

Suppl. material S2: List of samples coming from the Blanchard Cave that have been analyzed for their carbon and nitrogen isotope compositions and reported along their sampling depth (mm), their nomenclature of sedimentary levels, and their mean, minimum and maximum geological ages calculated from the age-depth model explained in the text (see paragraph 3.2) with IntCal13. Isotopic ratios are also accompanied by the assumed CO₂ content (ppm) and carbon isotope ratios of the contemporaneous atmosphere, extracted from Ahn and Brook (2008) and Schmitt et al. (2012), respectively.

References:

- Ahn, J., Brook, E.J., 2008. Atmospheric CO₂ and climate on millennial time scales during the last glacial period. *Science* 322, 83-85.
- Schmitt, J., Schneider, R., Elsig, J., Leuenberger, D., Laurantou, A., Chappellaz, J., Köhler, P., Joos, F., Stocker, T.F., Leuenberger, M., 2012. Carbon isotope constraints on the deglacial CO₂ rise from ice cores. *Science* 336, 711-714.

Sample names	Depth (mm)	Sedimentary levels	Age from linear model (BP)	Max 99%	Min 99%	$\delta^{13}\text{C}$ (V-PDB)	S.D. $\delta^{13}\text{C}$	$\delta^{15}\text{N}$ (AIR)	S. D. $\delta^{15}\text{N}$	$\delta^{13}\text{C}$ atmosphere	[CO ₂] (ppm)	$\delta^{13}\text{C}$ corrected
				- age from linear model (BP)	- age from linear model (BP)							
Modern	-	Modern	-	-	-	-27	0.2	11.1	0.1	-8	380	-27.3
P13	573	3	10622	9810	10914	-25.6	-	18	-	-6.6	265.4	-25.6
P15	578	3	10699	9890	10989	-25.4	-	18.1	-	-6.6	266.4	-25.4
P17	583	3	10775	9970	11064	-25.5	-	18.8	-	-6.6	267.4	-25.6
P19	588	3	10852	10051	11140	-25.4	-	19	-	-6.6	268.3	-25.5
P21	594	3	10944	10147	11230	-25.6	-	18.3	-	-6.6	269.5	-25.8
P23	598	3	11006	10211	11290	-25.3	-	18.6	-	-6.6	270.3	-25.4
P25	603	3	11082	10292	11366	-25.3	-	18.5	-	-6.6	269.9	-25.2
P27	608	3	11159	10372	11441	-25.2	-	18	-	-6.6	269.1	-25.2
P31	615	3	11267	10485	11546	-24.8	-	18.1	-	-6.6	268.0	-24.8
P33	618	3	11313	10533	11591	-24.9	0.1	16.2	0.2	-6.6	267.6	-24.8
P35	622	3	11374	10597	11652	-24.8	0	17.5	0.1	-6.6	266.9	-24.7
P37	625	3	11420	10645	11697	-24.9	-	17.6	-	-6.6	266.5	-24.8

P39	629	3	11481	10708	11758	-24.7	-	18.4	-	-6.6	265.8	-24.5
P41	632	3	11527	10755	11804	-24.8	-	18.4	-	-6.7	265.4	-24.6
P43	636	3	11589	10818	11866	-24.6	-	18.1	-	-6.7	264.7	-24.4
P45	641	3	11666	10897	11942	-24.8	-	17.4	-	-6.7	263.9	-24.6
P47	646	3	11742	10977	12018	-24.8	-	17.5	-	-6.7	264.3	-24.6
P49	651	3	11819	11057	12094	-25.1	-	17.1	-	-6.7	262.6	-24.8
