

1 河川形状

(1) 荒瀬ダム上下流における河床の変動状況

- 1) 平均河床高及び最深河床高変動量データ
- 2) 過年度（S57、H11、H17）における荒瀬ダム下流の平均河床高及び最深河床高変動量
- 3) 荒瀬ダム直下流及び直上流における土砂の変動状況

No	位置	距離標	内容
1	荒瀬ダム直下流	19k～荒瀬ダム	平成 22 年から平成 23 年の比較：ゲート開放後の変動把握 ※ゲート開放前の平成 21 年測量なし
2	荒瀬ダム直上流①	荒瀬ダム～21 k 060	平成 21 年から平成 23 年の比較：ゲート開放前後の変動把握
3	荒瀬ダム直上流②	荒瀬ダム～21 k 060	平成 22 年から平成 23 年の比較：ゲート開放後の変動把握

(2) 経年横断比較図

- 1) 球磨川
- 2) 百済木川

(1) 荒瀬ダム直下流及び直上流における河床の変動状況

1) 平均河床高及び最深河床高変動量

平均河床高

荒瀬ダム下流	平均河床高				平均河床高変動量			
距離標	H15.3月	H20.3月	H22.12月	H23.12月	H15.3月→H23.12月	H20.3月→H22.12月	H22.12月→H23.12月	H20.3月→H23.12月
9.000	5.714	5.699	6.413	6.311	0.597	0.714	-0.102	0.612
9.200	4.011	4.062	4.091	4.334	0.323	0.029	0.243	0.272
9.400	3.269	3.594	3.365	3.600	0.331	-0.229	0.235	0.006
9.600	1.799	1.817	1.161	1.877	0.078	-0.656	0.716	0.060
9.800	2.189	2.424	2.393	2.658	0.469	-0.031	0.265	0.234
10.000	3.314	2.970	2.905	3.207	-0.107	-0.065	0.302	0.237
10.200	2.845	2.791	2.519	2.842	-0.003	-0.272	0.323	0.051
10.400	3.312	3.264	3.324	3.283	-0.029	0.060	-0.041	0.019
10.600	4.890	4.817	4.664	4.790	-0.100	-0.153	0.126	-0.027
10.800	5.531	5.647	5.506	5.713	0.182	-0.141	0.207	0.066
11.000	5.539	5.793	5.605	5.802	0.263	-0.188	0.197	0.009
11.200	5.418	5.580	5.362	5.492	0.074	-0.218	0.130	-0.088
11.400	5.042	5.076	4.991	5.101	0.059	-0.085	0.110	0.025
11.600	5.704	5.669	5.497	5.646	-0.058	-0.172	0.149	-0.023
11.800	4.136	3.808	3.953	3.936	-0.200	0.145	-0.017	0.128
12.000	3.456	3.876	3.279	3.432	-0.024	-0.597	0.153	-0.444
12.200	5.761	5.627	5.564	5.695	-0.066	-0.063	0.131	0.068
12.400	6.883	6.712	6.611	6.624	-0.259	-0.101	0.013	-0.088
12.600	7.494	7.344	7.272	7.360	-0.134	-0.072	0.088	0.016
12.800	7.976	8.058	8.020	8.185	0.209	-0.038	0.165	0.127
13.000	7.173	6.797	6.999	7.034	-0.139	0.202	0.035	0.237
13.200	6.591	6.020	6.302	6.510	-0.081	0.282	0.208	0.490
13.400	2.696	2.244	2.569	2.699	0.003	0.325	0.130	0.455
13.600	4.621	4.213	4.355	4.353	-0.268	0.142	-0.002	0.140
13.800	7.027	6.644	6.674	6.900	-0.127	0.030	0.226	0.256
14.000	6.370	5.829	6.091	6.261	-0.109	0.262	0.170	0.432
14.200	-1.866	-1.676	-1.051	-1.857	0.009	0.625	-0.806	-0.181
14.400	6.388	5.933	5.942	6.040	-0.348	0.009	0.098	0.107
14.600	8.308	8.219	8.052	8.031	-0.277	-0.167	-0.021	-0.188
14.800	8.420	8.221	8.117	8.155	-0.265	-0.104	0.038	-0.066
15.000	8.207	8.062	8.030	7.959	-0.248	-0.032	-0.071	-0.103
15.200	5.891	6.243	5.890	5.897	0.006	-0.353	0.007	-0.346
15.400	7.141	7.039	7.004	7.160	0.019	-0.035	0.156	0.121
15.600	10.027	9.612	9.229	9.159	-0.868	-0.383	-0.070	-0.453
15.800	8.249	8.312	8.352	8.399	0.150	0.040	0.047	0.087
16.000	7.736	7.426	7.125	7.619	-0.117	-0.301	0.494	0.193
16.200	10.584	10.246	10.578	10.576	-0.008	0.332	-0.002	0.330
16.400	10.058	10.512	10.224	10.305	0.247	-0.288	0.081	-0.207
16.600	9.074	8.736	8.693	8.669	-0.405	-0.043	-0.024	-0.067
16.800	10.636	10.250	10.291	10.227	-0.409	0.041	-0.064	-0.023
17.000	12.418	12.327	12.503	12.477	0.059	0.176	-0.026	0.150
17.200	13.547	13.564	13.682	13.713	0.166	0.118	0.031	0.149
17.400	13.219	12.639	12.975	12.689	-0.530	0.336	-0.286	0.050
17.600	9.369	9.206	9.365	9.380	0.011	0.159	0.015	0.174
17.800	12.576	12.441	12.258	12.371	-0.205	-0.183	0.113	-0.070
18.000	13.010	12.970	12.715	12.720	-0.290	-0.255	0.005	-0.250
18.200	14.729	14.506	14.511	14.576	-0.153	0.005	0.065	0.070
18.400	14.339	13.996	14.001	13.919	-0.420	0.005	-0.082	-0.077
18.600	14.250	13.816	14.036	13.968	-0.282	0.220	-0.068	0.152
18.800	11.452	10.849	10.863	11.150	-0.302	0.014	0.287	0.301
19.000	13.521	12.740	12.857	12.750	-0.771	0.117	-0.107	0.010
19.200	15.178	15.075	15.150	15.068	-0.110	0.075	-0.082	-0.007
19.400	13.513	13.525	13.582	13.723	0.210	0.057	0.141	0.198
19.600	14.771	14.968	14.985	15.053	0.282	0.017	0.068	0.085
19.800	12.014	11.914	12.301	12.175	0.161	0.387	-0.126	0.261

荒瀬ダム上流		平均河床高				平均河床高変動量			
距離標		H14.12月	H21.12月	H23.3月	H24.2月	H14.12月→H24.2月	H21.12月→H23.3月	H23.3月→H24.2月	H21.12月→H24.2月
19.910	No.0	18.683	18.490	18.518	18.940	0.257	0.028	0.422	0.450
19.980	No.0+70		20.264	20.210	20.355		-0.054	0.145	0.091
20.080	No.0+170		19.513	19.360	19.681		-0.153	0.321	0.168
20.160	No.1	18.933	19.277	19.428	19.301	0.368	0.151	-0.127	0.024
20.230	No.1+70		17.627	18.942	18.190		1.315	-0.752	0.563
20.300	No.1+140		17.565	17.611	17.957		0.046	0.346	0.392
20.410	No.2	20.811	21.265	21.276	21.016	0.205	0.011	-0.260	-0.249
20.530	No.2+120		22.572	22.676	22.652		0.104	-0.024	0.080
20.660	No.3	22.405	22.556	22.405	22.441	0.036	-0.151	0.036	-0.115
20.790	No.3+130		21.143	20.853	20.869		-0.290	0.016	-0.274
20.910	No.4	19.899	19.715	19.924	20.526	0.627	0.209	0.602	0.811
21.060	No.4+150		20.600	20.874	20.788		0.274	-0.086	0.188
21.160	No.5	20.950	21.098	21.151	21.178	0.228	0.053	0.027	0.080
21.410	No.6	20.627	20.717	20.678	20.891	0.264	-0.039	0.213	0.174
21.660	No.7	20.490	20.535	20.846	20.608	0.118	0.311	-0.238	0.073
21.910	No.8	19.032	19.723	20.104	20.192	1.160	0.381	0.088	0.469
22.160	No.9	22.089	22.399	21.992	21.995	-0.094	-0.407	0.003	-0.404
22.290	No.9+130		23.410	22.840	22.856		-0.570	0.016	-0.554
22.410	No.10	21.314	21.393	21.313	21.633	0.319	-0.080	0.320	0.240
22.660	No.11	17.735	17.569	18.386	18.859	1.124	0.817	0.473	1.290
22.910	No.12	17.289	16.927	18.908	16.859	-0.430	1.981	-2.049	-0.068
23.160	No.13	21.210	21.544	22.109	21.355	0.145	0.565	-0.754	-0.189
23.410	No.14	23.130	23.122	22.918	22.902	-0.228	-0.204	-0.016	-0.220
23.660	No.15	22.406	22.156	22.474	22.267	-0.139	0.318	-0.207	0.111
23.910	No.16	22.789	22.129	23.168	22.885	0.096	1.039	-0.283	0.756
24.160	No.17	23.934	23.951	23.678	23.492	-0.442	-0.273	-0.186	-0.459
24.410	No.18	23.261	23.678	23.471	23.597	0.336	-0.207	0.126	-0.081
24.660	No.19	24.785	24.480	24.194	24.189	-0.596	-0.286	-0.005	-0.291
24.910	No.20	22.746	23.065	23.223	22.854	0.108	0.158	-0.369	-0.211
25.160	No.21	25.123	24.617	24.409	24.165	-0.958	-0.208	-0.244	-0.452
25.310	No.21+150		21.042	22.175	20.818		1.133	-1.357	-0.224
25.410	No.22	22.133	21.860	21.940	21.460	-0.673	0.080	-0.480	-0.400
25.660	No.23	26.149	25.677	25.878	25.292	-0.857	0.201	-0.586	-0.385
25.910	No.24	25.142	25.420	25.092	25.115	-0.027	-0.328	0.023	-0.305
26.160	No.25	25.334	25.068	25.440	25.190	-0.144	0.372	-0.250	0.122
26.410	No.26	26.601	26.577	26.692	26.502	-0.099	0.115	-0.190	-0.075
26.660	No.27	21.030	21.104	21.389	21.667	0.637	0.285	0.278	0.563
26.910	No.28	28.143	28.079	27.965	28.382	0.239	-0.114	0.417	0.303
27.160	No.29	27.710	27.647	27.515	27.729	0.019	-0.132	0.214	0.082
27.410	No.30	22.329	23.120	22.554	22.746	0.417	-0.566	0.192	-0.374
27.660	No.31	27.878	28.016	27.658	28.010	0.132	-0.358	0.352	-0.006
27.910	No.32	29.012	29.181	29.210	28.921	-0.091	0.029	-0.289	-0.260
28.160	No.33	23.388	22.837	22.924	23.136	-0.252	0.087	0.212	0.299
28.410	No.34	29.015	29.247	29.271	29.155	0.140	0.024	-0.116	-0.092
28.660	No.35	30.959	30.946	30.778	30.551	-0.408	-0.168	-0.227	-0.395
28.800	No.36	26.488	25.999	26.417	26.320	-0.168	0.418	-0.097	0.321

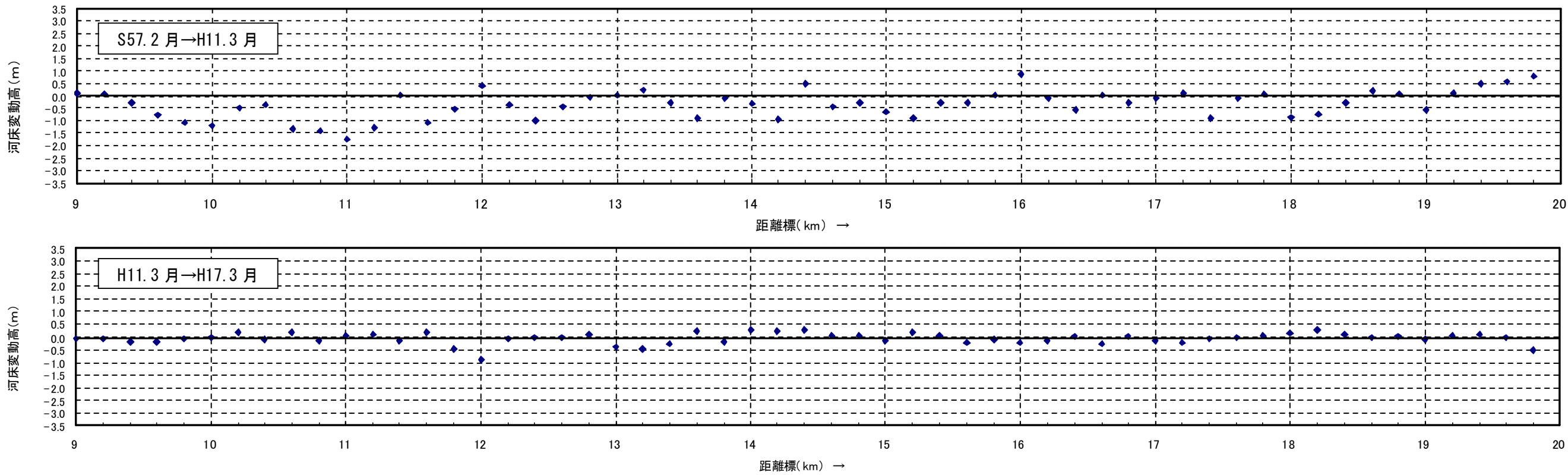
最深河床高

荒瀬ダム下流	最深河床高				最深河床高変動量			
距離標	H15.3月	H20.3月	H22.12月	H23.12月	H15.3月→H23.12月	H20.3月→H22.12月	H22.12月→H23.12月	H20.3月→H23.12月
9.000	4.590	4.590	5.674	5.200	0.610	1.084	-0.474	0.610
9.200	3.010	2.890	2.700	3.000	-0.010	-0.190	0.300	0.110
9.400	1.900	2.380	2.050	2.300	0.400	-0.330	0.250	-0.080
9.600	-2.980	-2.820	-3.250	-3.000	-0.020	-0.430	0.250	-0.180
9.800	-3.050	-2.990	-3.420	-3.050	0.000	-0.430	0.370	-0.060
10.000	1.130	0.810	0.570	0.980	-0.150	-0.240	0.410	0.170
10.200	1.370	1.370	1.020	1.600	0.230	-0.350	0.580	0.230
10.400	-1.020	-0.890	-1.200	-1.200	-0.180	-0.310	0.000	-0.310
10.600	3.070	2.970	2.660	3.000	-0.070	-0.310	0.340	0.030
10.800	4.110	3.960	3.780	4.100	-0.010	-0.180	0.320	0.140
11.000	4.230	4.840	4.480	4.900	0.670	-0.360	0.420	0.060
11.200	4.660	4.710	4.400	4.793	0.133	-0.310	0.393	0.083
11.400	3.360	3.030	2.740	2.900	-0.460	-0.290	0.160	-0.130
11.600	4.960	4.950	4.680	4.870	-0.090	-0.270	0.190	-0.080
11.800	2.980	0.830	2.050	1.446	-1.534	1.220	-0.604	0.616
12.000	-0.210	0.010	-0.410	-0.104	0.106	-0.420	0.306	-0.114
12.200	3.690	2.630	2.800	2.900	-0.790	0.170	0.100	0.270
12.400	5.100	5.200	4.994	5.290	0.190	-0.206	0.296	0.090
12.600	6.440	6.370	6.290	6.385	-0.055	-0.080	0.095	0.015
12.800	7.320	7.100	6.980	6.946	-0.374	-0.120	-0.034	-0.154
13.000	5.530	5.360	5.507	5.779	0.249	0.147	0.272	0.419
13.200	2.240	2.050	2.120	2.397	0.157	0.070	0.277	0.347
13.400	-1.530	-1.790	-1.910	-1.400	0.130	-0.120	0.510	0.390
13.600	3.830	3.630	3.520	3.601	-0.229	-0.110	0.081	-0.029
13.800	3.930	3.670	3.630	4.100	0.170	-0.040	0.470	0.430
14.000	3.320	2.900	2.390	2.800	-0.520	-0.510	0.410	-0.100
14.200	-4.430	-4.250	-4.630	-4.300	0.130	-0.380	0.330	-0.050
14.400	0.620	0.300	0.270	0.588	-0.032	-0.030	0.318	0.288
14.600	6.760	6.640	6.580	6.500	-0.260	-0.060	-0.080	-0.140
14.800	6.830	6.610	6.510	6.750	-0.080	-0.100	0.240	0.140
15.000	6.510	5.770	6.110	6.400	-0.110	0.340	0.290	0.630
15.200	5.140	5.310	4.870	4.945	-0.195	-0.440	0.075	-0.365
15.400	5.760	5.270	5.080	5.400	-0.360	-0.190	0.320	0.130
15.600	7.890	7.580	6.430	7.100	-0.790	-1.150	0.670	-0.480
15.800	5.070	4.920	5.340	5.200	0.130	0.420	-0.140	0.280
16.000	2.640	3.330	2.530	2.450	-0.190	-0.800	-0.080	-0.880
16.200	9.410	9.200	9.206	9.403	-0.007	0.006	0.197	0.203
16.400	9.580	9.470	9.481	9.670	0.090	0.011	0.189	0.200
16.600	7.180	6.700	6.241	6.550	-0.630	-0.459	0.309	-0.150
16.800	8.300	7.540	7.920	8.300	0.000	0.380	0.380	0.760
17.000	11.610	11.090	11.338	11.590	-0.020	0.248	0.252	0.500
17.200	11.900	10.650	11.400	12.003	0.103	0.750	0.603	1.353
17.400	11.580	10.060	9.737	9.948	-1.632	-0.323	0.211	-0.112
17.600	8.000	7.740	7.526	7.900	-0.100	-0.214	0.374	0.160
17.800	9.730	9.760	9.400	9.590	-0.140	-0.360	0.190	-0.170
18.000	11.130	11.780	11.427	11.680	0.550	-0.353	0.253	-0.100
18.200	14.300	14.110	14.210	14.292	-0.008	0.100	0.082	0.182
18.400	13.790	12.860	12.790	13.074	-0.716	-0.070	0.284	0.214
18.600	12.750	12.690	12.730	12.773	0.023	0.040	0.043	0.083
18.800	10.760	10.490	10.370	10.396	-0.364	-0.120	0.026	-0.094
19.000	11.550	10.040	10.000	10.200	-1.350	-0.040	0.200	0.160
19.200	14.670	14.520	14.670	14.500	-0.170	0.150	-0.170	-0.020
19.400	12.730	12.560	12.840	13.250	0.520	0.280	0.410	0.690
19.600	13.770	14.210	14.150	14.400	0.630	-0.060	0.250	0.190
19.800	10.930	10.790	11.392	11.400	0.470	0.602	0.008	0.610

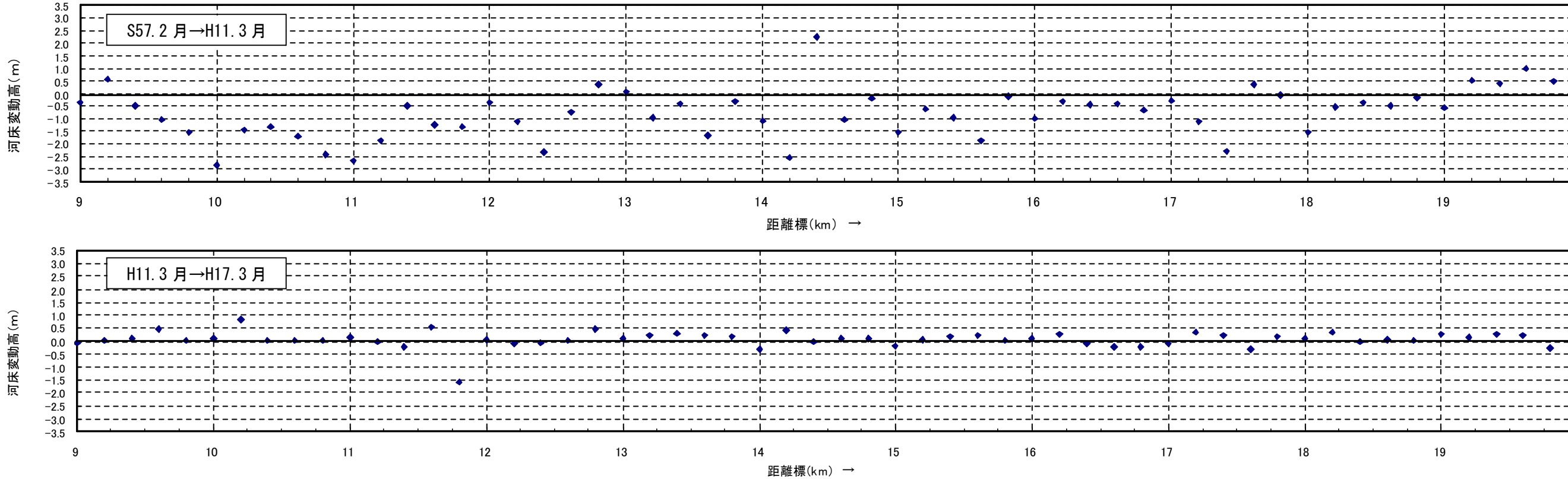
荒瀬ダム上流	距離標	最深河床高				最深河床高変動量			
		H14.12月	H21.12月	H23.3月	H24.2月	H14.12月→H24.2月	H21.12月→H23.3月	H23.3月→H24.2月	H21.12月→H24.2月
	19.910 No.0	13.450	13.220	13.220	14.000	0.550	0.000	0.780	0.780
	19.980 No.0+70	0.000	16.780	16.640	16.600		-0.140	-0.040	-0.180
	20.080 No.0+170	0.000	13.910	13.900	14.000		-0.010	0.100	0.090
	20.160 No.1	13.670	13.670	13.750	13.749	0.079	0.080	-0.001	0.079
	20.230 No.1+70	0.000	13.990	14.360	14.250		0.370	-0.110	0.260
	20.300 No.1+140	0.000	16.200	16.430	16.341		0.230	-0.089	0.141
	20.410 No.2	17.380	18.600	17.510	16.850	-0.530	-1.090	-0.660	-1.750
	20.530 No.2+120	0.000	18.780	18.990	19.000		0.210	0.010	0.220
	20.660 No.3	18.760	18.620	18.660	18.600	-0.160	0.040	-0.060	-0.020
	20.790 No.3+130	0.000	15.580	16.020	16.050		0.440	0.030	0.470
	20.910 No.4	7.400	7.430	7.430	7.300	-0.100	0.000	-0.130	-0.130
	21.060 No.4+150	0.000	17.640	17.690	17.200		0.050	-0.490	-0.440
	21.160 No.5	19.860	20.020	20.250	20.144	0.284	0.230	-0.106	0.124
	21.410 No.6	18.880	18.810	18.840	19.101	0.221	0.030	0.261	0.291
	21.660 No.7	17.360	16.990	17.740	17.100	-0.260	0.750	-0.640	0.110
	21.910 No.8	18.000	18.540	19.381	18.996	0.996	0.841	-0.385	0.456
	22.160 No.9	18.650	18.950	19.535	19.855	1.205	0.585	0.320	0.905
	22.290 No.9+130	0.000	20.180	20.560	20.105		0.380	-0.455	-0.075
	22.410 No.10	19.620	19.680	19.629	20.181	0.561	-0.051	0.552	0.501
	22.660 No.11	16.100	15.510	17.058	17.397	1.297	1.548	0.339	1.887
	22.910 No.12	14.970	14.310	17.050	14.602	-0.368	2.740	-2.448	0.292
	23.160 No.13	18.310	19.430	20.340	18.502	0.192	0.910	-1.838	-0.928
	23.410 No.14	20.910	20.930	20.930	20.986	0.076	0.000	0.056	0.056
	23.660 No.15	18.160	18.040	18.330	17.705	-0.455	0.290	-0.625	-0.335
	23.910 No.16	17.180	17.030	17.480	17.101	-0.079	0.450	-0.379	0.071
	24.160 No.17	21.220	21.960	21.200	21.680	0.460	-0.760	0.480	-0.280
	24.410 No.18	18.340	18.700	18.920	18.502	0.162	0.220	-0.418	-0.198
	24.660 No.19	21.490	20.210	19.950	19.998	-1.492	-0.260	0.048	-0.212
	24.910 No.20	19.790	19.890	20.600	19.796	0.006	0.710	-0.804	-0.094
	25.160 No.21	22.860	21.740	21.770	21.700	-1.160	0.030	-0.070	-0.040
	25.310 No.21+150	0.000	14.840	16.070	14.900		1.230	-1.170	0.060
	25.410 No.22	17.420	17.710	17.710	17.101	-0.319	0.000	-0.609	-0.609
	25.660 No.23	23.790	23.530	23.500	23.200	-0.590	-0.030	-0.300	-0.330
	25.910 No.24	20.770	21.670	20.830	20.500	-0.270	-0.840	-0.330	-1.170
	26.160 No.25	22.010	21.920	21.680	21.396	-0.614	-0.240	-0.284	-0.524
	26.410 No.26	25.390	25.210	25.190	25.381	-0.009	-0.020	0.191	0.171
	26.660 No.27	20.160	19.990	20.580	18.902	-1.258	0.590	-1.678	-1.088
	26.910 No.28	26.940	27.050	27.050	27.851	0.911	0.000	0.801	0.801
	27.160 No.29	26.470	26.520	26.690	26.602	0.132	0.170	-0.088	0.082
	27.410 No.30	19.000	20.020	18.580	19.396	0.396	-1.440	0.816	-0.624
	27.660 No.31	27.650	27.620	26.980	27.511	-0.139	-0.640	0.531	-0.109
	27.910 No.32	26.210	26.250	26.500	25.893	-0.317	0.250	-0.607	-0.357
	28.160 No.33	19.630	20.160	20.270	19.900	0.270	0.110	-0.370	-0.260
	28.410 No.34	27.290	27.430	27.220	27.202	-0.088	-0.210	-0.018	-0.228
	28.660 No.35	29.980	29.520	29.650	29.400	-0.580	0.130	-0.250	-0.120
	28.800 No.36	25.740	23.840	23.420	23.500	-2.240	-0.420	0.080	-0.340

2) 過年度における平均河床高及び最深河床高変動量（参考資料）

【平均河床高】



【最深河床高】



【データ】

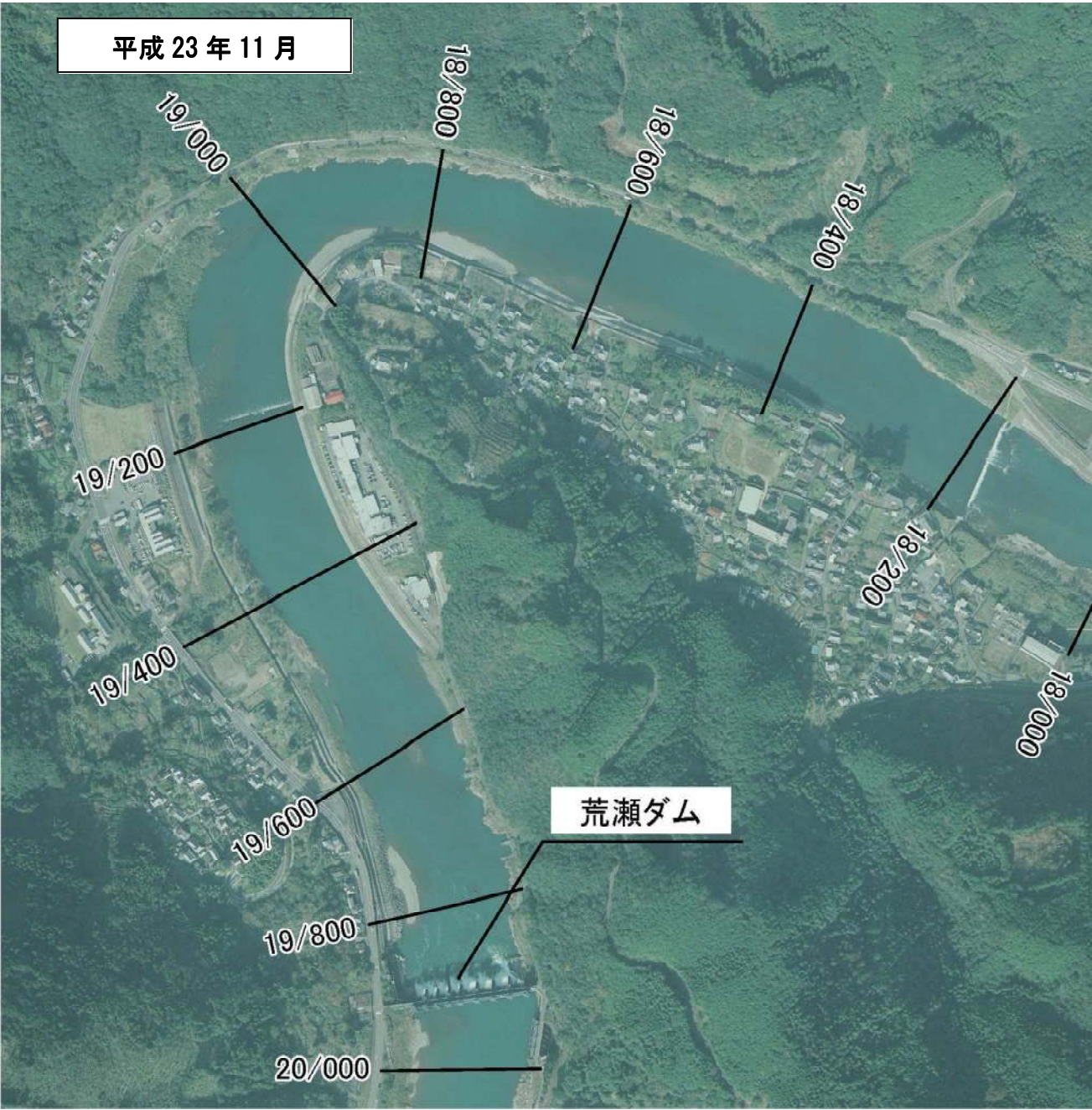
荒瀬ダム下流	平均河床高			平均河床高変動量	
距離標	S57.2月	H11.3月	H17.3月	S57.2月→H11.3月	H11.3月→H17.3月
9.000	5.660	5.772	5.725	0.112	-0.047
9.200	4.125	4.167	4.098	0.042	-0.069
9.400	3.838	3.549	3.351	-0.289	-0.198
9.600	2.826	2.044	1.863	-0.782	-0.181
9.800	3.562	2.513	2.446	-1.049	-0.067
10.000	4.560	3.375	3.356	-1.185	-0.019
10.200	3.302	2.816	3.018	-0.486	0.202
10.400	3.619	3.258	3.151	-0.361	-0.107
10.600	6.030	4.712	4.893	-1.318	0.181
10.800	6.980	5.566	5.424	-1.414	-0.142
11.000	7.202	5.445	5.523	-1.757	0.078
11.200	6.641	5.344	5.450	-1.297	0.106
11.400	5.205	5.232	5.071	0.027	-0.161
11.600	6.593	5.542	5.736	-1.051	0.194
11.800	4.837	4.328	3.862	-0.509	-0.466
12.000	3.992	4.386	3.516	0.394	-0.870
12.200	5.995	5.639	5.557	-0.356	-0.082
12.400	7.802	6.799	6.787	-1.003	-0.012
12.600	7.868	7.413	7.409	-0.455	-0.004
12.800	8.054	7.974	8.084	-0.080	0.110
13.000	7.219	7.249	6.852	0.030	-0.397
13.200	6.182	6.405	5.948	0.223	-0.457
13.400	3.181	2.900	2.642	-0.281	-0.258
13.600	5.423	4.540	4.782	-0.883	0.242
13.800	7.393	7.269	7.082	-0.124	-0.187
14.000	6.230	5.905	6.184	-0.325	0.279
14.200	-0.600	-1.550	-1.339	-0.950	0.211
14.400	5.623	6.109	6.361	0.486	0.252
14.600	8.677	8.236	8.285	-0.441	0.049
14.800	8.637	8.369	8.423	-0.268	0.054
15.000	8.939	8.271	8.132	-0.668	-0.139
15.200	6.841	5.960	6.148	-0.881	0.188
15.400	7.282	7.021	7.084	-0.261	0.063
15.600	10.138	9.855	9.629	-0.283	-0.226
15.800	8.561	8.569	8.469	0.008	-0.100
16.000	6.943	7.822	7.581	0.879	-0.241
16.200	10.815	10.715	10.553	-0.100	-0.162
16.400	10.688	10.116	10.130	-0.572	0.014
16.600	9.230	9.253	8.985	0.023	-0.268
16.800	10.681	10.404	10.408	-0.277	0.004
17.000	12.556	12.454	12.311	-0.102	-0.143
17.200	13.693	13.777	13.543	0.084	-0.234
17.400	14.203	13.314	13.248	-0.889	-0.066
17.600	9.546	9.448	9.432	-0.098	-0.016
17.800	12.512	12.570	12.612	0.058	0.042
18.000	13.585	12.738	12.867	-0.847	0.129
18.200	15.091	14.375	14.641	-0.716	0.266
18.400	14.580	14.292	14.391	-0.288	0.099
18.600	13.988	14.187	14.185	0.199	-0.002
18.800	10.924	10.985	10.999	0.061	0.014
19.000	14.020	13.467	13.361	-0.553	-0.106
19.200	15.064	15.175	15.223	0.111	0.048
19.400	13.045	13.535	13.656	0.490	0.121
19.600	14.188	14.742	14.737	0.554	-0.005
19.800	11.790	12.556	12.026	0.766	-0.530

荒瀬ダム下流	最深河床高			最深河床高変動量	
距離標	S57.2月	H11.3月	H17.3月	S57.2月→H11.3月	H11.3月→H17.3月
9.000	5.040	4.670	4.600	-0.370	-0.070
9.200	2.440	3.020	3.030	0.580	0.010
9.400	2.580	2.110	2.229	-0.470	0.119
9.600	-1.910	-2.930	-2.456	-1.020	0.474
9.800	-1.510	-3.060	-3.027	-1.550	0.033
10.000	4.110	1.280	1.382	-2.830	0.102
10.200	2.480	1.040	1.883	-1.440	0.843
10.400	0.450	-0.890	-0.863	-1.340	0.027
10.600	4.810	3.130	3.142	-1.680	0.012
10.800	6.430	4.000	4.010	-2.430	0.010
11.000	6.730	4.060	4.205	-2.670	0.145
11.200	6.510	4.660	4.638	-1.850	-0.022
11.400	3.880	3.380	3.152	-0.500	-0.228
11.600	5.850	4.630	5.201	-1.220	0.571
11.800	4.090	2.790	1.215	-1.300	-1.575
12.000	0.190	-0.180	-0.109	-0.370	0.071
12.200	4.340	3.240	3.153	-1.100	-0.087
12.400	7.590	5.270	5.220	-2.320	-0.050
12.600	7.160	6.430	6.460	-0.730	0.030
12.800	6.610	6.960	7.420	0.350	0.460
13.000	5.520	5.580	5.698	0.060	0.118
13.200	3.120	2.160	2.376	-0.960	0.216
13.400	-1.420	-1.830	-1.513	-0.410	0.317
13.600	5.290	3.640	3.859	-1.650	0.219
13.800	4.170	3.850	4.019	-0.320	0.169
14.000	4.360	3.280	2.988	-1.080	-0.292
14.200	-1.930	-4.470	-4.050	-2.540	0.420
14.400	-1.670	0.560	0.557	2.230	-0.003
14.600	7.700	6.680	6.792	-1.020	0.112
14.800	6.890	6.700	6.799	-0.190	0.099
15.000	8.030	6.480	6.310	-1.550	-0.170
15.200	5.740	5.140	5.195	-0.600	0.055
15.400	6.220	5.290	5.482	-0.930	0.192
15.600	9.320	7.440	7.672	-1.880	0.232
15.800	5.550	5.440	5.475	-0.110	0.035
16.000	3.430	2.430	2.516	-1.000	0.086
16.200	9.660	9.340	9.587	-0.320	0.247
16.400	10.120	9.700	9.580	-0.420	-0.120
16.600	7.840	7.450	7.213	-0.390	-0.237
16.800	8.790	8.140	7.926	-0.650	-0.214
17.000	11.410	11.140	11.053	-0.270	-0.087
17.200	12.550	11.420	11.771	-1.130	0.351
17.400	13.810	11.520	11.754	-2.290	0.234
17.600	7.930	8.280	7.993	0.350	-0.287
17.800	9.650	9.570	9.735	-0.080	0.165
18.000	12.690	11.160	11.252	-1.530	0.092
18.200	14.330	13.820	14.170	-0.510	0.350
18.400	14.070	13.720	13.716	-0.350	-0.004
18.600	13.320	12.820	12.890	-0.500	0.070
18.800	10.600	10.470	10.493	-0.130	0.023
19.000	11.960	11.390	11.640	-0.570	0.250
19.200	14.040	14.570	14.710	0.530	0.140
19.400	12.230	12.630	12.880	0.400	0.250
19.600	12.690	13.690	13.929	1.000	0.239
19.800	10.440	10.940	10.687	0.500	-0.253

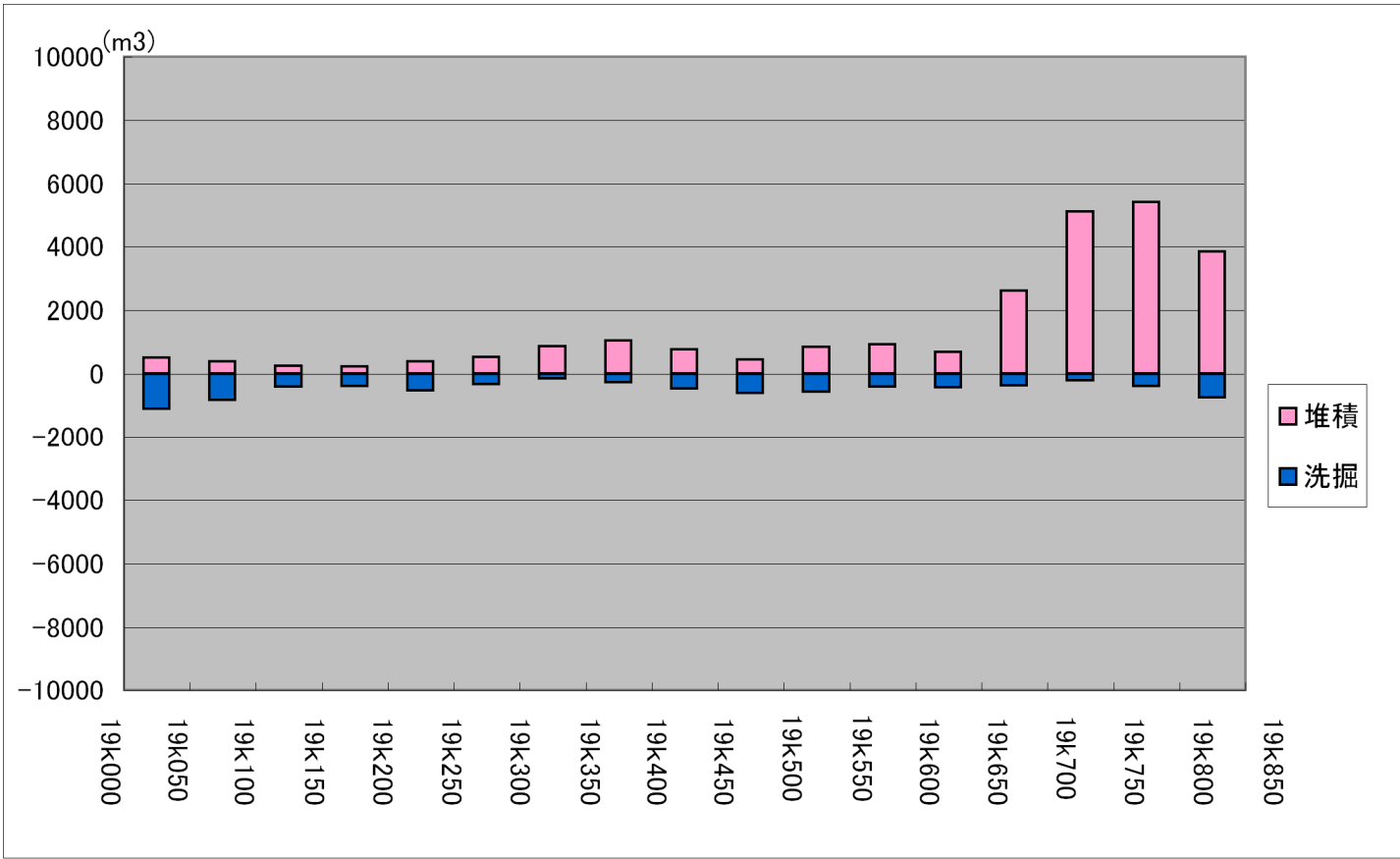
3) 荒瀬ダム直下流及び直上流における土砂の変動状況

【荒瀬ダム直下流】

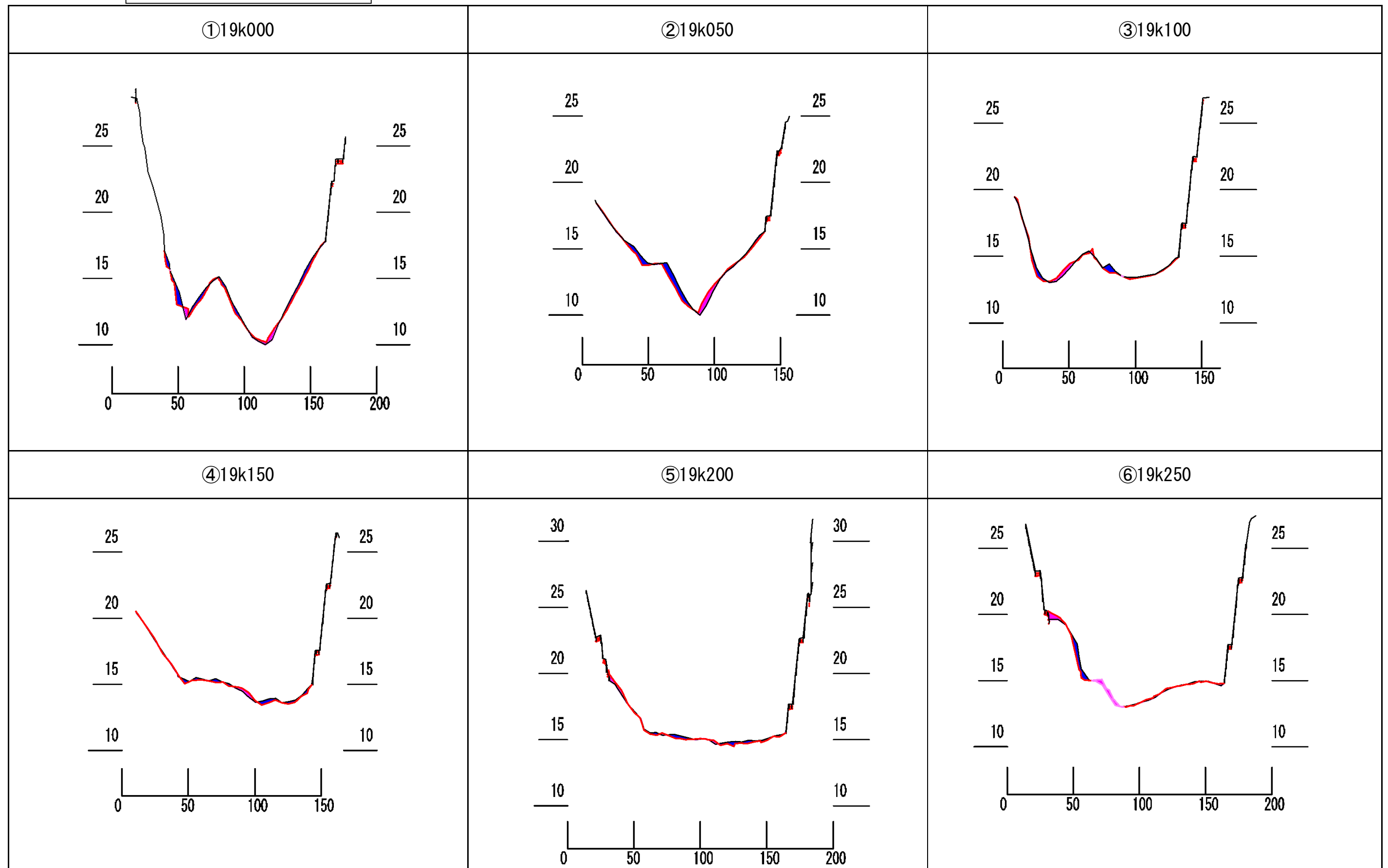
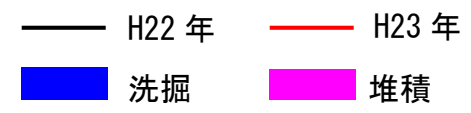
評価項目	視点	評価概要
平成 22 年→23 年 土砂堆積状況	ゲート開放後の状況	- 荒瀬ダム下流の 19 k 650～19 k 850 にかけて土砂の堆積がみられる。 - その他の地点については、若干の変動はあるものの、大きな変化はみられない。



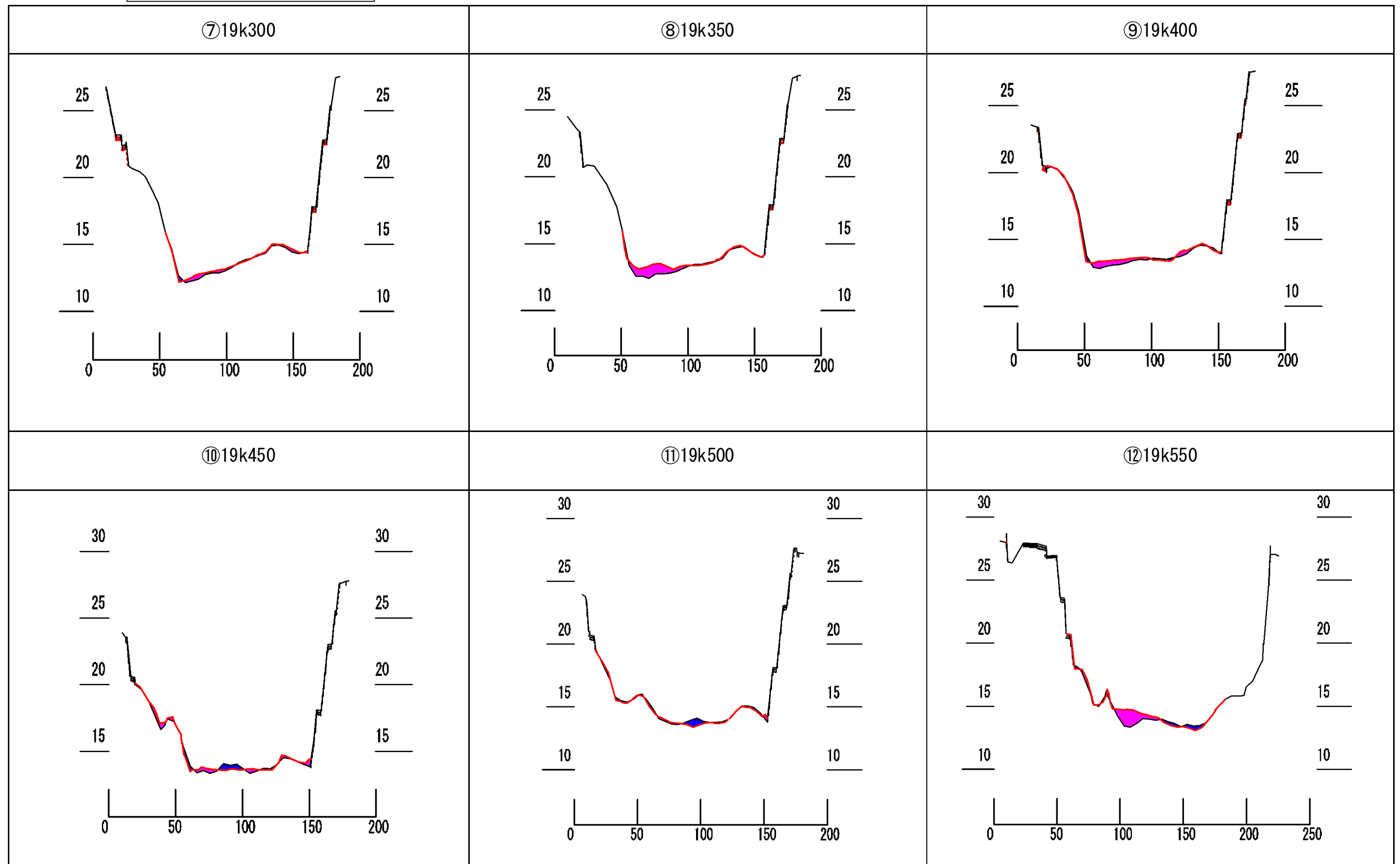
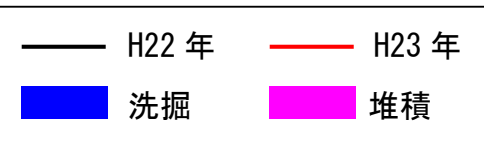
土砂変動量(H22年→H23年)



