-0.420	97.8	7.434		
26.00	6574.227	0.990	-5.023	53.1	7.530		
26.00	6581.209	1.485	-4.679	33.7	7.275		
26.00	6591.313	4.593	-2.070	10.7	7.385		
26.00	6593.870	2.433	-2.422	114.0	7.442	niji	
26.00	6608.025	2.279	-4.030	30.0	7.419		
26.00	6609.110	2.559	-2.692	79.0	7.386	niji	
26.00	6627.544	4.548	-1.680	29.7	7.492		
26.00	6633.412	4.835	-1.490	31.3	7.627		
26.00	6633.749	4.558	-0.799	74.4	7.335		
26.00	6634.106	4.795	-1.430	33.6	7.571		
26.00	6646.931	2.608	-3.990	19.2	7.452		
26.00	6648.080	1.011	-5.424	18.6	7.077		
26.00	6653.851	4.154	-2.520	12.2	7.399		
26.00	6663.441	2.424	-2.479	93.4	7.240		
26.00	6667.418	2.453	-4.400	10.0	7.336		

26.00	6677.985	2.692	-1.418	210.0	7.368	niji	
26.00	6703.566	2.758	-3.160	49.0	7.506		
26.00	6710.318	1.485	-4.880	31.1	7.403		
26.00	6725.356	4.103	-2.300	20.7	7.402		
26.00	6726.666	4.607	-1.133	50.2	7.486		
26.00	6732.065	4.584	-2.210	7.7	7.343		
26.00	6733.150	4.638	-1.580	27.4	7.432		
				average =	7.358		
26.01	5264.812	3.230	-3.133	18.1	7.181		
26.01	6149.258	3.889	-2.841	12.8	7.341		
26.01	6247.557	3.892	-2.435	20.8	7.268		
26.01	6456.383	3.903	-2.185	30.6	7.341		
				average =	7.283		
27.00	4813.467	3.216	0.050	56.6	5.160		
27.00	4966.581	0.432	-4.117	10.3	4.883		
27.00	5247.911	1.785	-2.070	37.2	5.159		
27.00	5342.695	4.021	0.690	36.2	4.834		
27.00	5352.045	3.576	0.060	29.2	4.712		
27.00	5359.192	4.149	0.340	9.6	4.436		
27.00	5483.344	1.710	-1.490	81.0	5.447		
27.00	5523.291	2.328	-1.566	15.1	4.559		
27.00	5530.774	1.710	-2.060	32.9	4.941		
27.00	5590.720	2.042	-1.870	24.5	4.903		
27.00	5647.234	2.280	-1.560	23.5	4.807		
27.00	6093.143	1.740	-2.440	18.0	4.901		
27.00	6188.996	1.710	-2.450	23.0	5.024		
27.00	6282.638	1.740	-2.160	34.7	5.067		
				average =	4.917		
28.00	4701.346	3.480	-1.220	39.8	6.026		
28.00	4701.530	4.088	-0.390	43.2	5.939		
28.00	4731.793	3.833	-0.850	40.1	6.039		
28.00	4806.984	3.679	-0.640	61.9	6.090		
28.00	4852.547	3.542	-1.070	43.6	6.030		
28.00	4855.406	3.542	0.000	96.0	5.749		

28.00	4912.020	3.768	-0.800	49.8	6.113		
28.00	4913.968	3.743	-0.630	47.9	5.877		
28.00	4935.831	3.941	-0.350	56.9	5.943		
28.00	4945.443	3.796	-0.820	44.9	6.054		
28.00	4965.166	3.796	-0.753	35.0	5.928		
28.00	5003.734	1.676	-2.800	49.9	6.064		
28.00	5035.357	3.635	0.290	135.7	5.872		
28.00	5042.182	3.658	-0.580	60.5	5.941		
28.00	5084.089	3.679	0.030	92.9	5.747		
28.00	5099.927	3.679	-0.100	75.0	5.688		
28.00	5155.762	3.898	0.011	86.0	5.940		
28.00	5468.100	3.847	-1.610	13.0	6.086		
28.00	5578.711	1.676	-2.640	68.0	6.207		
28.00	5625.312	4.089	-0.700	34.8	6.013		
28.00	5641.880	4.105	-1.070	20.2	6.050		
28.00	5669.935	4.266	-0.964	13.1	5.908		
28.00	5682.198	4.105	-0.470	43.0	5.956		
28.00	5694.977	4.089	-0.610	39.7	6.022		
28.00	5748.346	1.676	-3.260	37.5	6.114		
28.00	6007.306	1.676	-3.330	32.0	6.045		
28.00	6053.679	4.236	-1.070	16.5	6.063		
28.00	6086.276	4.266	-0.530	38.2	6.073		
28.00	6108.107	1.676	-2.450	75.8	6.113		
28.00	6111.066	4.088	-0.870	30.2	6.052		
28.00	6130.130	4.266	-0.960	18.3	6.038		
28.00	6175.360	4.089	-0.559	44.3	6.032		
28.00	6176.807	4.088	-0.260	59.7	5.982		
28.00	6177.236	1.826	-3.500	20.9	6.065		
28.00	6204.600	4.088	-1.100	19.7	6.037		
28.00	6223.981	4.105	-0.910	24.3	5.980		
28.00	6314.653	1.935	-1.770	80.7	5.757		
28.00	6322.164	4.154	-1.170	14.9	6.012		
28.00	6370.341	3.542	-1.940	12.3	6.031		
28.00	6378.247	4.154	-0.830	29.0	6.055		
28.00	6414.581	4.154	-1.180	10.5	5.844		
28.00	6532.871	1.935	-3.390	22.3	6.089		
28.00	6598.593	4.236	-0.980	22.6	6.130		