P51	656	3	11896	11137	12168	-25	-	16.1	-	-6.7	261.0	-24.9
P53	661	3	11973	11217	12245	-25.2	0	15.3	0.1	-6.7	259.3	-25.0
P55	666	3	12049	11297	12323	-25.1	0.1	14.9	0.1	-6.7	258.4	-24.9
P57	671	3	12126	11377	12398	-25.2	0	15.1	0.1	-6.7	256.0	-24.9
P59	676	3	12203	11457	12473	-24.9	0.1	15.1	-	-6.7	253.6	-24.6
P61	682	3/4	12295	11553	12564	-24.7	-	15.1	-	-6.7	250.8	-24.3
P63	984	5	12341	11601	12609	-25.1	0.1	16.4	0	-6.7	241.5	-24.5
P65	990	5	12433	11696	12699	-25.5	0.1	18	0.1	-6.7	240.2	-24.9
P67	995	5	12510	11776	12775	-25	-	20.3	-	-6.7	239.2	-24.4
P69	1000	5	12587	11856	12850	-24.7	-	20.7	-	-6.7	238.1	-24.1
P71	1005	5	12663	11936	12925	-24.1	-	20.9	-	-6.7	237.1	-23.5
P73	1009	5	12725	12000	12986	-23.6	-	21.6	-	-6.7	235.0	-22.9
P75	1014	5	12802	12080	13062	-23.2	-	21.8	-	-6.7	236.7	-22.5
P77	1018	5	12863	12144	13122	-22.9	-	22	-	-6.7	238.1	-22.3
P79	1023	5	12940	12224	13197	-22.4	0	22.2	0.2	-6.6	238.0	-21.8
P81	1028	5	13016	12304	13273	-22.2	-	21.8	-	-6.6	238.0	-21.6
P83	1033	5	13093	12384	13348	-21.8	-	21.8	-	-6.6	238.2	-21.2
P85	1037	5	13155	12448	13409	-21.5	-	21.3	-	-6.6	238.9	-20.9
P87	1042	5	13231	12528	13484	-21.1	-	21	-	-6.6	239.7	-20.6
P89	1047	5	13308	12608	13560	-21.1	-	21.4	-	-6.6	240.6	-20.5
P91	1052	5	13385	12688	13636	-20.9	-	21.3	-	-6.6	241.4	-20.4
P93	1057	5	13462	12768	13712	-21	-	21.5	-	-6.6	240.8	-20.5
P95	1063	5	13554	12864	13803	-20.8	0.1	21	0.2	-6.6	240.4	-20.3
P97	1067	5	13615	12928	13864	-20.8	0.1	21.6	0.1	-6.6	240.1	-20.2
P99	1071	5	13677	12992	13925	-20.7	-	21.7	-	-6.6	239.8	-20.1
P101	1077	5	13769	13088	14016	-20.5	-	21.8	-	-6.6	239.4	-19.9
P103	1082	5	13845	13168	14092	-20.4	-	21.6	-	-6.6	239.0	-19.8
P105	1087	5	13922	13247	14169	-20.5	-	21.4	-	-6.7	238.6	-19.9
P107	1092	5	13999	13327	14245	-20.4	-	21.2	-	-6.7	238.3	-19.8
P109	1097	5	14076	13407	14321	-20.5	-	21.5	-	-6.7	237.9	-19.9
P111	1102	5	14152	13487	14397	-20.5	-	21.5	-	-6.7	237.6	-19.9
P113	1107	5	14229	13567	14474	-20.5	0.1	21.8	0.2	-6.7	237.2	-19.8
P388	1164	6	15104	14481	15351	-20.2	-	22.7	-	-6.3	224.5	-19.7
P389	1214	6	15872	15281	16121	-20.4	0	22	0.1	-6.4	210.0	-19.6
P390	1264	7	16639	16077	16894	-21.9	-	17.4	-	-6.4	192.0	-20.7
P391	1314	7	17407	16869	17675	-23.3	0.3	13.2	0.3	-6.4	188.0	-22.0
P393	1414	7	18942	18445	19228	-23.2	0.1	12.1	0	-6.4	188.0	-21.8
P115	1452	8	19525	19050	19819	-22.2	0	15.1	0.2	-6.5	191.2	-20.8
P117	1457	8	19602	19130	19896	-22.6	0	13	0.3	-6.5	191.0	-21.3