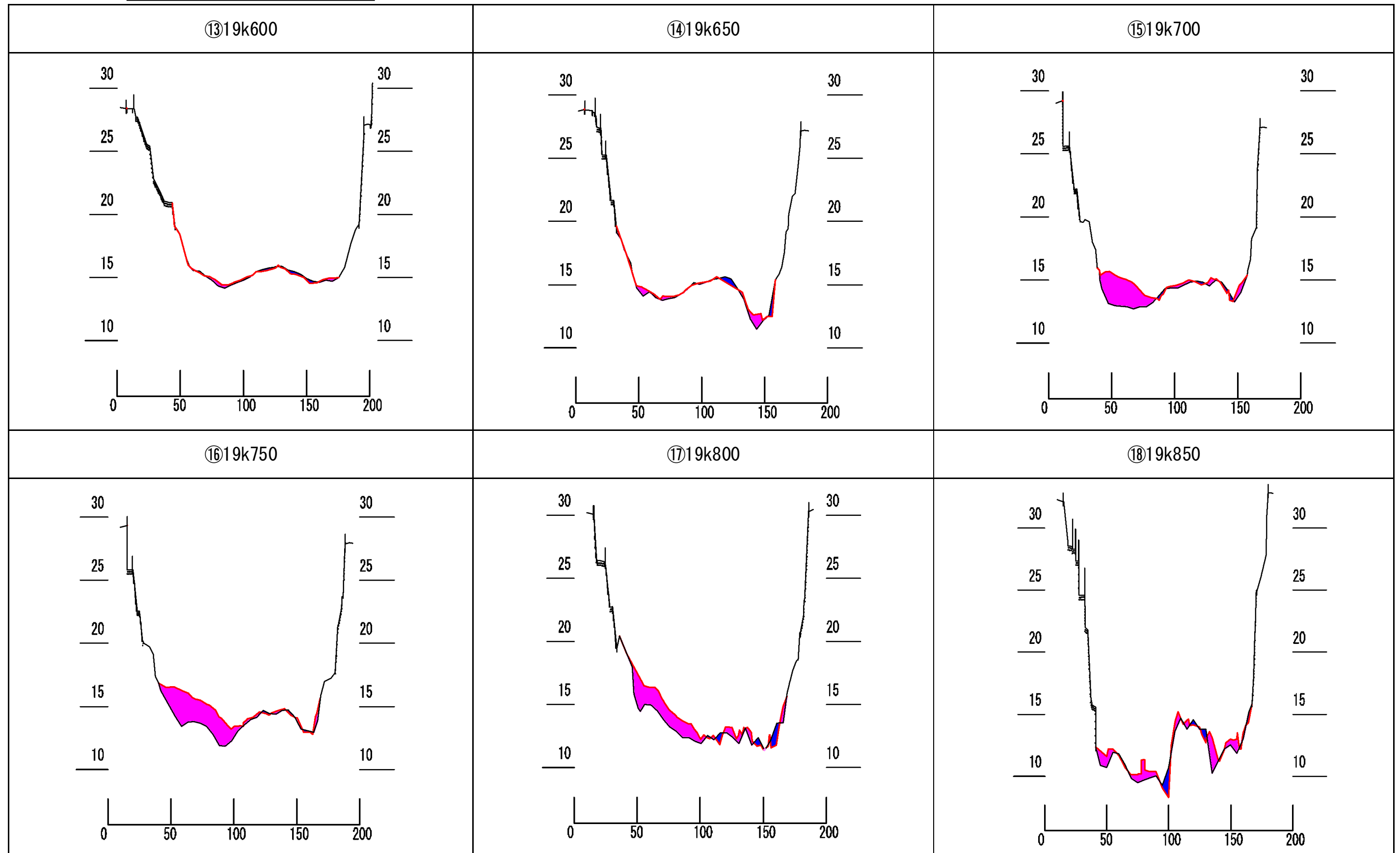
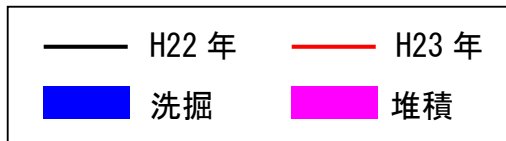
【横断図 1/3】



【横断図2/3】

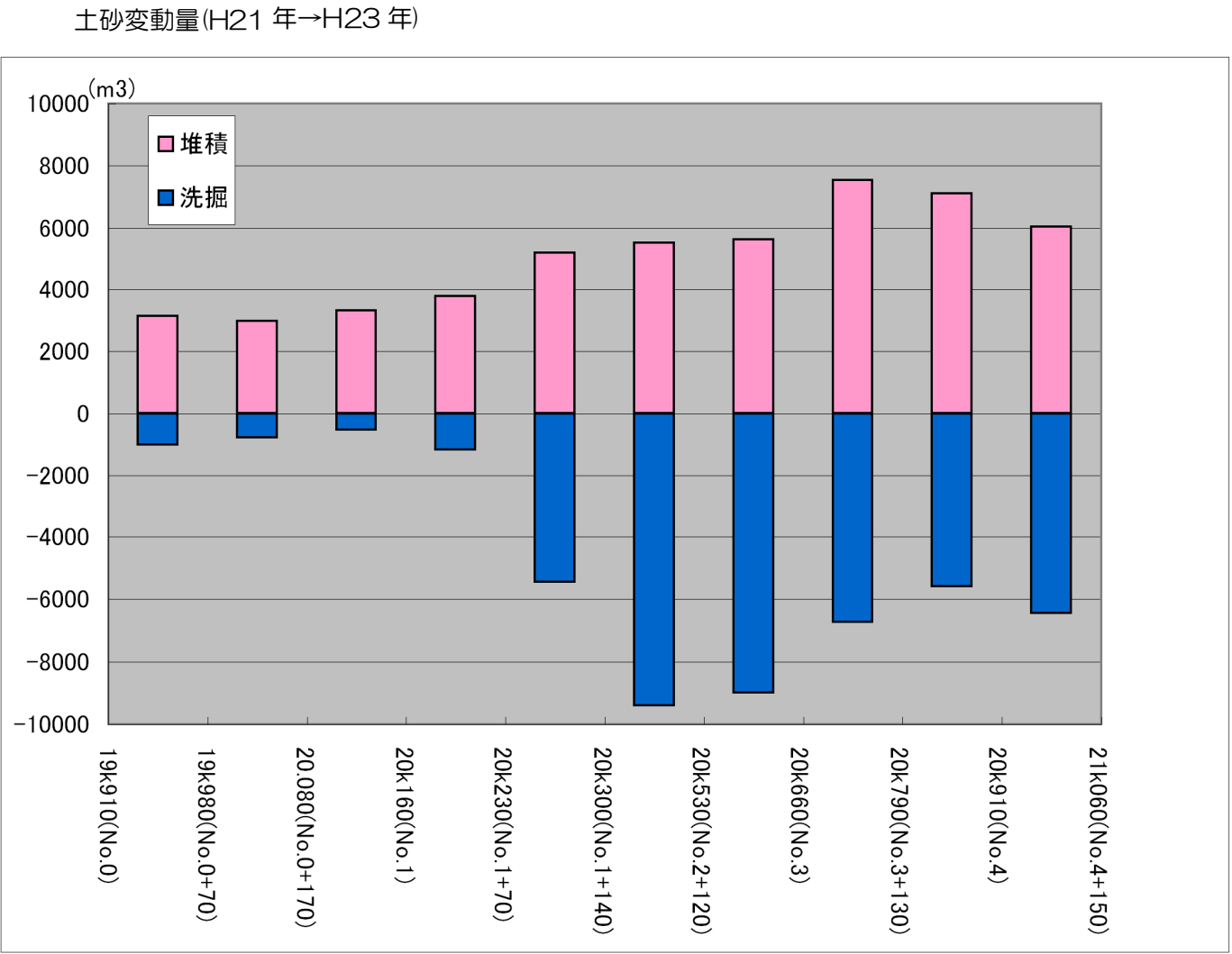
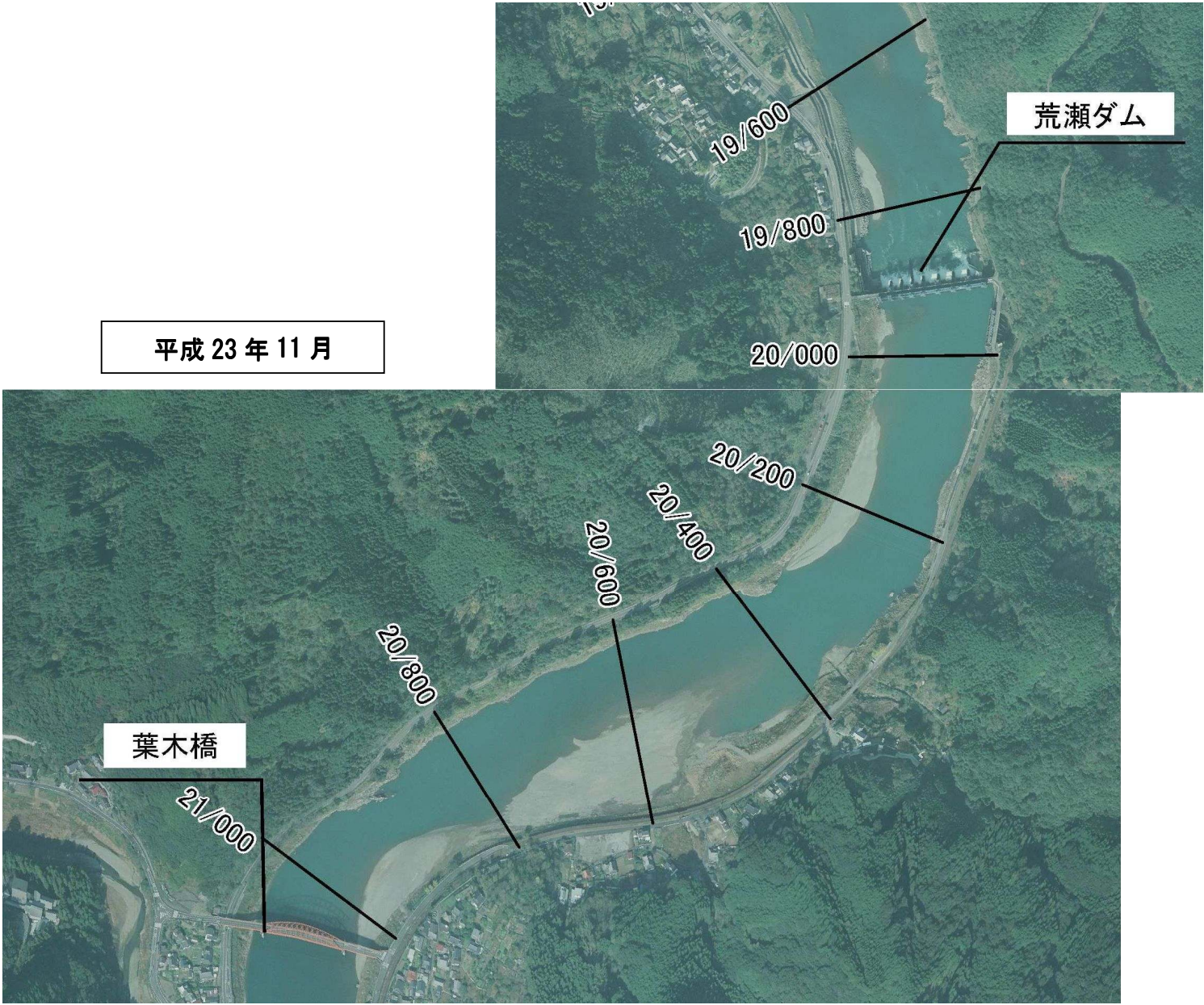


【横断図3/3】

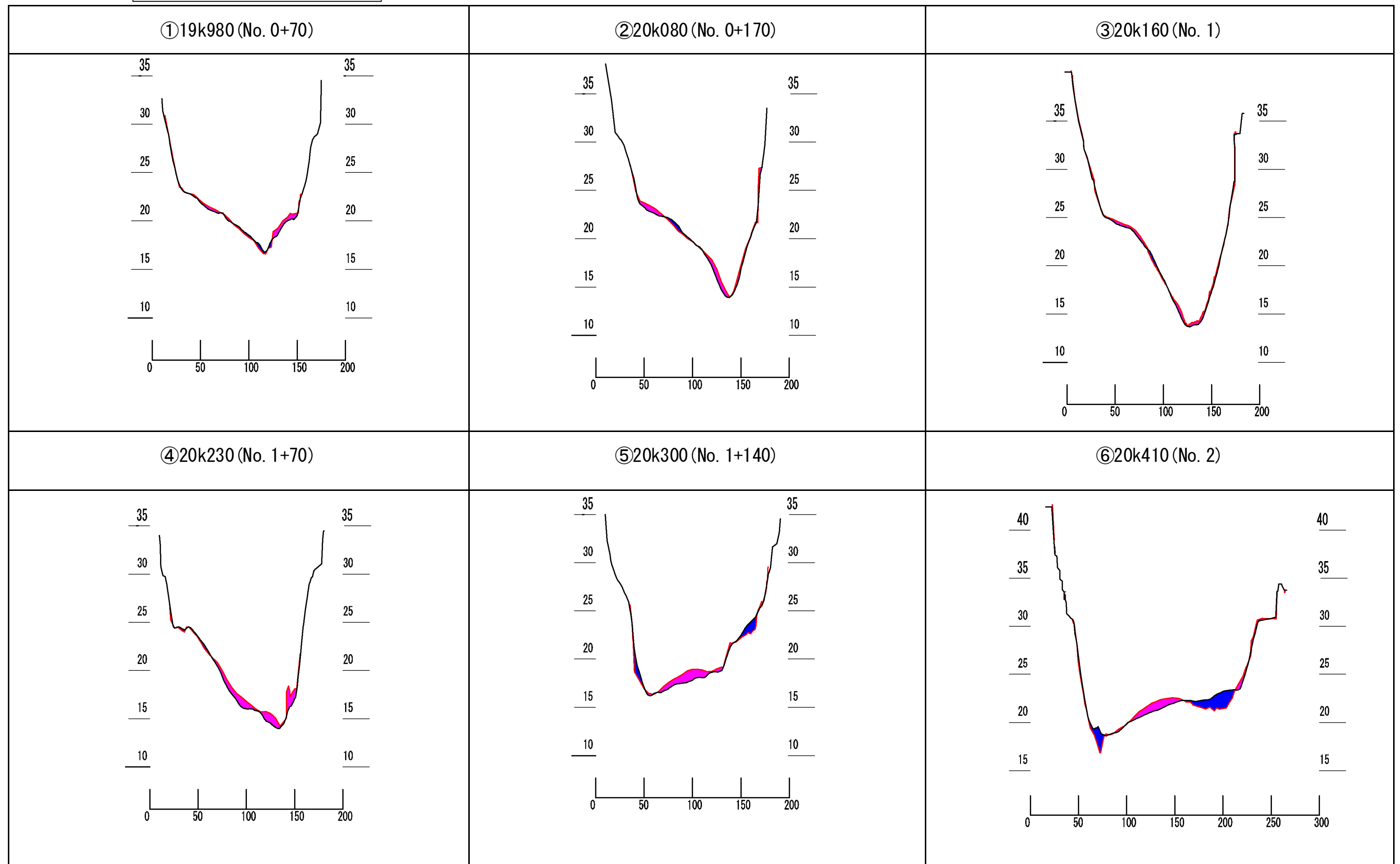
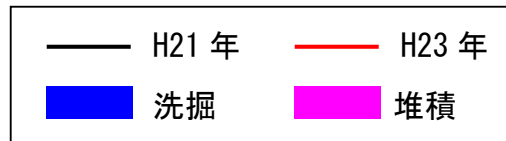


【荒瀬ダム直上流①】

評価項目	視点	評価概要
平成 21 年→23 年 土砂堆積状況	ゲート開放前後の状況	- 荒瀬ダム直上流の 20 k 230 までは、堆積傾向にある。 20 k 230 より上流側では、湾曲部であることから、土砂の変動がみられる。



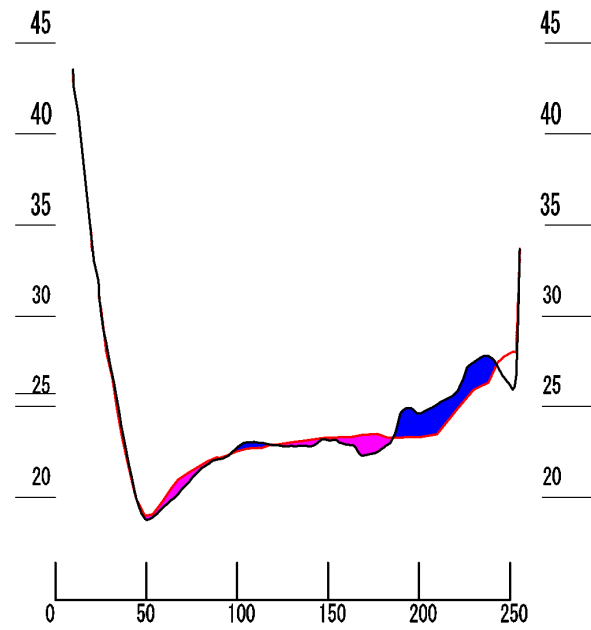
【横断図 1/2】



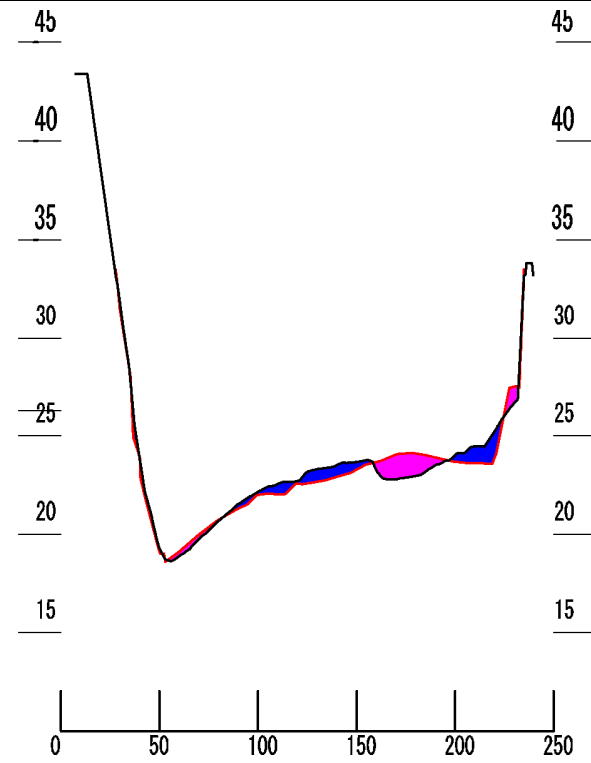
【横断図2/2】

— H21 年 — H23 年
■ 洗掘 ■ 堆積

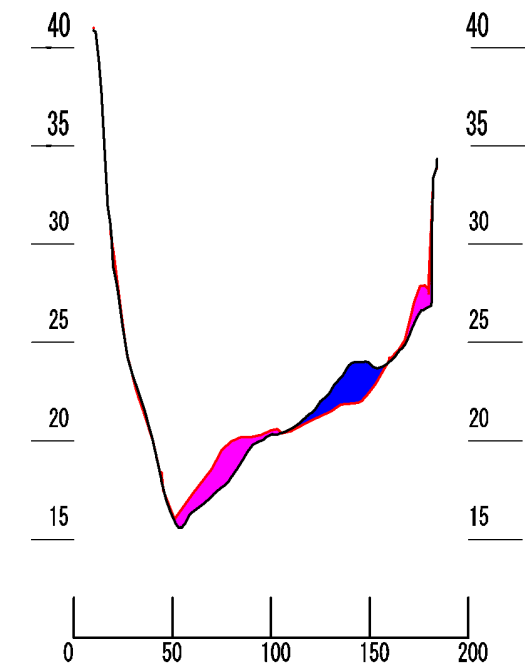
⑦20k530 (No. 2+120)



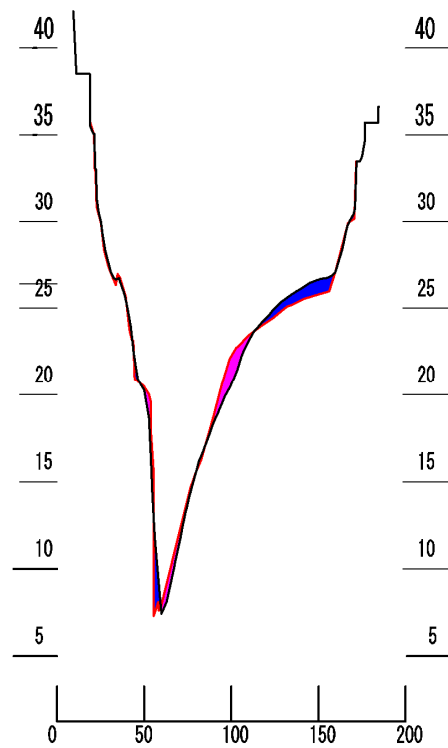
⑧20k660 (No. 3)



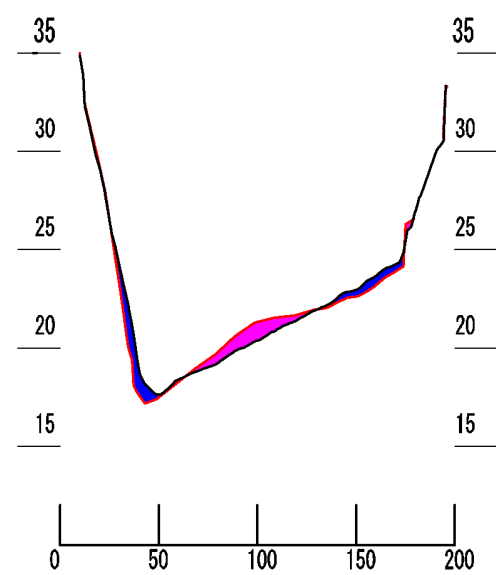
⑨20k790 (No. 3+130)



⑩20k910 (No. 4)

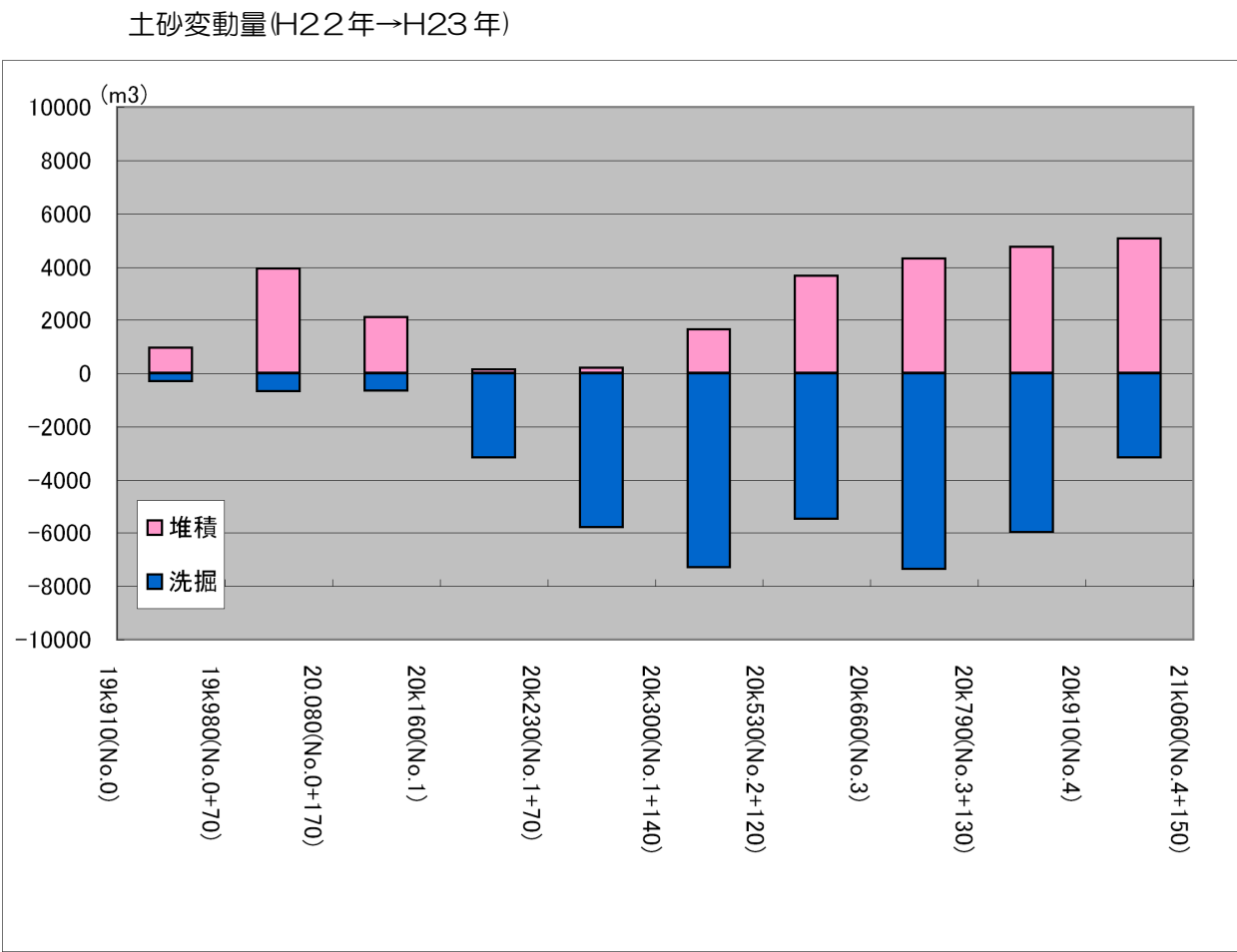
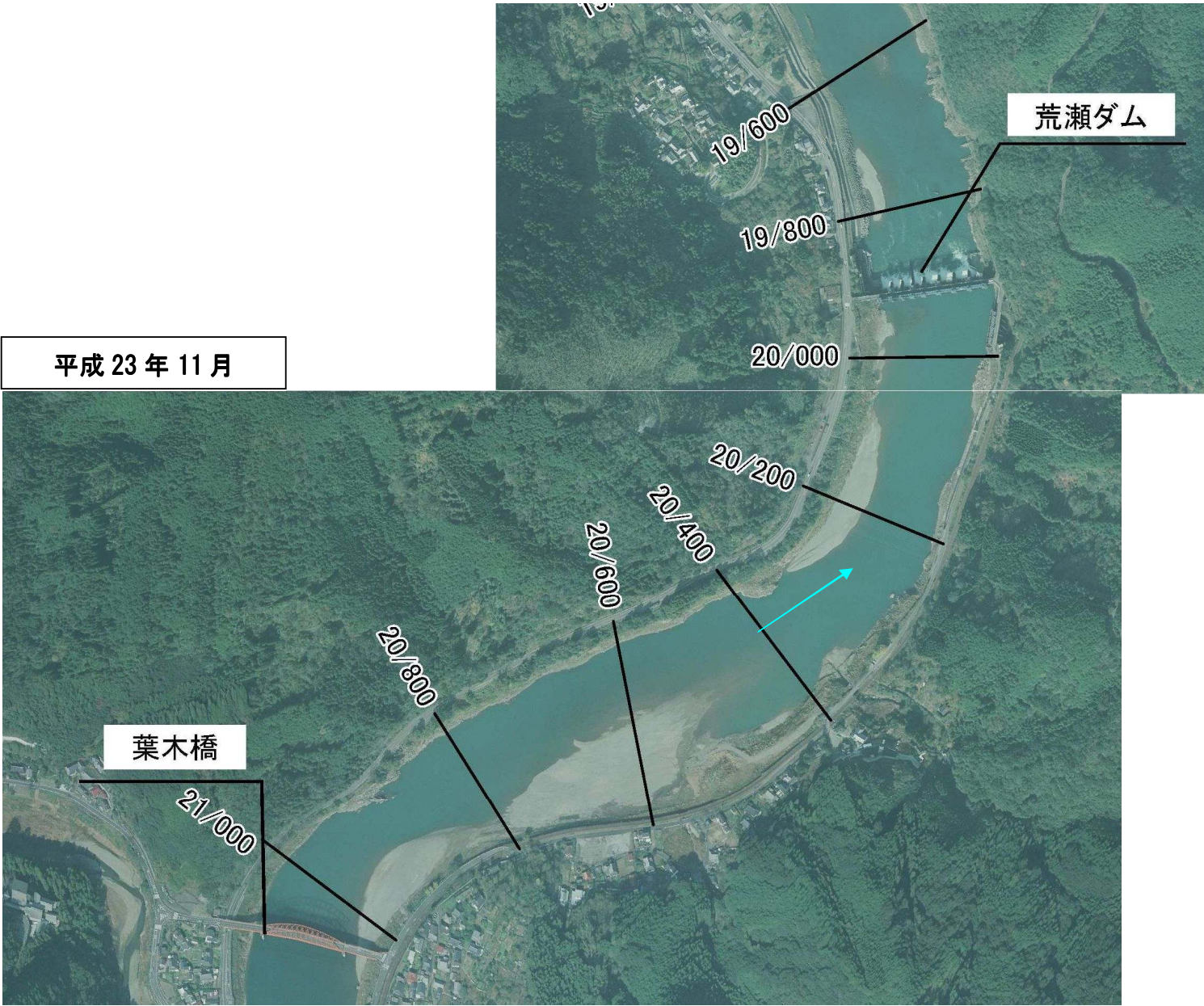


⑪21k060 (No. 4+150)

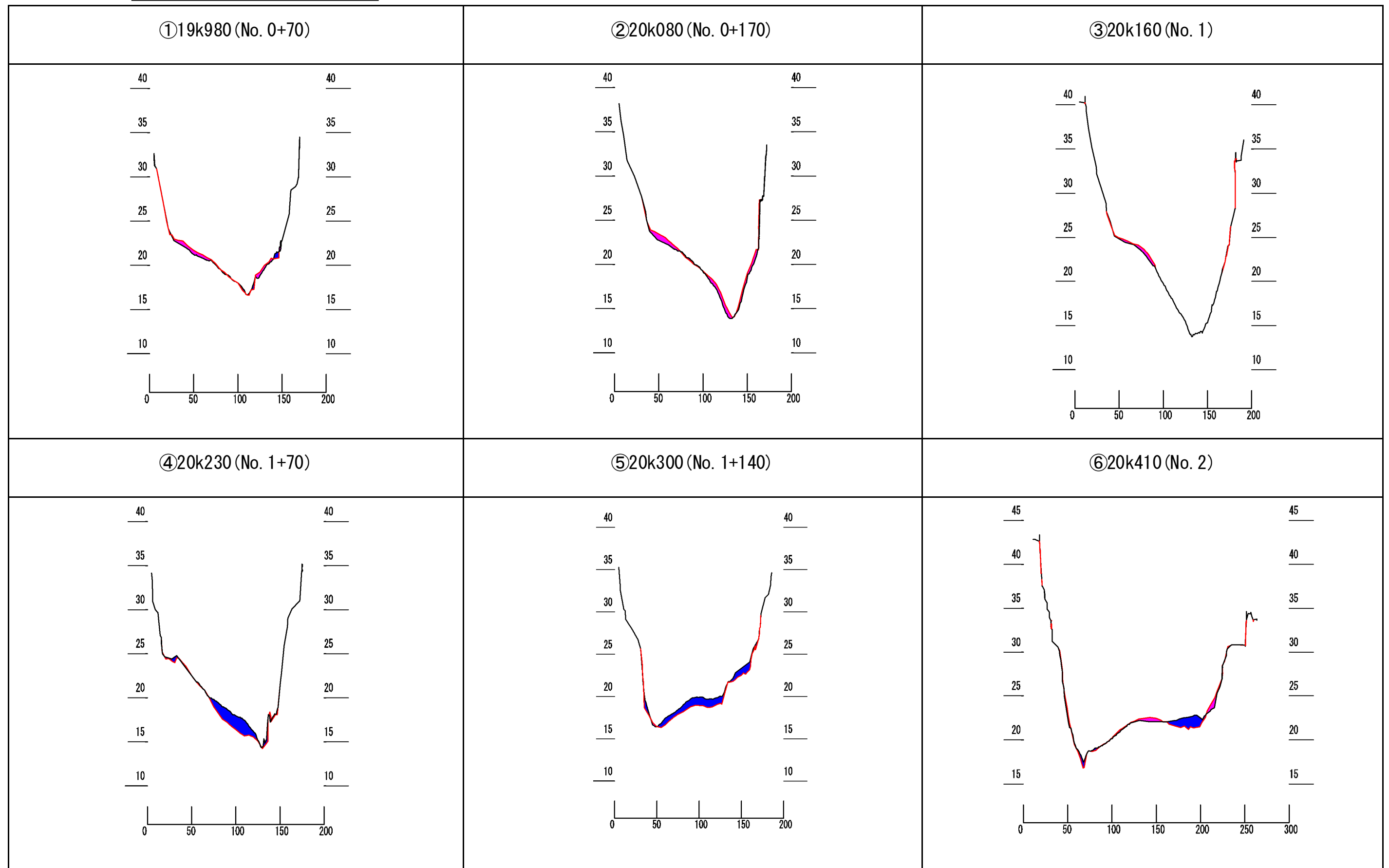
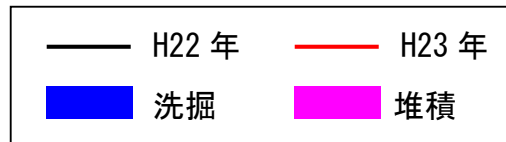


【荒瀬ダム直上流②】

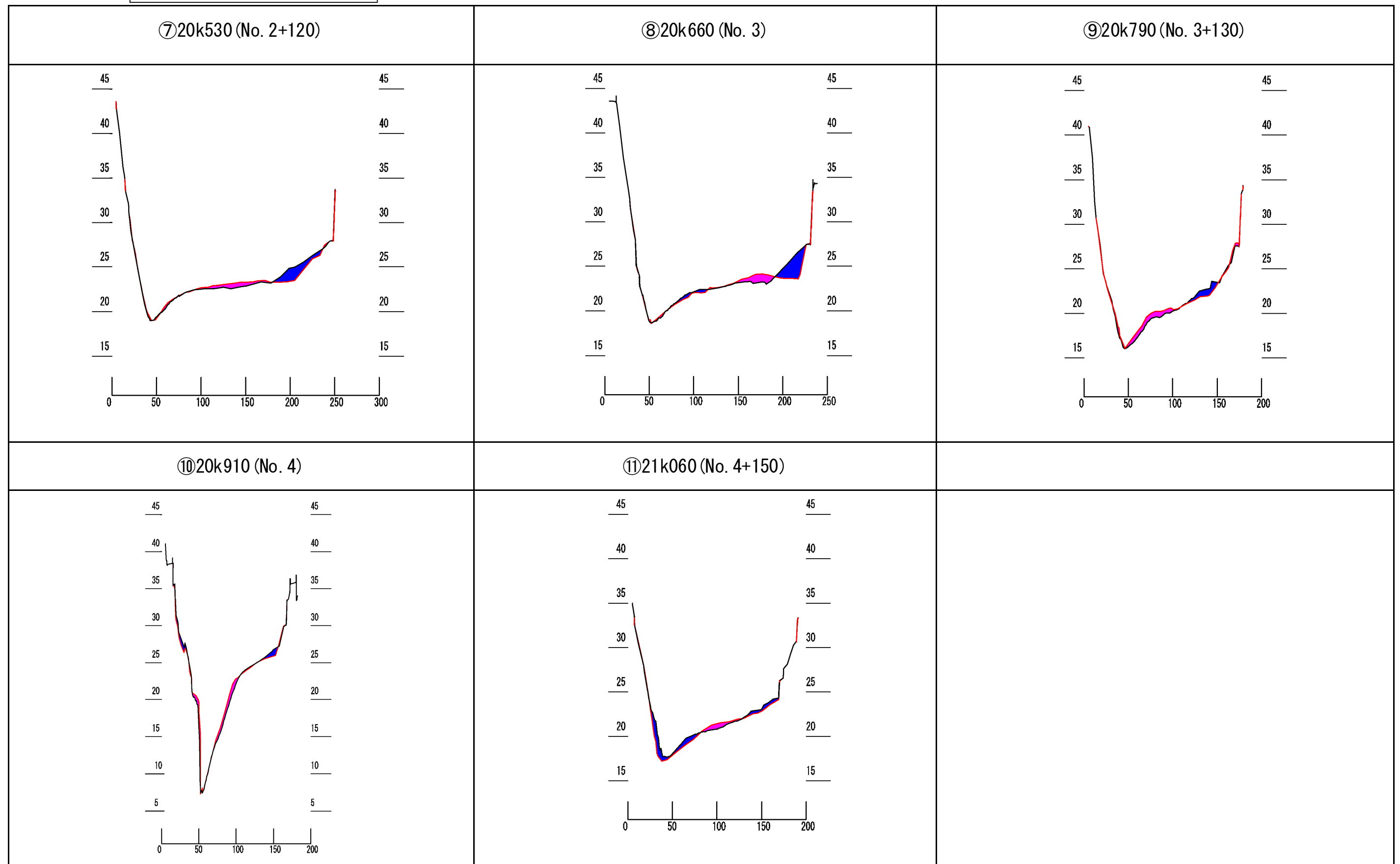
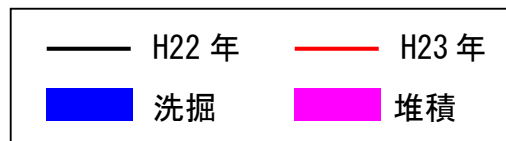
評価項目	視点	評価概要
平成 22 年→23 年 土砂堆積状況	ゲート開放後の状況	- 荒瀬ダム直上流の 20 k 160 までは、堆積傾向にある。 20 k 230 より上流側では、湾曲部であることから、土砂の変動がみられる。



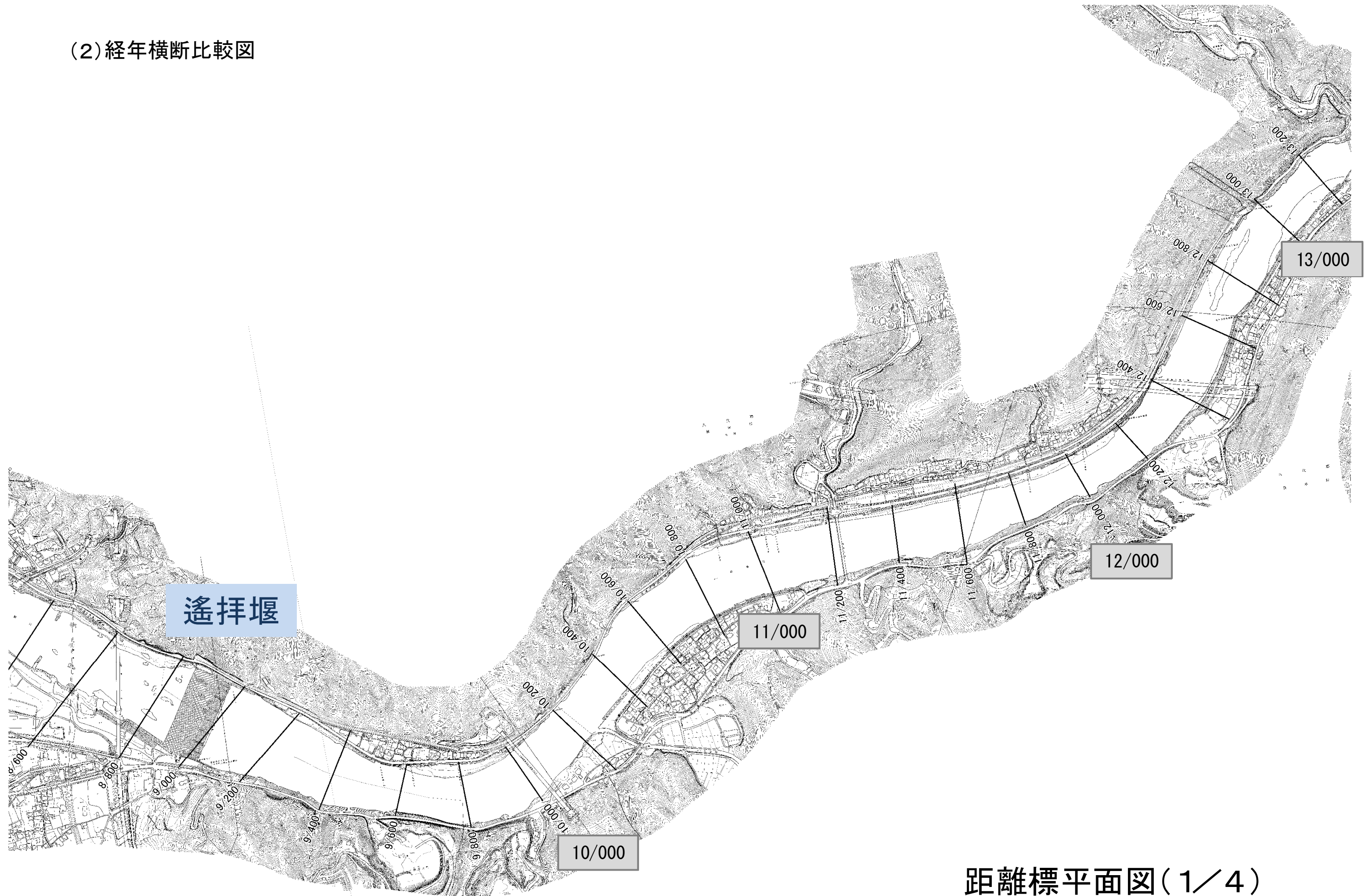
【横断図 1 / 2】



【横断図2/2】



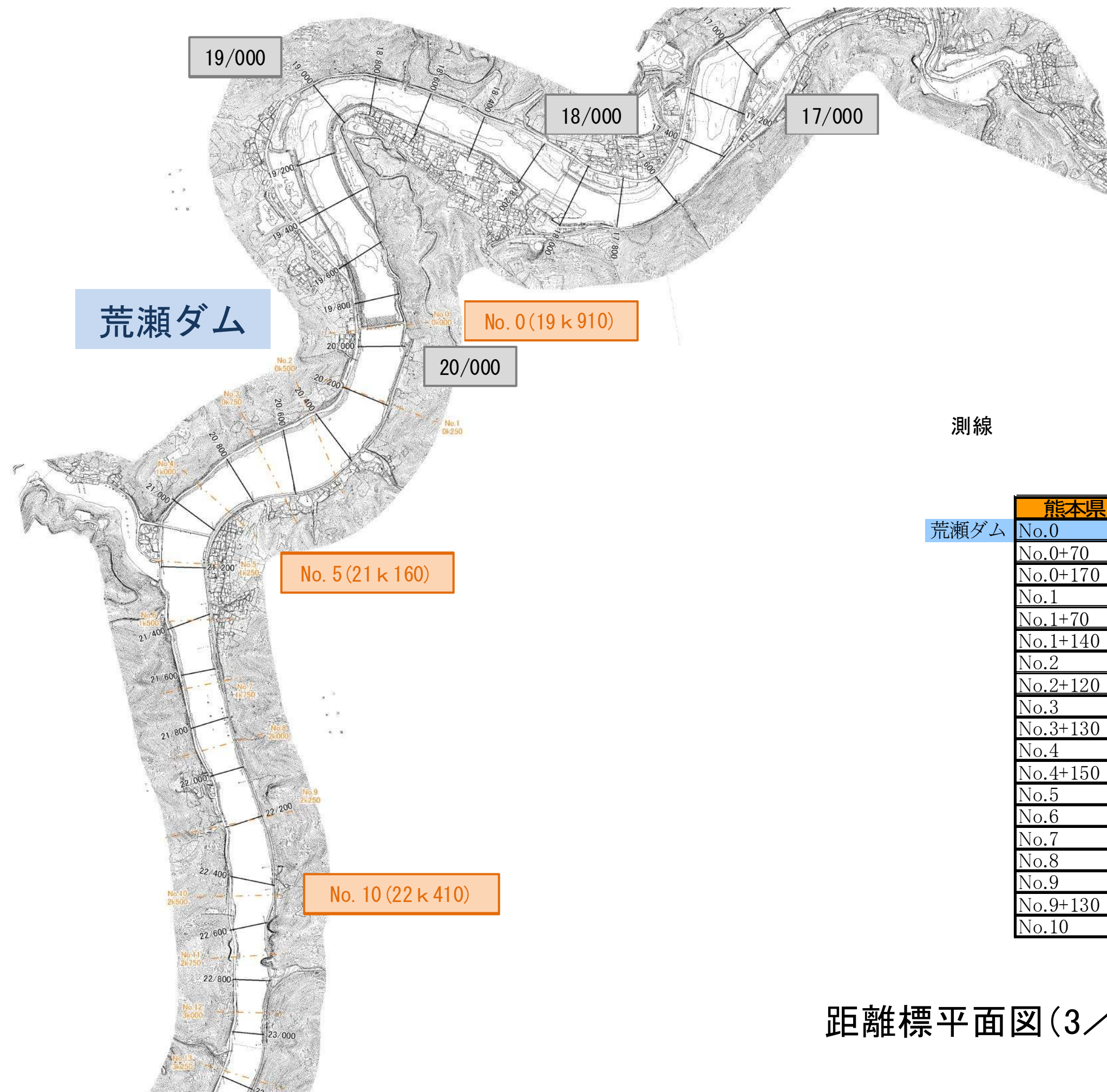
(2) 経年横断比較図



距離標平面図(1/4)



距離標平面図(2/4)

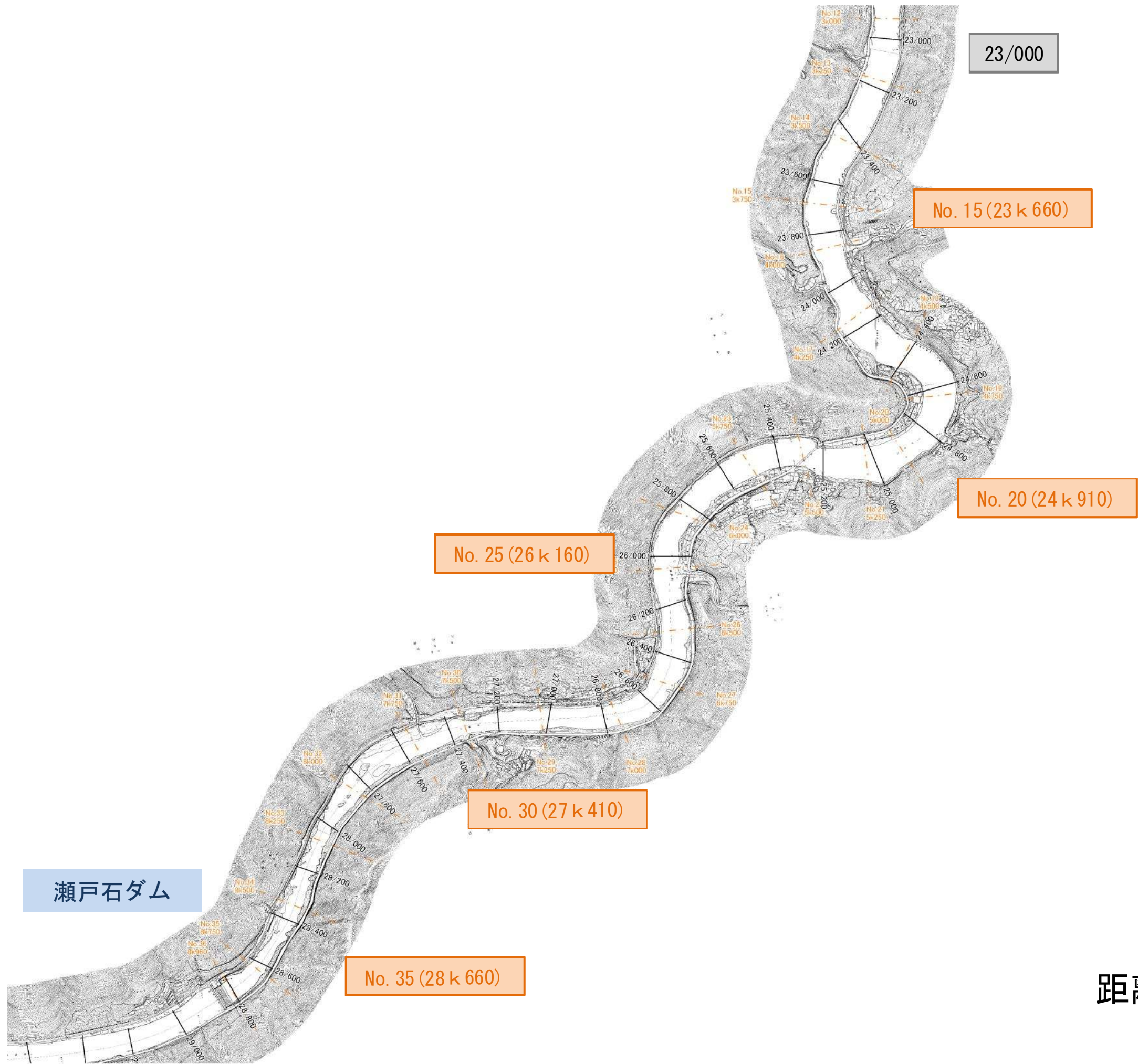


測線

荒瀬ダム

熊本県	国交省
No.0	19k910
No.0+70	19k980
No.0+170	20k080
No.1	20k160
No.1+70	20k230
No.1+140	20k300
No.2	20k410
No.2+120	20k530
No.3	20k660
No.3+130	20k790
No.4	20k910
No.4+150	21k060
No.5	21k160
No.6	21k410
No.7	21k660
No.8	21k910
No.9	22k160
No.9+130	22k290
No.10	22k410

距離標平面図(3／4)



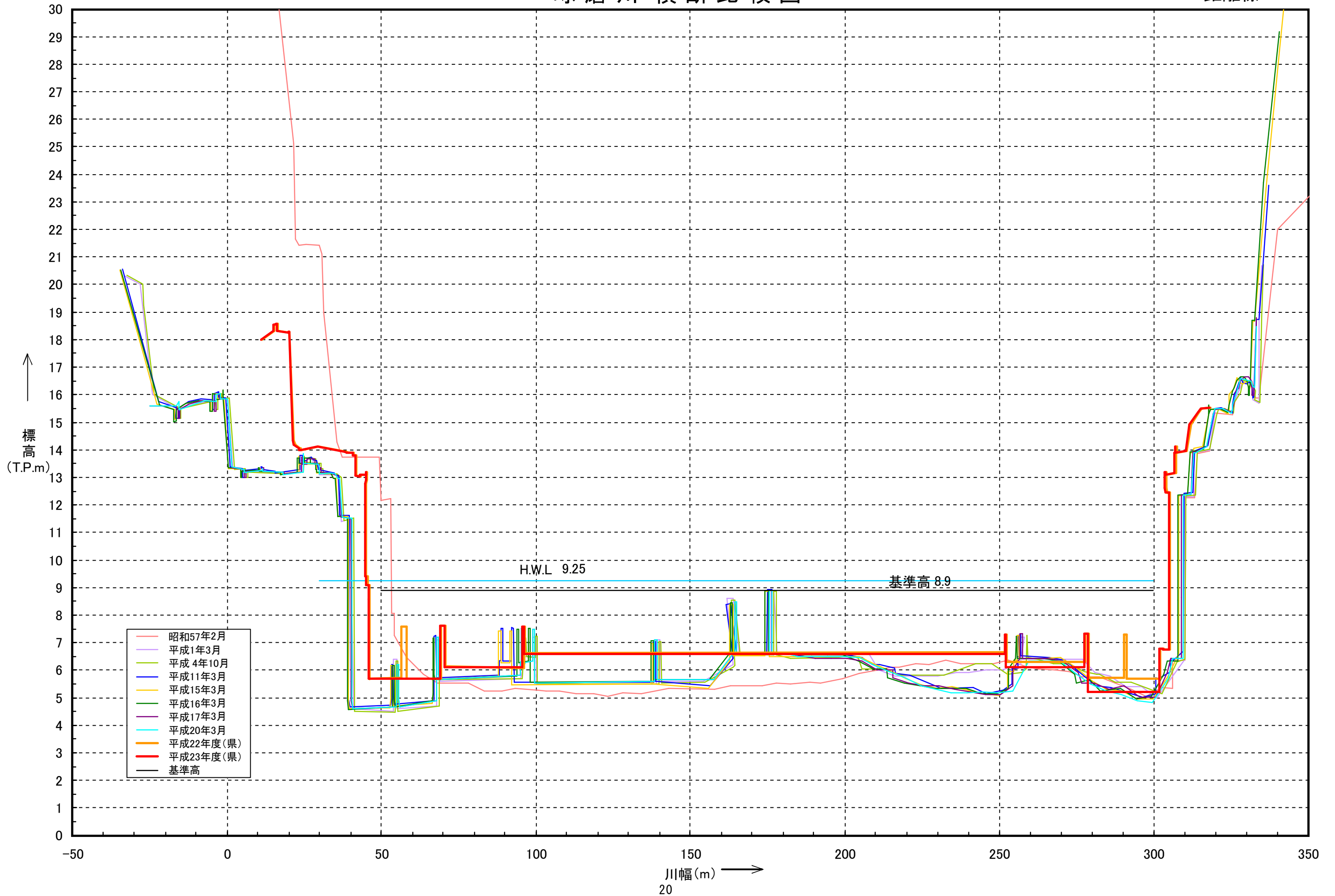
測線

熊本県	国交省
No.11	22k660
No.12	22k910
No.13	23k160
No.14	23k410
No.15	23k660
No.16	23k910
No.17	24k160
No.18	24k410
No.19	24k660
No.20	24k910
No.21	25k160
No.21+150	25k310
No.22	25k410
No.23	25k660
No.24	25k910
No.25	26k160
No.26	26k410
No.27	26k660
No.28	26k910
No.29	27k160
No.30	27k410
No.31	27k660
No.32	27k910
No.33	28k160
No.34	28k410
No.35	28k660
No.36	28k800