28.00	6635.118	4.419	-0.820	19.2	6.071		
28.00	6643.629	1.676	-2.300	110.0	6.387		
				average =	6.006		
30.00	4810.528	4.078	-0.137	75.2	4.694		
				average =	4.694		
38.00	4607.327	0.000	-0.570	76.0	3.730		
				average =	3.730		
39.00	4505.944	1.374	0.120	4.3	2.297		
39.00	4643.688	0.000	-0.450	28.3	2.431		
39.00	6435.004	0.066	-0.820	8.7	1.961		
				average =	2.230		
39.01	4124.907	0.409	-1.500	16.7	2.012		
39.01	4900.120	1.033	-0.090	74.2	2.793		
				average =	2.403		
40.00	4507.113	0.543	-0.430	10.3	2.326		
40.00	4553.022	0.520	-1.220	12.8	3.207		
40.00	4739.480	0.651	0.230	24.5	2.319		
40.00	4815.621	0.604	-0.030	16.4	2.233		
40.00	5955.366	0.000	-2.330	2.7	2.825		
40.00	6127.475	0.154	-1.060	12.0	2.453		
40.00	6134.585	0.000	-1.280	10.3	2.412		
40.00	6140.535	0.519	-1.410	2.7	2.490		
40.00	6143.252	0.071	-1.100	10.6	2.328		
				average =	2.510		
40.01	4208.977	0.713	-0.510	48.5	2.929		
				average =	2.929		
41.00	4168.120	0.000	-0.320	25.2	2.191		
41.00	4573.075	0.267	-0.560	3.2	1.500		
41.00	4606.756	0.348	-0.370	6.7	1.753		
				average =	1.815		

44.00	4584.443	1.002	-0.550	5.0	1.879		
				average =	1.879		
49.00	4511.307	0.274	-0.213	8.1	1.222		
				average =	1.222		
56.01	6496.897	0.604	-0.377	99.3	2.075		
				average =	2.075		
57.01	4322.500	0.173	-0.930	16.7	1.477		
57.01	4558.457	0.321	-0.970	6.4	1.091		
57.01	4662.498	0.000	-1.240	7.2	1.063		
				average =	1.210		
58.01	4083.222	0.701	0.270	22.4	1.891		
58.01	4137.645	0.516	0.440	35.5	2.030		
58.01	4486.909	0.295	-0.260	27.6	2.134		
58.01	4562.359	0.478	0.230	25.5	1.751		
				average =	1.943		
60.01	4021.327	0.321	-0.100	17.0	1.363		
60.01	4023.000	0.559	0.040	17.0	1.480		
60.01	4358.160	0.321	-0.160	48.4	2.528		
60.01	4446.380	0.205	-0.350	15.8	1.385		
60.01	4462.979	0.559	0.040	27.1	1.834		
60.01	4506.578	0.064	-1.040	20.4	2.106		
60.01	4943.899	0.205	-1.514	8.9	2.156		
60.01	4989.950	0.631	-0.624	25.8	2.469		
60.01	5255.502	0.205	-0.670	10.1	1.360		
60.01	5293.160	0.823	0.100	11.0	1.317		
60.01	5319.810	0.550	-0.140	13.0	1.355		
				average =	1.759		
62.01	4566.200	0.333	-0.590	10.8	1.304		
62.01	4577.688	0.248	-0.650	6.0	0.951		
				average =	1.128		

66.01	4449.700	0.000	-1.030	5.8	0.965		
				average =	0.965		
68.01	4009.156	0.000	-1.430	60.0	3.433		
				average =	3.433		