P119	1460	8	19648	19177	19942	-23.4	0	11.3	0.3	-6.5	190.8	-22.0

P121	1465	8	19724	19257	20019	-23.9	0	9.3	-	-6.5	190.6	-22.5
P123	1470	8	19801	19337	20096	-23.3	0	12	0.2	-6.5	190.6	-22.0
P125	1475	8	19878	19417	20175	-23.1	-	12	-	-6.5	191.1	-21.8
P127	1480	8	19955	19496	20254	-23.1	0	12	0.2	-6.5	192.0	-21.7
P129	1485	8	20031	19576	20332	-23.8	0	9.6	0.1	-6.5	194.2	-22.5
P131	1490	8	20108	19656	20411	-24.1	0.1	8.4	-	-6.4	197.6	-22.9
P133	1495	8	20185	19735	20490	-24.3	0.1	8.8	0.1	-6.4	201.1	-23.1
P135	1500	8	20262	19816	20568	-24.2	0	9.7	0	-6.4	203.9	-23.1
P137	1505	8	20338	19896	20647	-24.1	0	10.3	0.1	-6.4	205.2	-23.0
P139	1510	8	20415	19975	20726	-24.2	0	10.9	-	-6.4	203.9	-23.1
P141	1515	8	20492	20054	20804	-24.2	-	11	-	-6.4	200.1	-23.1
P143	1520	8	20569	20134	20883	-24.4	-	11.1	-	-6.4	196.0	-23.1
P145	1525	8	20645	20213	20962	-24.4	0.1	10.8	-	-6.4	193.9	-23.1
P147	1530	8	20722	20292	21040	-24.4	-	10.7	-	-6.4	194.0	-23.1
P149	1535	8	20799	20371	21119	-24.4	-	11.1	-	-6.4	195.2	-23.2
P151	1540	8	20876	20452	21198	-24.5	0	12.3	0.1	-6.4	196.8	-23.3
P153	1545	8	20952	20533	21277	-24.6	0	14.3	0.1	-6.4	198.0	-23.4
P155	1550	8	21029	20612	21355	-24.7	-	15.1	-	-6.4	198.5	-23.5
P157	1555	8	21106	20692	21434	-24.6	-	15.5	-	-6.4	198.5	-23.4
P159	1560	8	21183	20772	21513	-24.5	0	15.7	-	-6.4	198.2	-23.3
P161	1565	8	21259	20851	21591	-24.5	-	14.9	-	-6.4	197.6	-23.3
P163	1570	8	21336	20931	21669	-24.5	0	14.2	-	-6.4	196.9	-23.3
P165	1575	8	21413	21011	21747	-24.6	-	14.1	-	-6.4	196.3	-23.4
P167	1580	8	21490	21089	21825	-24.7	0	14.2	-	-6.4	195.9	-23.4
P169	1585	8	21567	21166	21903	-24.8	-	14.6	-	-6.4	195.8	-23.5
P171	1590	8	21643	21244	21981	-24.6	0	14.8	-	-6.4	196.1	-23.4
P173	1595	8	21720	21325	22059	-24.6	-	14.9	-	-6.4	196.7	-23.4
P175	1600	8	21797	21404	22137	-24.6	-	14.6	-	-6.4	197.5	-23.4
P177	1605	8	21874	21482	22216	-24.6	0	13.6	0.3	-6.4	198.3	-23.5
P179	1610	8	21950	21561	22294	-24.7	0	12.5	0.2	-6.4	199.1	-23.6
P181	1615	8	22027	21640	22372	-24.6	0	10.7	-	-6.4	199.7	-23.4
P183	1620	8	22104	21719	22450	-24.4	0	9.2	-	-6.4	200.1	-23.2
P185	1625	8	22181	21797	22529	-24.3	0	8.6	-	-6.4	200.0	-23.1
P187	1628	8	22227	21844	22577	-24.4	0	10.8	0.4	-6.4	199.7	-23.3
P191	1640	8	22411	22032	22767	-24.1	-	8.4	-	-6.4	197.0	-22.9
P193	1645	8	22488	22110	22846	-24.2	-	8	-	-6.4	195.7	-22.9
P195	1650	8	22564	22189	22924	-24.1	-	7.7	-	-6.4	194.5	-22.8
P197	1655	8	22641	22267	23002	-24.1	-	7.8	-	-6.4	193.7	-22.8
P199	1660	8	22718	22346	23080	-24.1	-	7.7	-	-6.4	193.2	-22.8