距離標平面図(4／4)

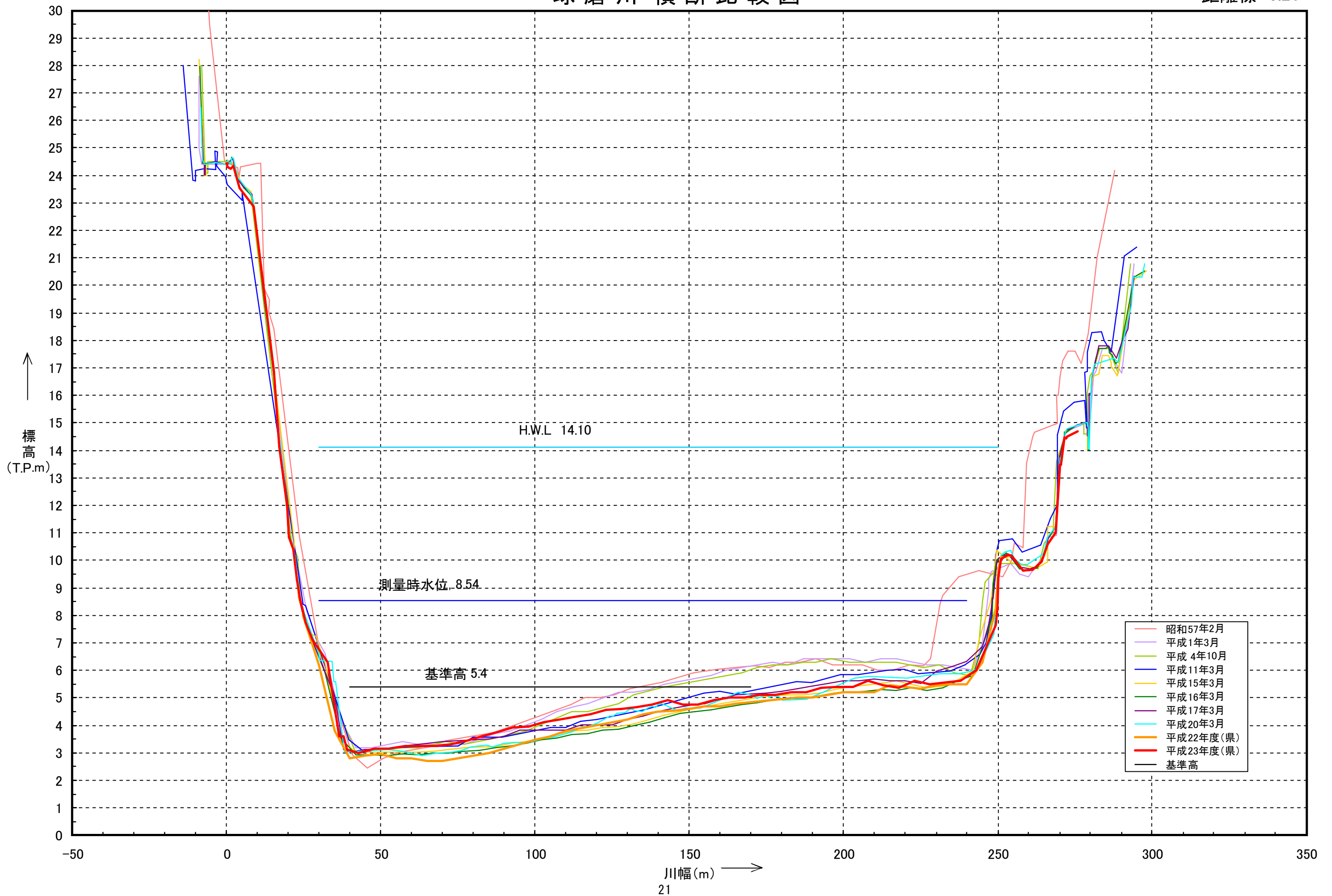
球磨川 横断比較図

距離標 9.00



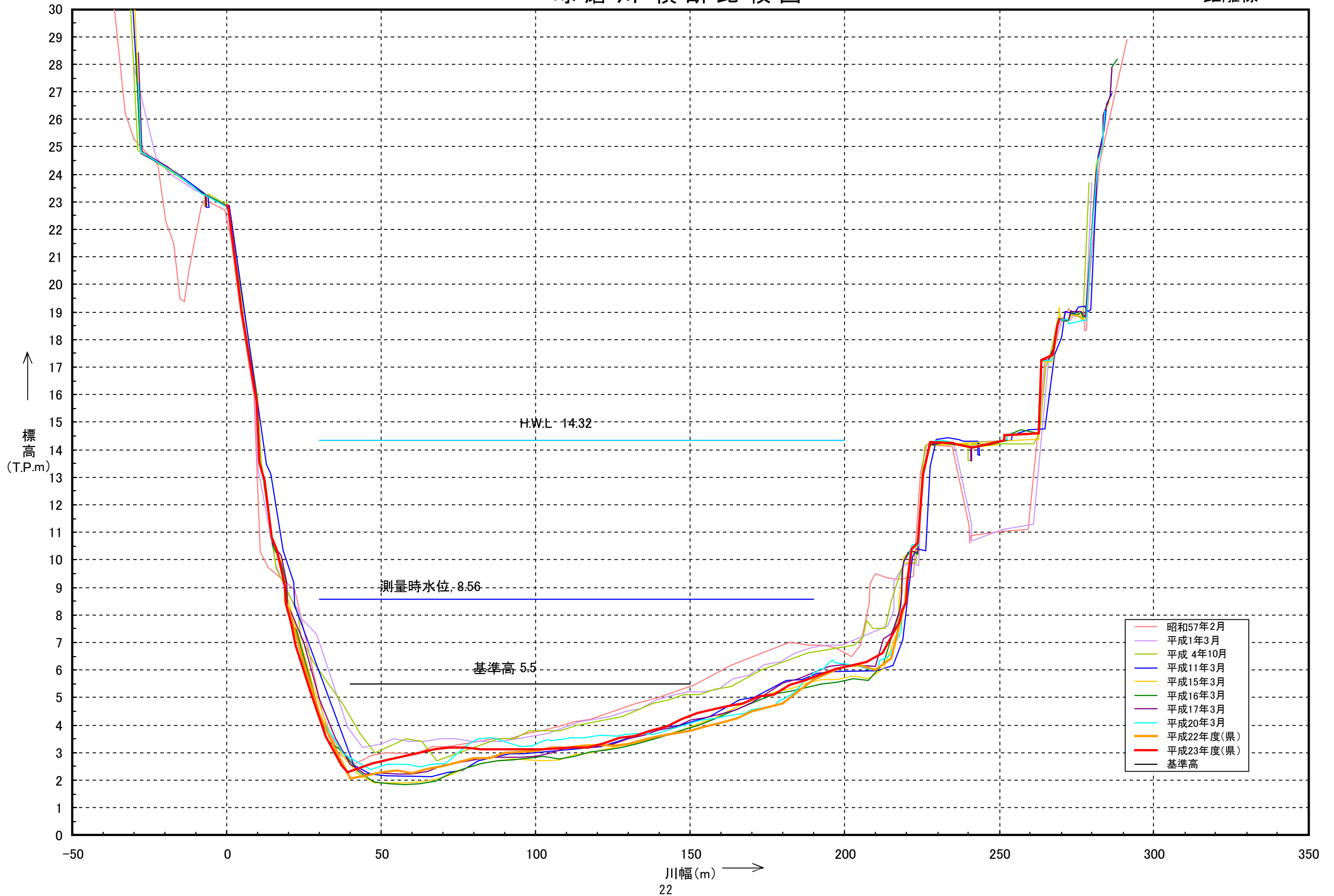
球磨川 横断比較図

距離標 9.20



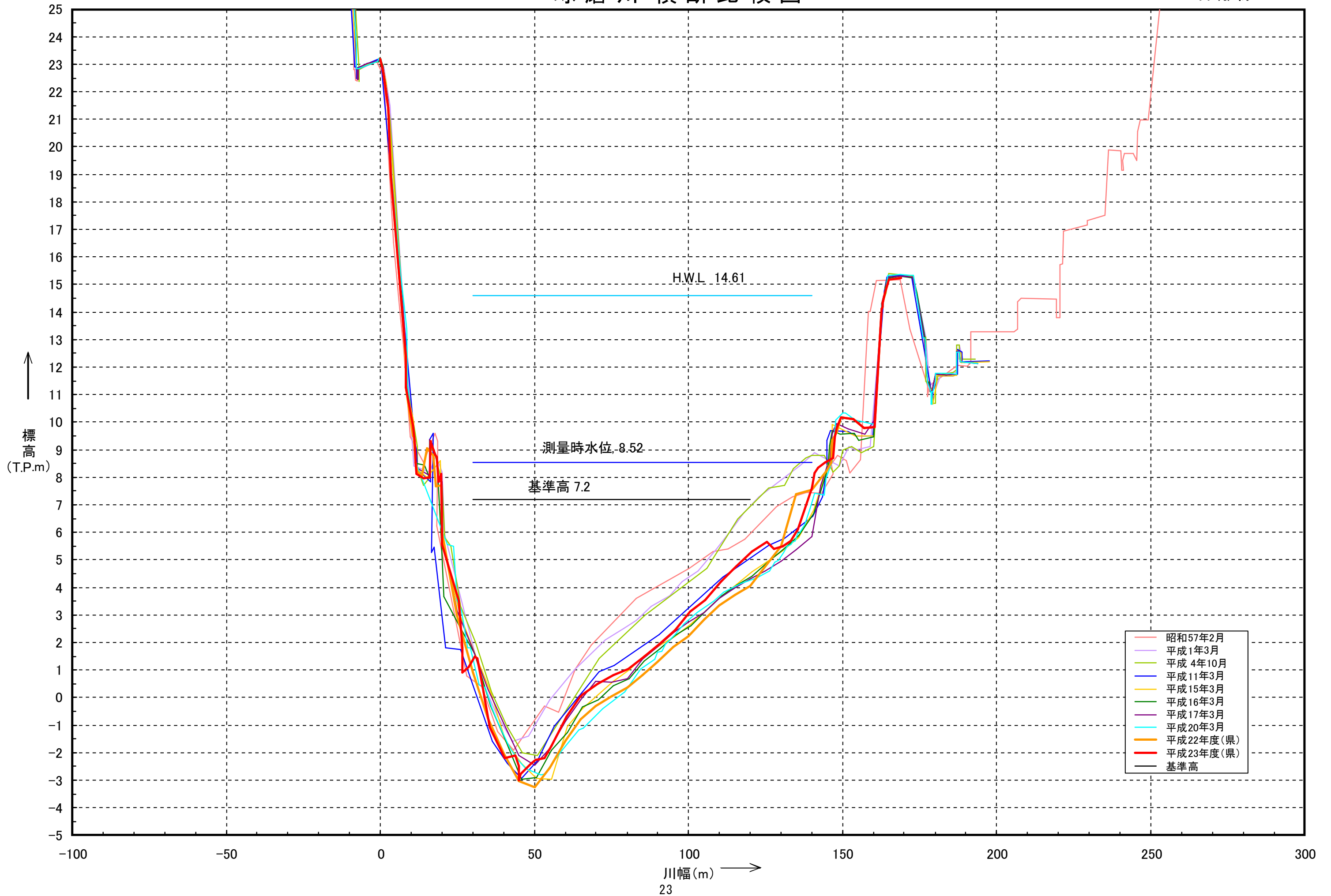
球磨川 横断比較図

距離標 9.40



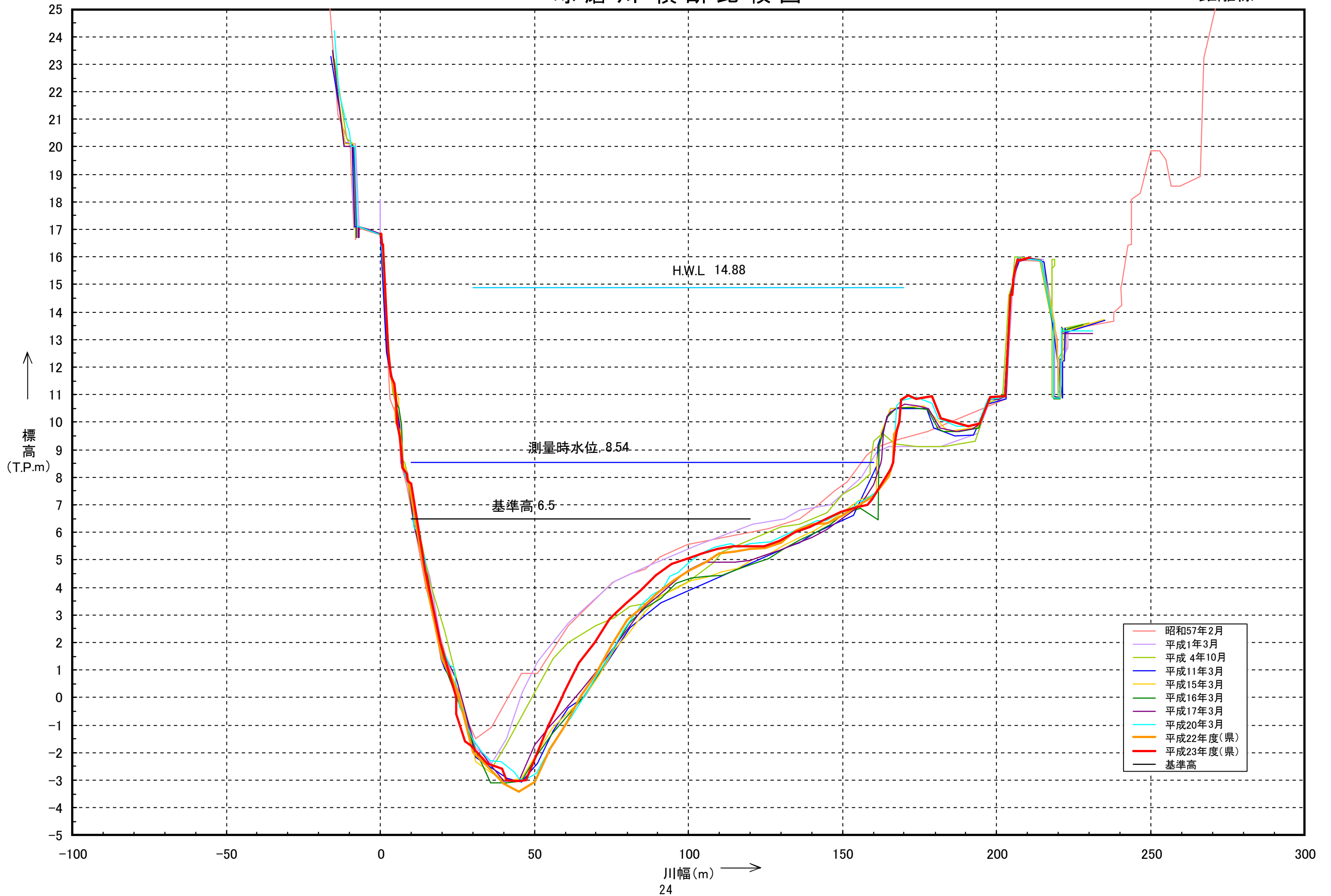
球磨川 横断比較図

距離標 9.60



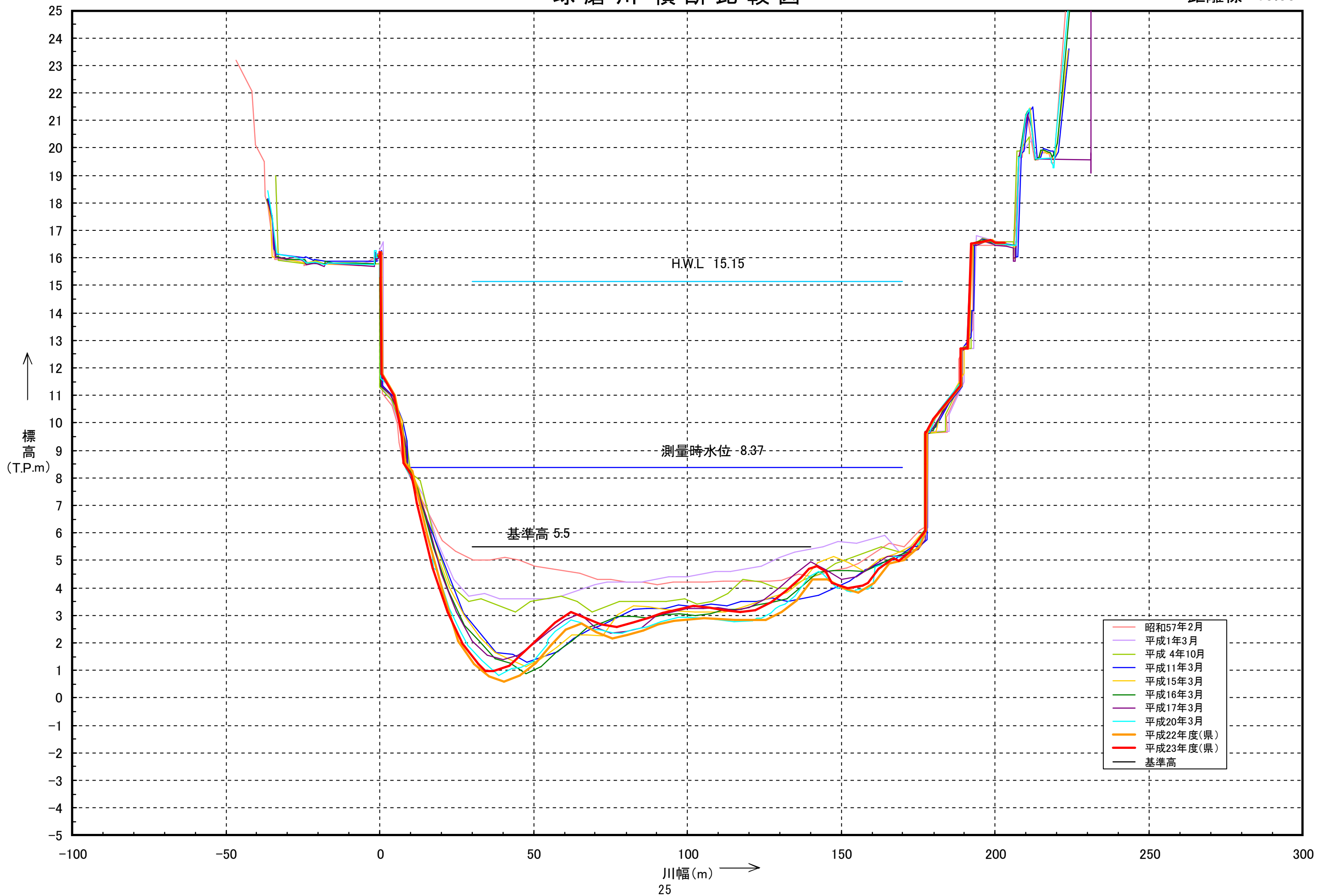
球磨川 横断比較図

距離標 9.80



球磨川 横断比較図

距離標 10.00



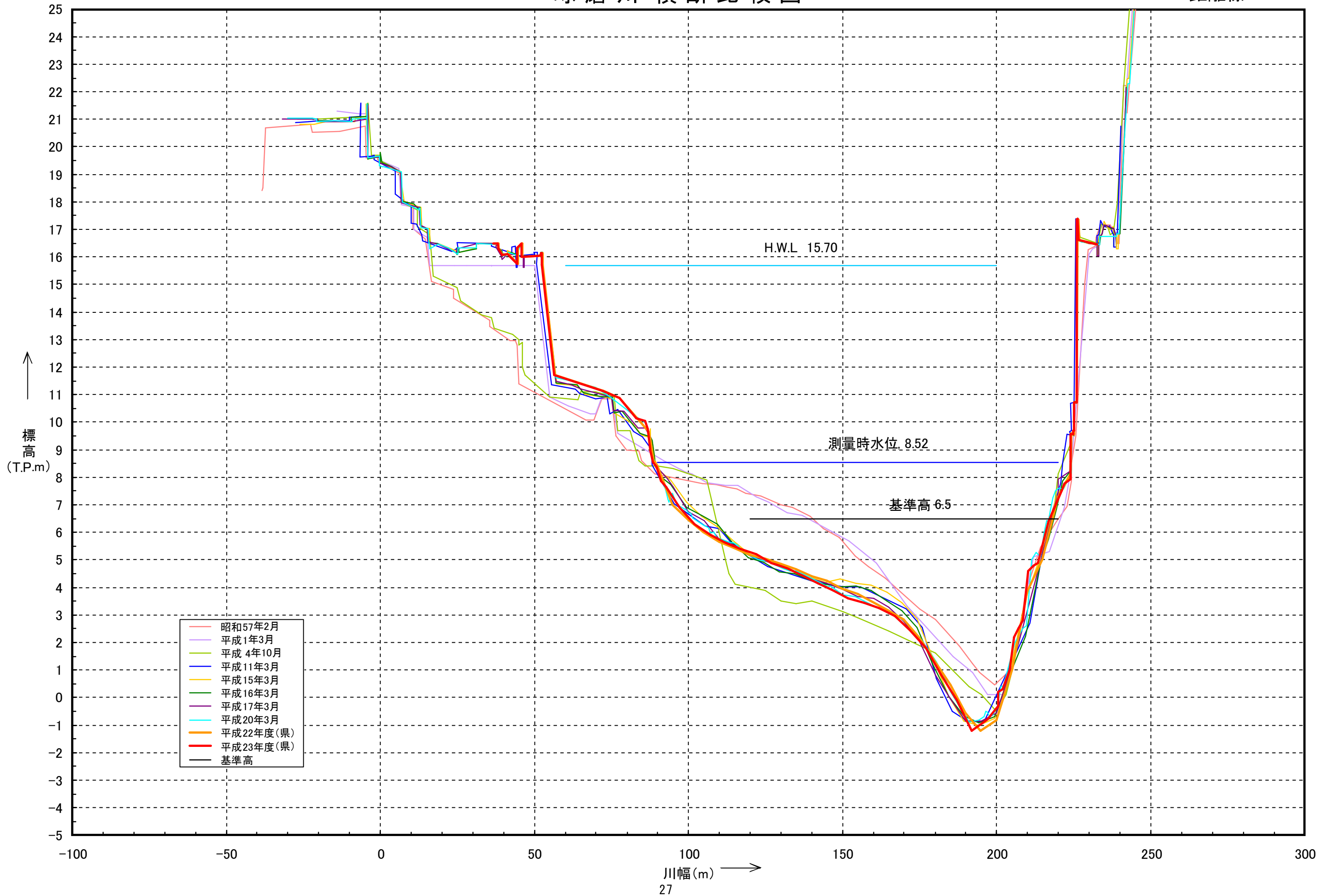
球磨川 横断比較図

距離標 10.20



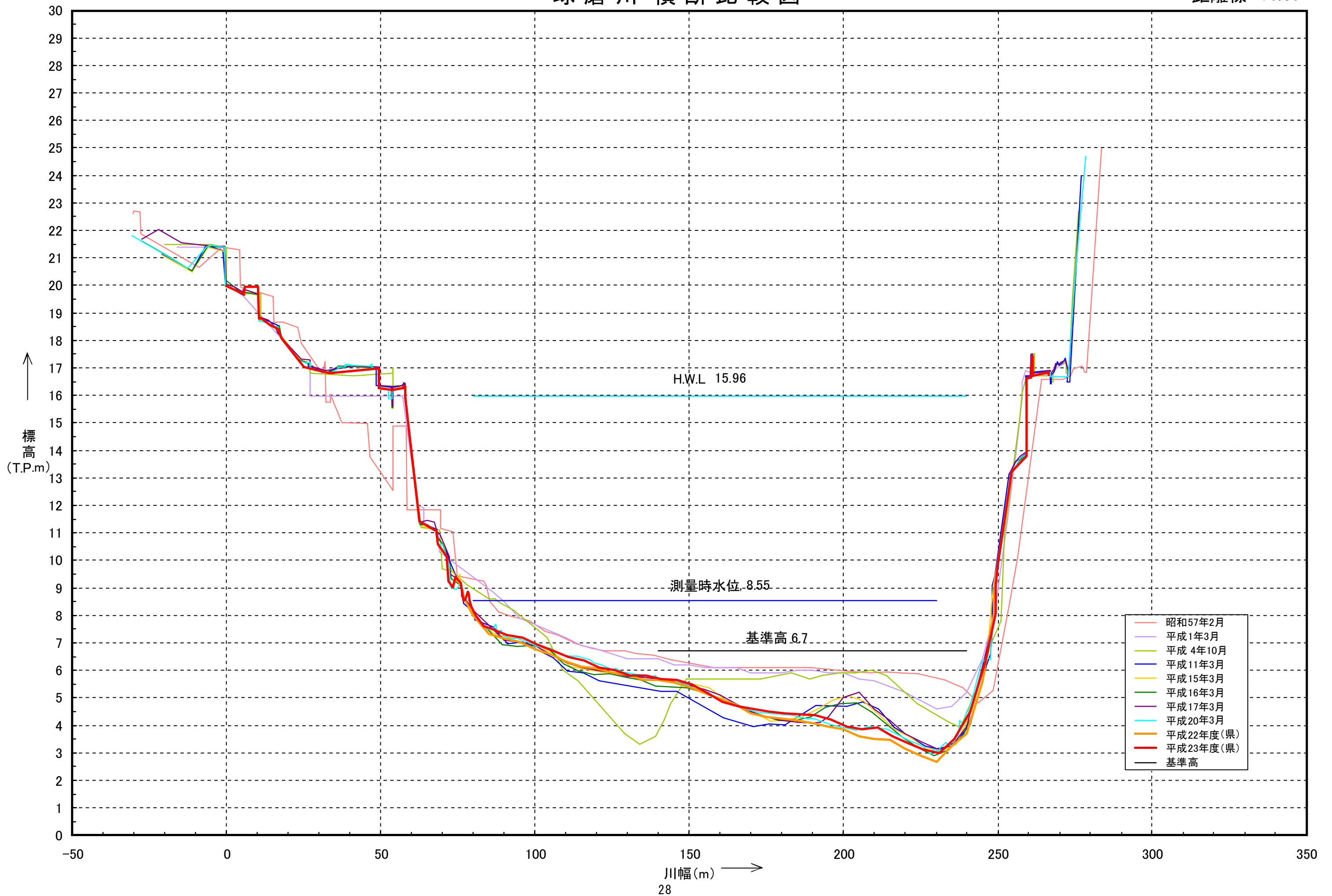
球磨川 横断比較図

距離標 10.40



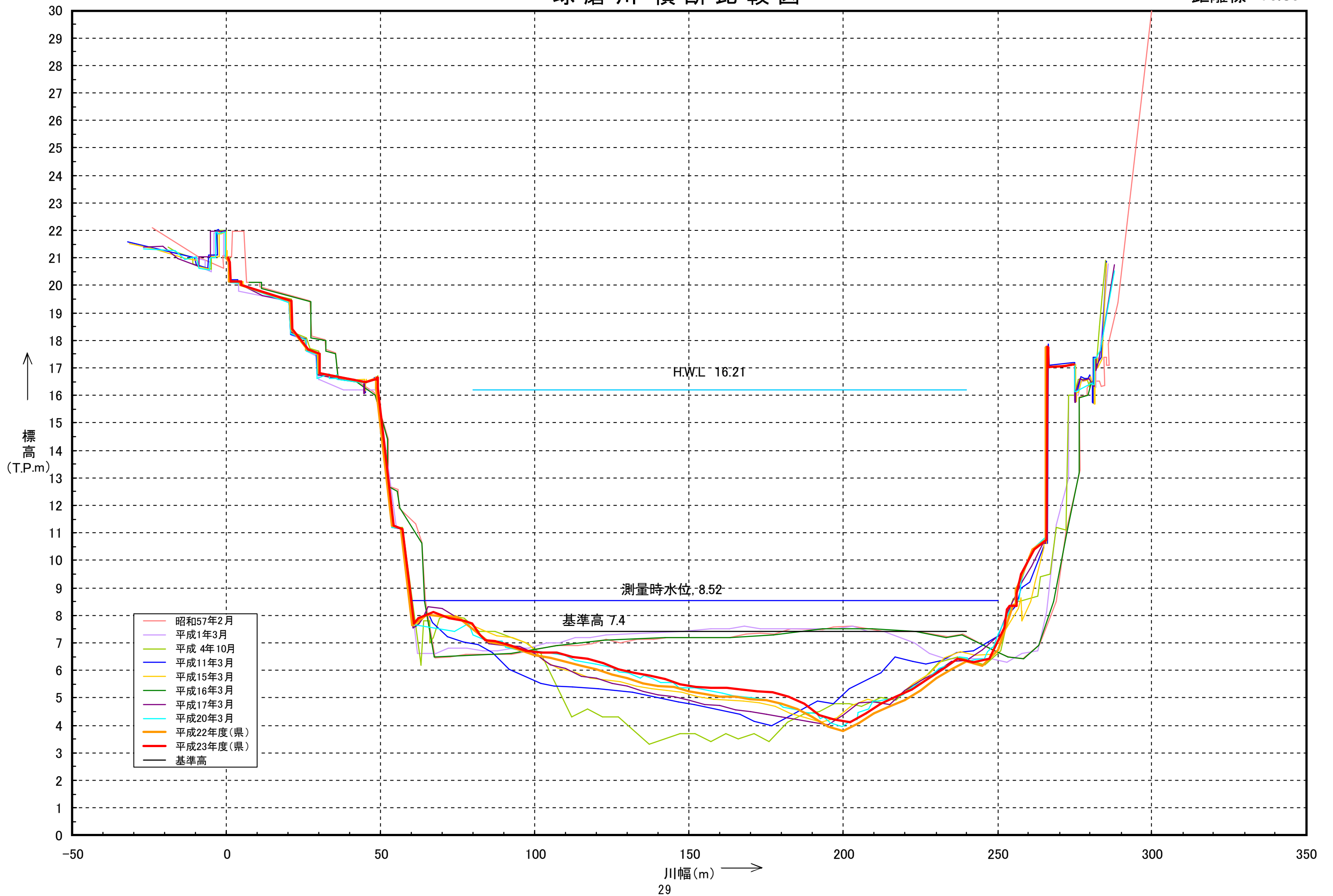
球磨川 横断比較図

距離標 10.60



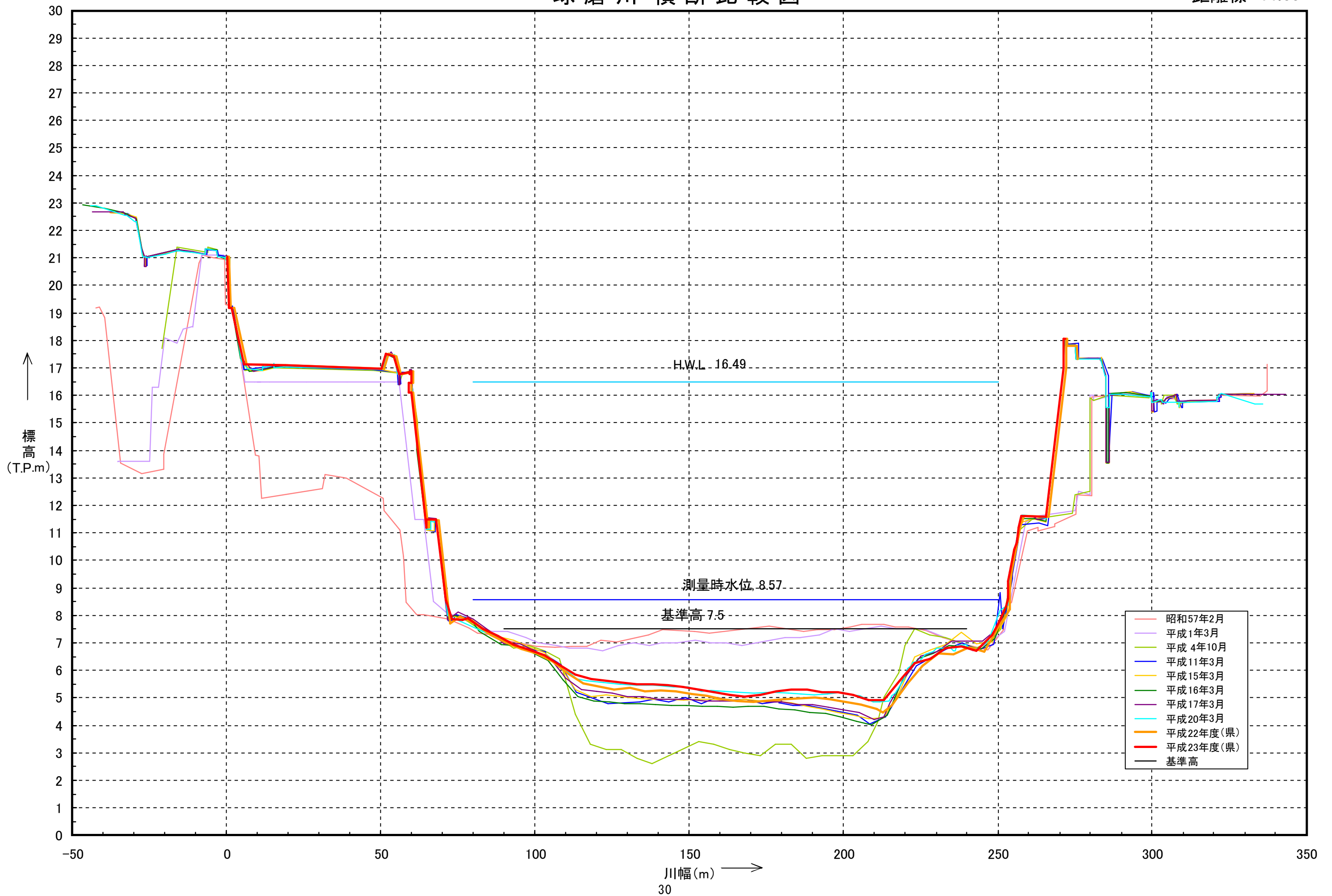
球磨川 横断比較図

距離標 10.80



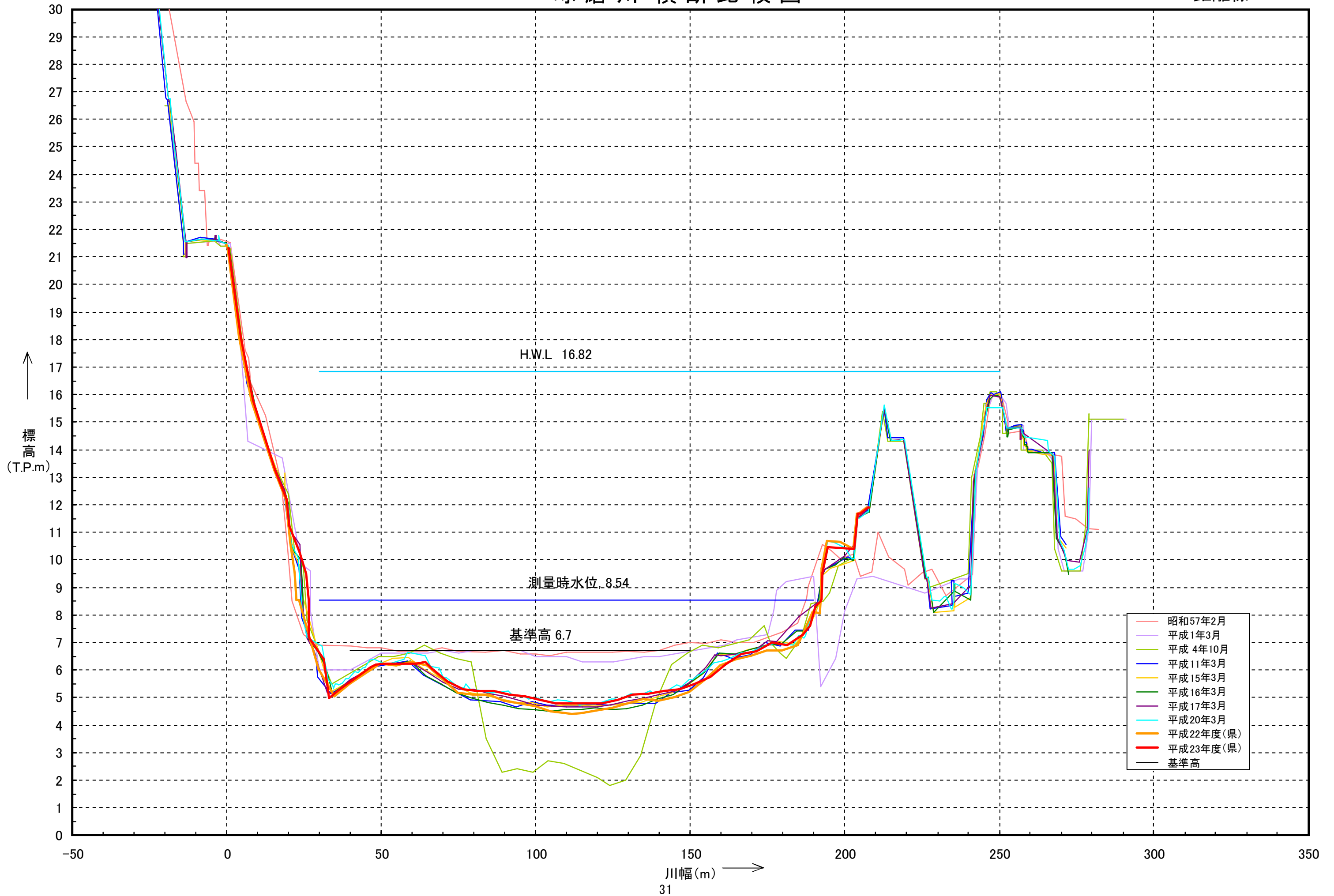
球磨川 横断比較図

距離標 11.00



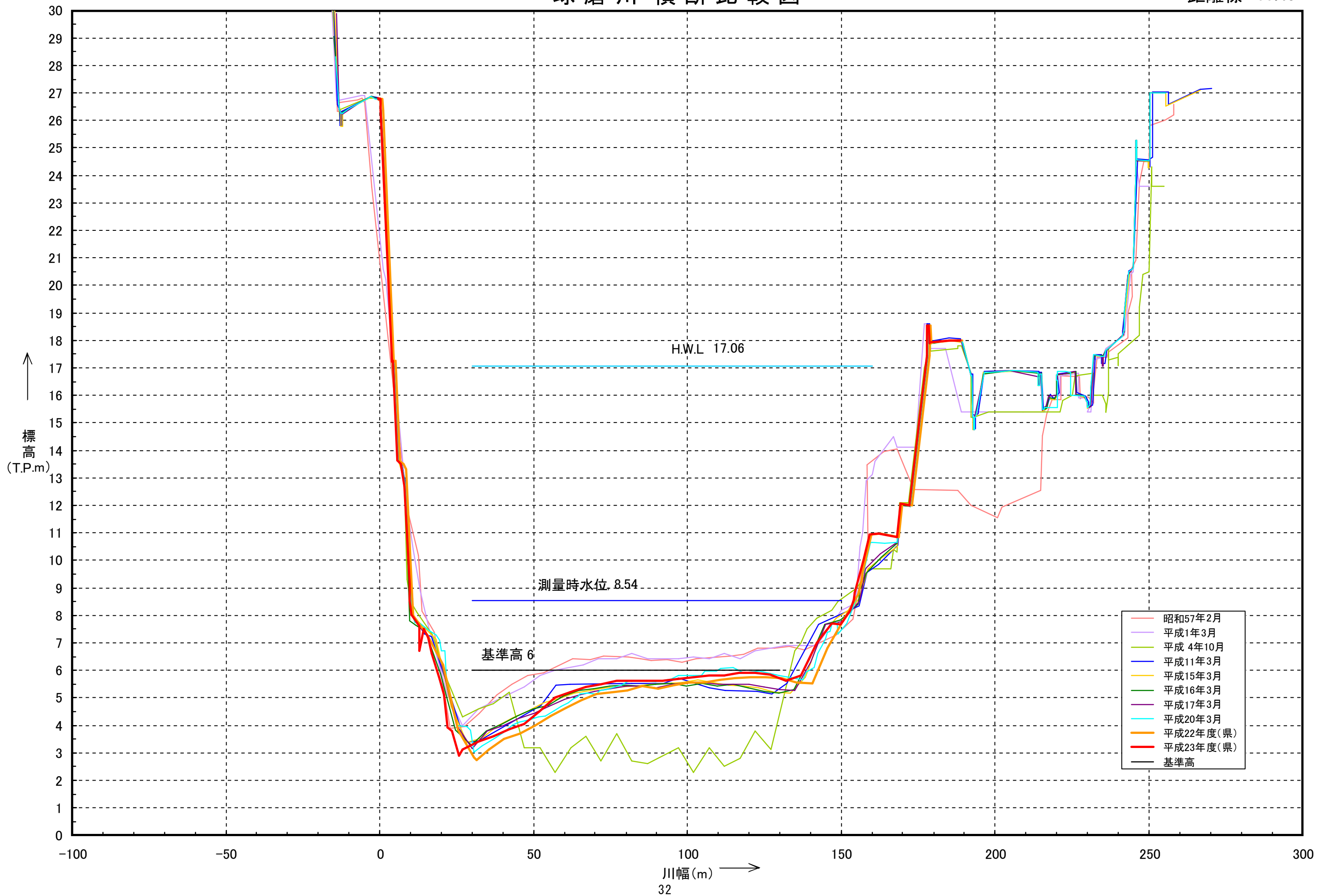
球磨川 横断比較図

距離標 11.20



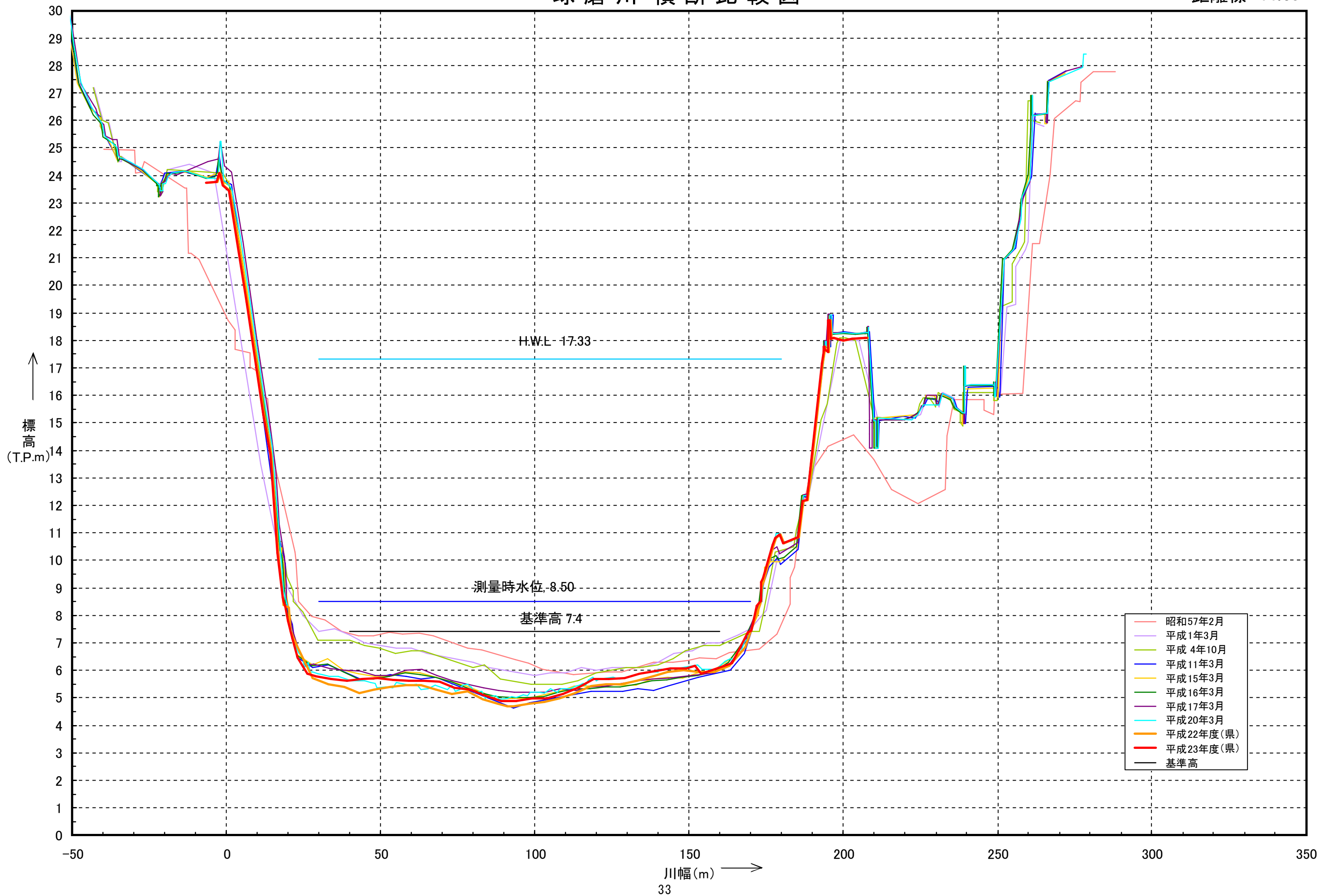
球磨川 横断比較図