P201	1665	8	22795	22424	23158	-24.1	-	8	-	-6.4	192.9	-22.8
P203	1670	8	22871	22501	23236	-24.1	-	8	-	-6.4	193.0	-22.8
P205	1675	8	22948	22580	23314	-24.1	-	8.1	-	-6.4	193.2	-22.8
P207	1680	8	23025	22657	23392	-24.2	-	8.2	-	-6.4	193.6	-23.0
P209	1685	8	23102	22733	23470	-24.2	0.1	8.2	0.2	-6.4	194.1	-22.9
P211	1690	8	23178	22810	23548	-24.2	0	9.4	0.1	-6.4	194.7	-22.9
P213	1695	8	23255	22885	23626	-24.1	0.1	10.1	0	-6.4	195.2	-22.9

P215	1700	8	23332	22961	23705	-24.2	-	13.1	-	-6.4	195.8	-23.0
P217	1705	8	23409	23039	23783	-24.3	-	15.1	-	-6.4	196.3	-23.1
P219	1710	8	23485	23116	23861	-24.2	-	15.6	-	-6.4	196.7	-23.0
P221	1715	8	23562	23192	23939	-24.3	-	16.4	-	-6.4	197.1	-23.2
P223	1720	8	23639	23269	24017	-24.4	-	17.5	-	-6.4	197.3	-23.2
P225	1725	8	23716	23345	24095	-24.4	-	17.8	-	-6.4	197.5	-23.2
P227	1730	8	23792	23423	24173	-24.3	-	18	-	-6.4	197.6	-23.2
P229	1735	8	23869	23501	24251	-24.4	-	18.2	-	-6.4	197.7	-23.2
P231	1740	8	23946	23577	24329	-24.4	-	18.4	-	-6.4	197.6	-23.2
P233	1745	8	24023	23652	24407	-24.5	0	17.9	-	-6.4	197.6	-23.3
P235	1750	8	24099	23728	24484	-24.4	-	18.4	-	-6.4	197.4	-23.2
P237	1754	8	24161	23789	24546	-24.4	-	17.7	-	-6.4	197.2	-23.2
P239	1759	8	24237	23865	24625	-24.5	-	17.8	-	-6.4	197.0	-23.3
P241	1765	8	24330	23957	24719	-24.5	-	17.4	-	-6.4	196.6	-23.3
P243	1770	8	24406	24033	24797	-24.3	-	17.9	-	-6.4	196.2	-23.1
P245	1775	8	24483	24110	24876	-24.4	-	17.7	-	-6.4	195.8	-23.2
P247	1780	8	24560	24186	24955	-24.5	-	17.8	-	-6.4	195.4	-23.2
P249	1785	8	24637	24263	25034	-24.6	0.1	17.1	0.1	-6.4	194.8	-23.4
P251	1790	8	24713	24339	25112	-24.9	0.1	16.9	0.6	-6.4	194.3	-23.6
P253	1795	8	24790	24416	25190	-24.4	0	17	-	-6.4	193.7	-23.2
P255	1800	8	24867	24492	25268	-24.4	0	16.9	-	-6.4	193.1	-23.1
P257	1806	8	24959	24584	25362	-24.2	0	16.3	-	-6.4	192.3	-22.9
P259	1812	8	25051	24676	25456	-24.2	-	16.1	-	-6.4	191.6	-22.9
P261	1815	8	25097	24721	25503	-24.3	-	16.2	-	-6.4	191.3	-23.0
P263	1820	8	25174	24797	25581	-24.2	-	15.6	-	-6.4	190.8	-22.9
P265	1826	8	25266	24887	25674	-24.1	-	16.2	-	-6.4	190.2	-22.8
P267	1832	8	25358	24976	25768	-24.2	-	16	-	-6.4	189.7	-22.8
P269	1840	8	25481	25096	25893	-24.1	-	15.4	-	-6.4	189.3	-22.7
P271	1844	8	25542	25156	25955	-23.9	-	16.1	-	-6.4	189.2	-22.5
P273	1848	8	25604	25216	26018	-23.7	0.1	15.5	0.3	-6.4	189.1	-22.3
P275	1850	8	25634	25246	26049	-23.3	-	16.1	-	-6.4	189.1	-21.9
P277	1855	8	25711	25321	26127	-23.1	0	17.2	0.1	-6.4	189.3	-21.7
P279	1860	8	25788	25400	26205	-22.8	0.1	17.7	0.1	-6.4	189.5	-21.5
P281	1865	8	25865	25475	26283	-22.8	-	18.5	-	-6.4	190.0	-21.4
P283	1870	8	25941	25550	26362	-22.6	-	18.7	-	-6.4	190.6	-21.3
P285	1875	8	26018	25624	26443	-22.8	0	18.4	0.2	-6.4	191.2	-21.5
P287	1880	8	26095	25698	26523	-22.7	0.1	18.5	0.2	-6.4	191.9	-21.4
P289	1885	8	26172	25773	26604	-22.8	0.1	18.5	0.1	-6.4	192.5	-21.5
P291	1890	8	26248	25849	26682	-22.9	0	18.4	0	-6.4	192.9	-21.6
P293	1895	8	26325	25924	26760	-22.8	-	17.8	-	-6.4	193.2	-21.6
P295	1900	8	26402	25999	26838	-22.8	-	17.6	-	-6.4	193.1	-21.5
P297	1905	8	26479	26074	26917	-22.6	-	16.6	-	-6.4	192.8	-21.3
P299	1910	8	26555	26150	26996	-22.5	0	17.4	0	-6.4	192.0	-21.2
P301	1915	8	26632	26224	27075	-22.2	0.1	16.5	-	-6.4	190.8	-20.8
P395	1991	9	27799	27365	28265	-22.5	0.1	11.7	0.1	-6.4	201.5	-21.4
P303	1996	10	27875	27440	28343	-24.3	-	10.1	-	-6.4	203.5	-23.3

P305	2002	10	27968	27529	28437	-24.5	-	9.6	-	-6.4	205.1	-23.4
P307	2007	10	28044	27604	28516	-24.8	-	9.5	-	-6.4	205.6	-23.8
P309	2012	10	28121	27679	28594	-24.8	-	9.3	-	-6.4	205.8	-23.8
P311	2017	10	28198	27754	28672	-24.7	-	9.3	-	-6.4	205.9	-23.7
P313	2023	10	28290	27844	28766	-24.4	-	10.2	-	-6.4	206.2	-23.4
P315	2027	10	28351	27904	28829	-24.9	-	9.5	-	-6.4	206.6	-23.9
P317	2032	10	28428	27979	28907	-24.3	-	9.3	-	-6.4	207.2	-23.3
P319	2037	10	28505	28054	28985	-24.1	-	9.5	-	-6.4	207.6	-23.1
P321	2042	10	28582	28128	29064	-23.9	-	10	-	-6.4	207.7	-22.9
P323	2047	10	28658	28203	29142	-23.9	-	10.3	-	-6.4	207.6	-22.9
P325	2052	10	28735	28277	29220	-24.3	0.2	10.4	0.3	-6.4	207.3	-23.3
P327	2057	10	28812	28351	29298	-23.9	-	10.8	-	-6.4	206.8	-22.9
P329	2062	10	28889	28425	29377	-23.7	-	11.1	-	-6.4	206.2	-22.7
P331	2067	10	28965	28500	29456	-23.7	-	10.4	-	-6.4	205.6	-22.7
P333	2072	10	29042	28574	29535	-23.8	-	11.1	-	-6.4	204.9	-22.8
P335	2077	10	29119	28649	29615	-23.8	-	10.4	-	-6.4	204.2	-22.7
P337	2082	10	29196	28723	29694	-24	-	10.1	-	-6.4	203.5	-22.9
P339	2087	10	29272	28797	29773	-24.2	-	9.5	-	-6.4	202.7	-23.1
P341	2092	10	29349	28871	29853	-24.3	-	9.1	-	-6.4	202.0	-23.3
P343	2097	10	29426	28945	29932	-24.3	-	8.8	-	-6.4	201.2	-23.2
P345	2102	10	29503	29019	30011	-24.4	-	8.8	-	-6.4	200.4	-23.3
P347	2107	10	29579	29093	30090	-24.7	-	8.7	-	-6.4	199.7	-23.5
P349	2112	10	29656	29168	30170	-24.6	-	8.1	-	-6.4	199.0	-23.5
P351	2117	10	29733	29243	30249	-24.8	-	8.5	-	-6.4	198.3	-23.7
P353	2122	10	29810	29318	30329	-24.8	-	8.1	-	-6.4	197.7	-23.6