距離標 11.40



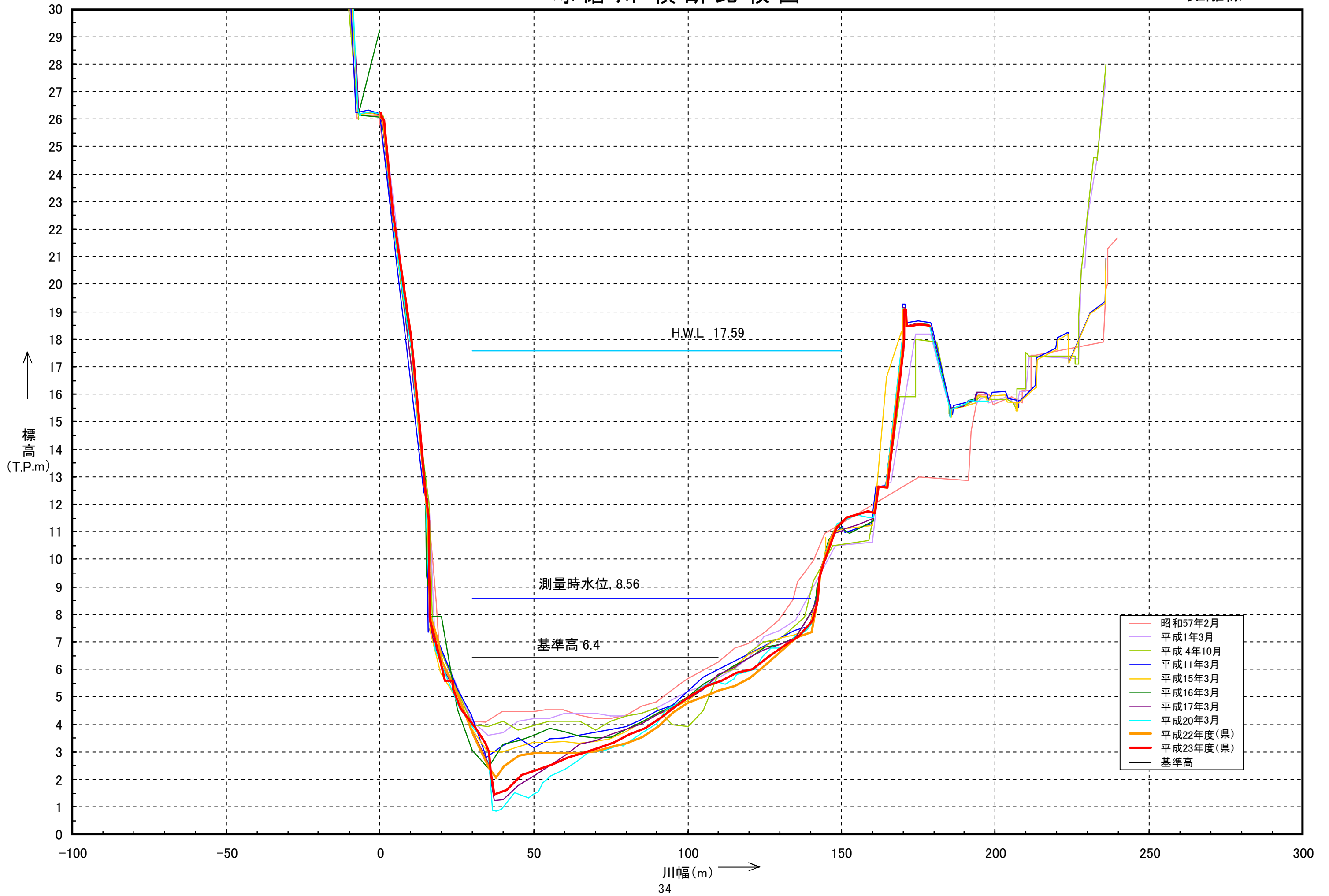
球磨川 横断比較図

距離標 11.60



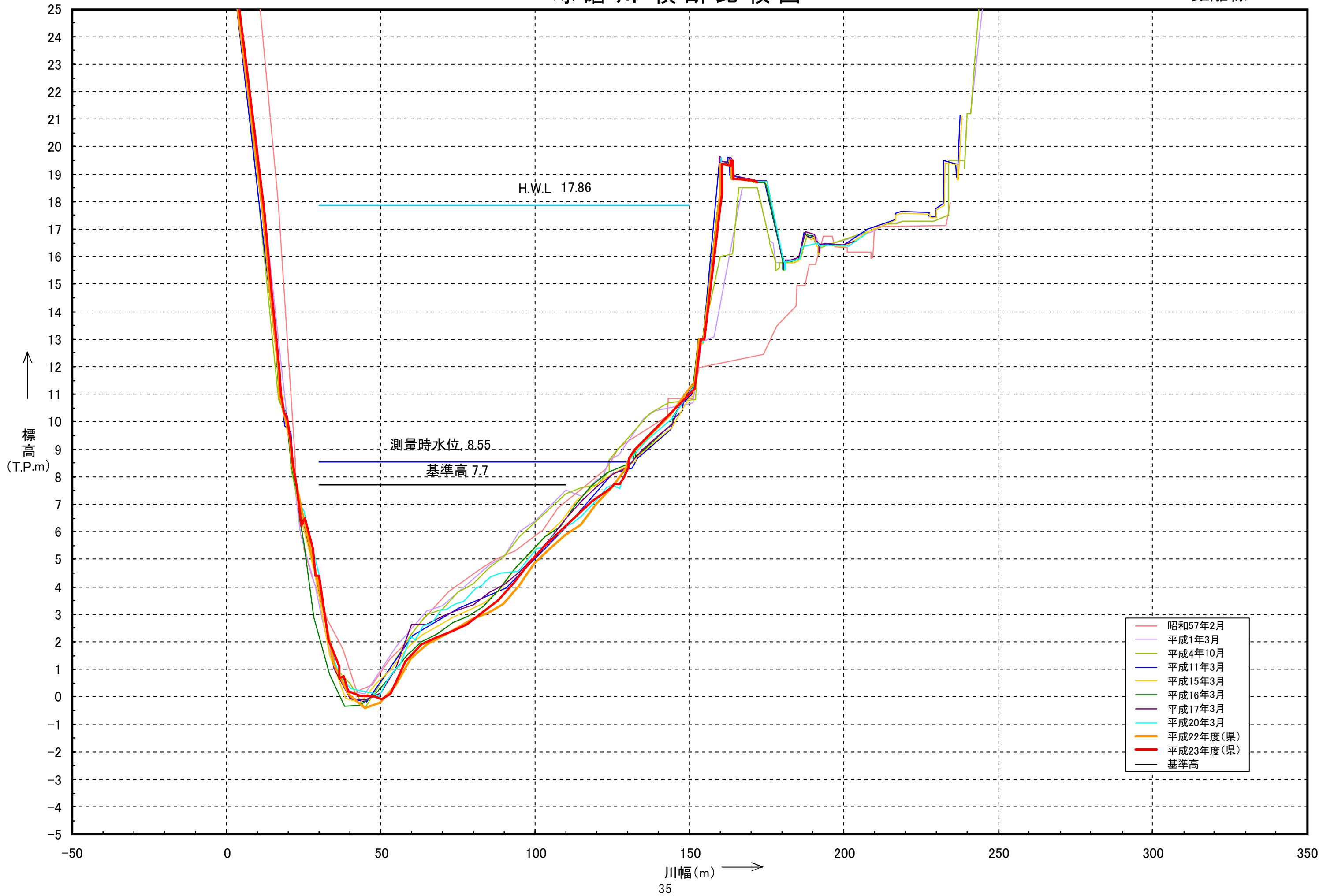
球磨川 横断比較図

距離標 11.80



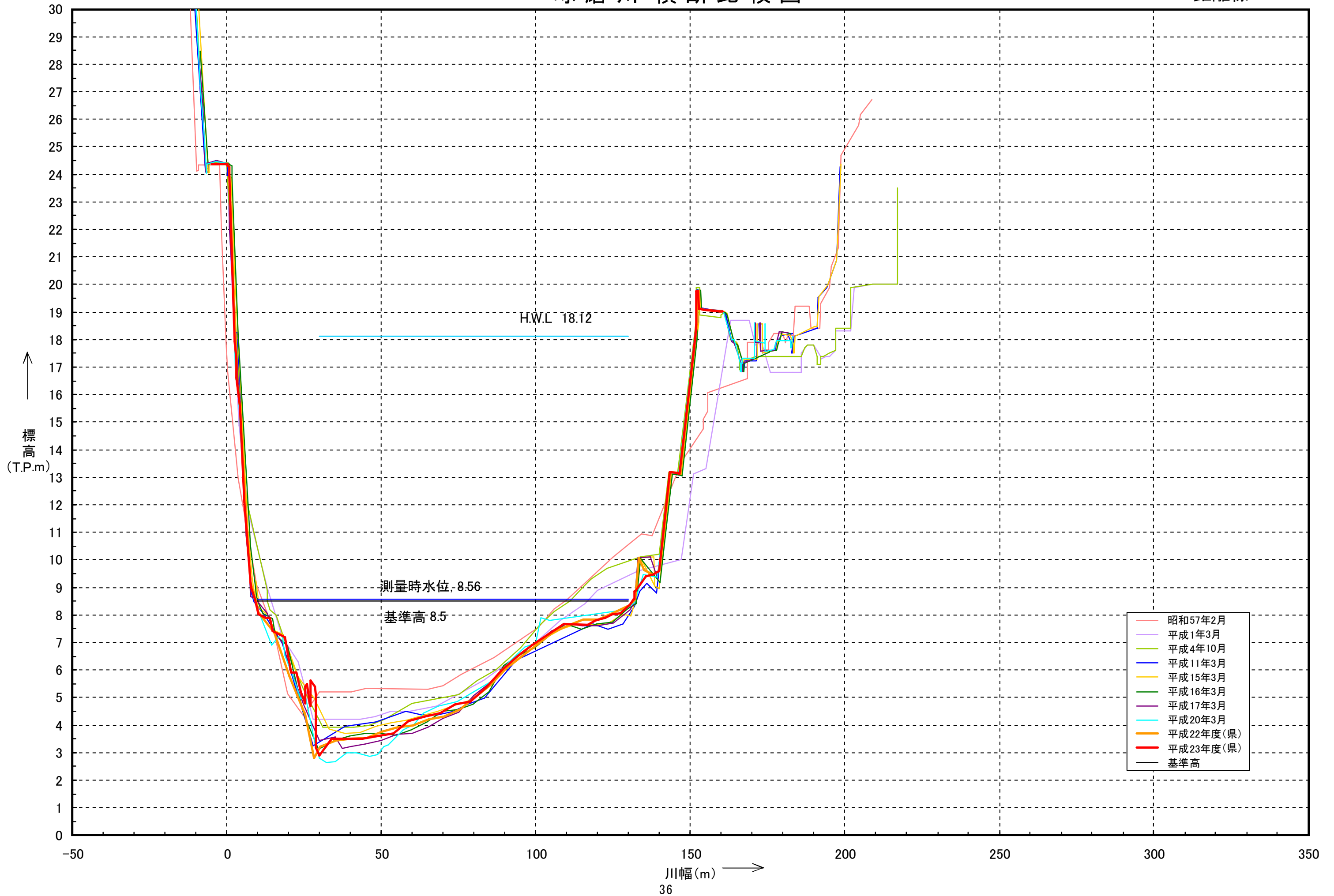
球磨川 横断比較図

距離標 12.00



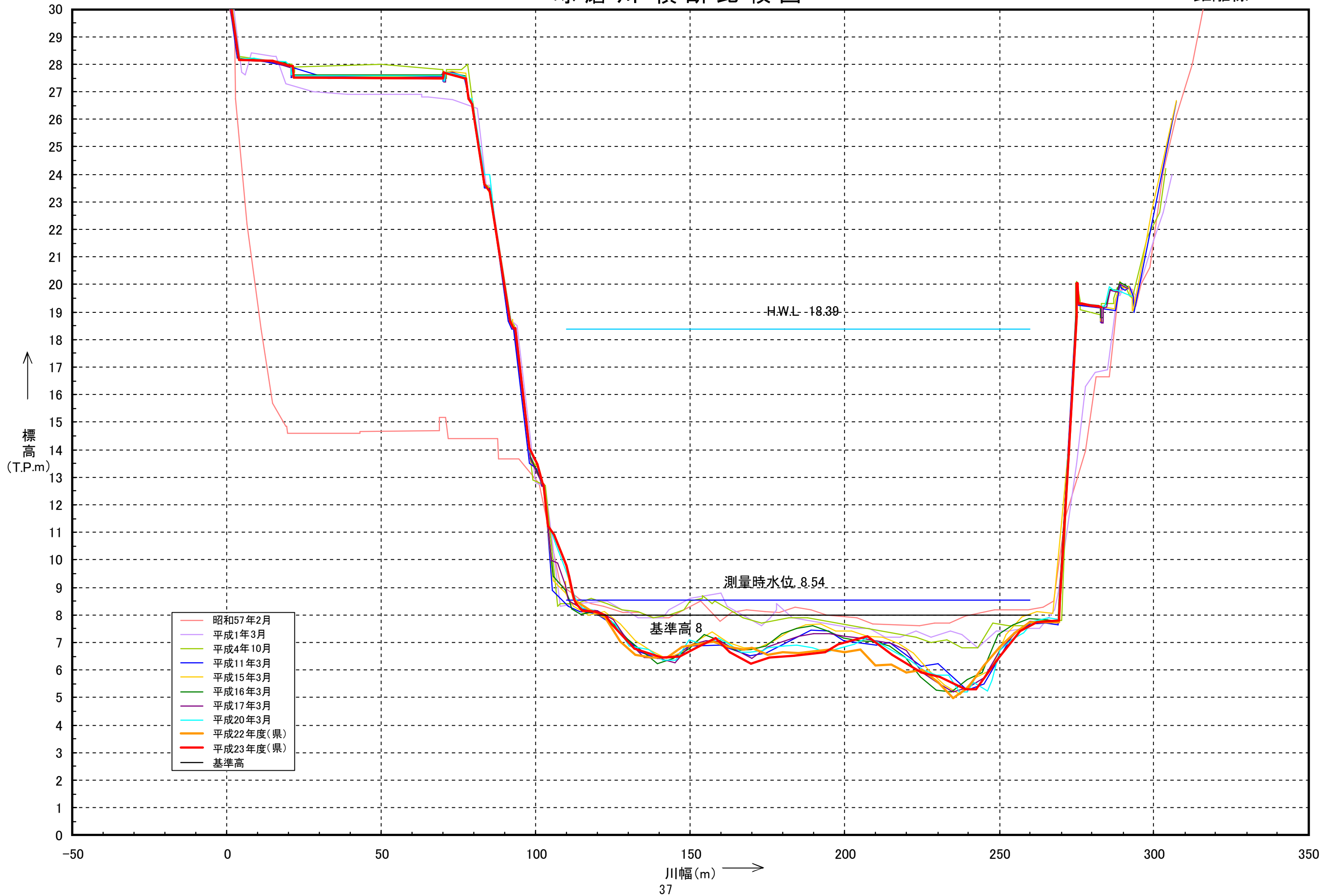
球磨川 横断比較図

距離標 12.20



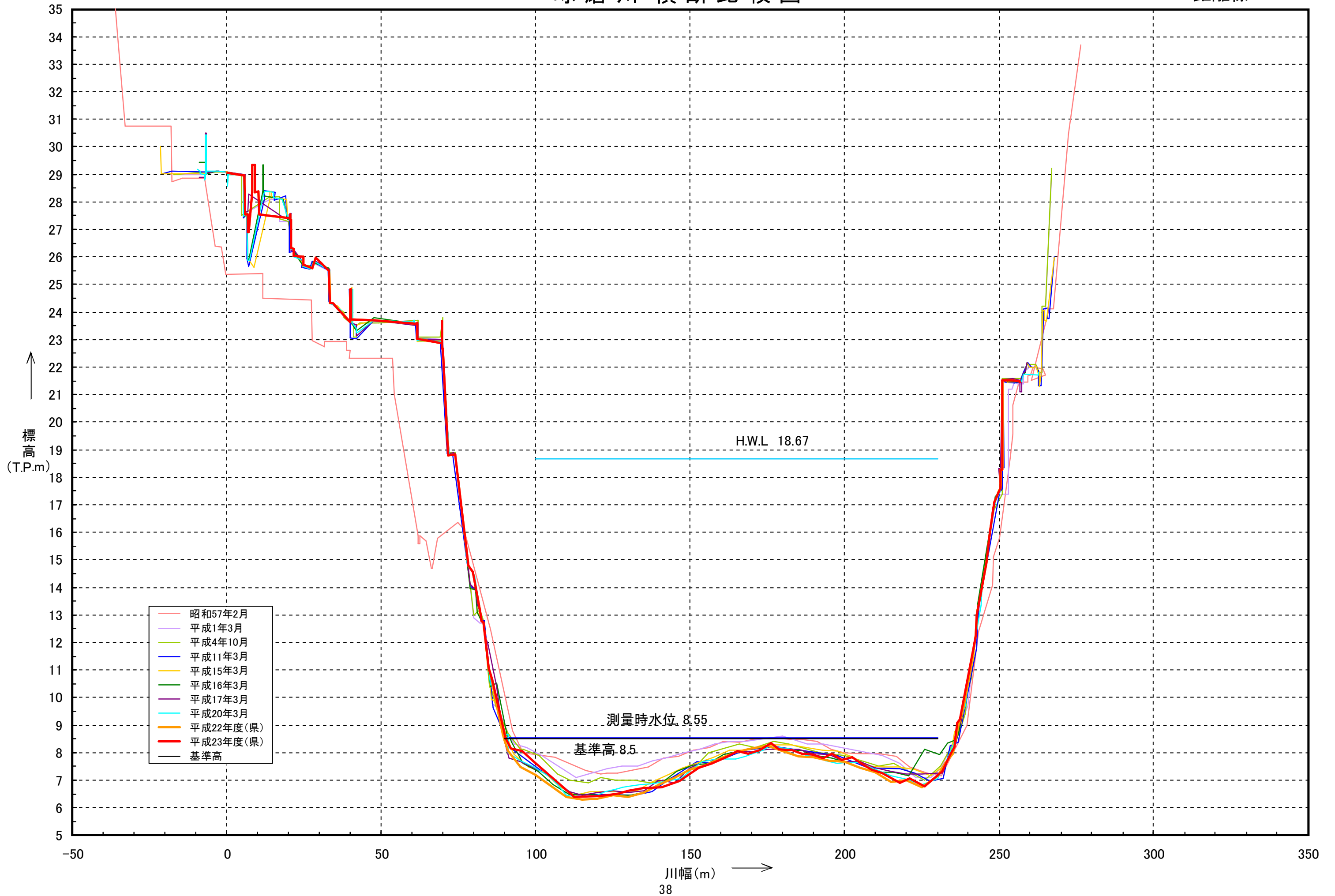
球磨川 横断比較図

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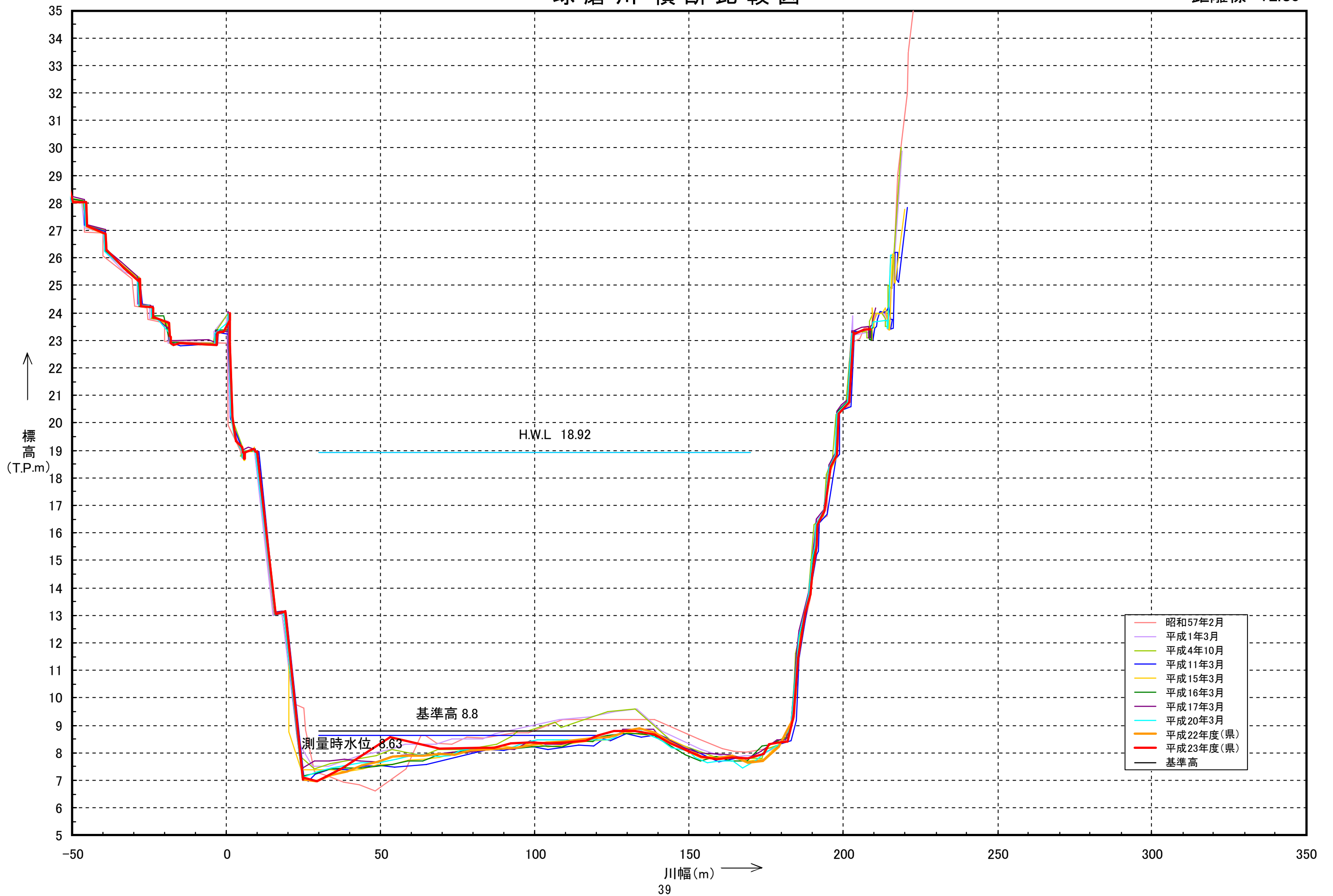
球磨川 横断比較図

距離標 12.60

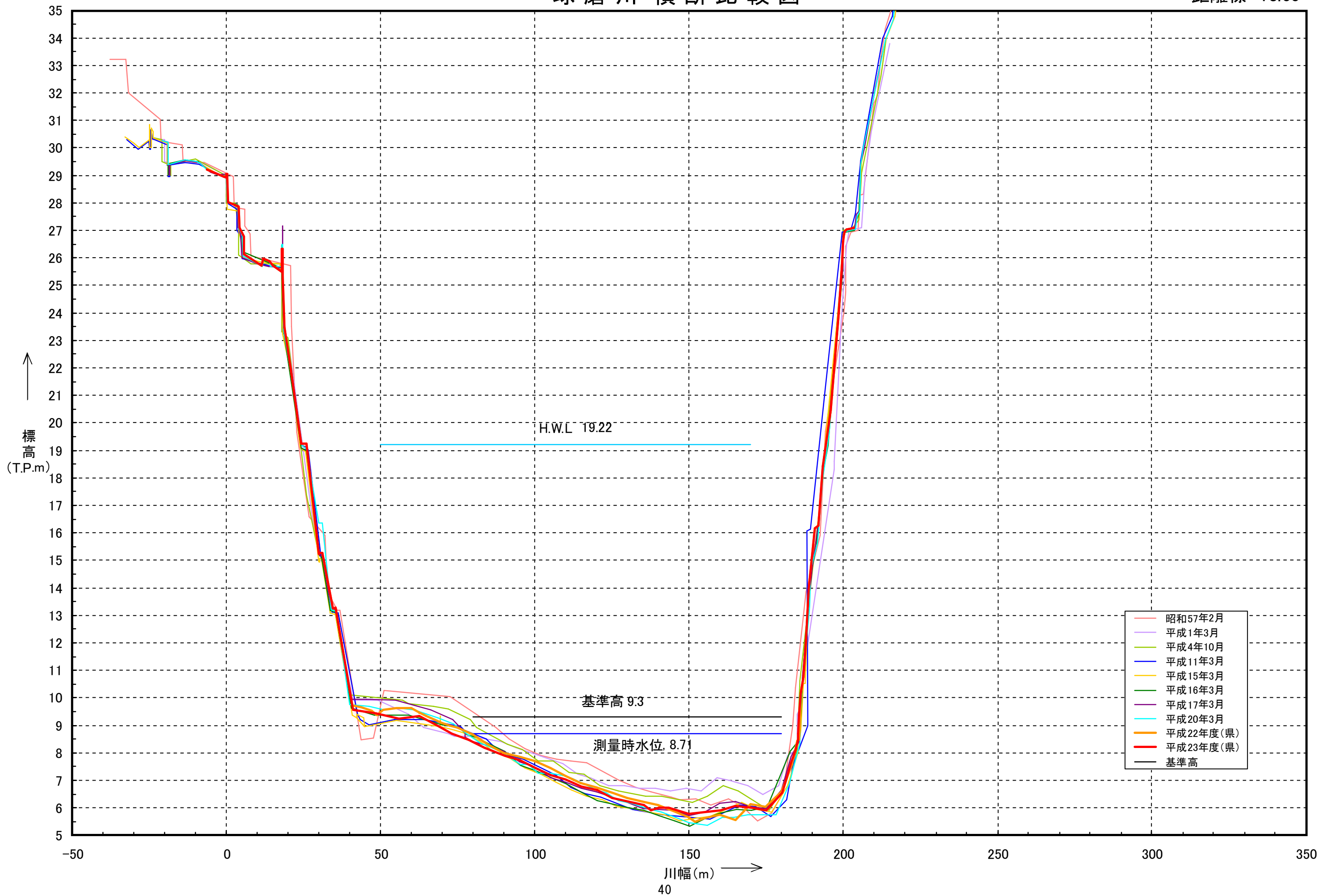


球磨川 横断比較図

距離標 12.80

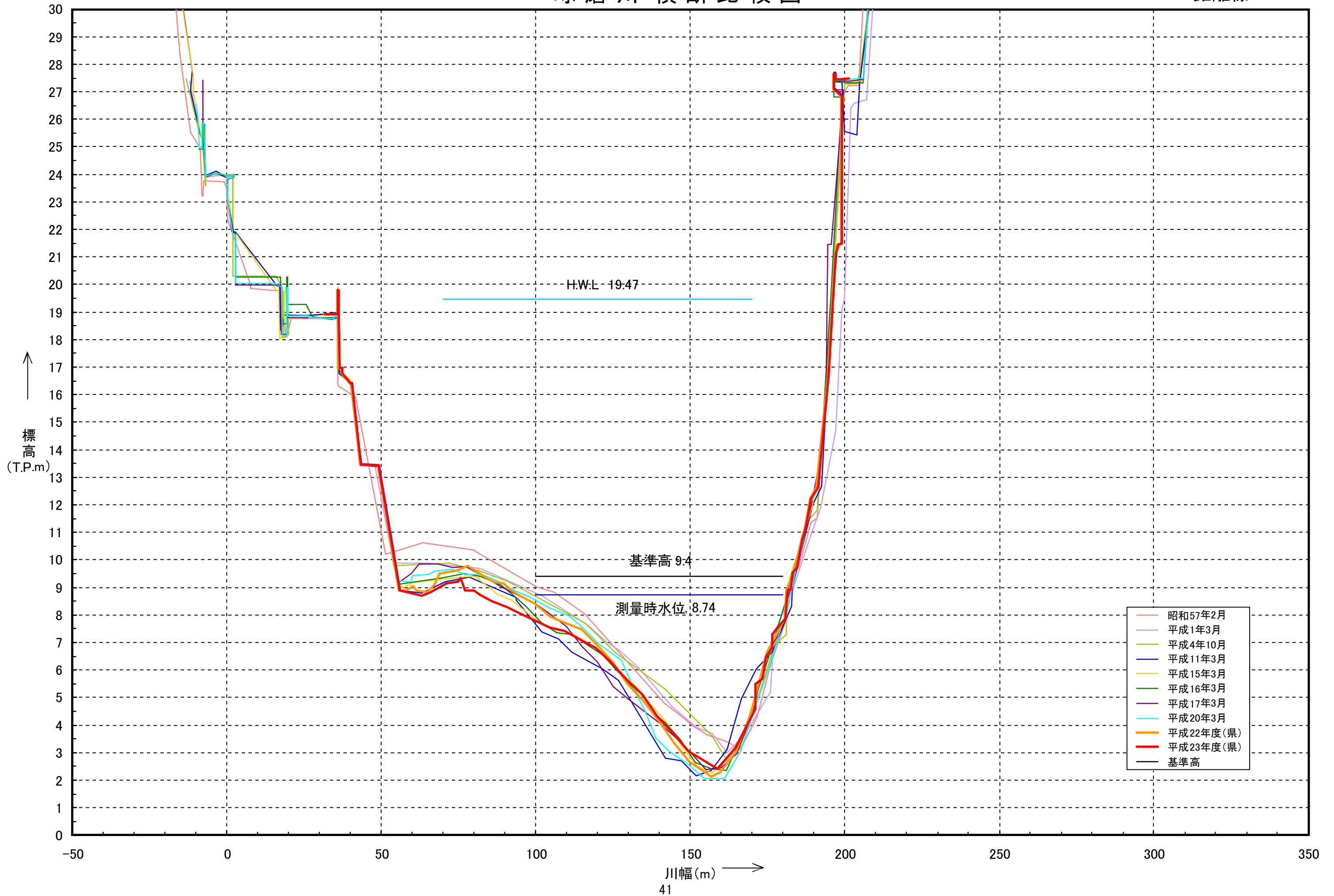


距離標 13.00



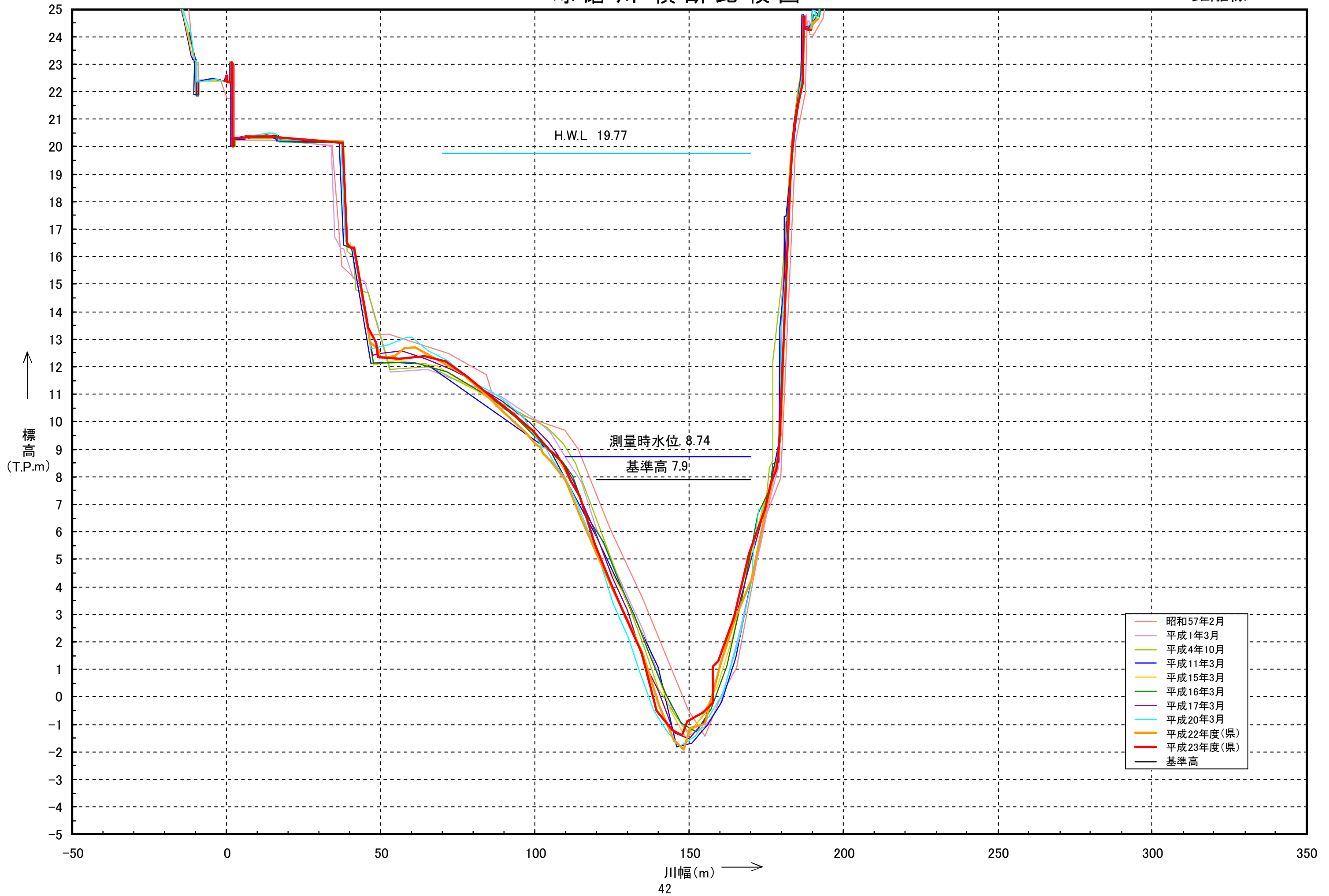
球磨川 横断比較図

距離標 13.20



球磨川 横断比較図

距離標 13.40

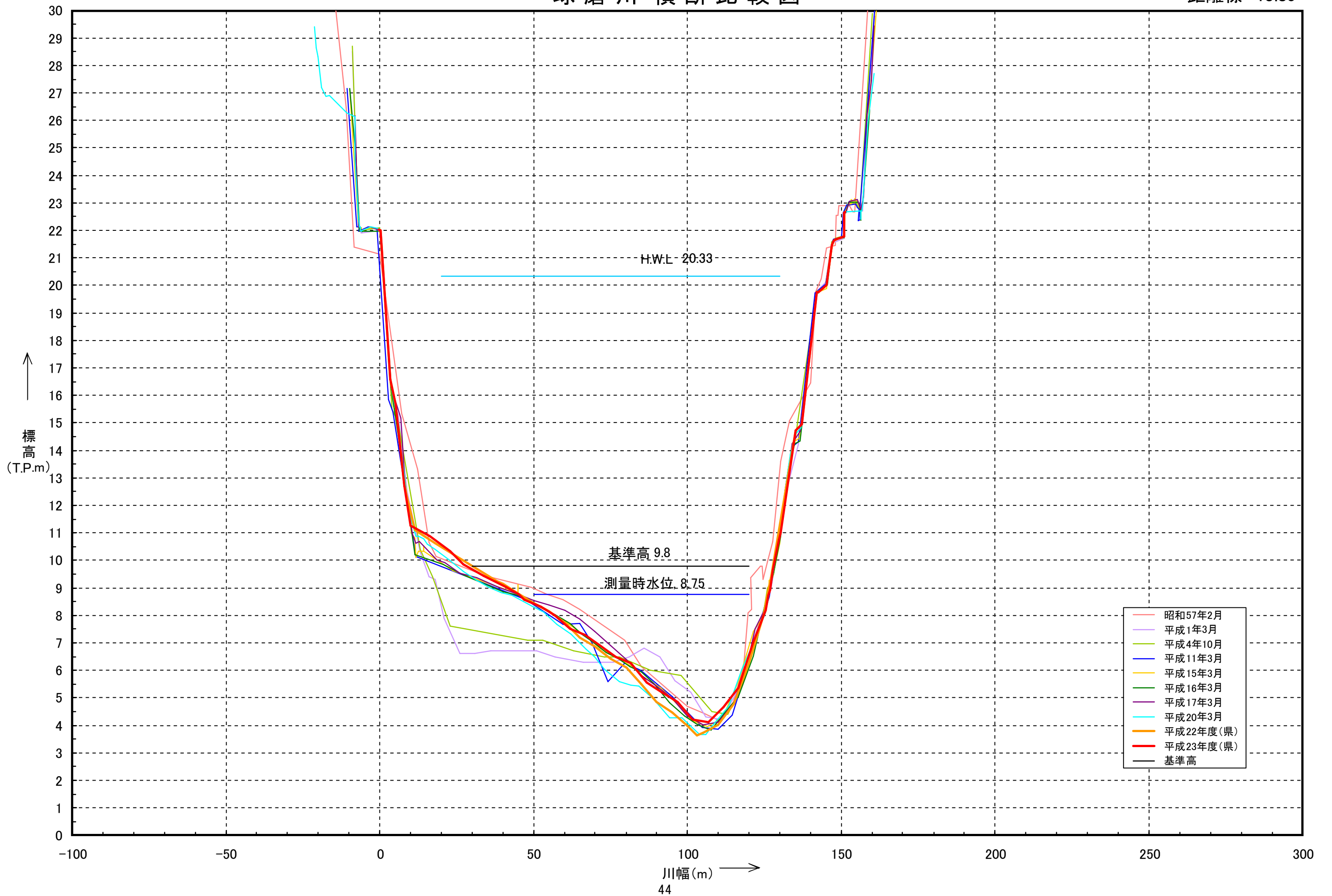


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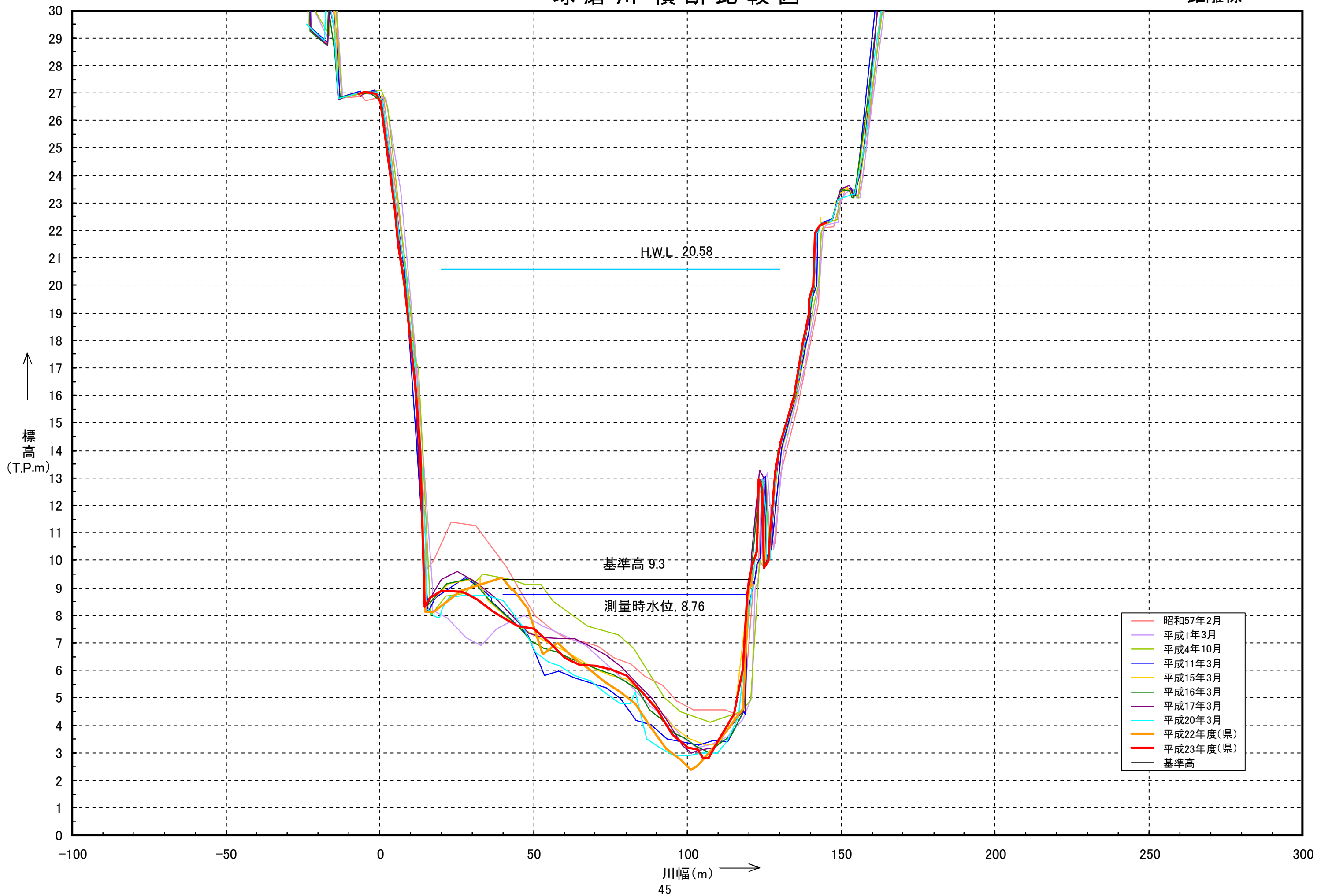
球磨川 横断比較図

距離標 13.80



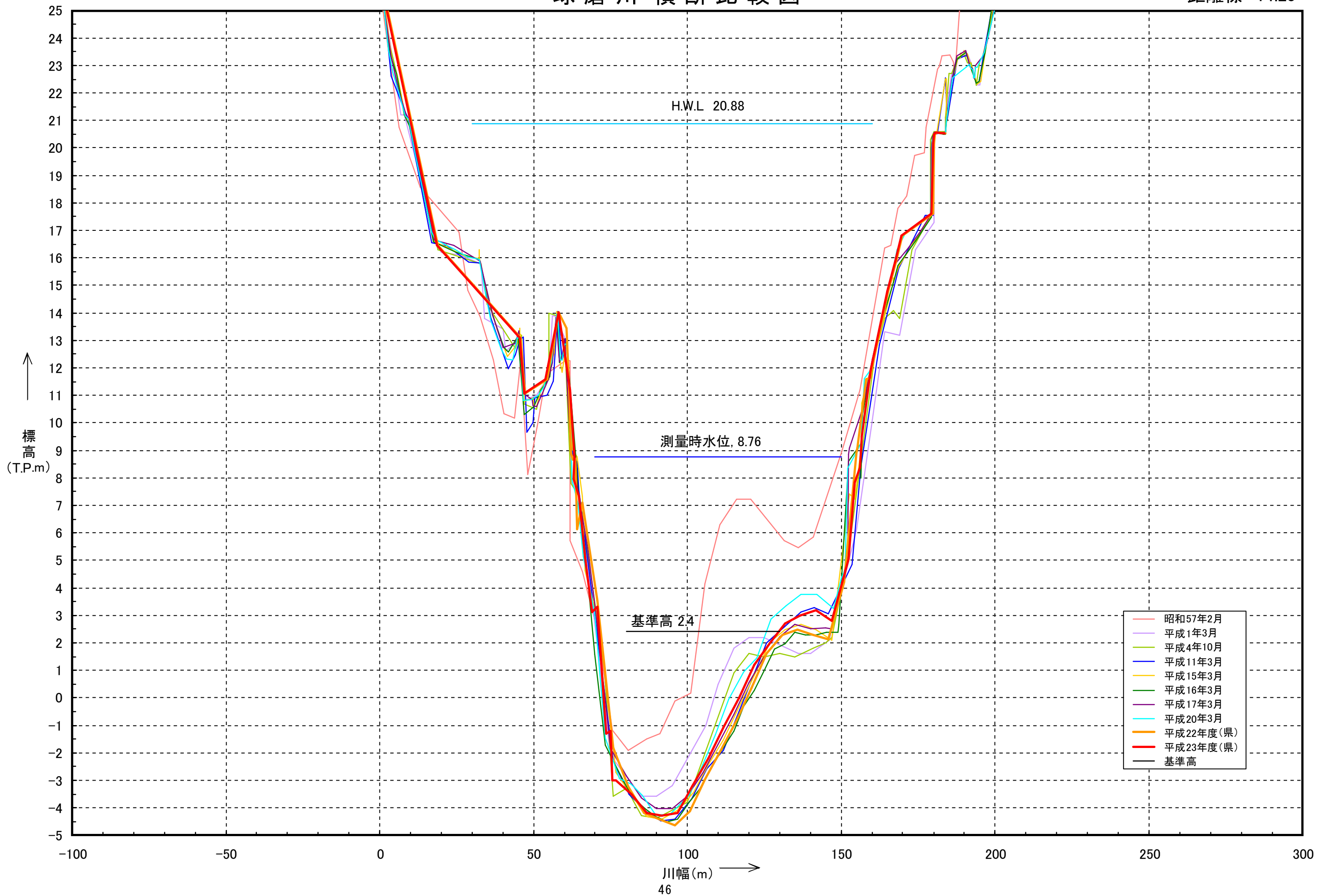
球磨川 横断比較図

距離標 14.00



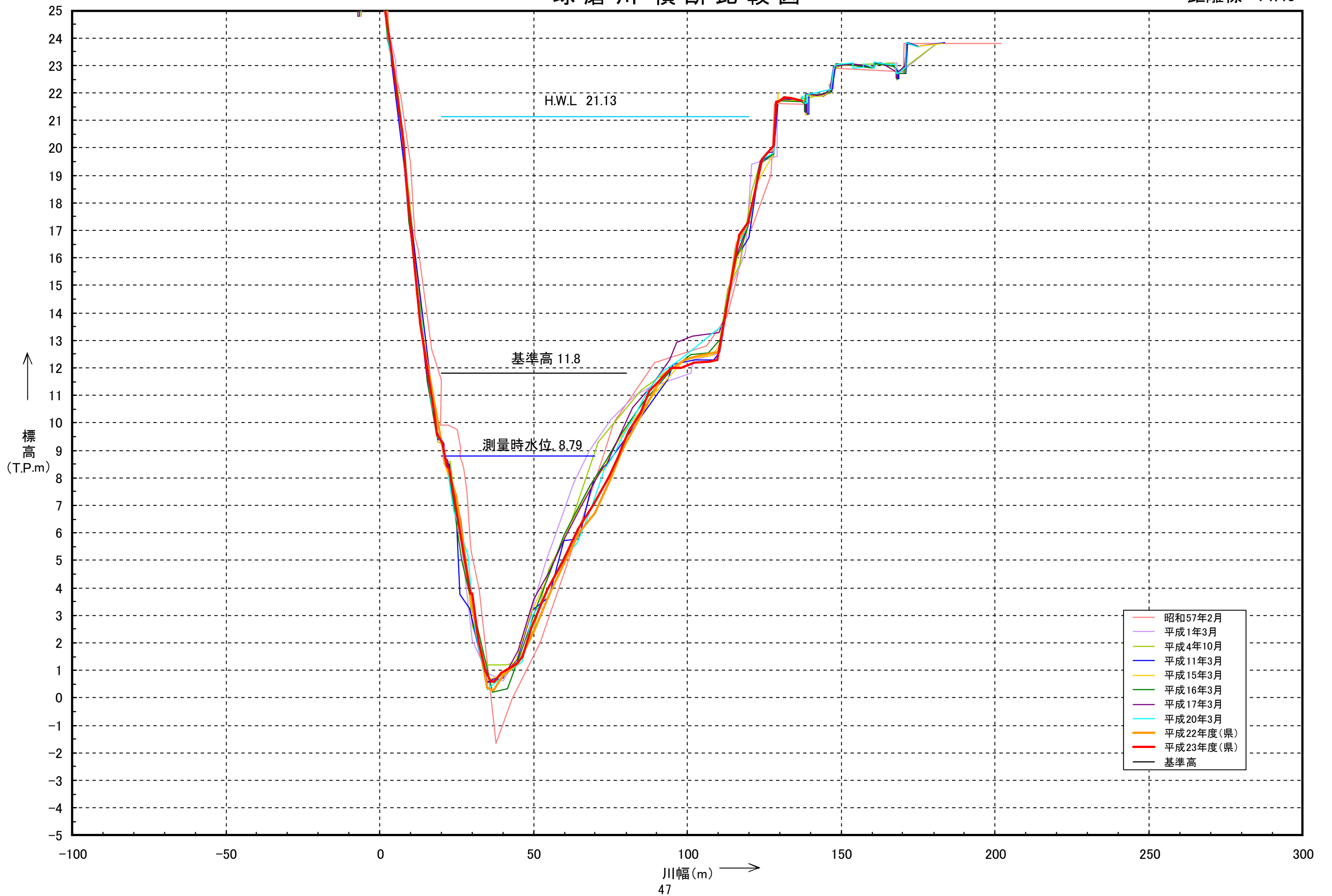
球磨川 横断比較図

距離標 14.20



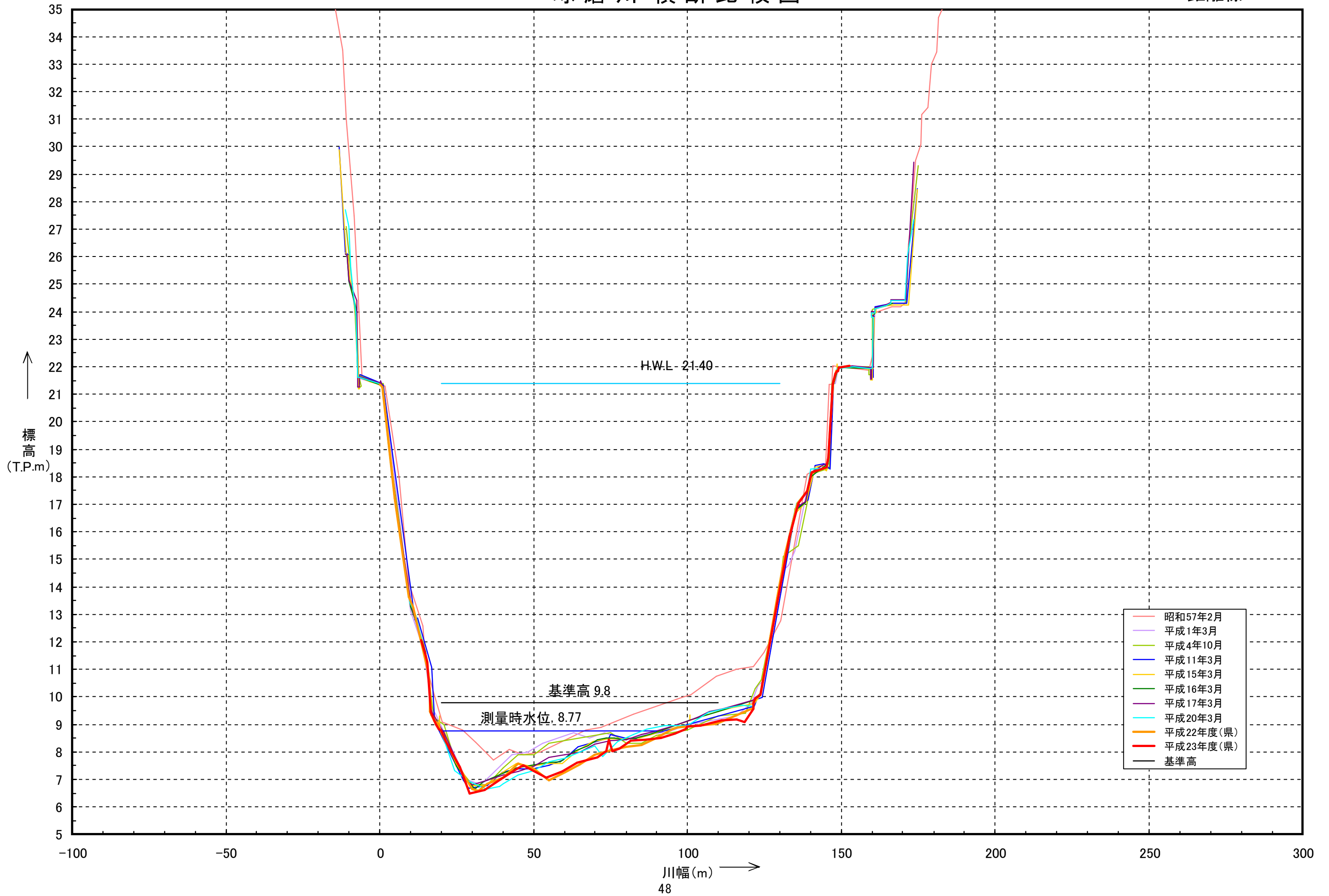
球磨川 横断比較図

距離標 14.40



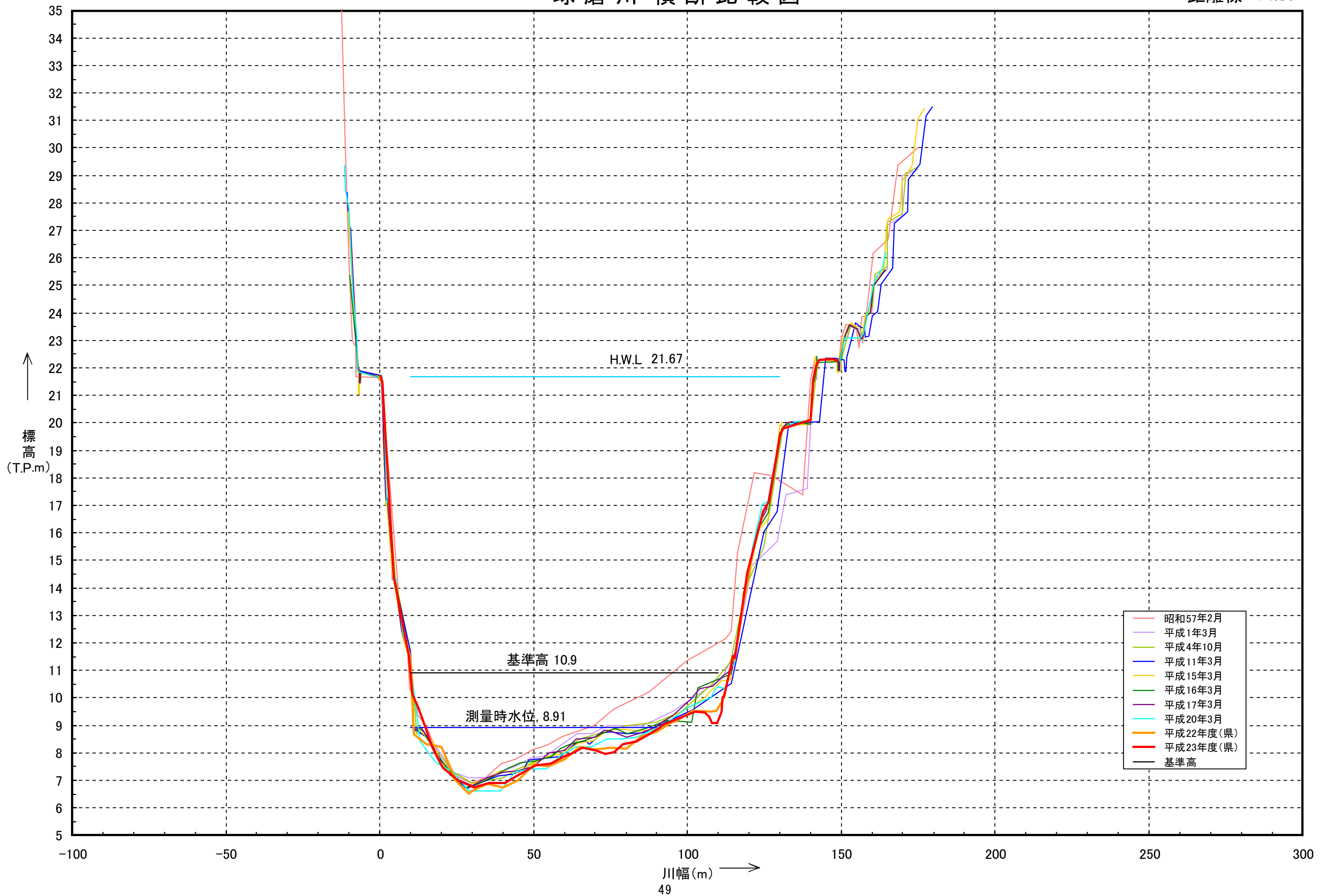
球磨川 横断比較図

距離標 14.60



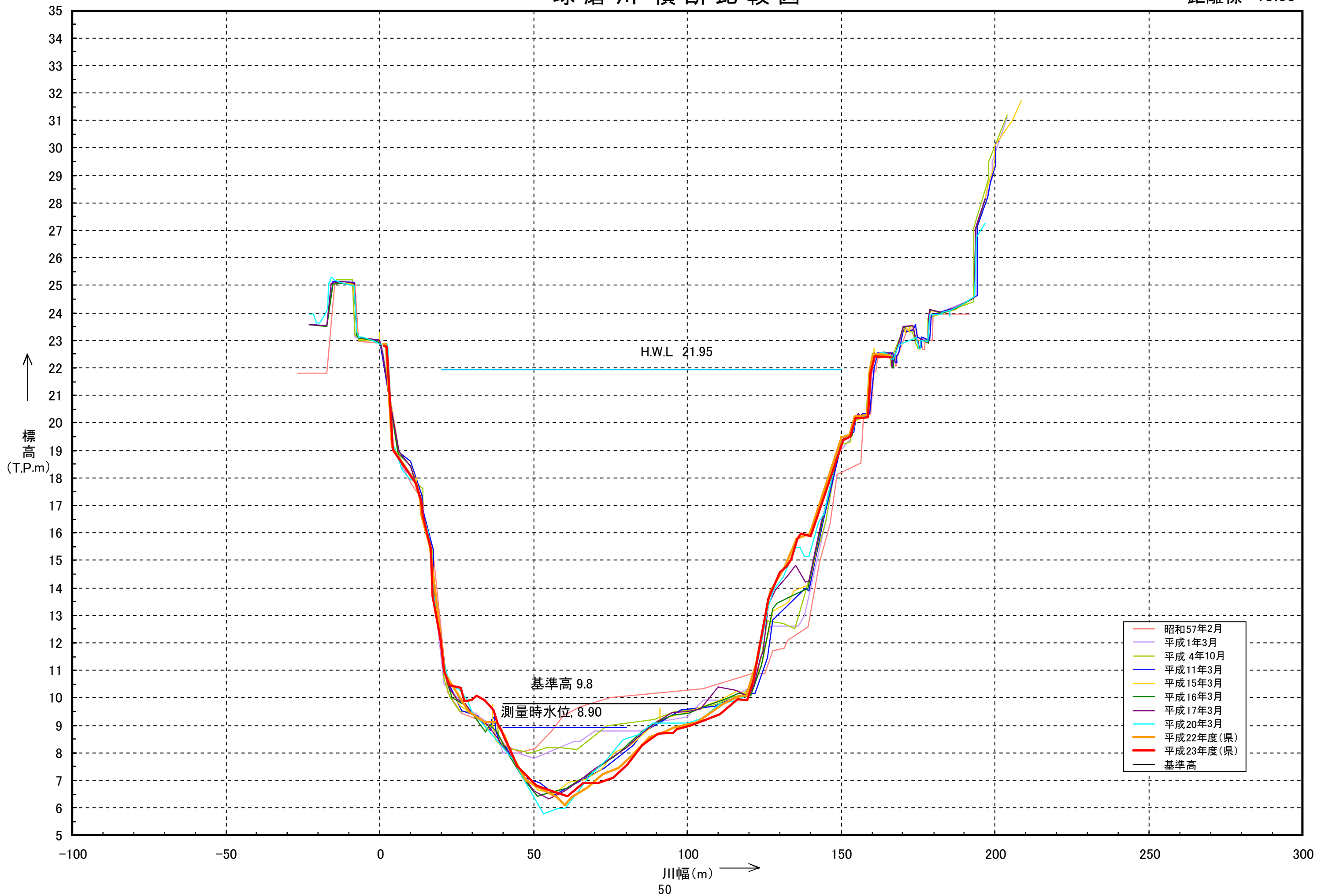
球磨川 横断比較図

距離標 14.80



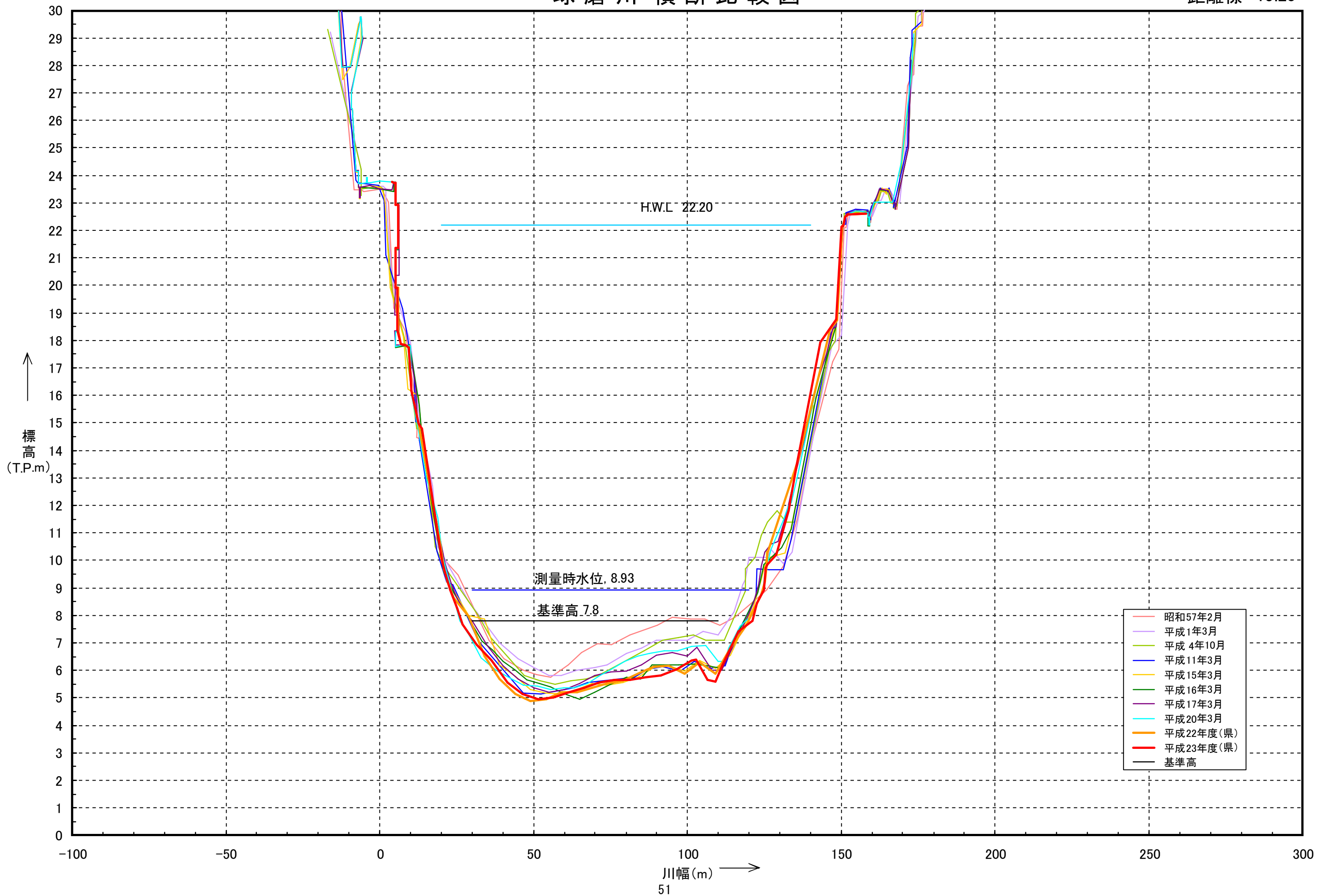
球磨川 横断比較図

距離標 15.00



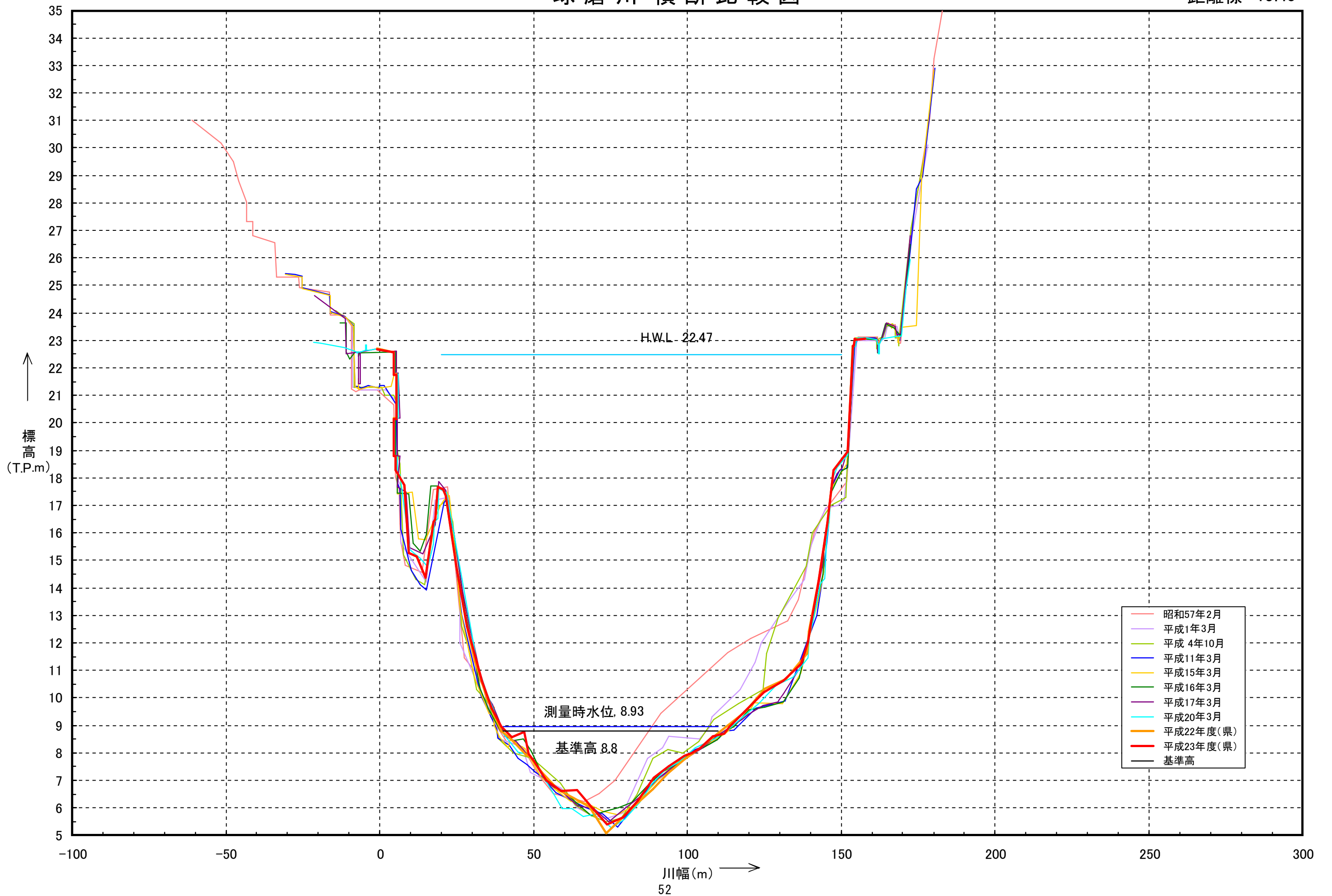
球磨川 横断比較図

距離標 15.20



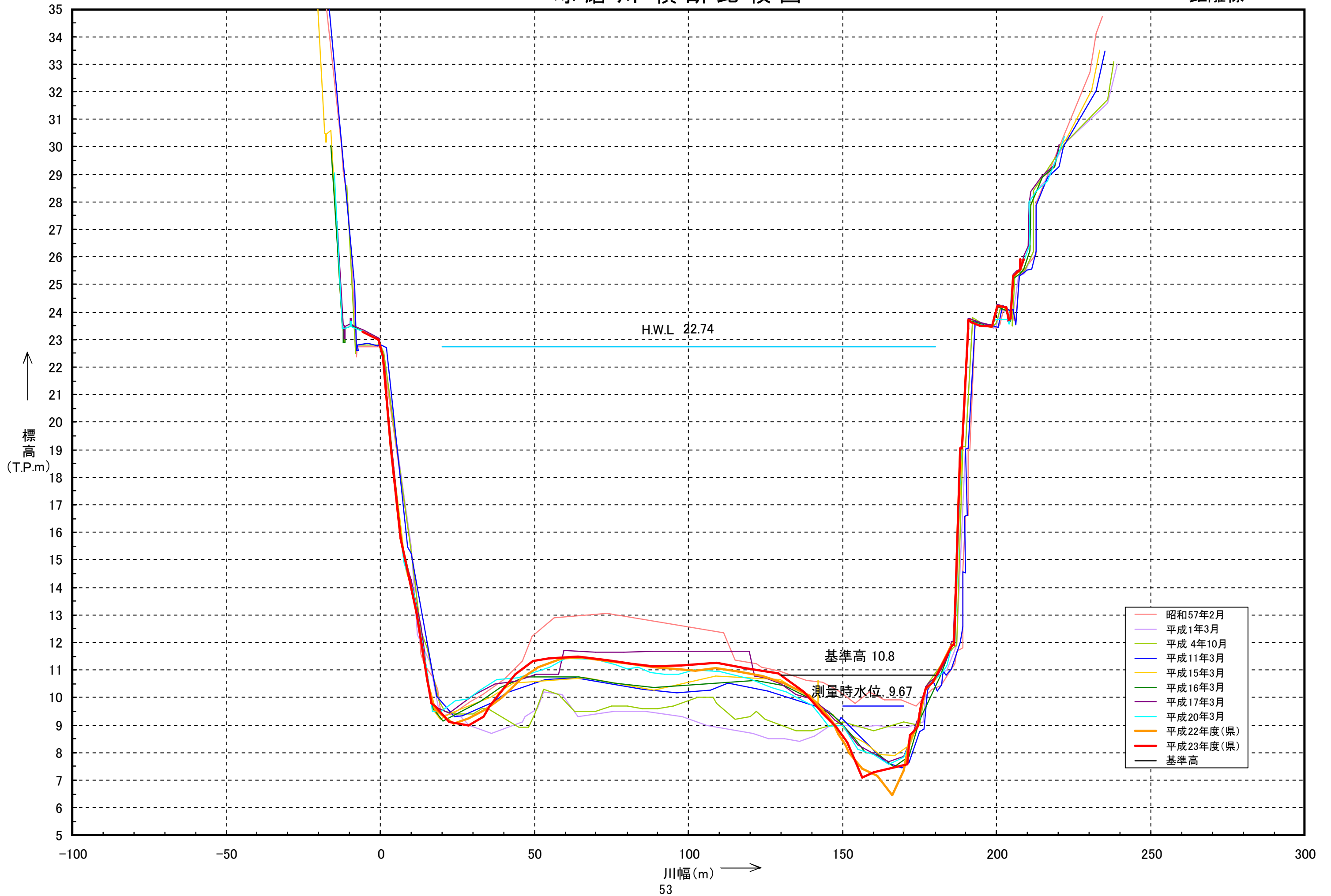
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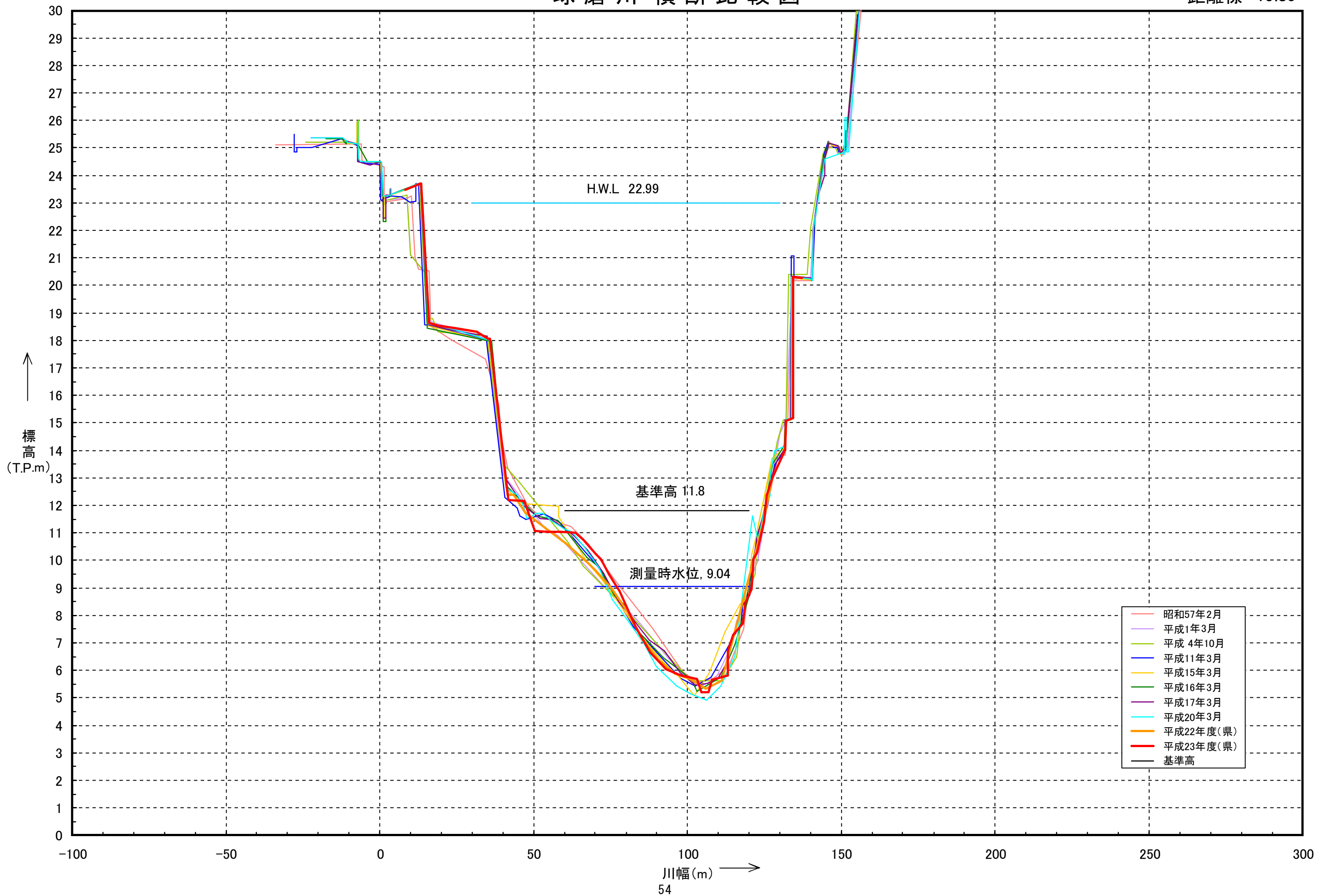
球磨川 横断比較図

距離標 15.60



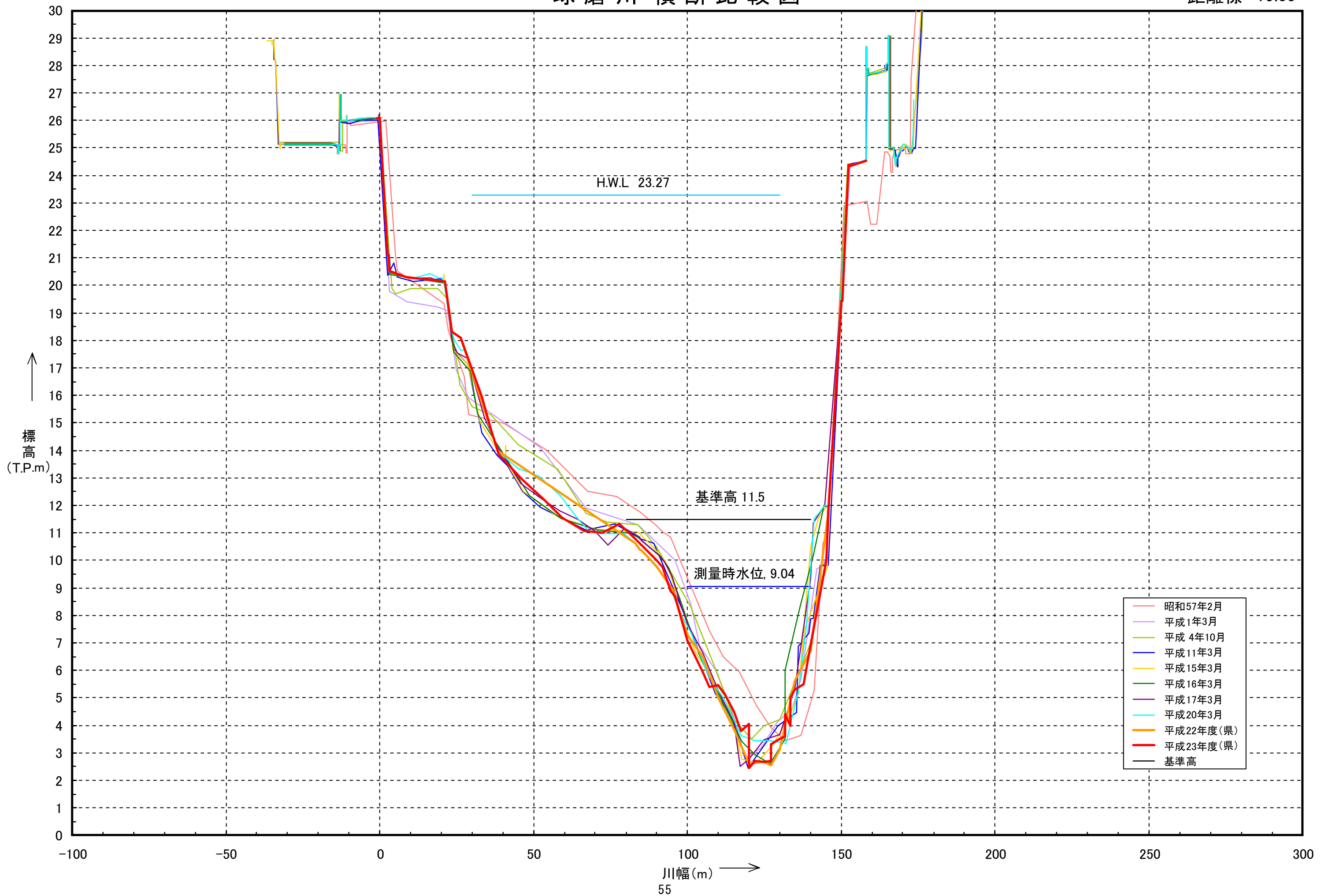
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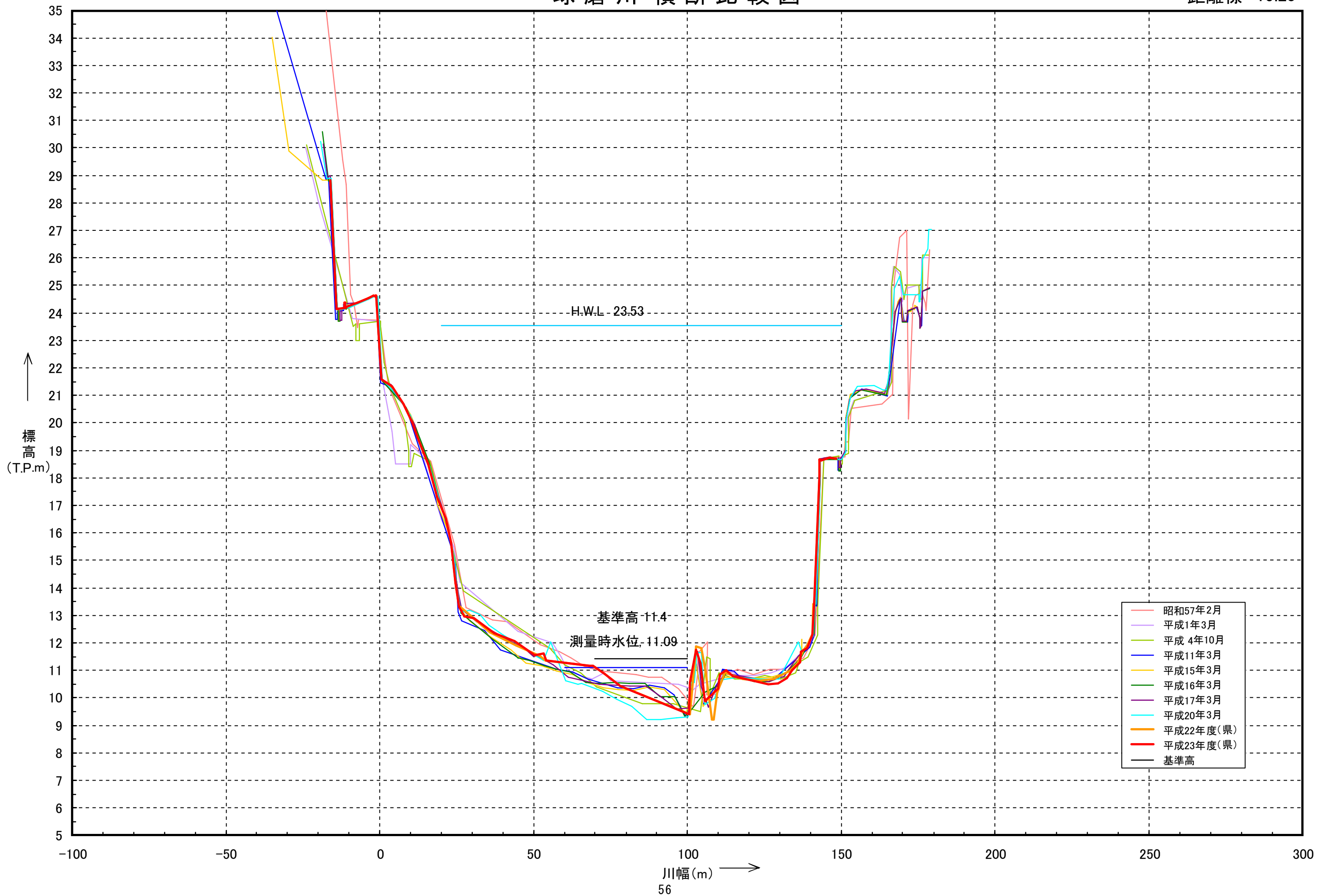
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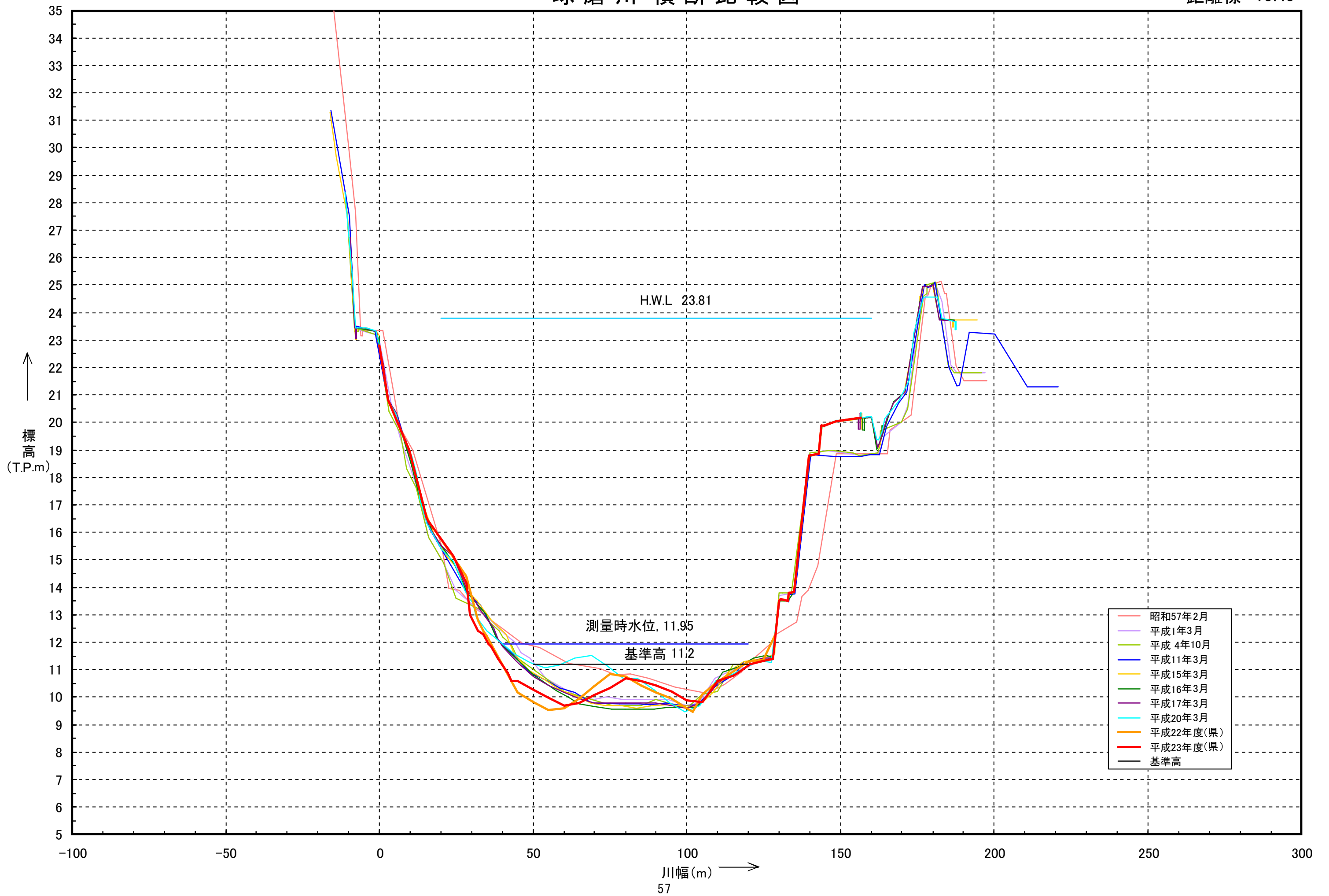


球磨川 横断比較図

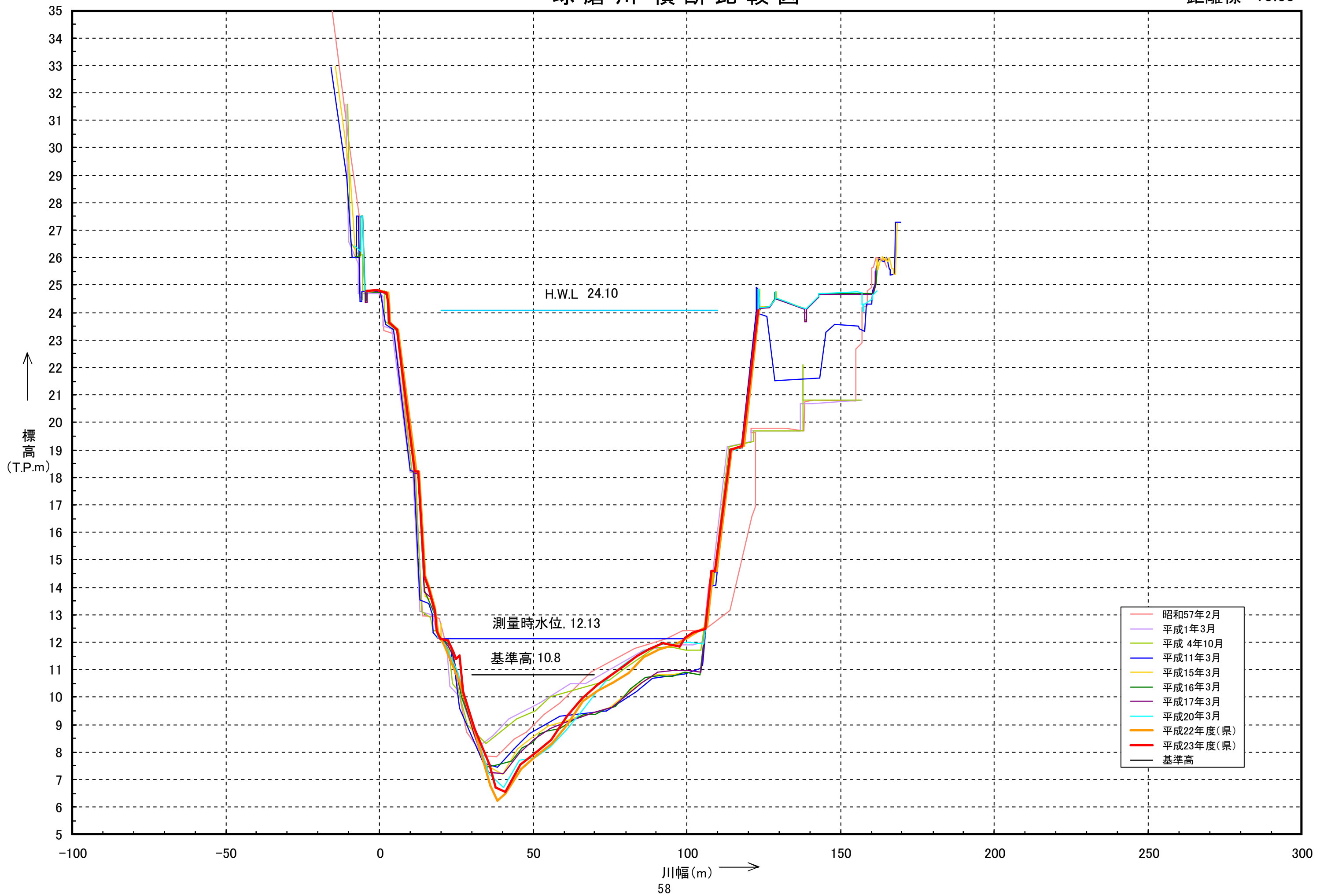
距離標 16.20



距離標 16.40

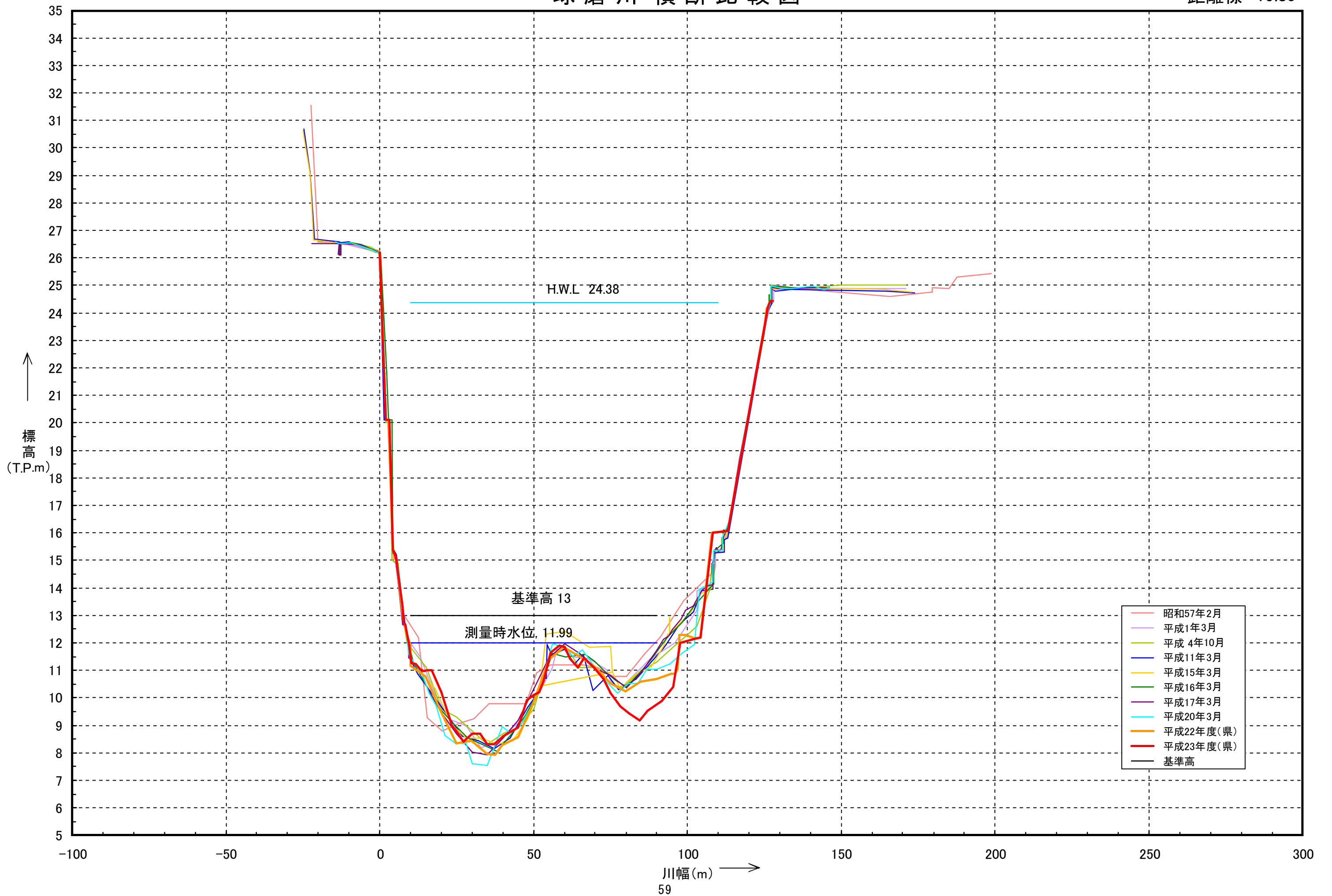


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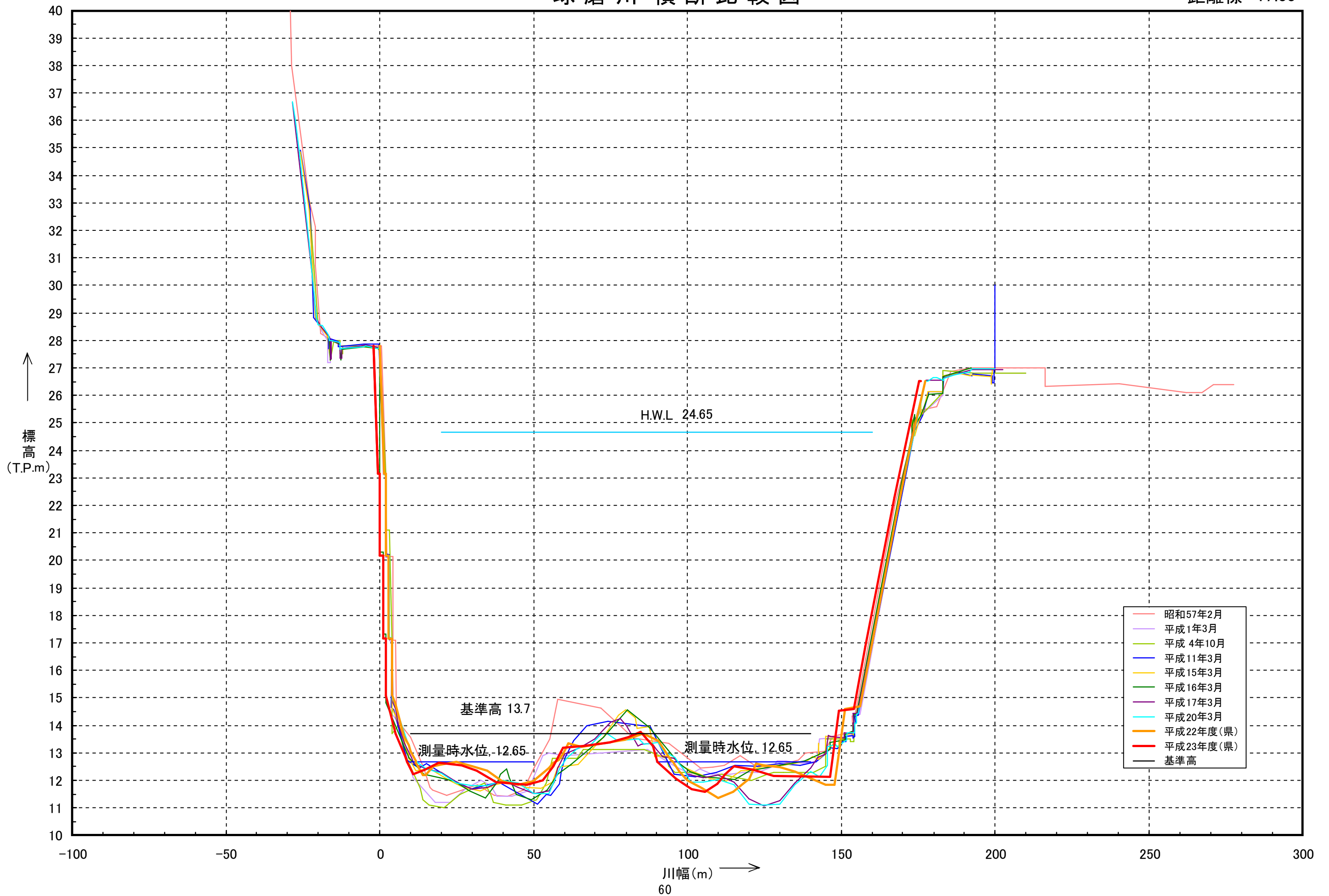
球磨川 横断比較図