P355	2127	10	29886	29393	30408	-25	-	8.4	-	-6.4	197.2	-23.8
P357	2132	10	29963	29468	30488	-25.1	-	8.3	-	-6.4	196.8	-23.9
P359	2137	10	30040	29542	30567	-25.1	-	7.6	-	-6.4	196.4	-23.9
P361	2142	10	30117	29617	30646	-24.8	-	8.1	-	-6.4	196.0	-23.6
P363	2147	10	30193	29692	30726	-25	-	8	-	-6.4	195.6	-23.8
P365	2152	10	30270	29767	30805	-24.9	-	8	-	-6.4	195.2	-23.7
P367	2157	10	30347	29842	30884	-25.1	-	7.7	-	-6.4	194.8	-23.8
P369	2162	10	30424	29917	30964	-25.1	-	7.9	-	-6.4	194.5	-23.8
P371	2167	10	30500	29991	31043	-25.1	-	7.5	-	-6.4	194.1	-23.8
P373	2172	10	30577	30066	31122	-25	-	8.5	-	-6.4	193.8	-23.8
P375	2182	10	30731	30215	31282	-24.8	-	7.5	-	-6.4	193.6	-23.6
P377	2188	10	30823	30305	31378	-24.9	-	8.7	-	-6.4	193.7	-23.7
P379	2193	10	30899	30380	31457	-25.1	-	8.3	-	-6.4	193.9	-23.9
P381	2199	10	30992	30470	31553	-25.1	-	8.4	-	-6.4	194.5	-23.9
P383	2208	10	31130	30605	31696	-25.1	-	8.2	-	-6.4	196.0	-23.9
P385	2214	10	31222	30695	31791	-25.2	-	8	-	-6.4	197.3	-24.1
P387	2220	10	31314	30783	31886	-25.3	-	7.7	0.2	-6.4	198.8	-24.2
P397	2229	10	31452	30917	32030	-25.2	-	7.7	-	-6.4	200.8	-24.1
P399	2237	10	31575	31036	32157	-25.4	-	7.5	-	-6.4	202.3	-24.3
P401	2243	10	31667	31125	32252	-25	-	7.5	-	-6.4	202.9	-24.0
P403	2250	10	31774	31230	32363	-24.9	-	7.5	-	-6.4	203.3	-23.9

P405	2261	10	31943	31394	32538	-24.8	-	6.8	-	-6.4	203.5	-23.7
P407	2272	10	32112	31558	32713	-24.7	-	7.8	-	-6.4	204.1	-23.6
P409	2279	10	32220	31663	32825	-24.4	-	7.2	-	-6.4	203.8	-23.3
P411	2287	10	32342	31782	32953	-24.1	-	-	-	-6.4	205.5	-23.1
P413	2350	11	33309	32714	33955	-24.7	-	-	-	-6.4	208.0	-23.7
P443	2421	12	34399	33764	35093	-23.7	-	16	-	-6.4	211.9	-22.8
P445	2426	12	34476	33838	35174	-23.4	0	17	0.3	-6.4	213.0	-22.6
P447	2435	12	34614	33971	35318	-22.2	0.1	16.9	0.2	-6.4	212.4	-21.3
P449	2440	12	34691	34045	35398	-20.2	0.1	18.5	-	-6.4	211.0	-19.3
P451	2446	12	34783	34133	35494	-19.8	-	-	-	-6.4	209.1	-18.8
P453	2453	12	34890	34238	35606	-22.2	0.1	-	-	-6.4	207.2	-21.2
P455	2460	12	34998	34343	35717	-23.1	-	-	-	-6.4	206.6	-22.1
P457	2466	12	35090	34432	35813	-23.4	-	10.8	-	-6.4	207.3	-22.4
P459	2471	12	35167	34507	35893	-23.8	-	10	-	-6.4	208.3	-22.9
P461	2476	12	35244	34582	35972	-24.3	-	9.2	-	-6.4	209.4	-23.4
P463	2480	12	35305	34642	36034	-24.2	-	8.8	-	-6.4	210.1	-23.3
P465	2487	12	35412	34746	36144	-24.3	-	8.6	-	-6.4	210.7	-23.4
P467	2494	12	35520	34851	36254	-24.3	-	8.7	-	-6.4	210.7	-23.4
P469	2499	12	35597	34926	36333	-24.7	-	-	-	-6.4	210.4	-23.8