距離標 16.80



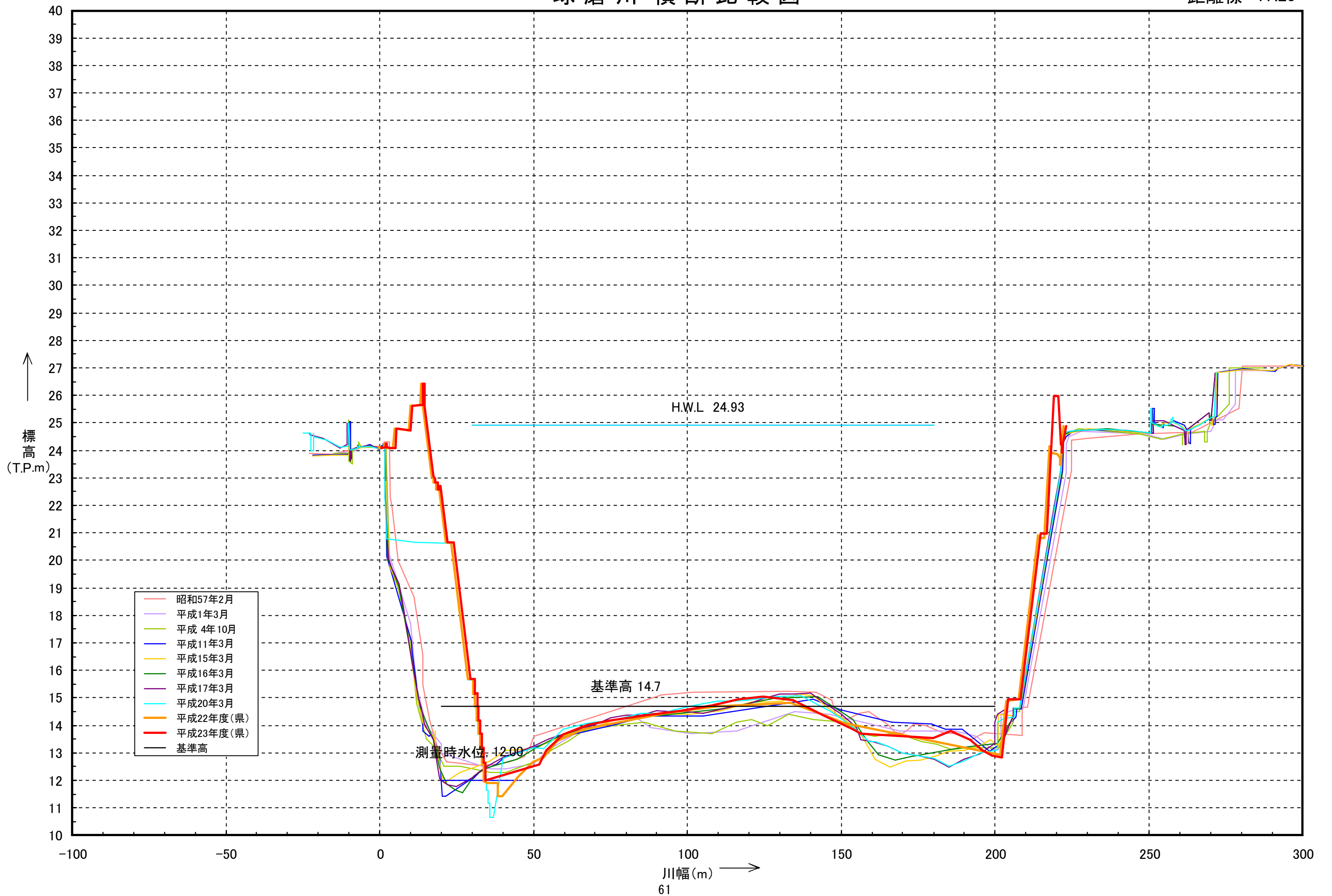
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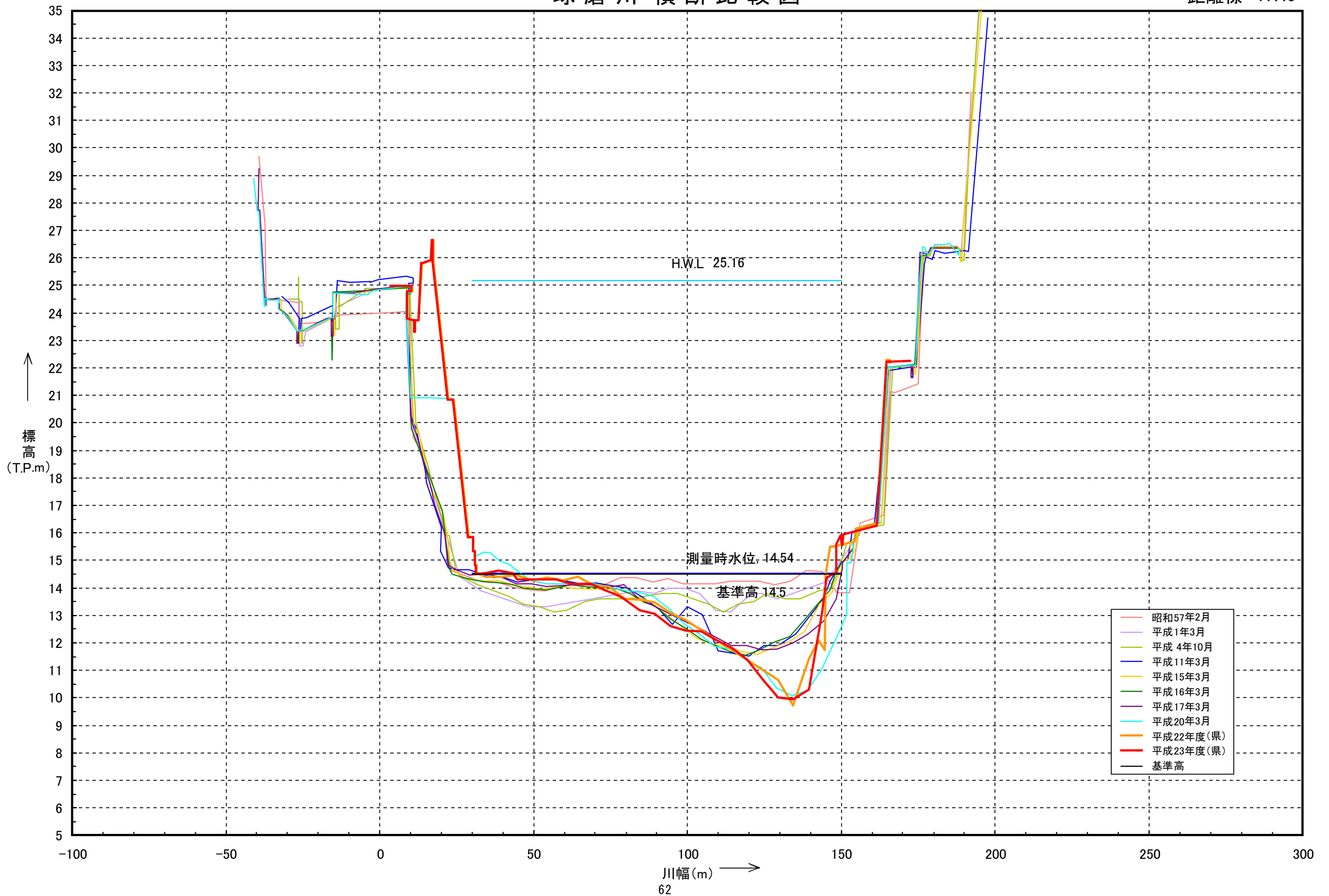
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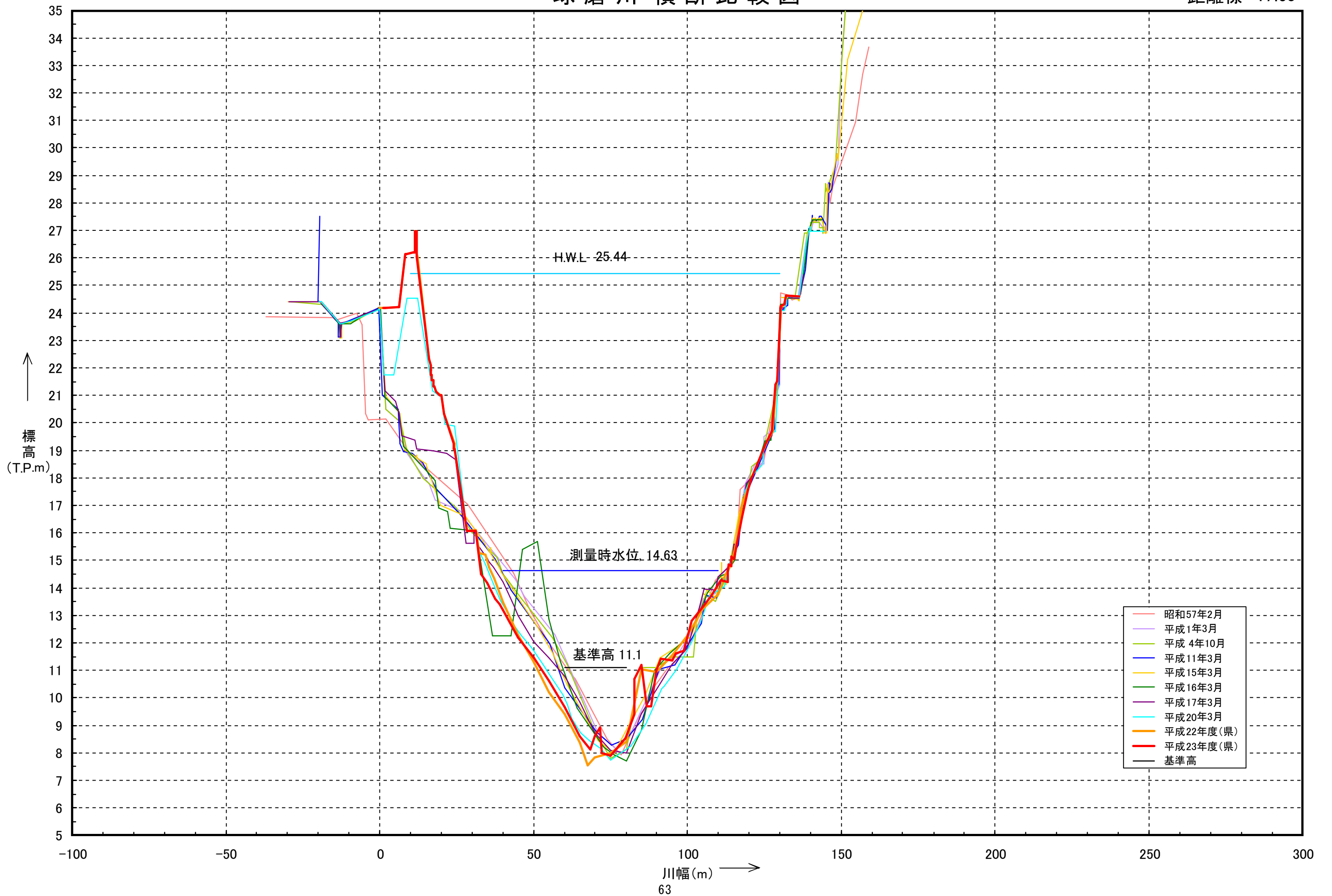
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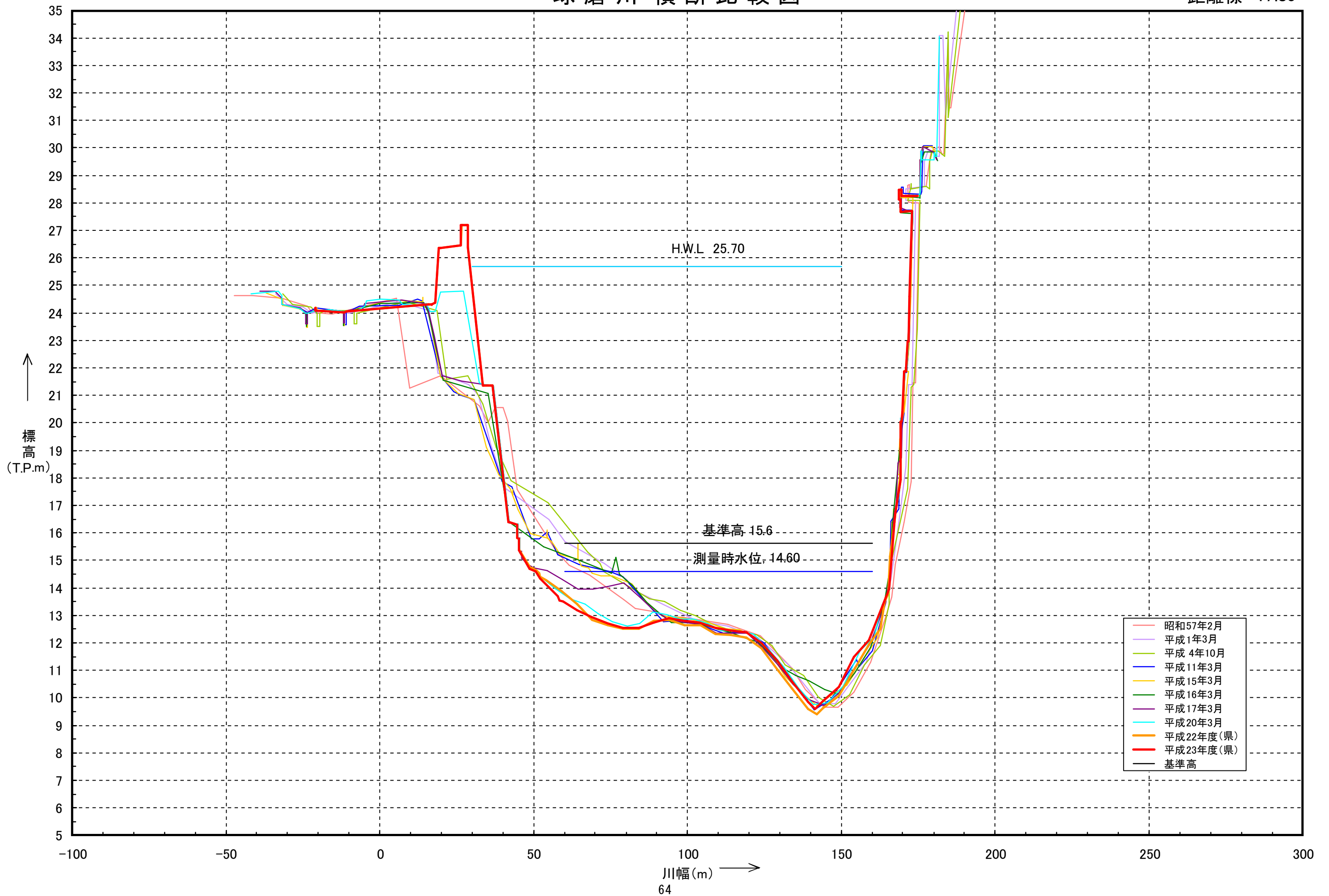
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距離標 17.60



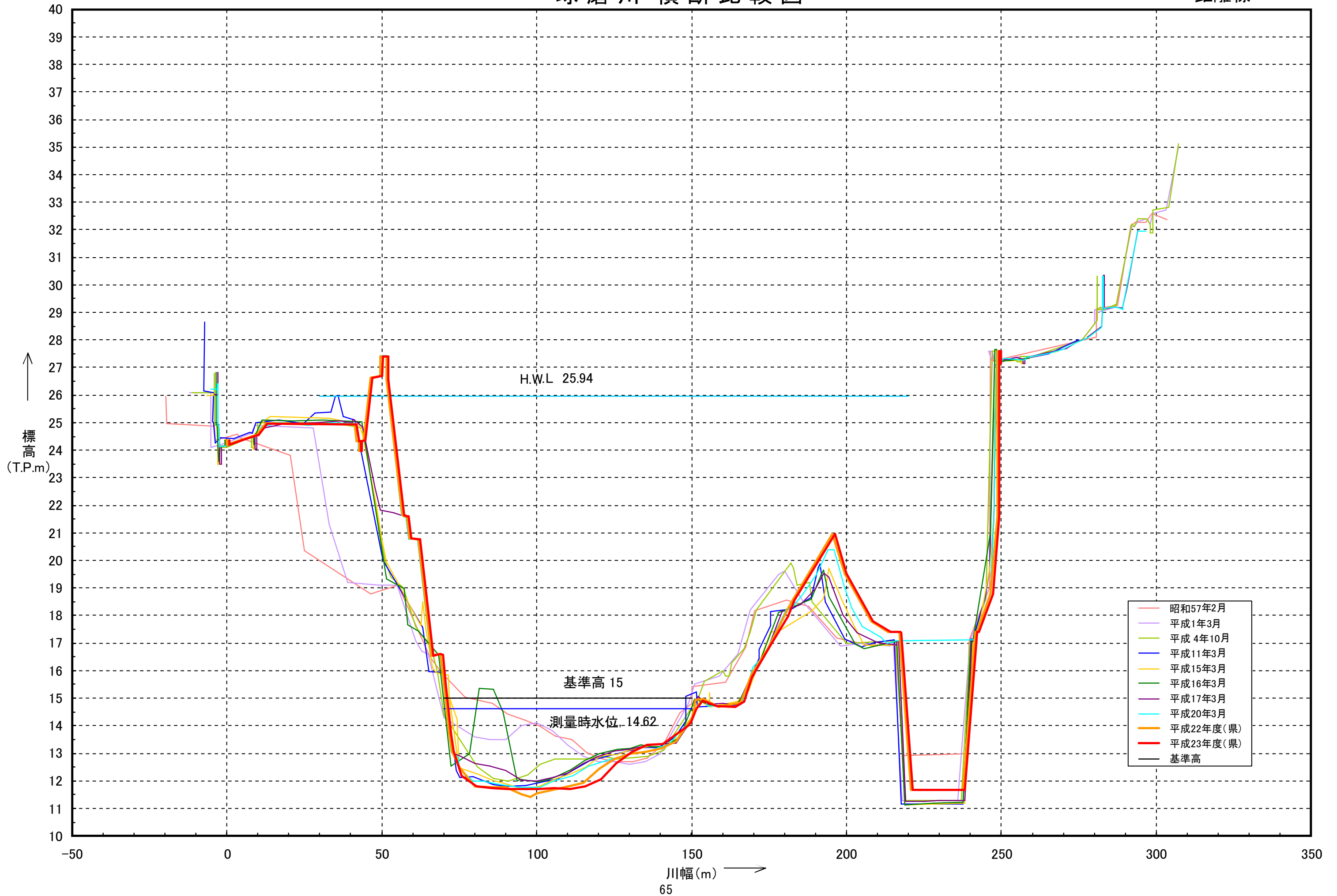
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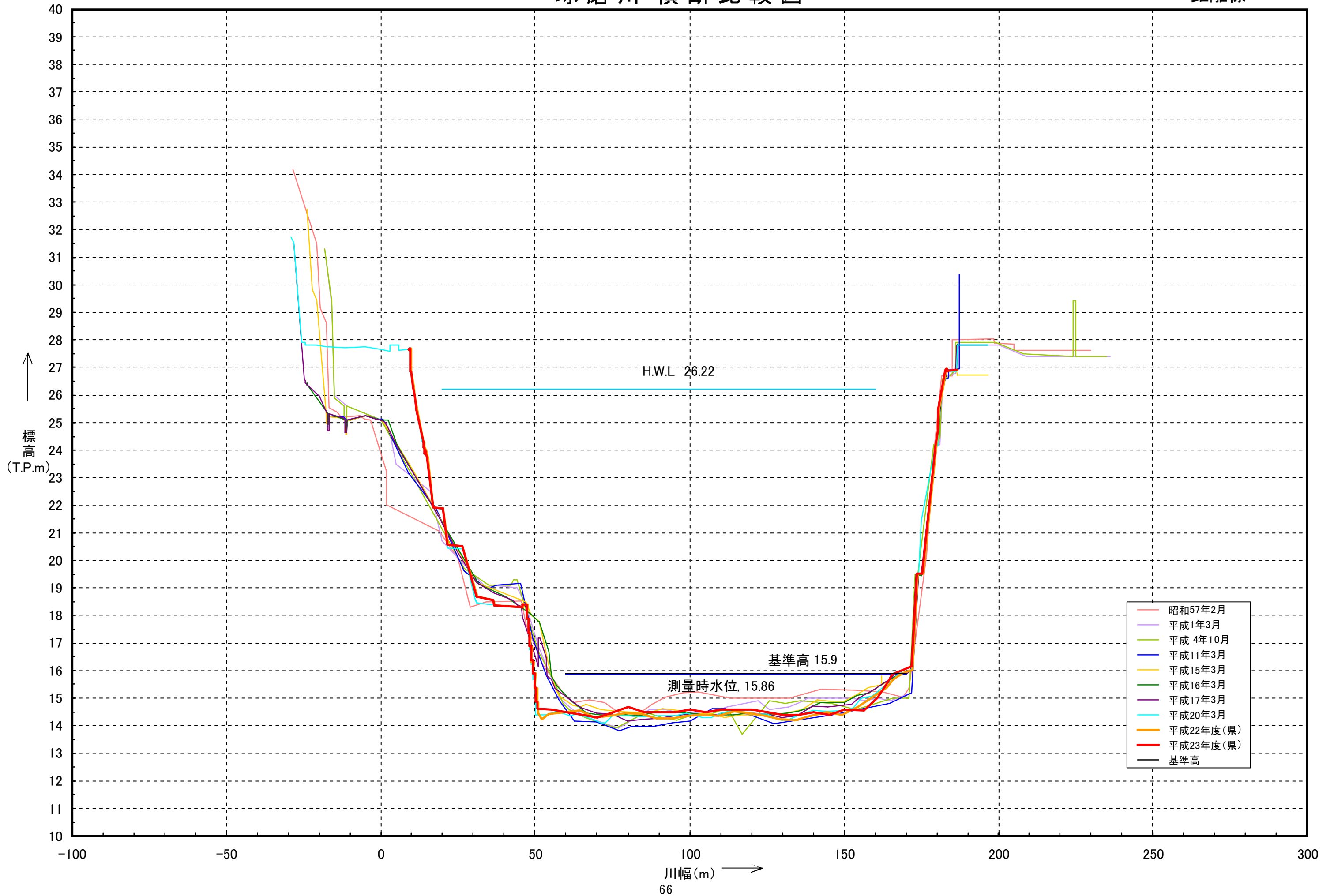
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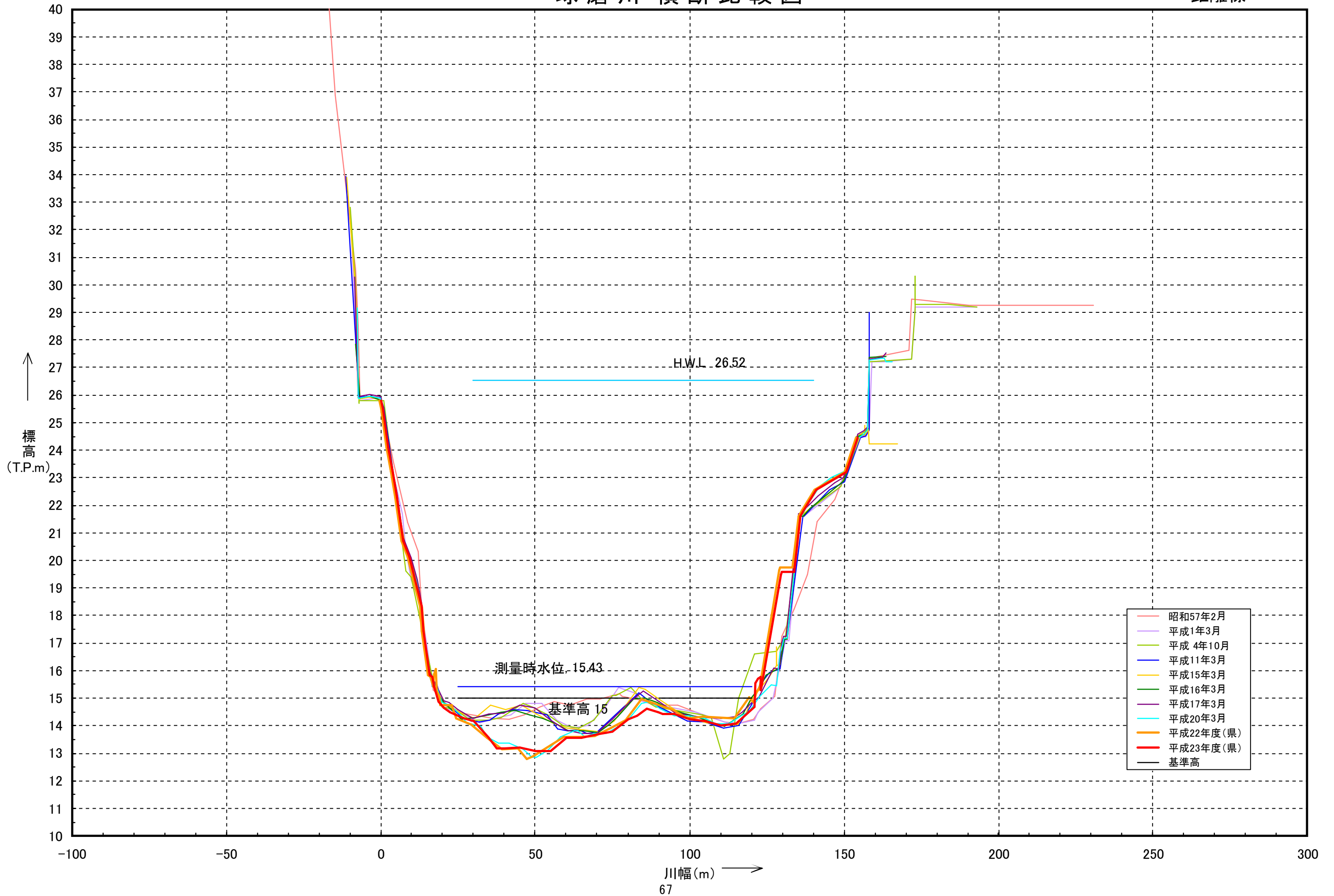
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距離標 18.20



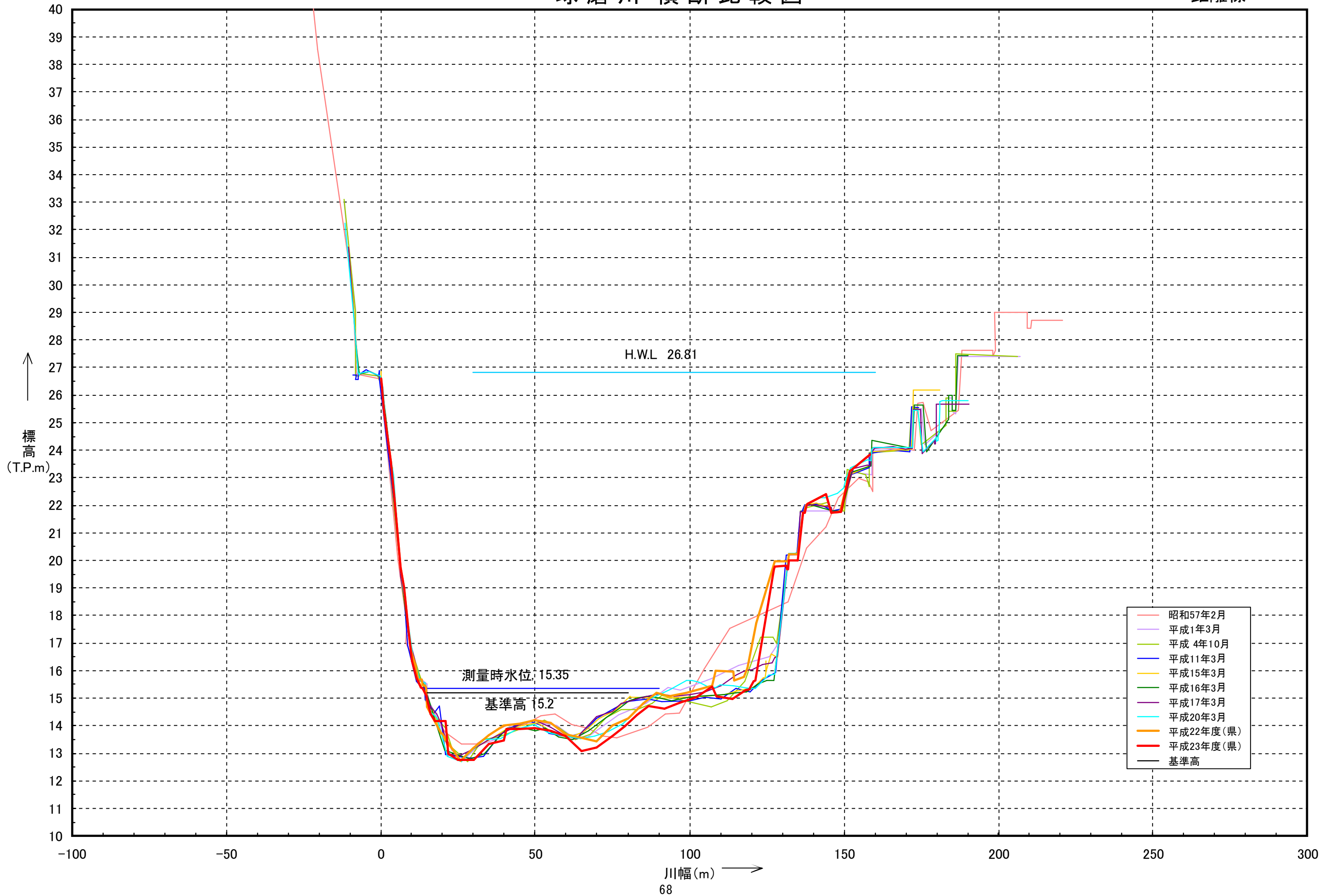
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距離標 18.40



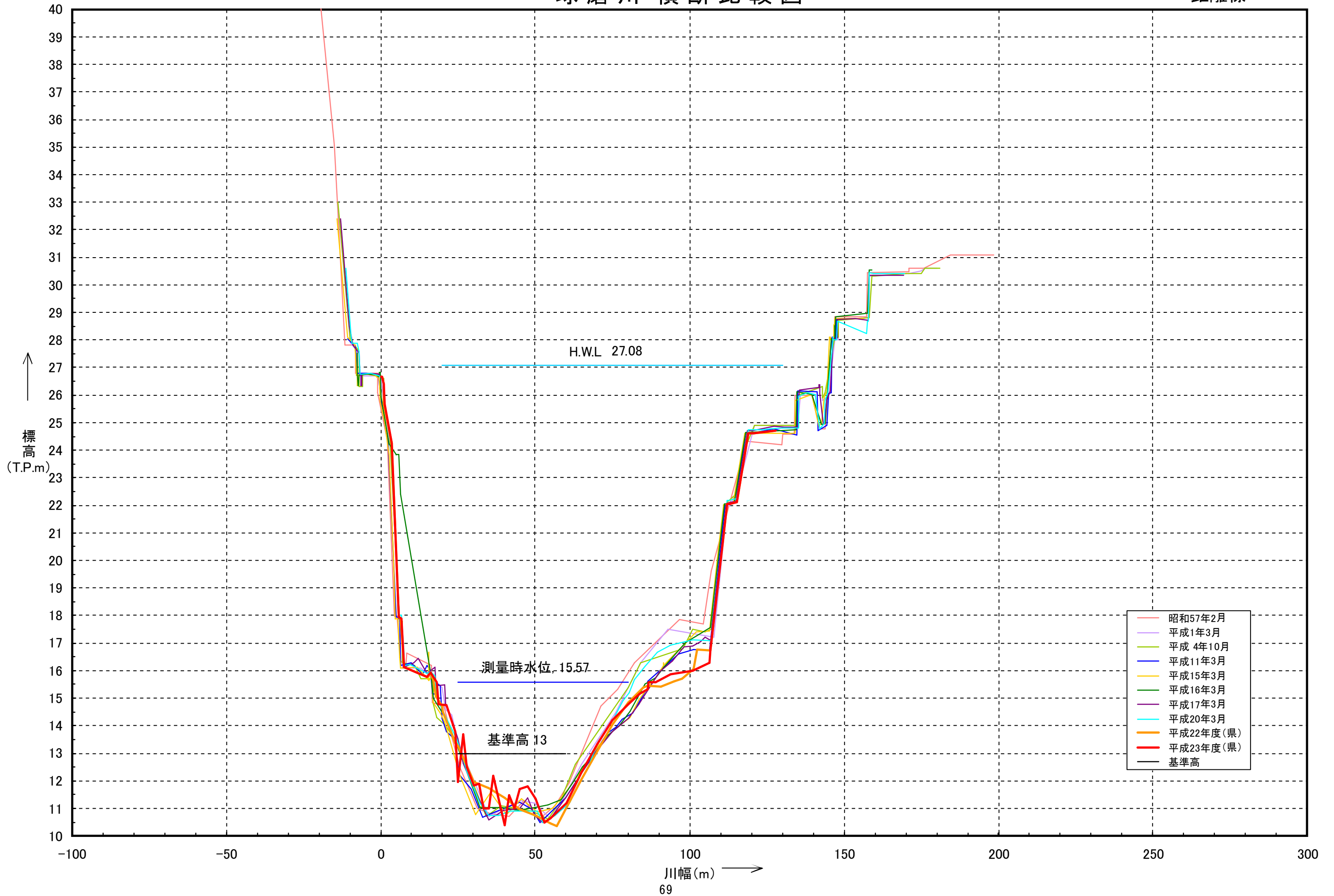
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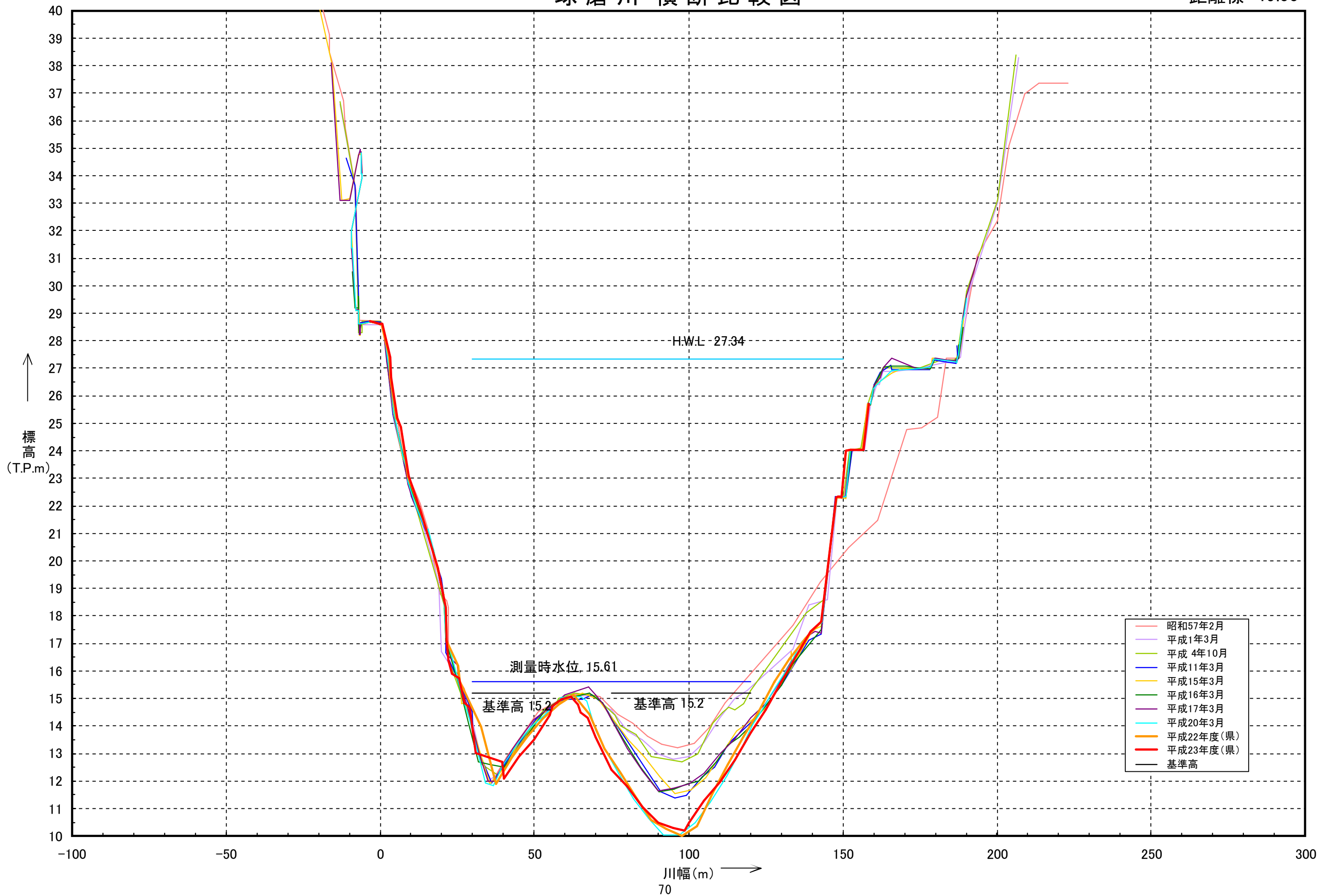


球磨川 横断比較図

距離標 18.80

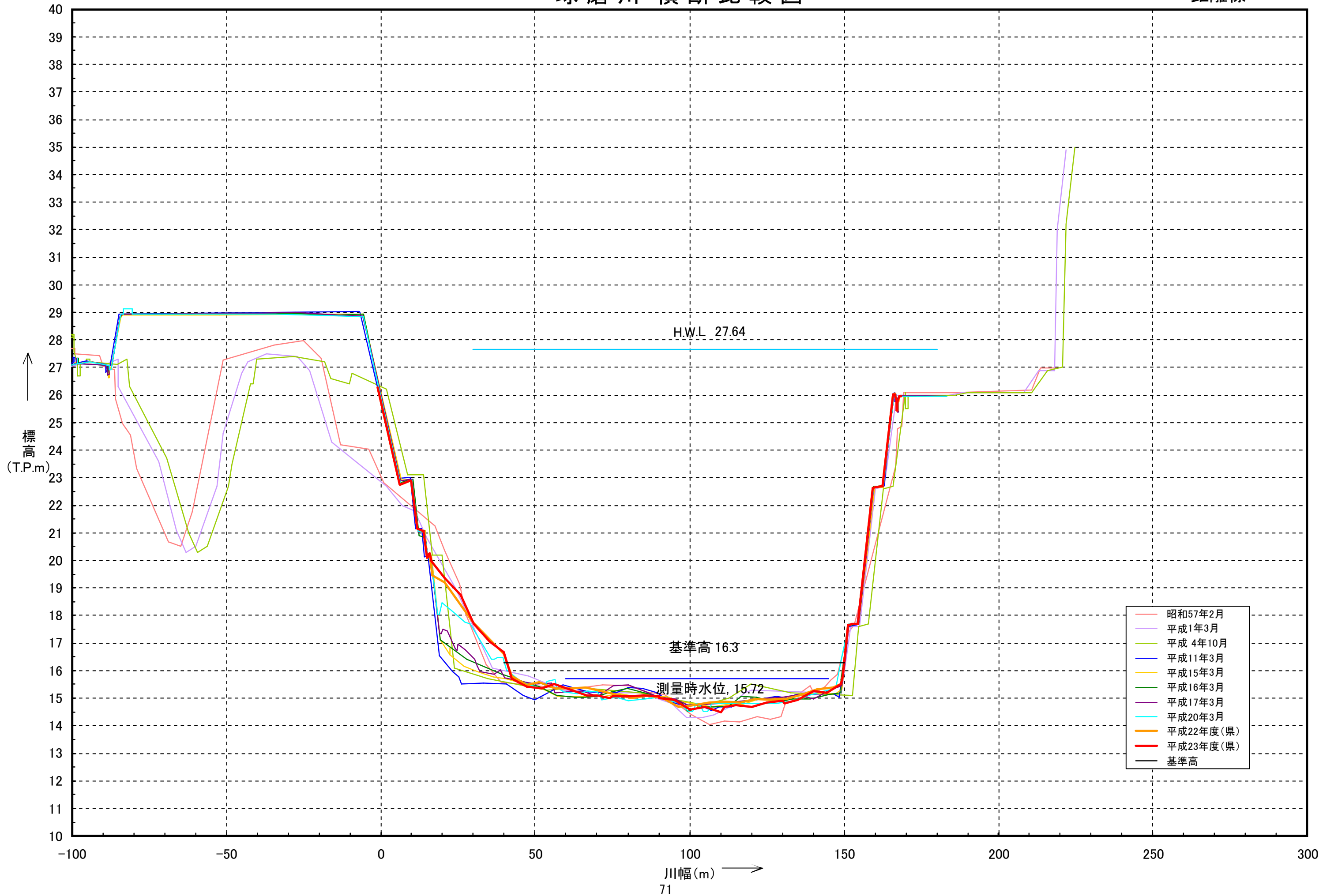


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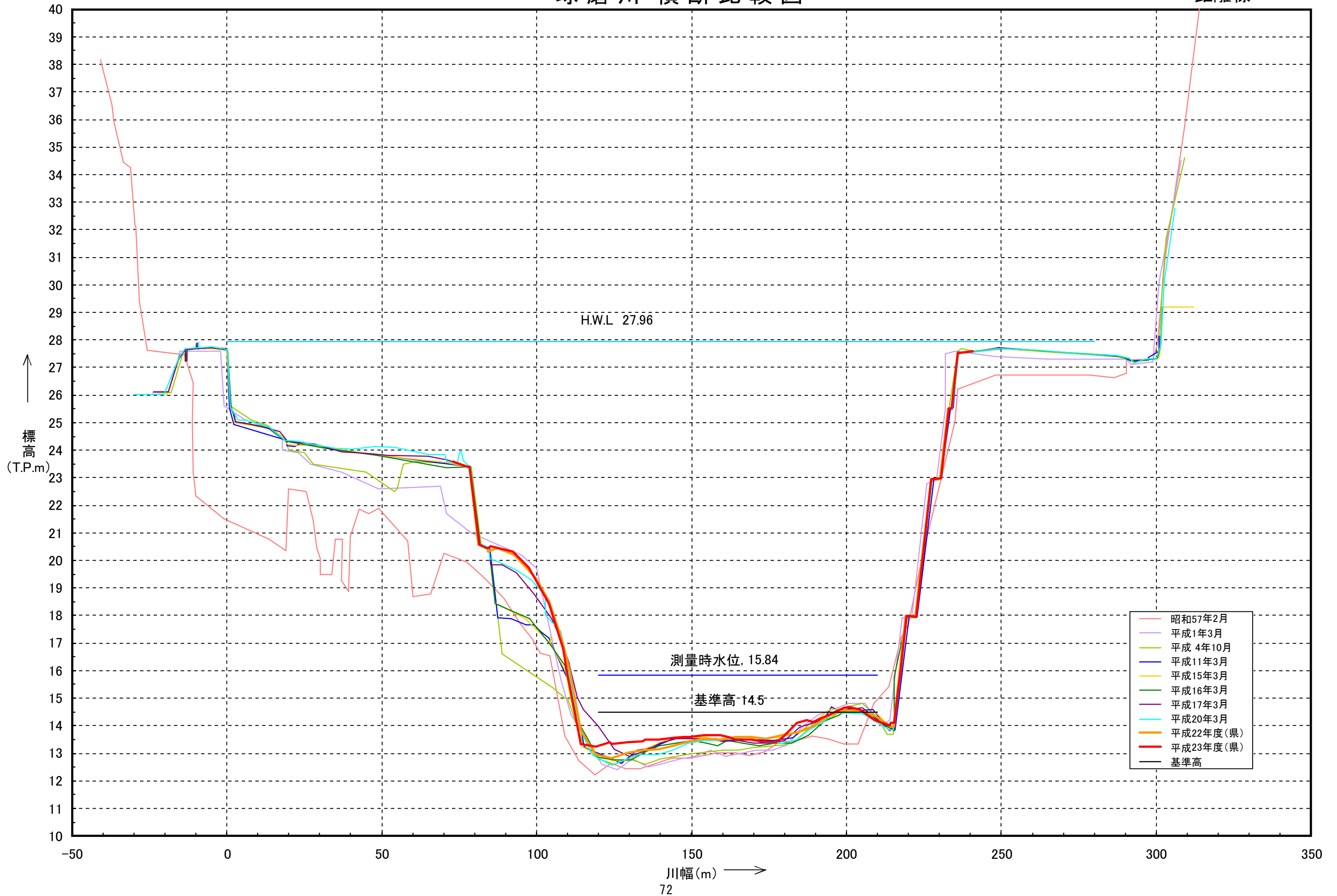
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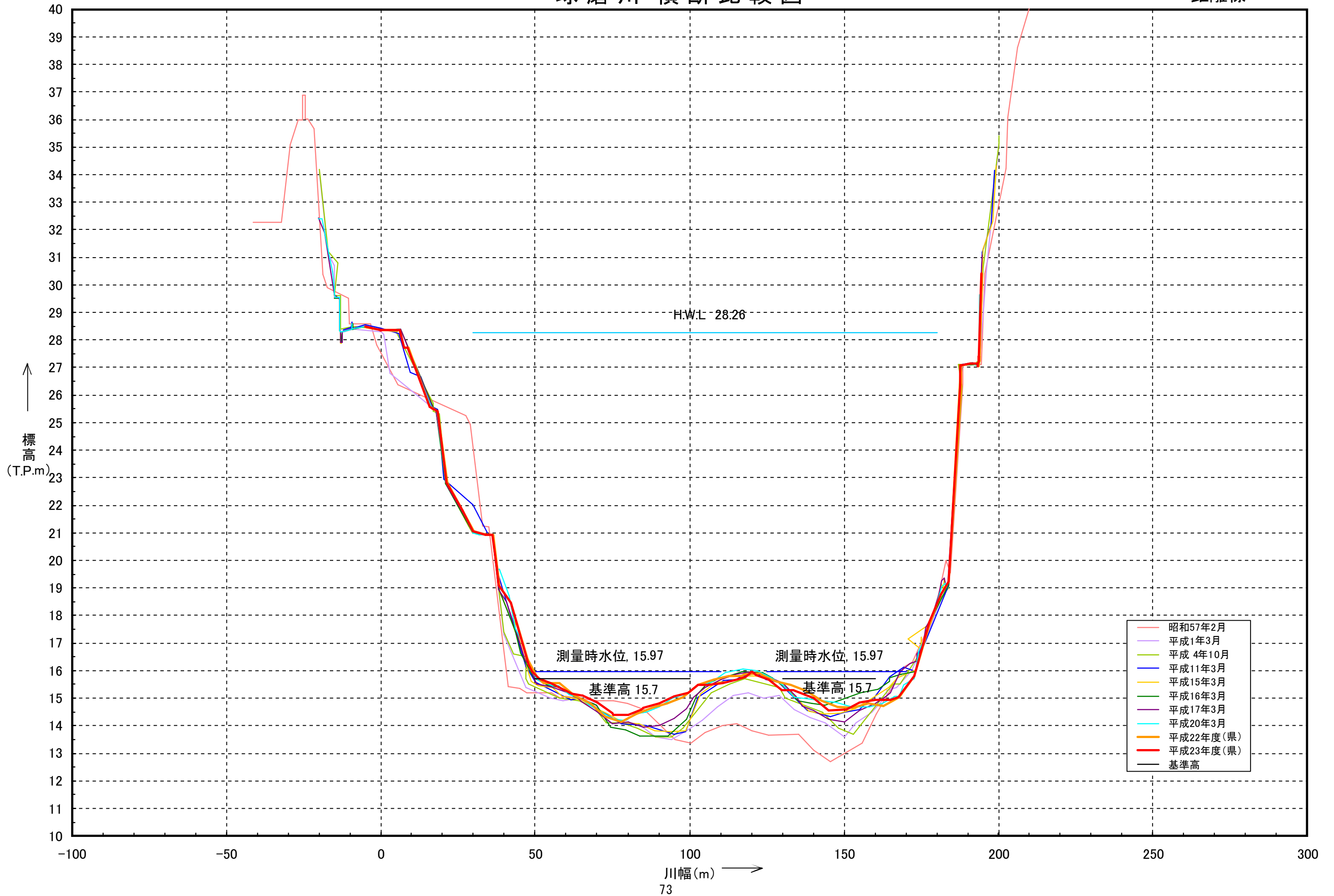
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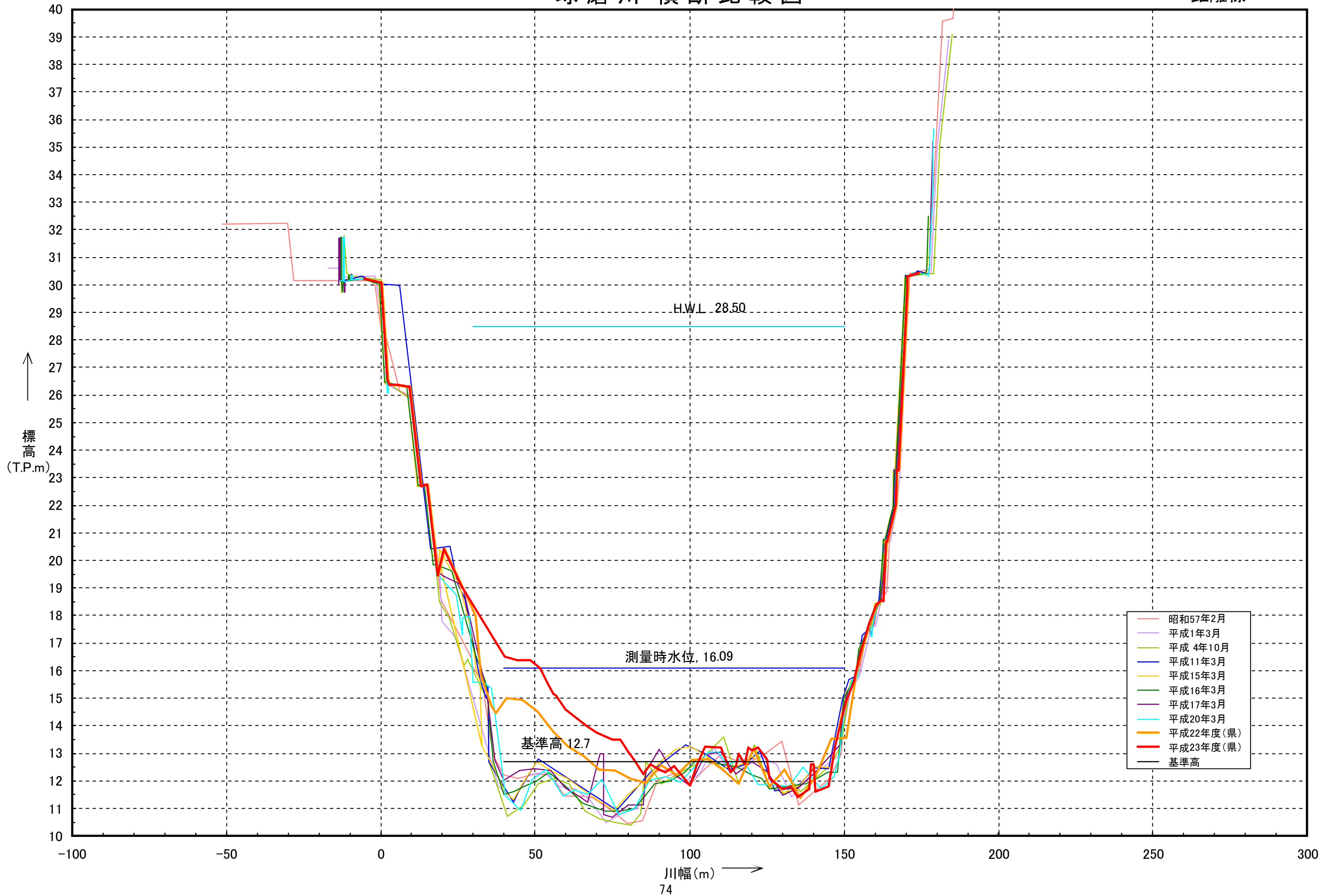
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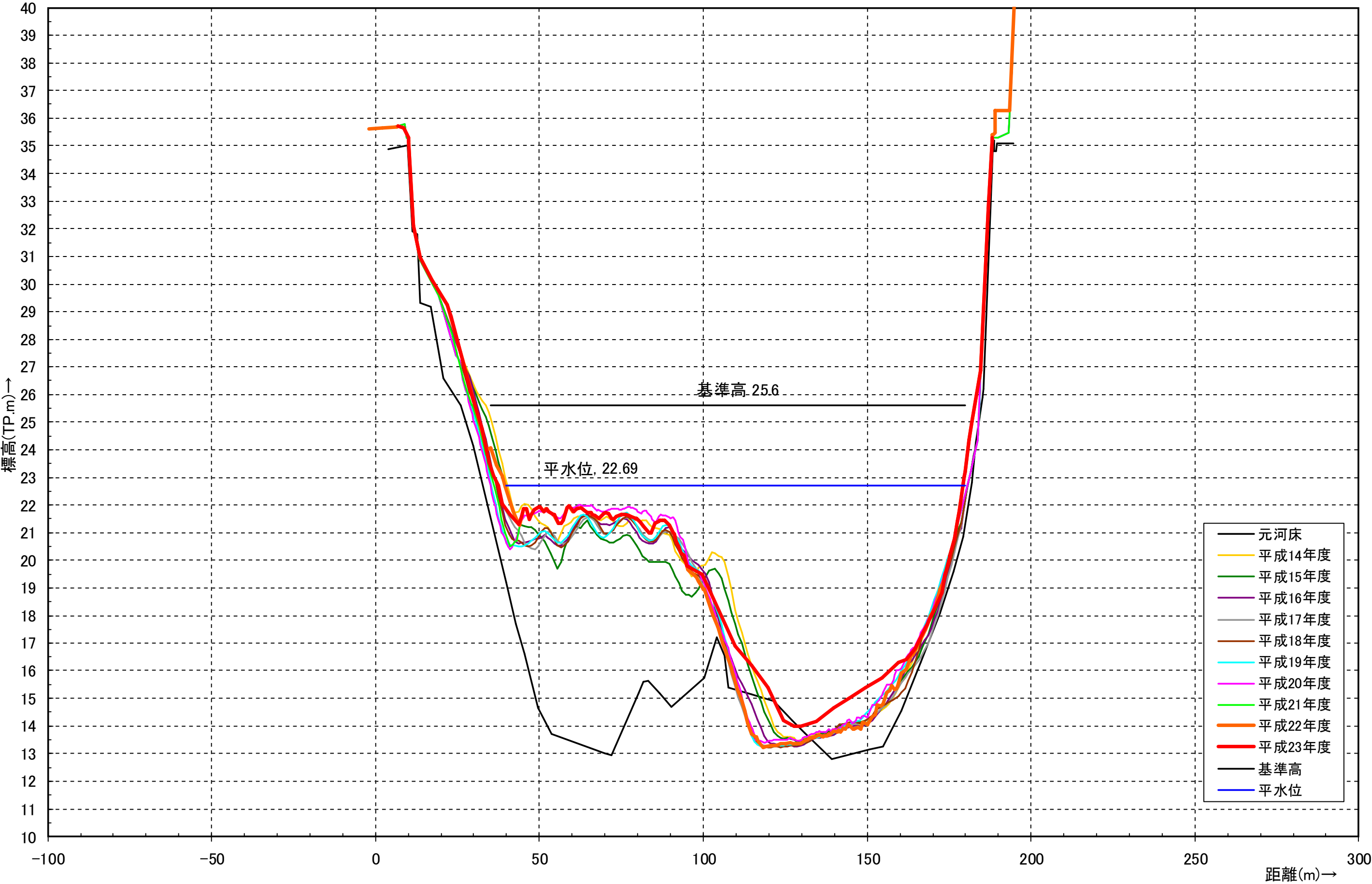


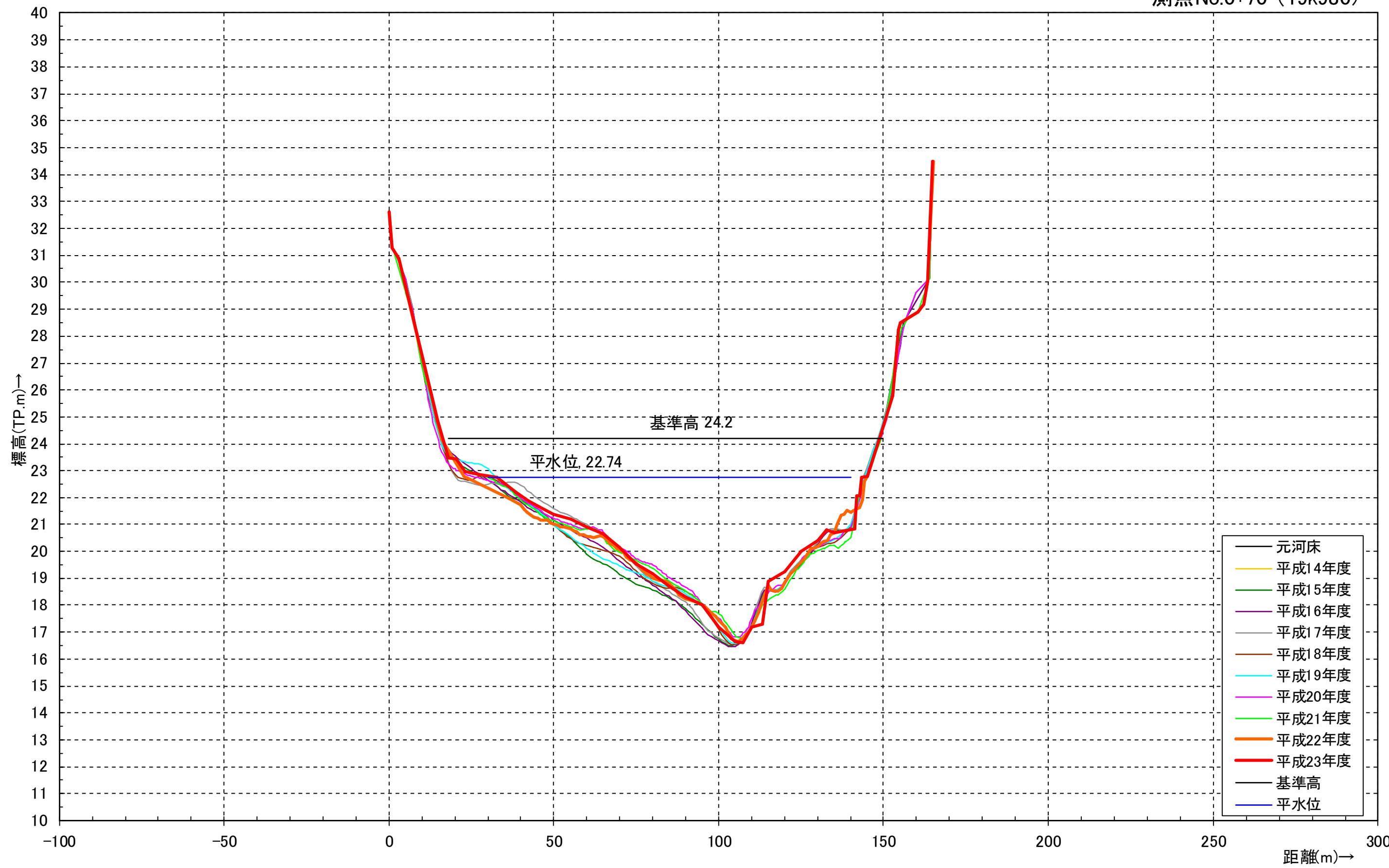
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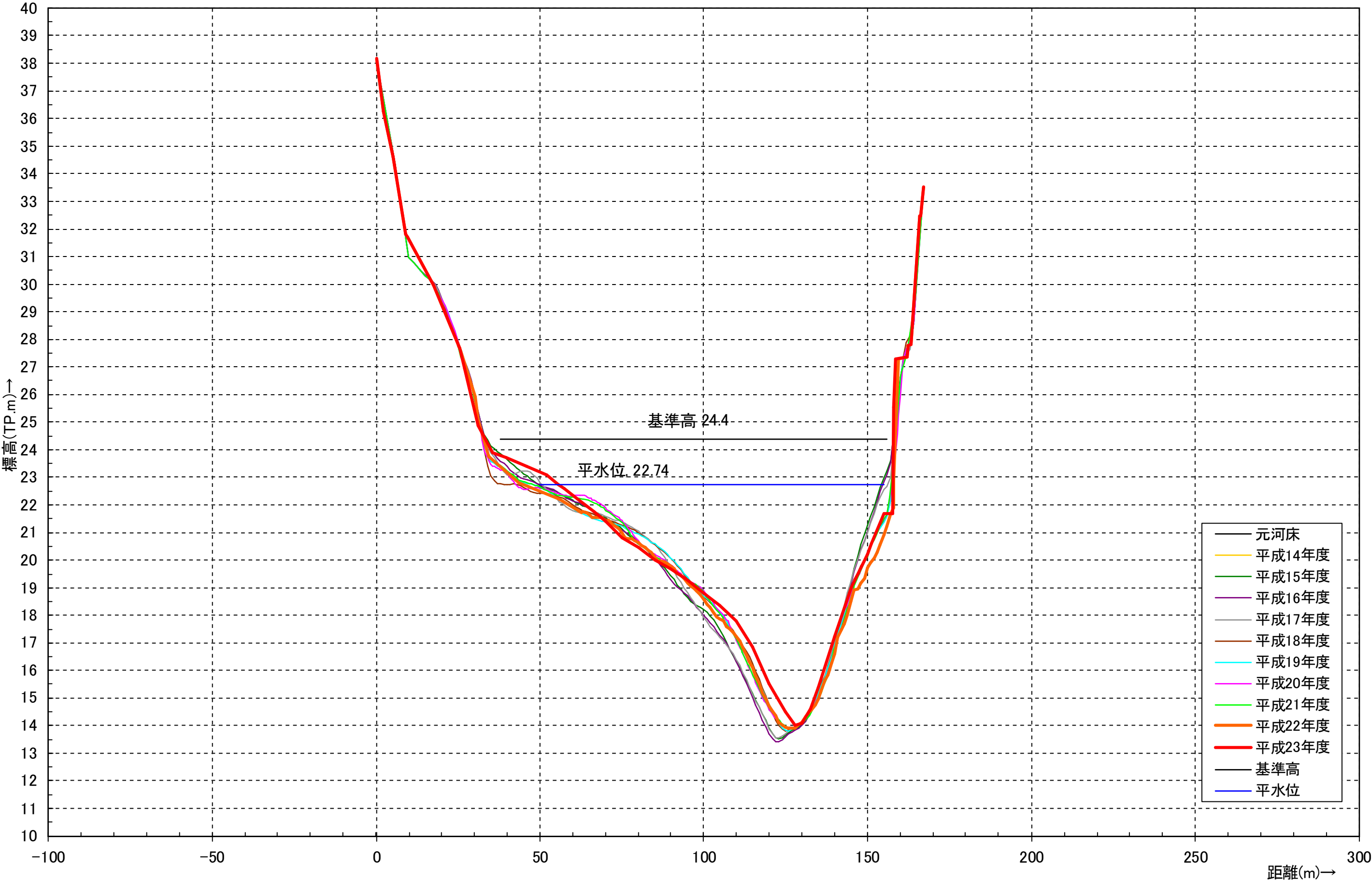
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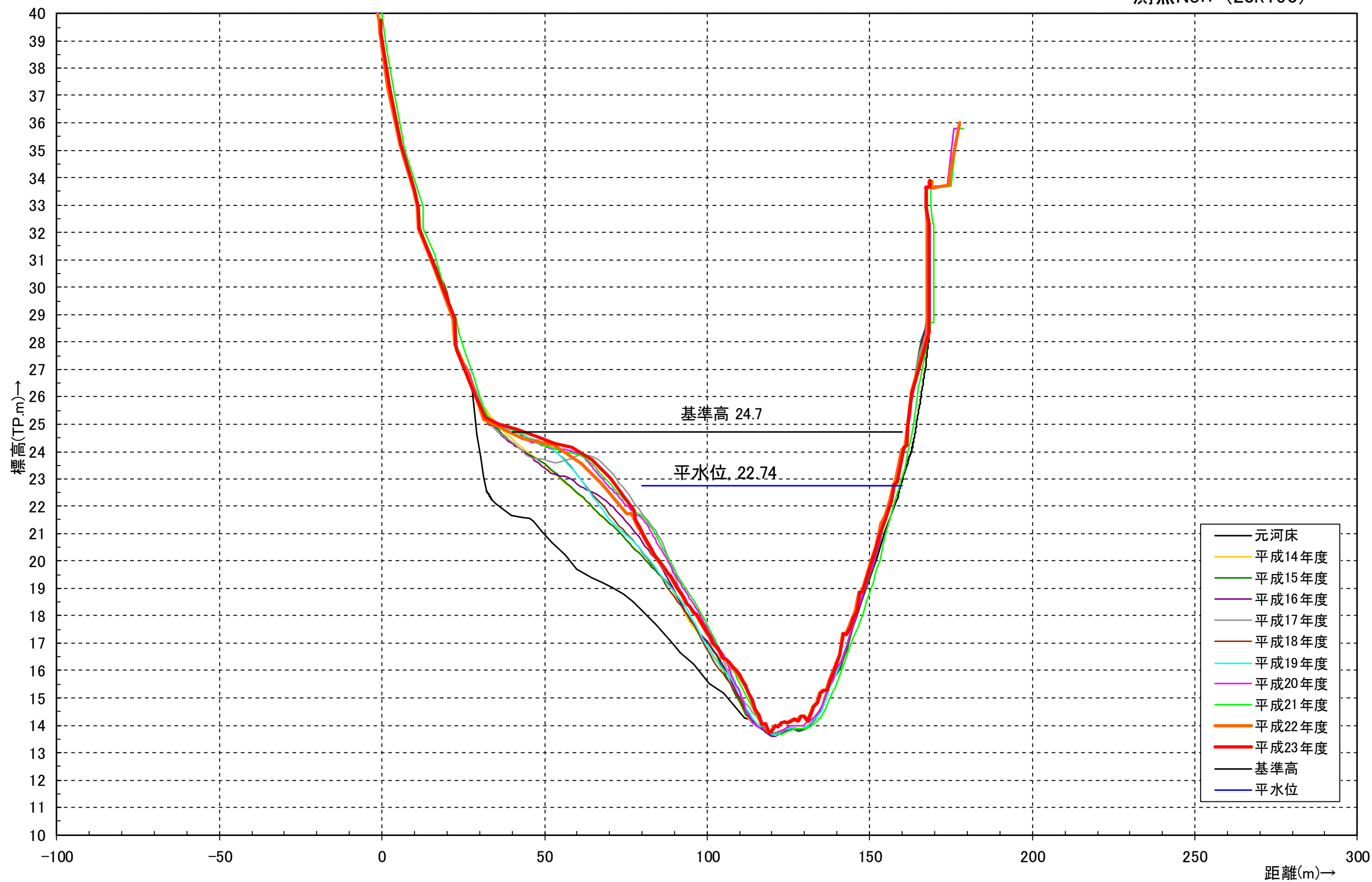
測点No.0 (19k910)

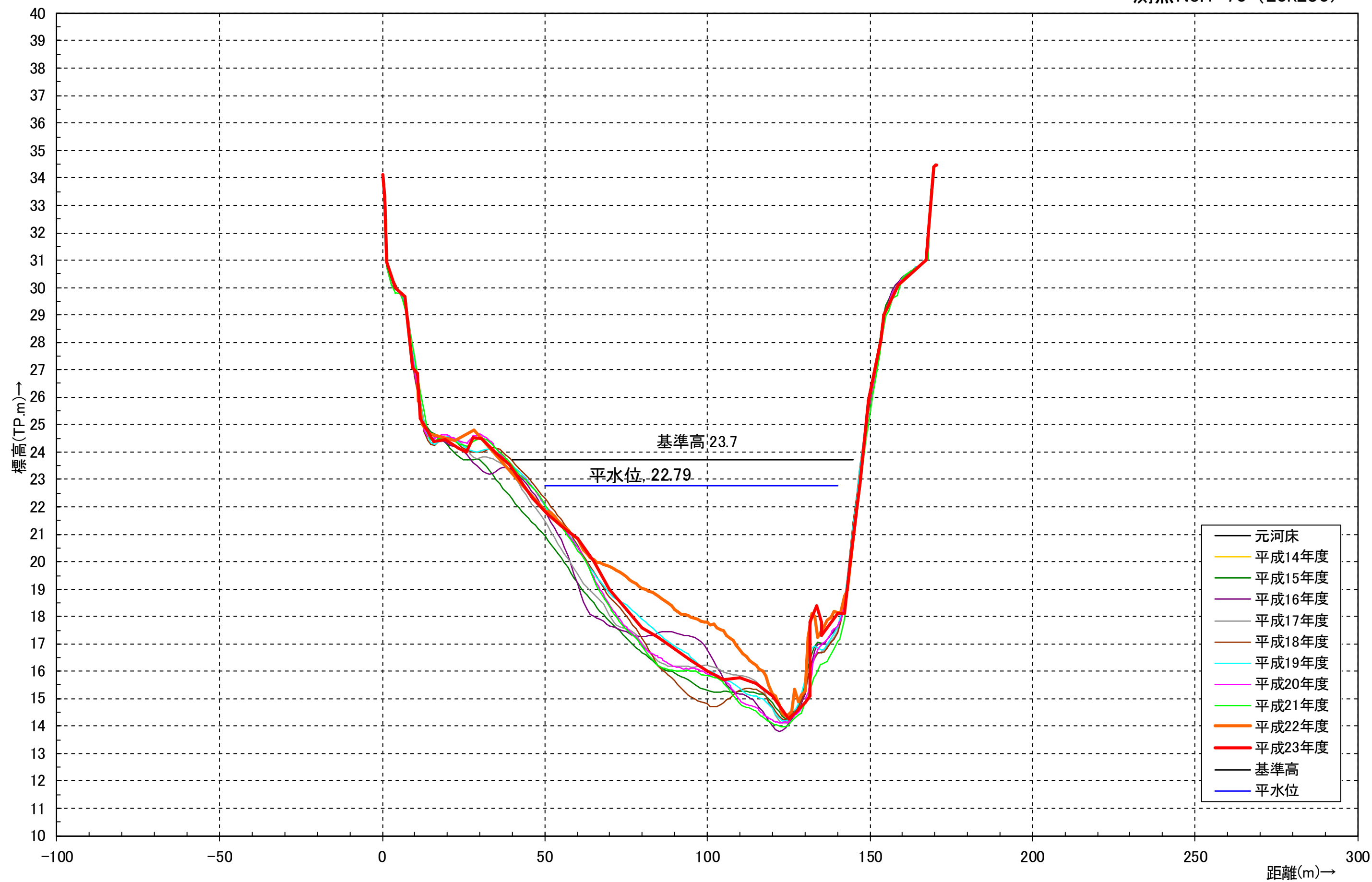


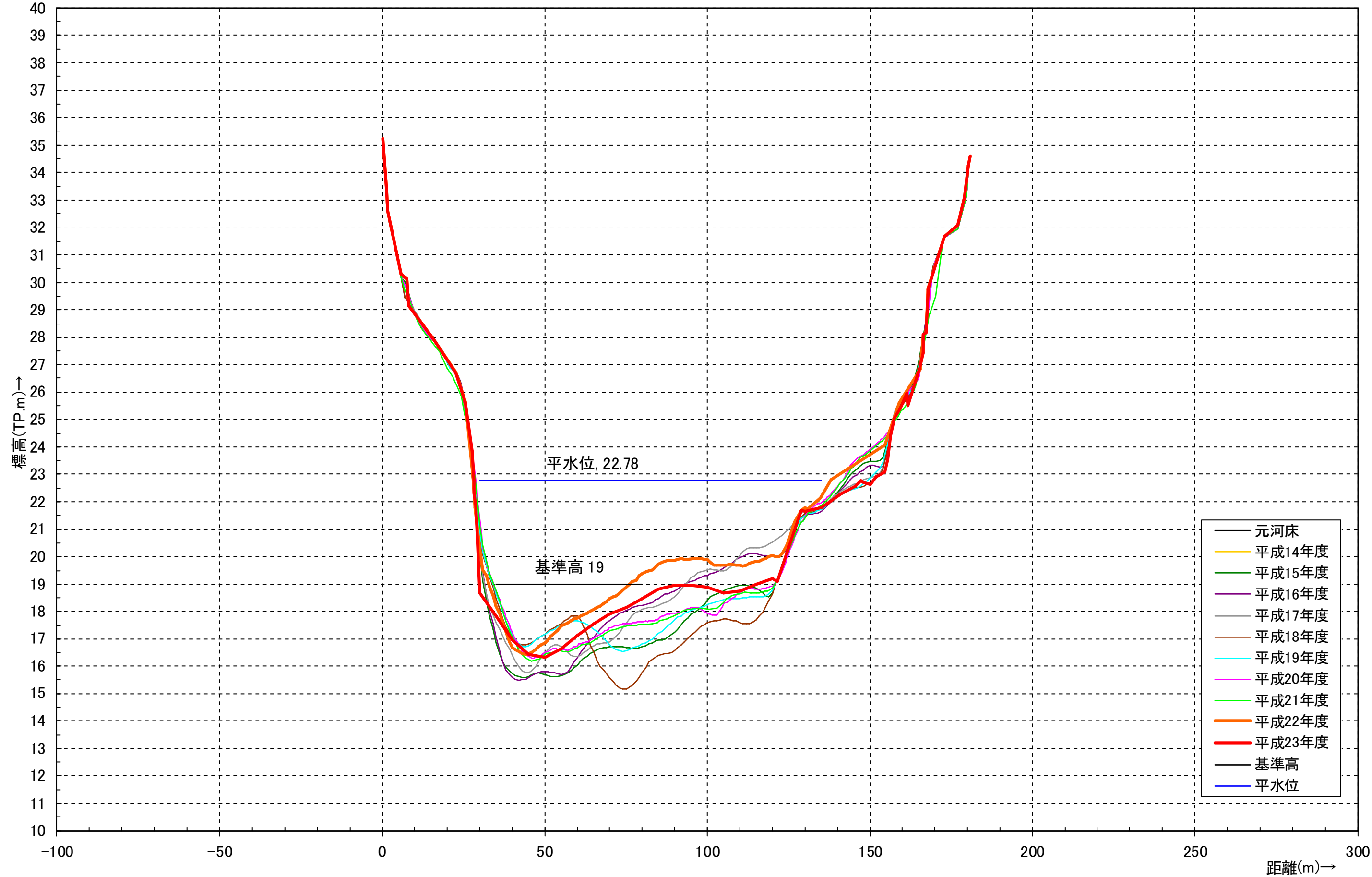




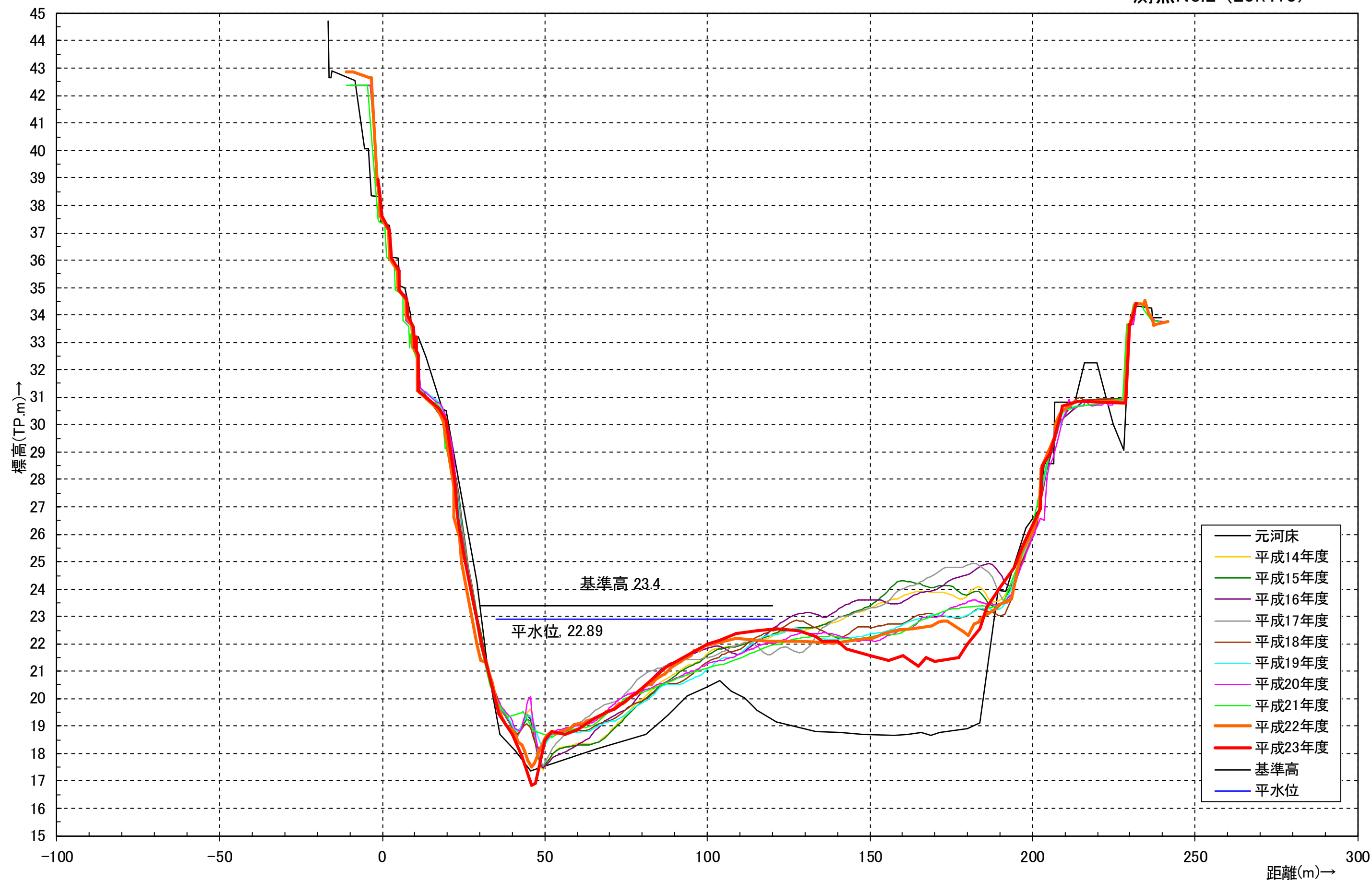
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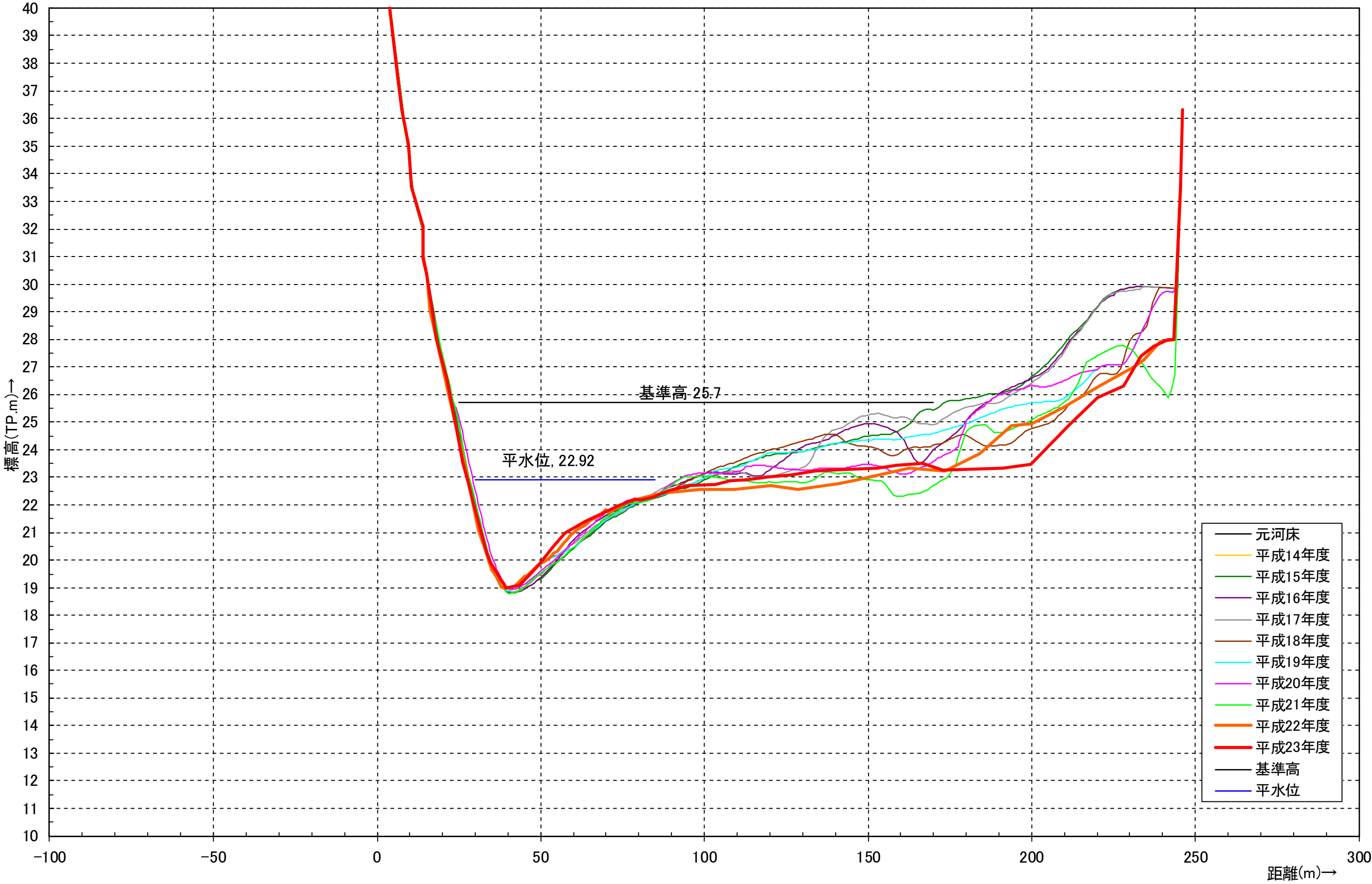






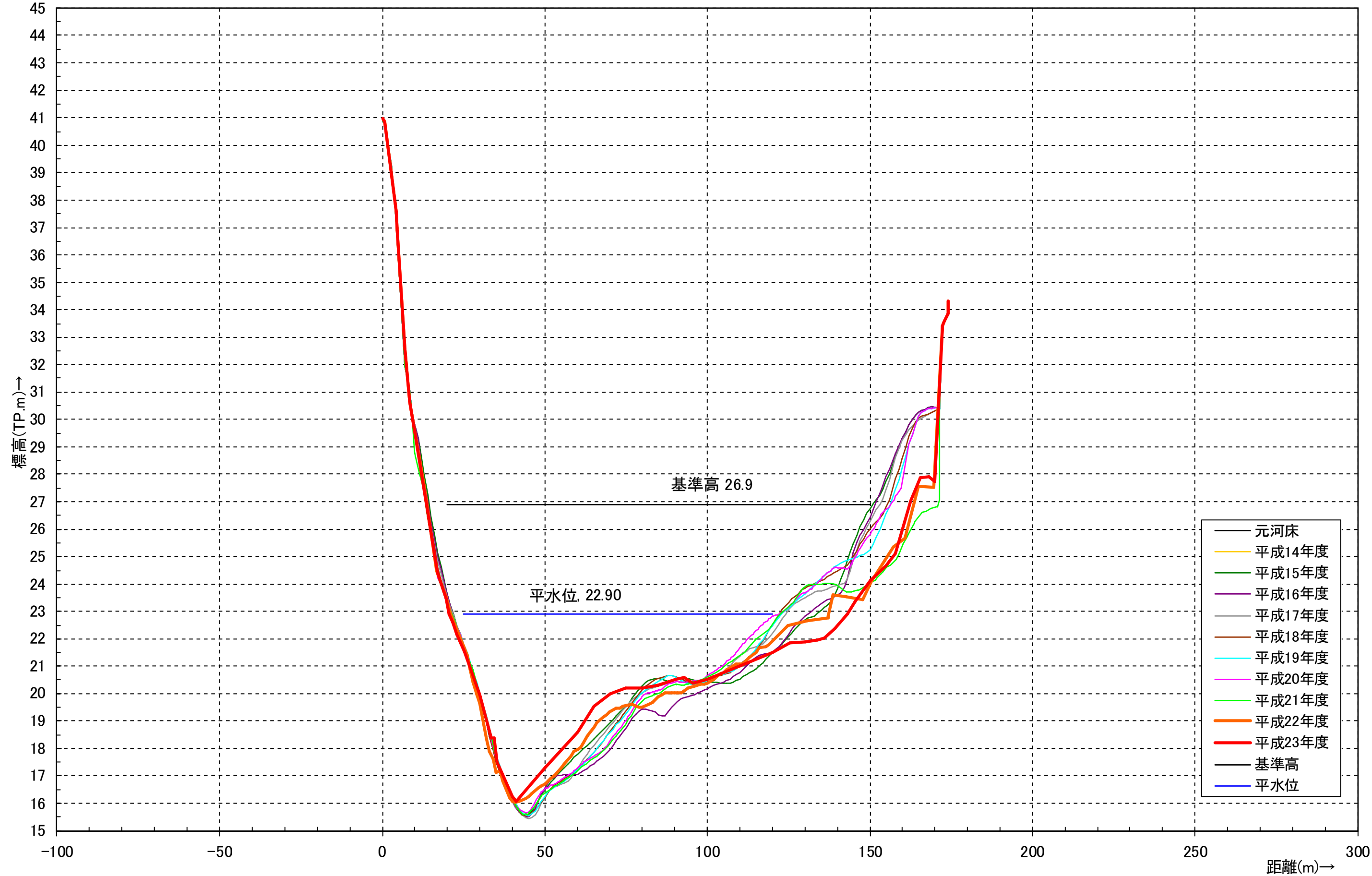
測点No.2 (20k410)



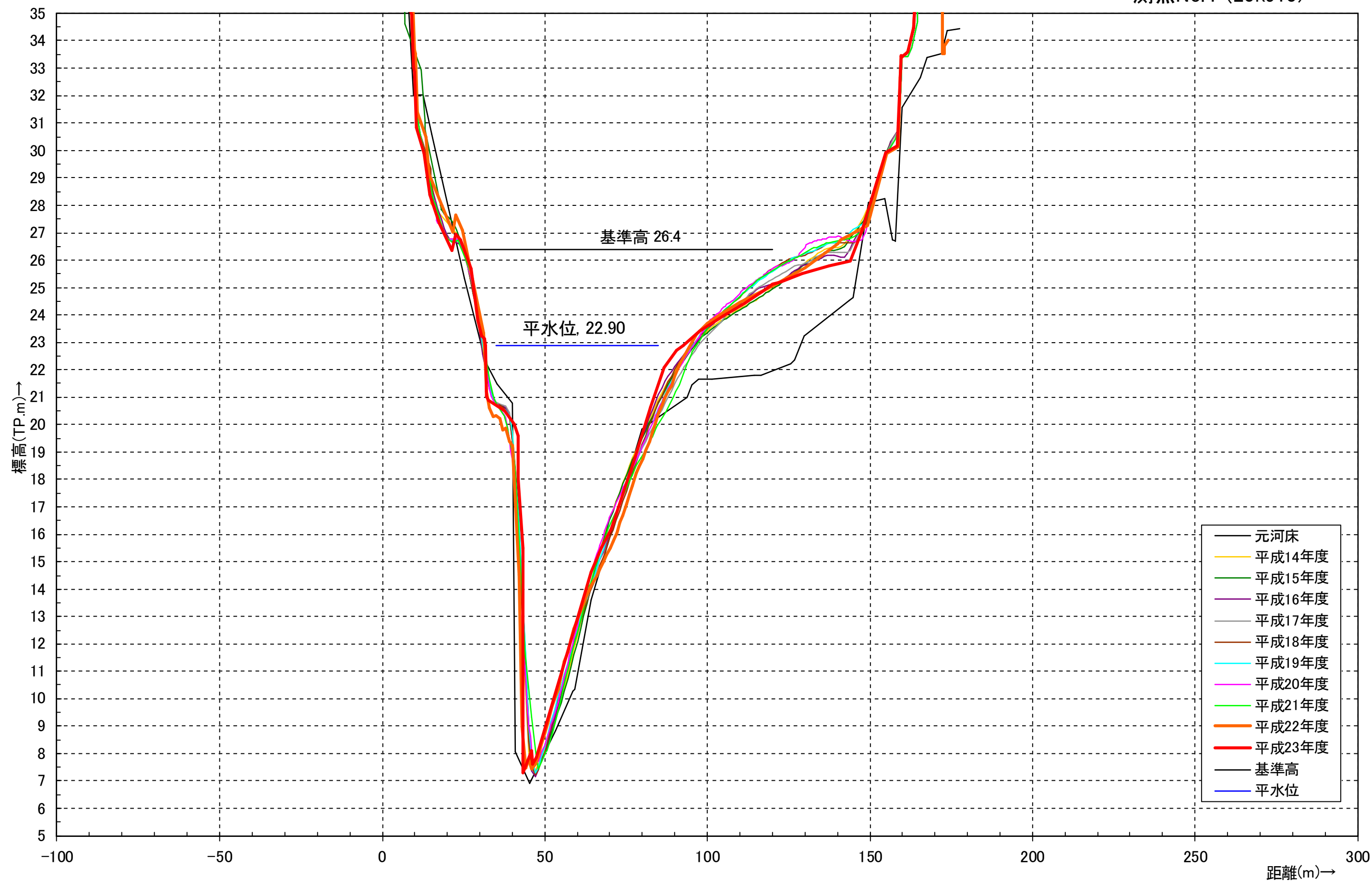


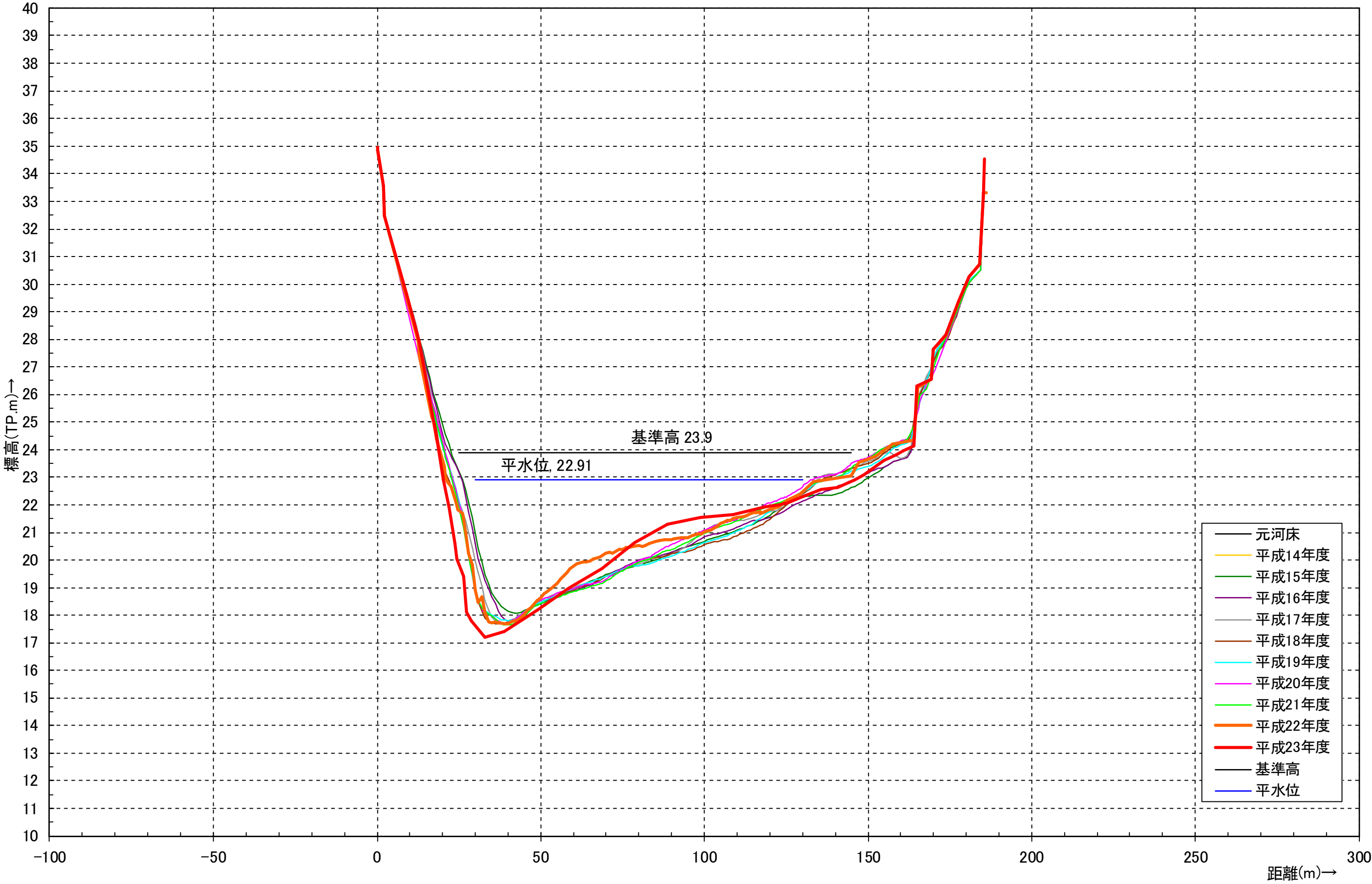
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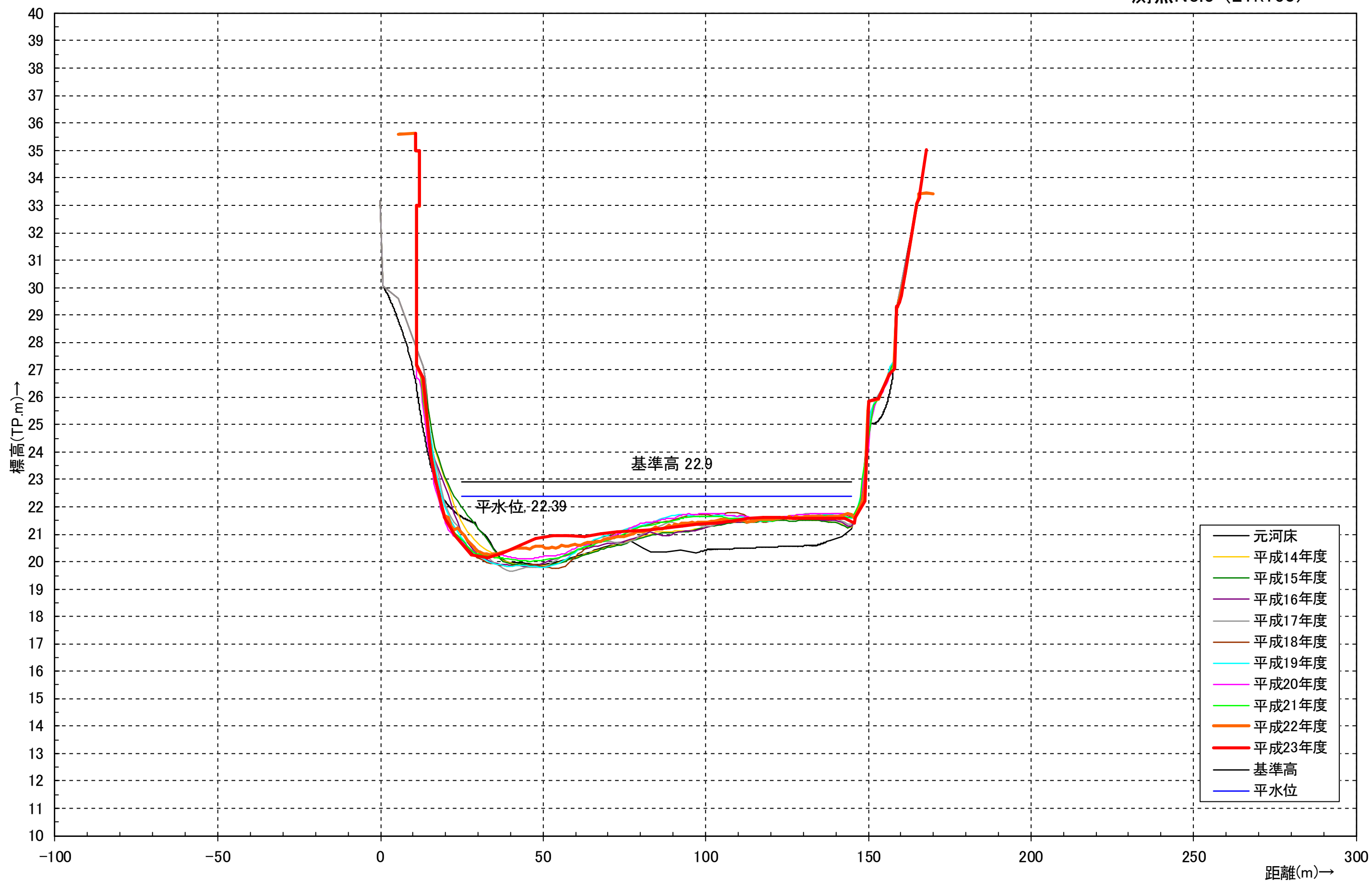


測点No.4 (20k910)

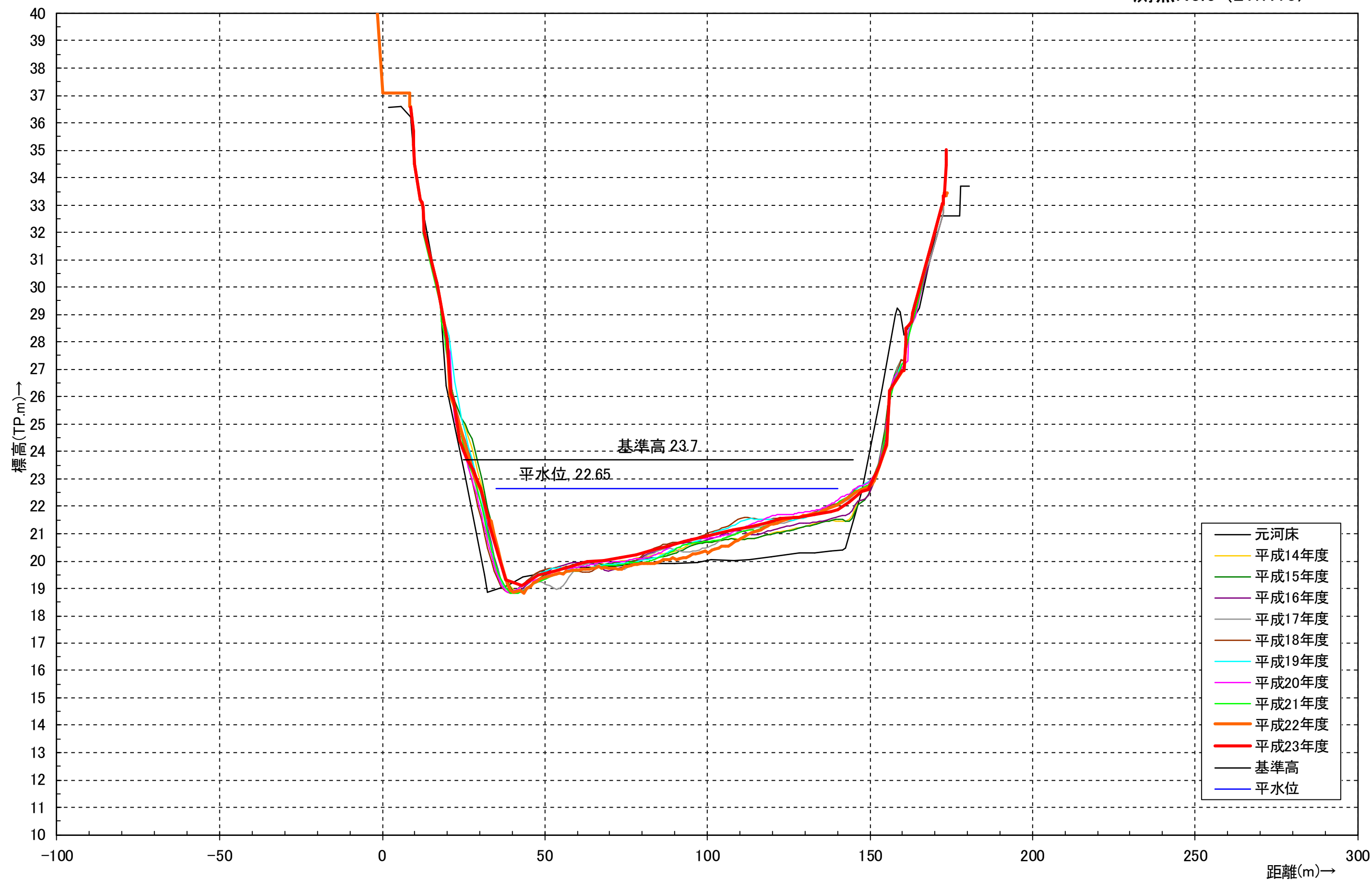




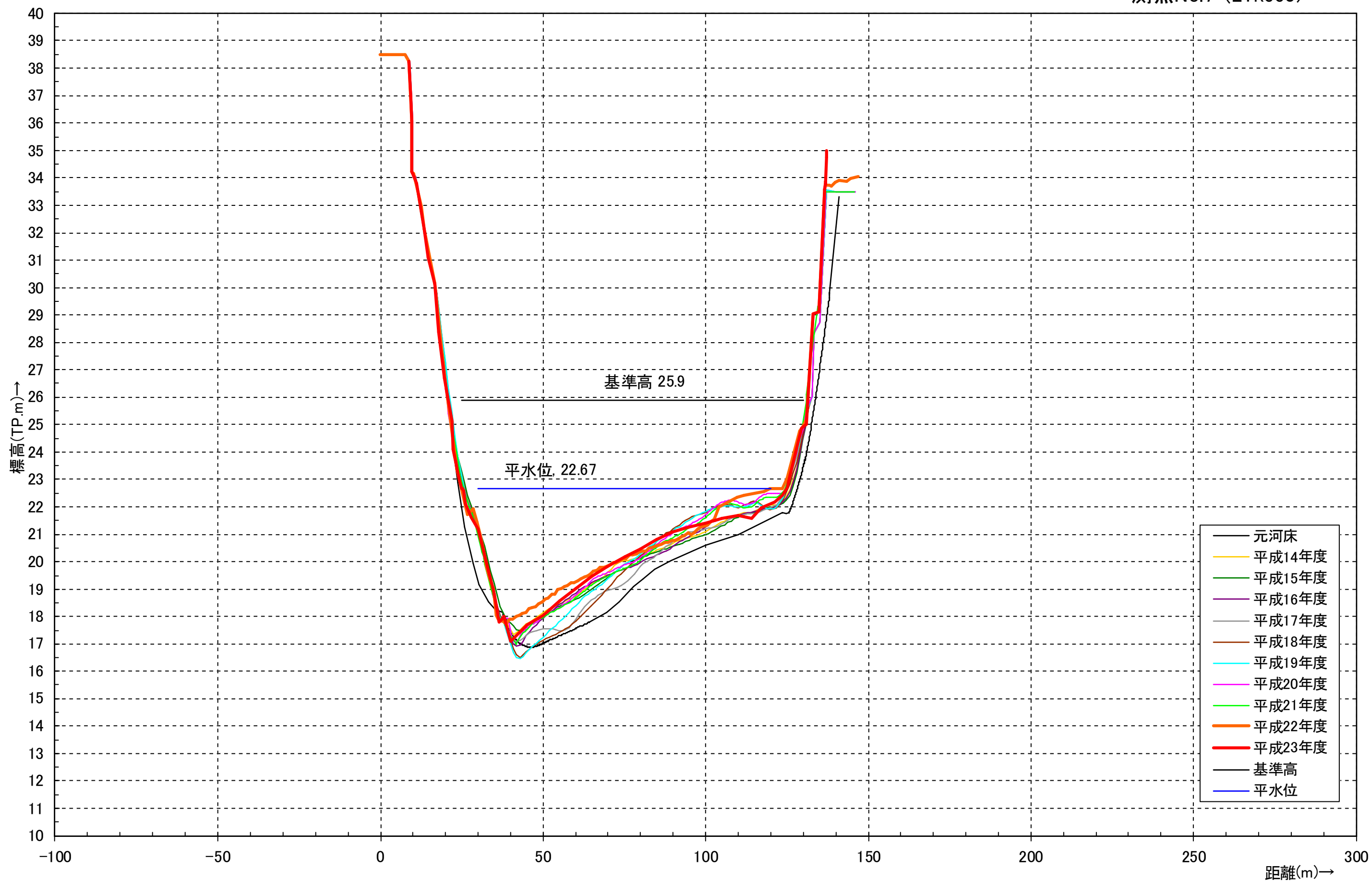
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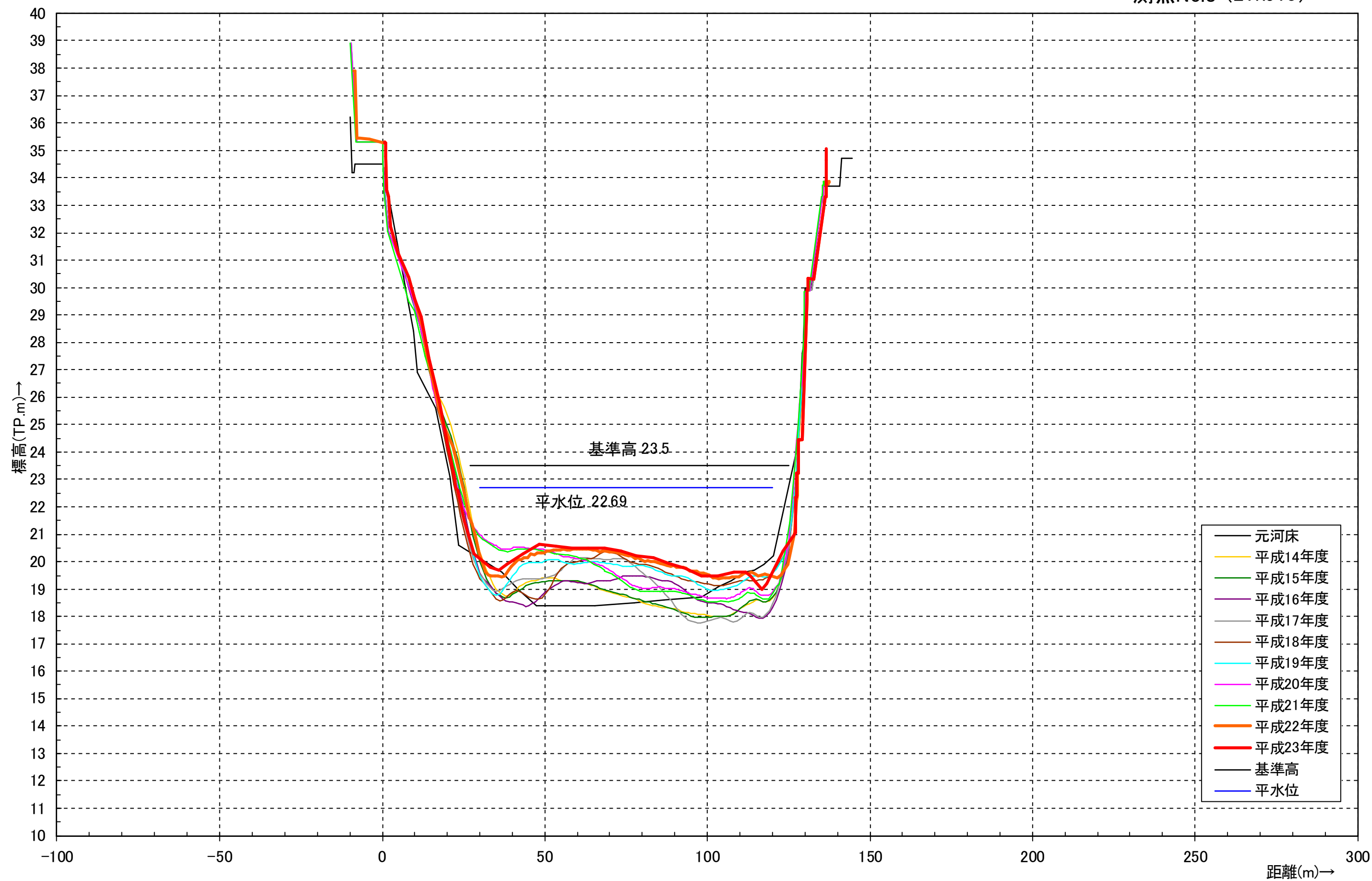
測点No.6 (21k410)