P471	2504	12	35673	35001	36411	-24.8	-	-	-	-6.4	210.0	-23.9
P473	2509	12	35750	35075	36491	-24.9	-	-	-	-6.4	209.4	-24.0
P475	2514	12	35827	35150	36570	-25	-	-	-	-6.4	208.9	-24.0
P477	2520	12	35919	35240	36666	-24.9	-	7.7	-	-6.4	208.3	-24.0
P479	2528	12	36042	35360	36794	-25	-	7.4	-	-6.4	207.8	-24.0
P481	2534	12	36134	35449	36889	-25.1	-	6.4	-	-6.4	207.8	-24.1
P483	2539	12	36211	35524	36969	-25.3	-	6	-	-6.4	208.1	-24.4
P485	2544	12	36287	35599	37049	-25.1	-	-	-	-6.4	208.7	-24.2
P487	2550	12	36379	35689	37145	-25.2	-	6.3	-	-6.4	209.6	-24.3
P489	2555	12	36456	35763	37226	-25	0.1	6.9	0	-6.4	210.4	-24.1
P491	2563	12	36579	35883	37355	-25.6	-	-	-	-6.4	211.6	-24.7
P493	2572	12	36717	36016	37499	-25.7	-	6.4	-	-6.4	212.7	-24.8
P495	2582	12	36871	36165	37658	-25.3	-	7	-	-6.4	213.3	-24.4
P497	2590	12	36993	36284	37786	-25.2	-	7.6	-	-6.4	213.7	-24.4
P499	2597	12	37101	36387	37899	-25.2	-	7.7	-	-6.4	214.5	-24.3
P501	2607	12	37254	36536	38059	-25.1	-	-	-	-6.4	216.0	-24.3
P503	2614	12	37362	36640	38171	-24.9	-	8.1	-	-6.4	216.9	-24.1
P505	2621	12	37469	36744	38283	-24.6	-	-	-	-6.4	217.5	-23.8
P507	2629	12	37592	36863	38411	-24.6	-	-	-	-6.4	217.3	-23.8
P509	2639	12	37746	37011	38572	-24.3	-	-	-	-6.4	216.4	-23.5
P511	2648	12	37884	37145	38716	-24.5	-	-	-	-6.4	215.9	-23.6
P513	2657	12	38022	37278	38860	-24.3	-	-	-	-6.4	216.5	-23.5
P515	2664	12	38129	37382	38972	-24.5	0.1	-	-	-6.4	217.6	-23.7
P517	2671	12	38237	37486	39085	-24.4	-	-	-	-6.4	217.6	-23.6
P519	2677	12	38329	37575	39181	-24.8	-	-	-	-6.4	215.6	-23.9
P521	2684	12	38436	37679	39293	-24.5	-	-	-	-6.4	211.9	-23.6
P523	2689	12	38513	37753	39373	-24.9	-	10.1	-	-6.4	211.1	-24.0

P525	2695	12	38605	37842	39469	-24.8	-	-	-	-6.4	212.7	-24.0
P527	2702	12	38713	37946	39581	-25	-	-	-	-6.4	214.8	-24.2
P529	2709	12	38820	38050	39693	-24.9	-	-	-	-6.4	213.1	-24.0
P531	2713	12	38881	38110	39757	-24.7	-	-	-	-6.4	211.1	-23.8
P533	2718	12	38958	38184	39836	-25.2	-	9.2	-	-6.4	208.6	-24.3
P535	2724	12	39050	38273	39931	-25.2	-	9.5	-	-6.4	207.3	-24.2
P537	2731	12	39158	38377	40042	-25.5	-	9.9	-	-6.4	208.7	-24.5
P539	2738	12	39265	38481	40153	-25.5	-	10	-	-6.4	211.5	-24.6
P541	2746	12	39388	38600	40280	-25.2	-	10.2	-	-6.4	214.5	-24.4
P543	2753	12	39495	38703	40391	-25.3	-	10.2	-	-6.4	212.5	-24.4
P545	2760	12	39603	38807	40502	-25.4	-	10.7	-	-6.4	204.2	-24.4
P547	2769	12	39741	38941	40645	-25.2	-	10.6	-	-6.4	200.6	-24.1
P549	2778	12	39879	39075	40788	-24.9	-	-	-	-6.4	202.9	-23.9