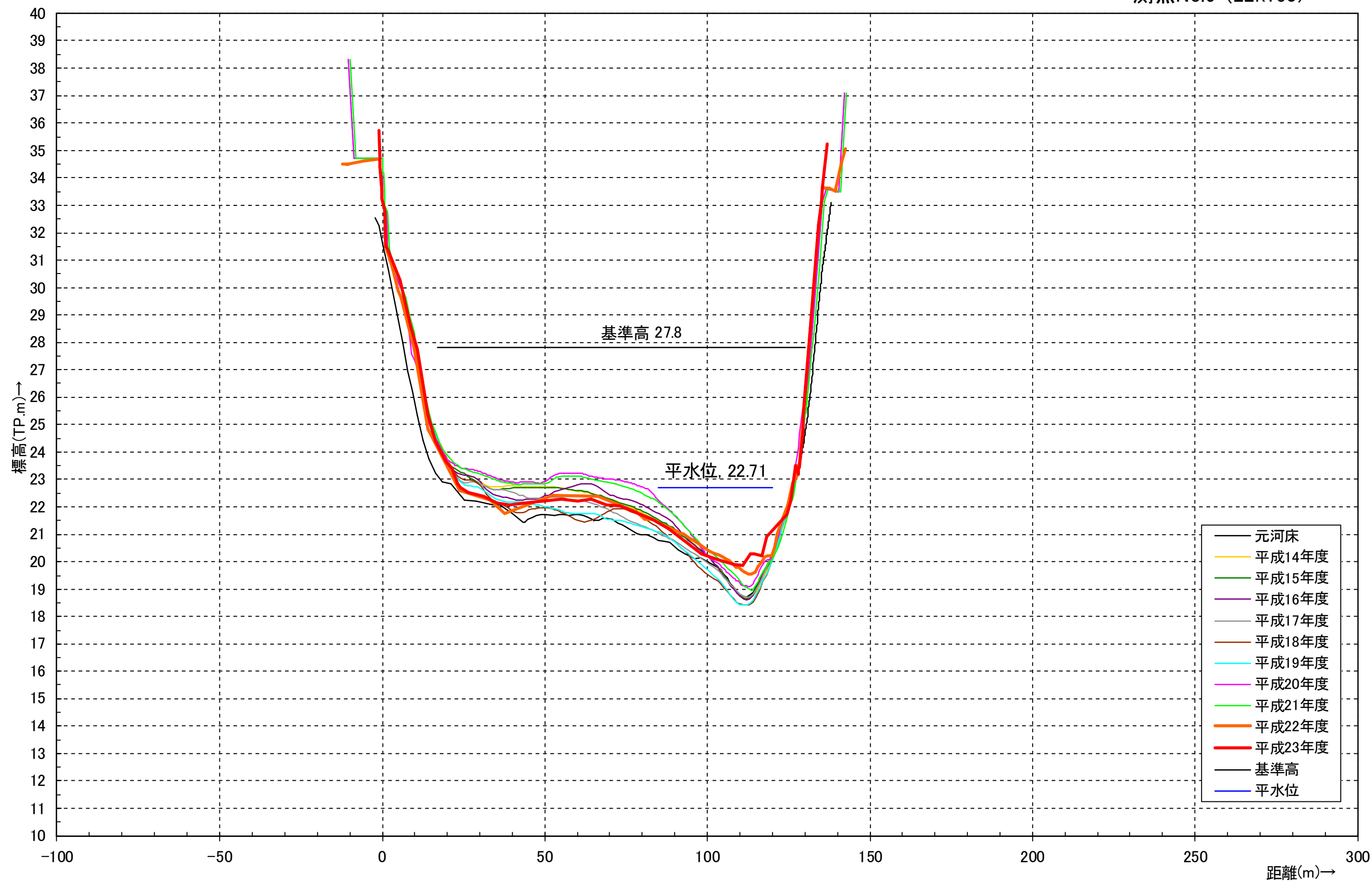
測点No.7 (21k660)

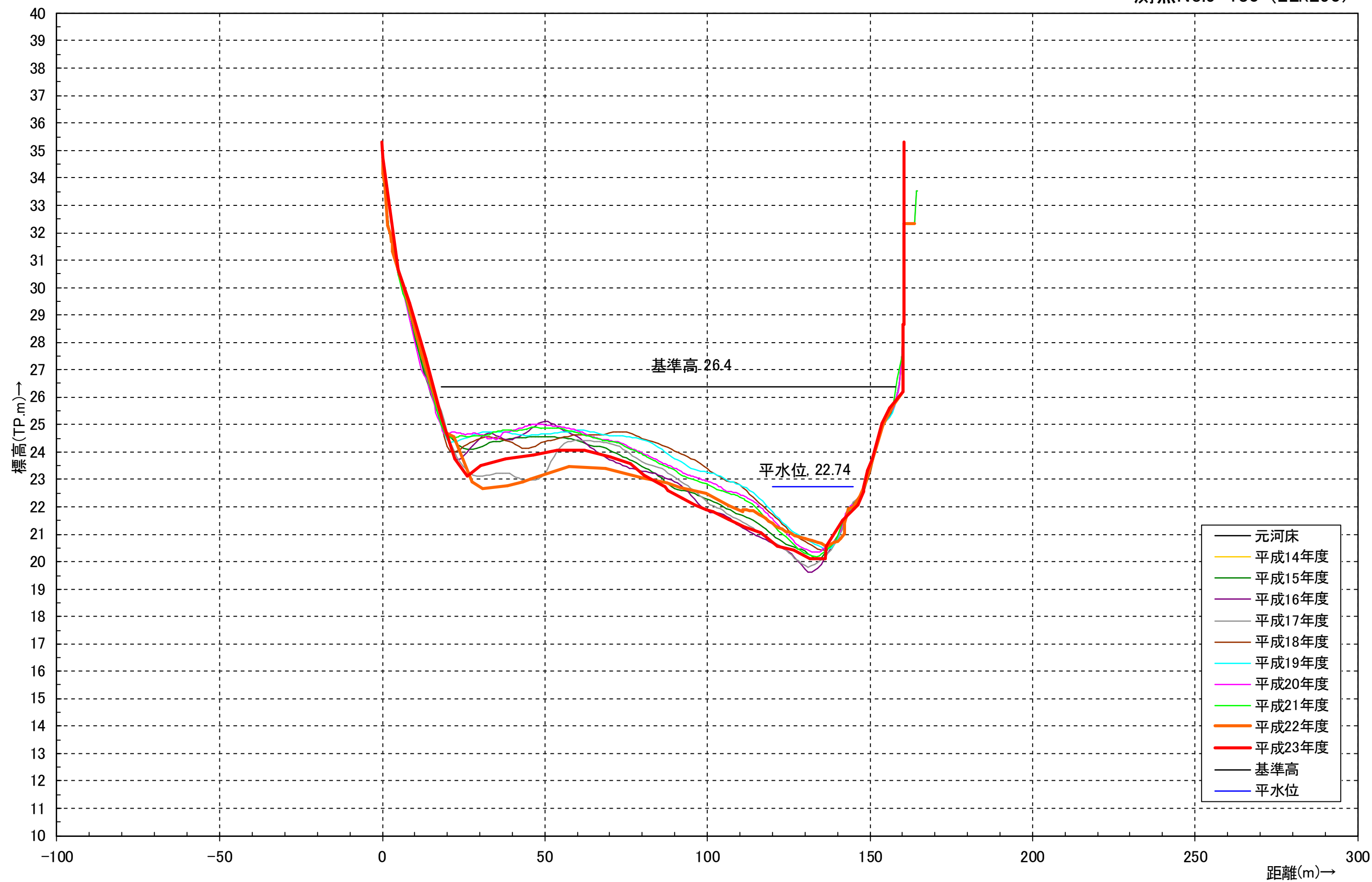


測点No.8 (21k910)

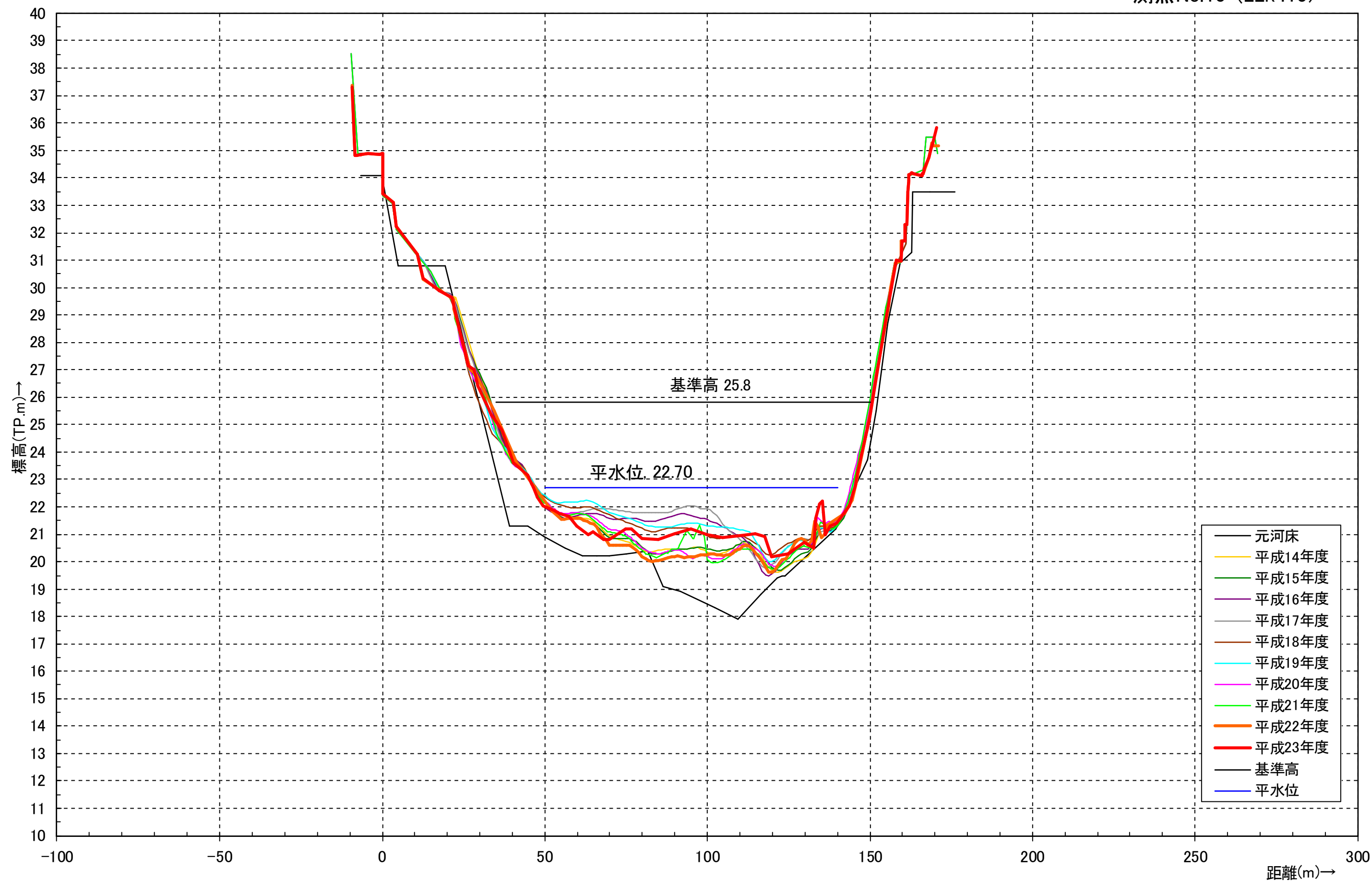


測点No.9 (22k160)

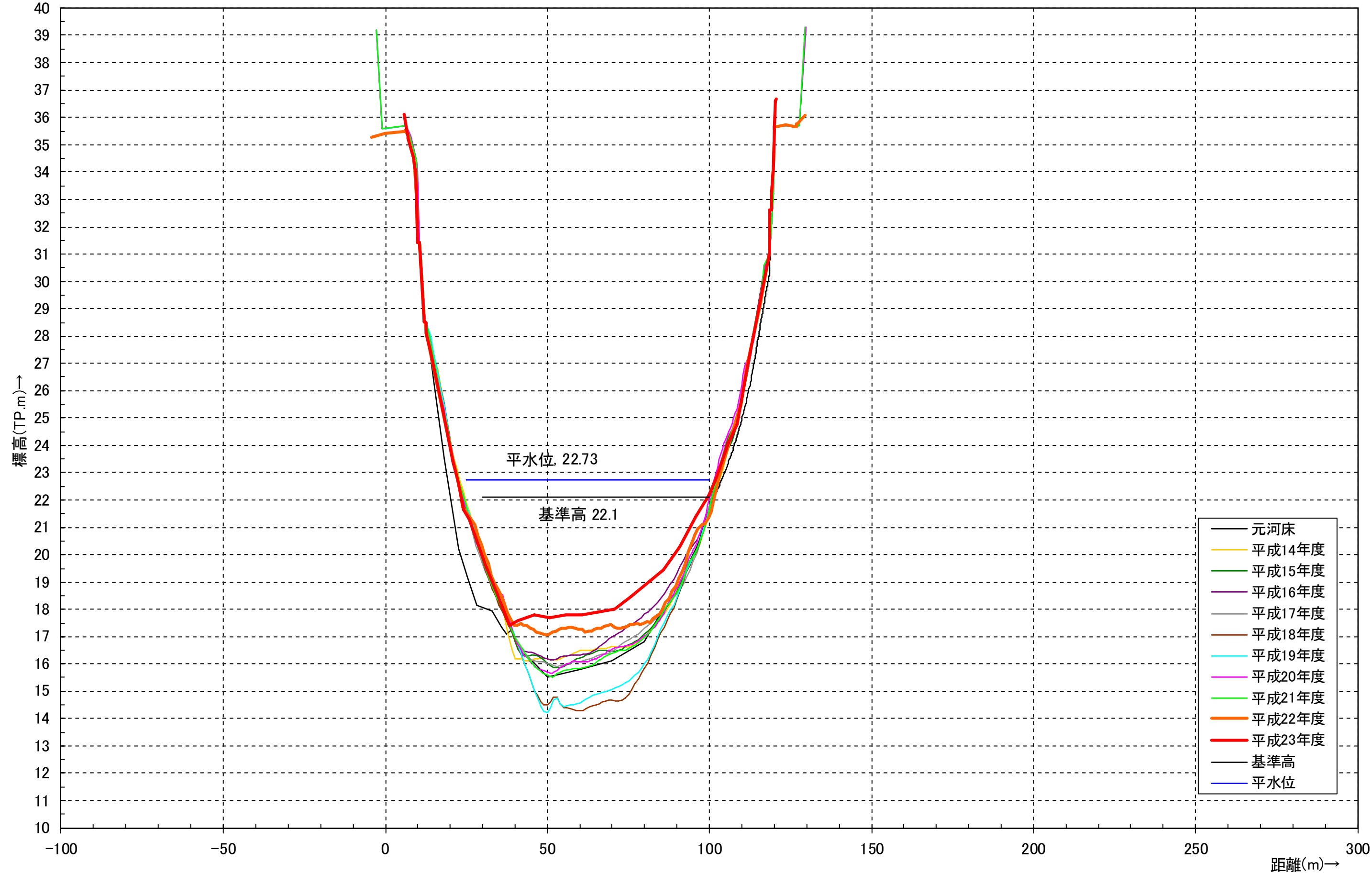




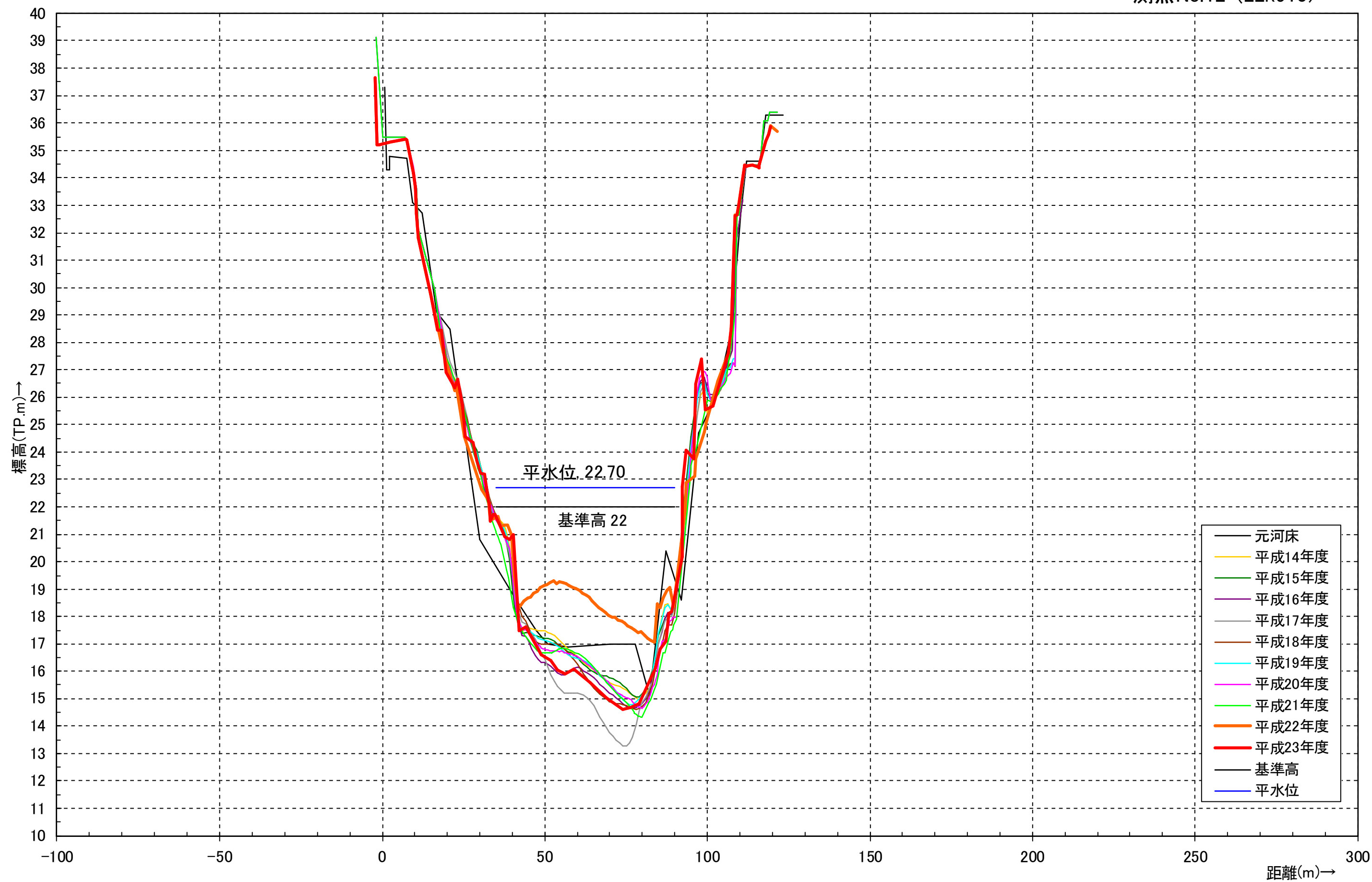
測点No.10 (22k410)



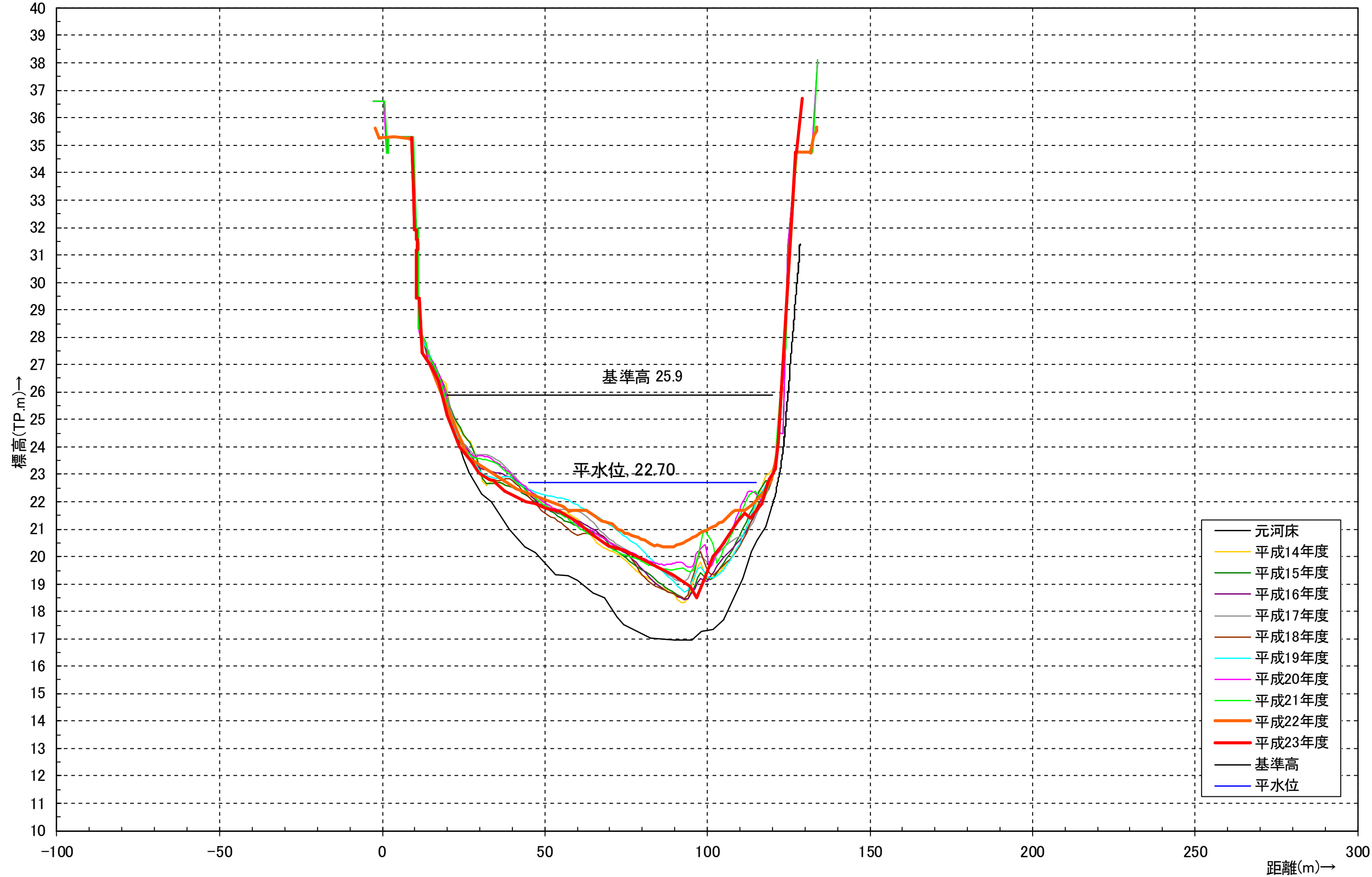
測点No.11 (22k660)



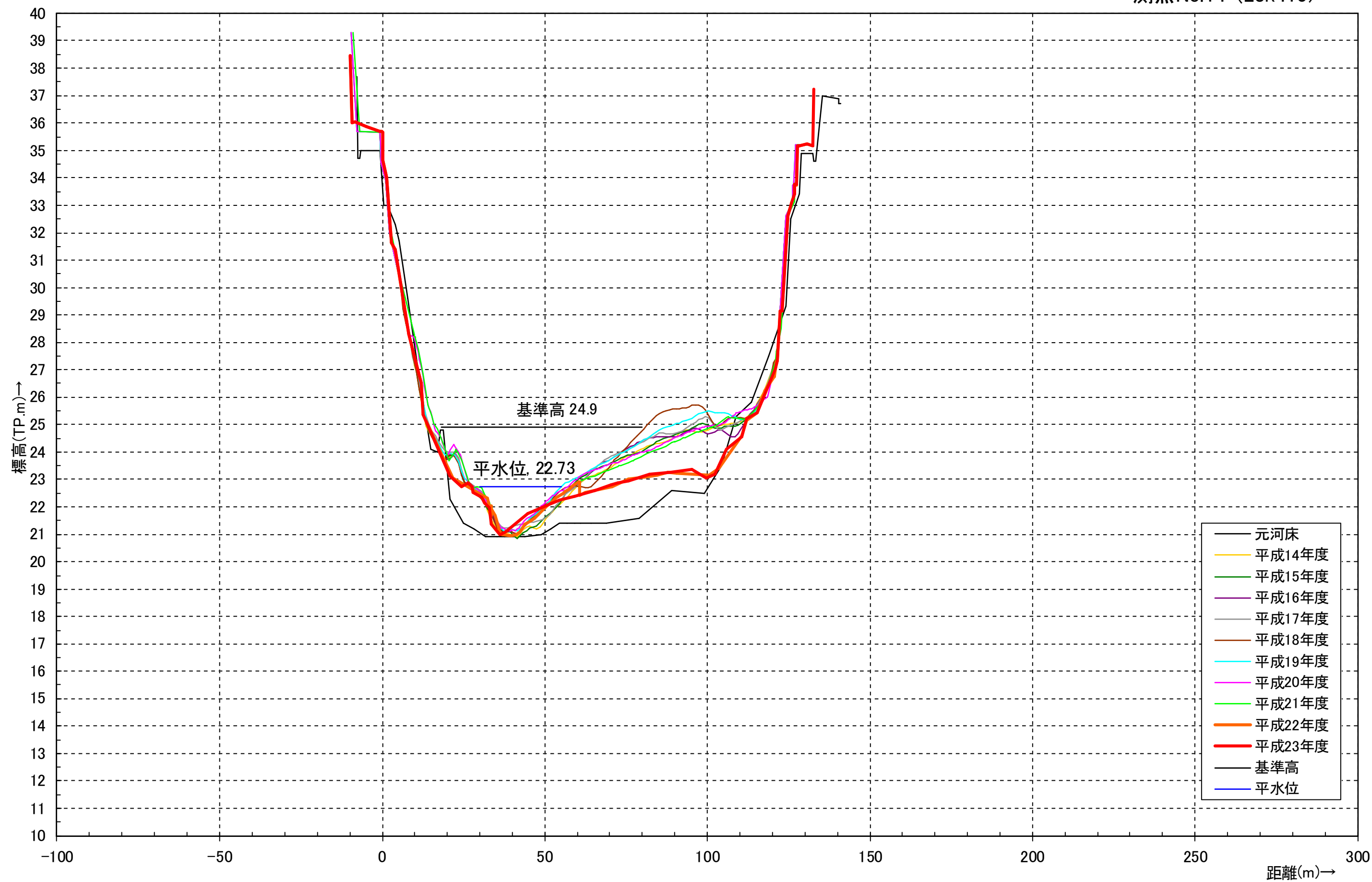
測点No.12 (22k910)



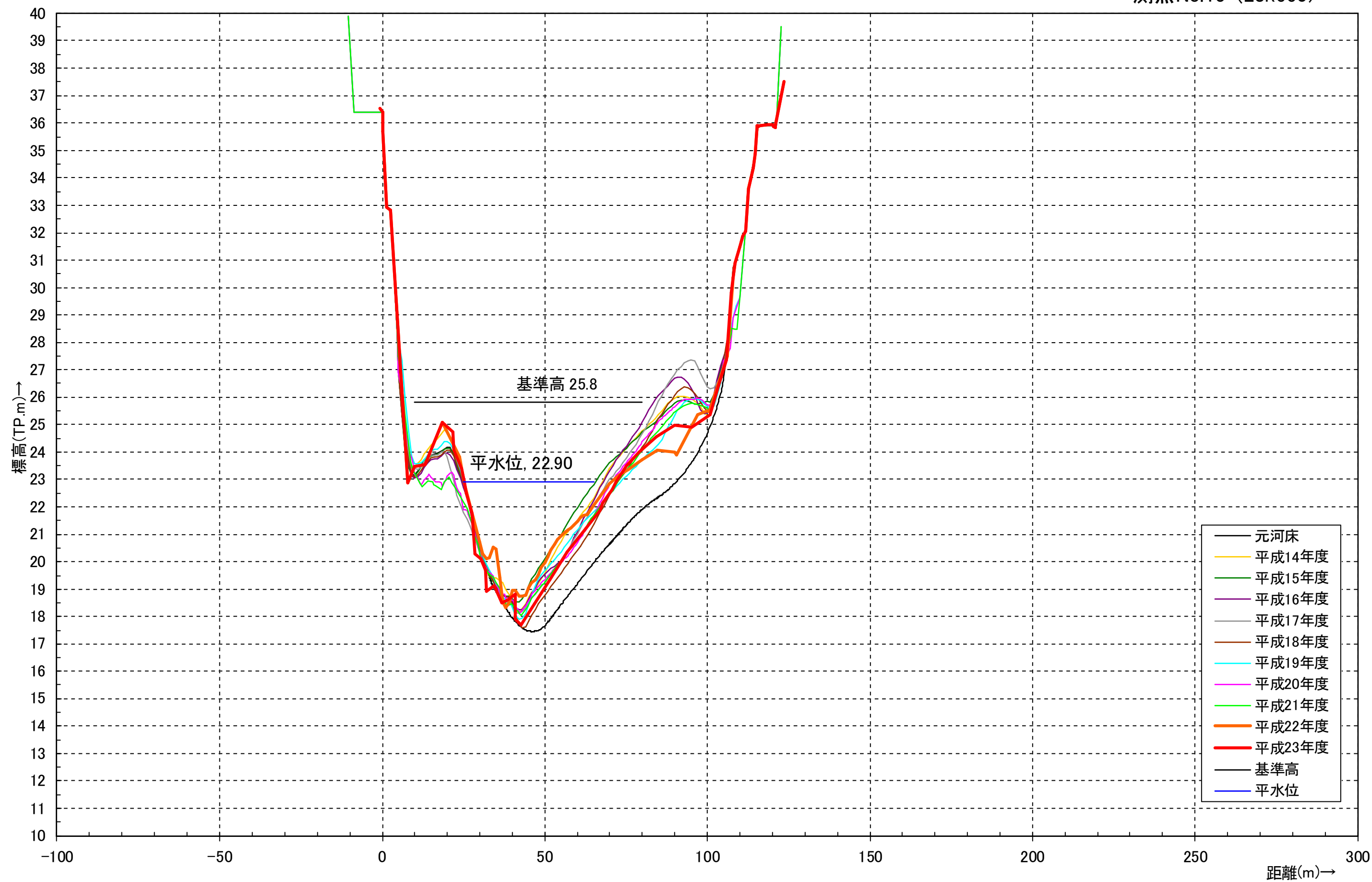
測点No.13 (23k160)



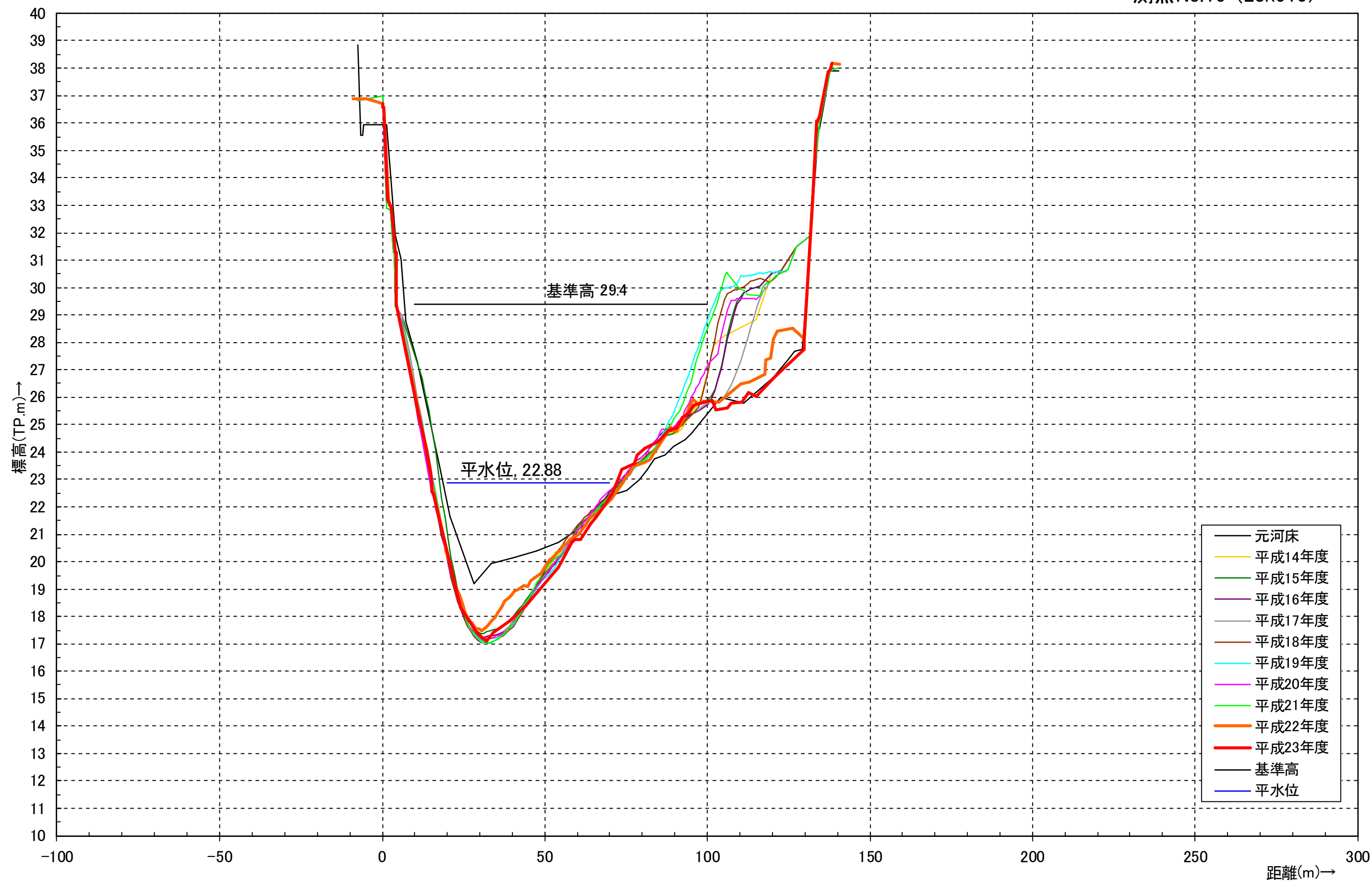
測点No.14 (23k410)



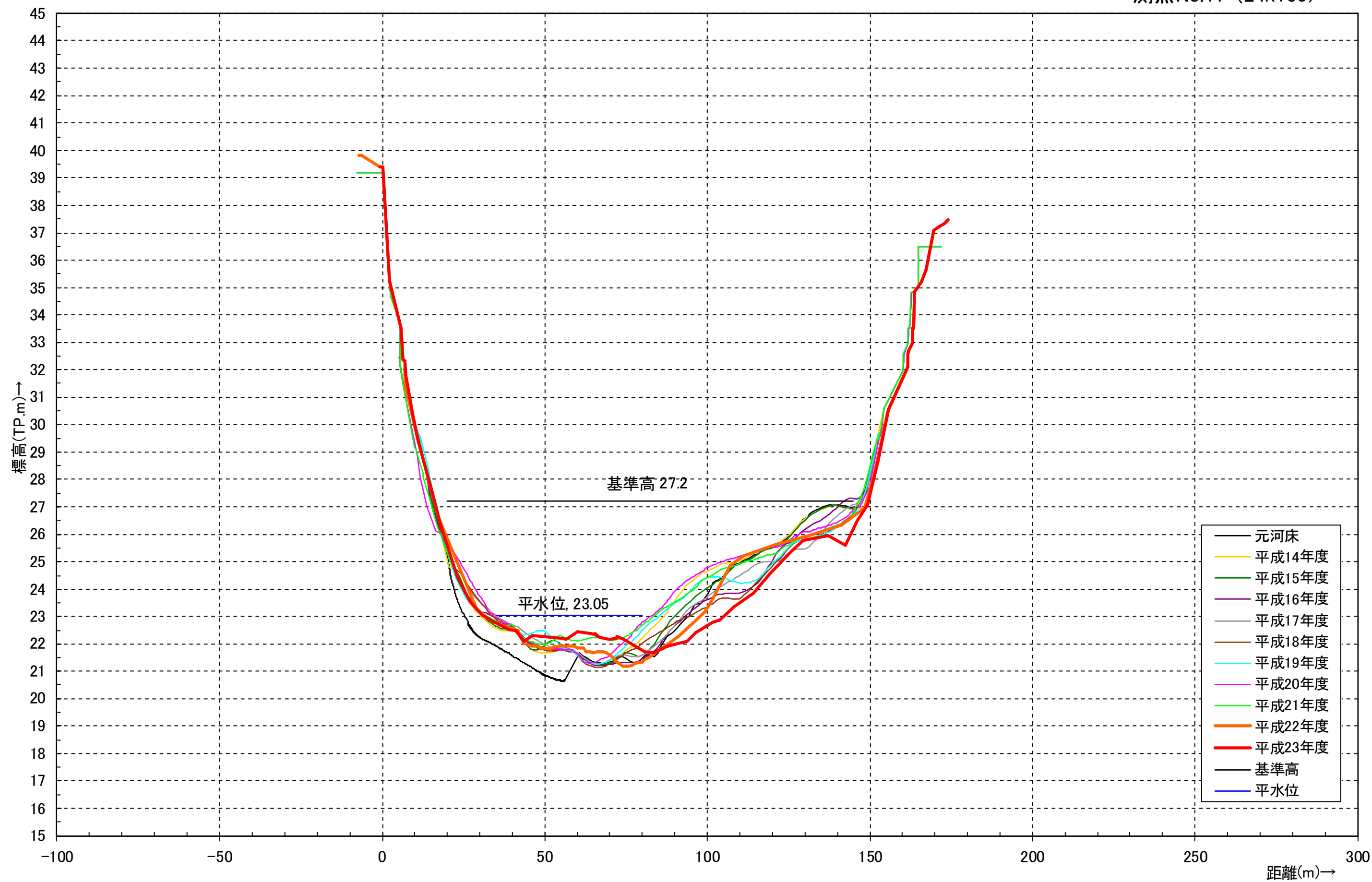
測点No.15 (23k660)



測点No.16 (23k910)



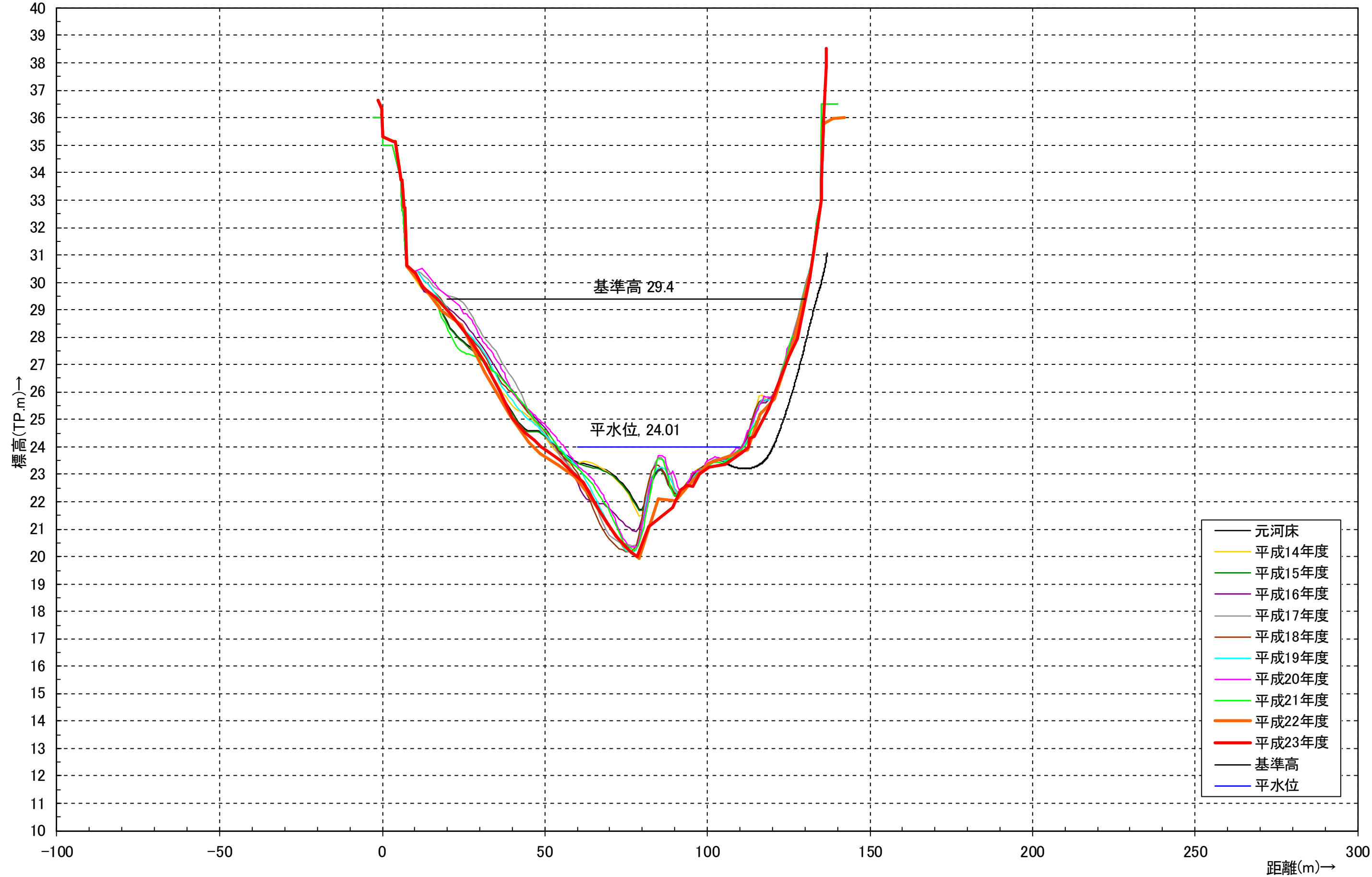
測点No.17 (24k160)



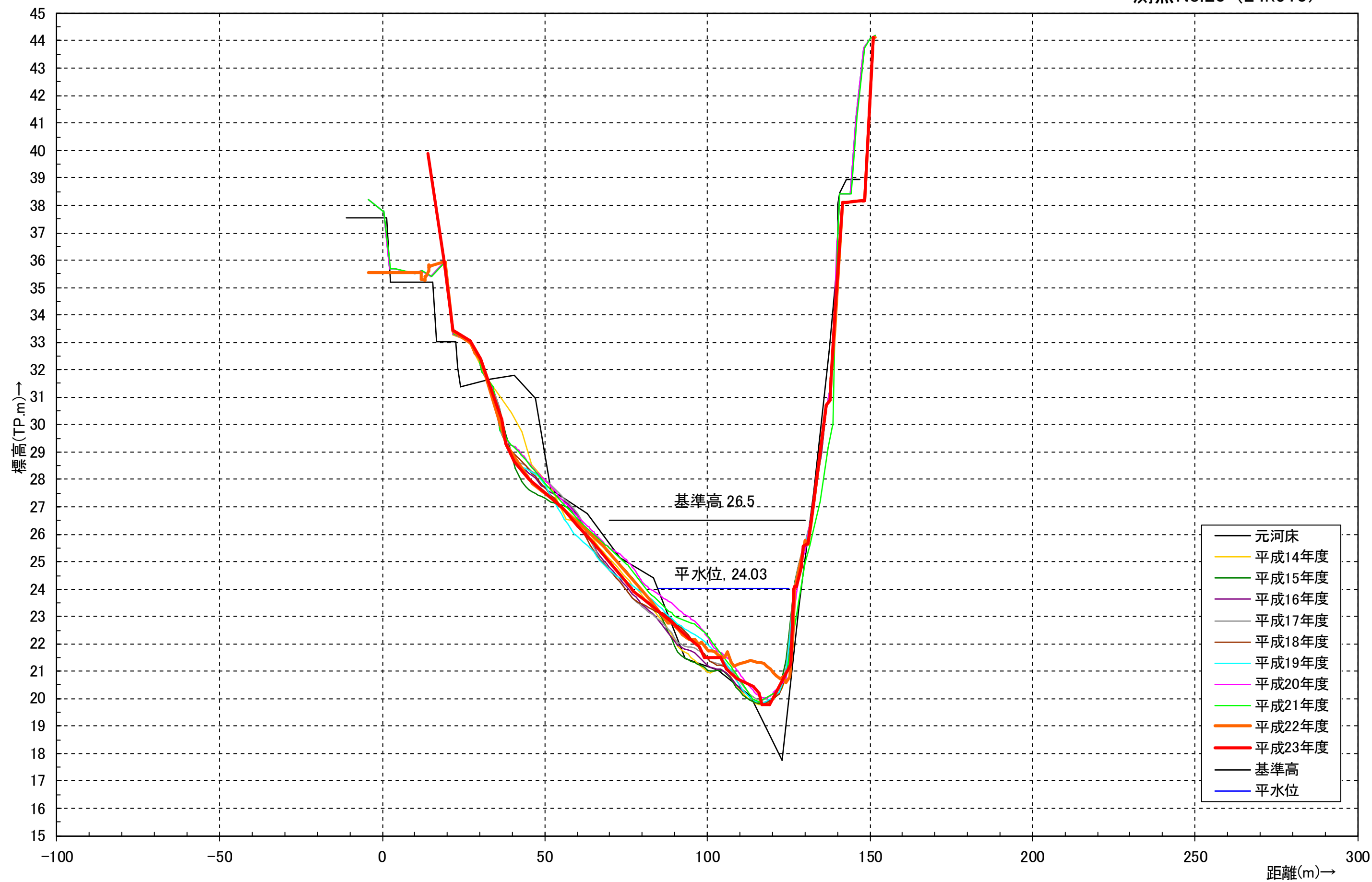
測点No.18 (24k410)



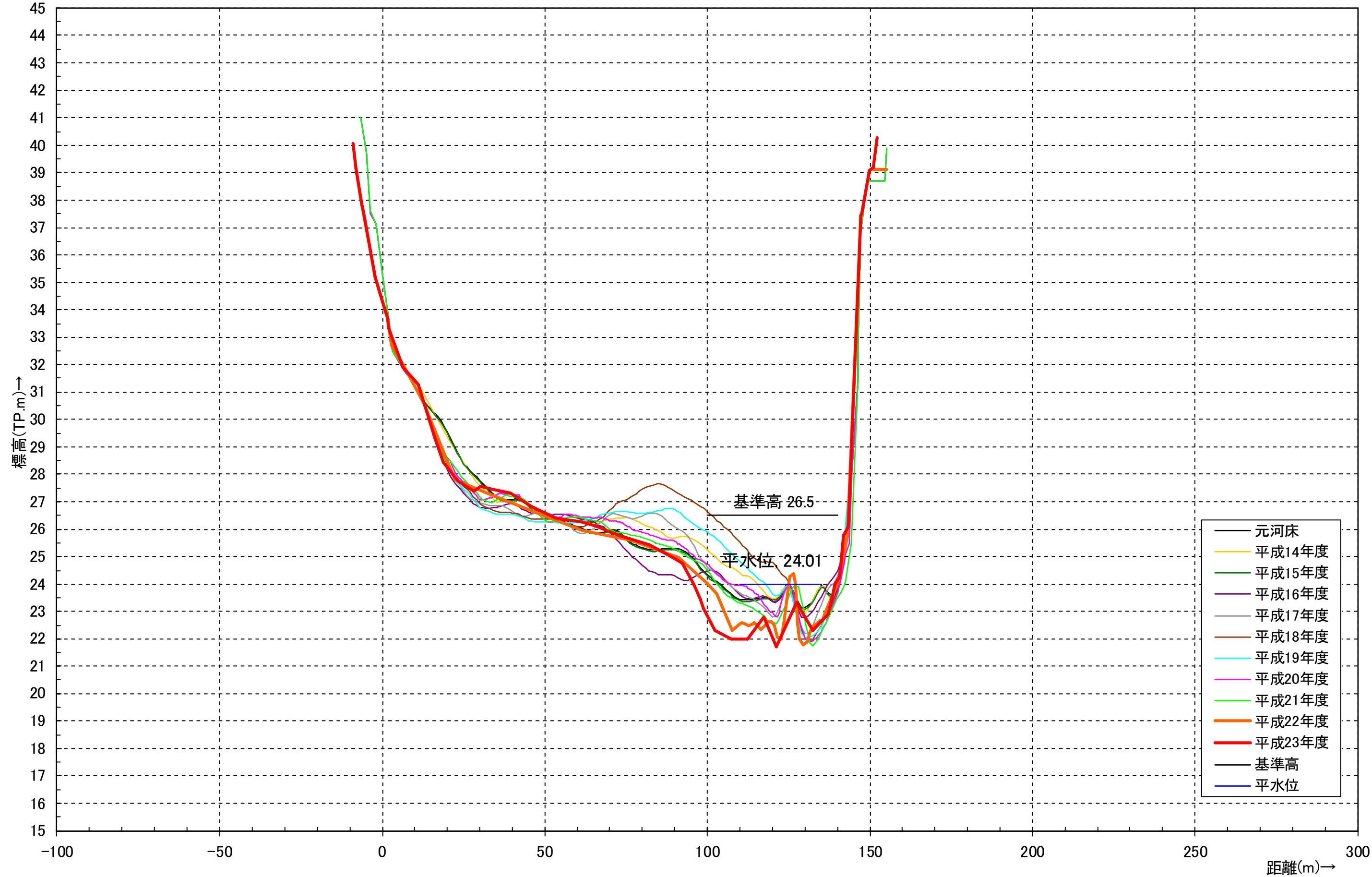
測点No.19 (24k660)

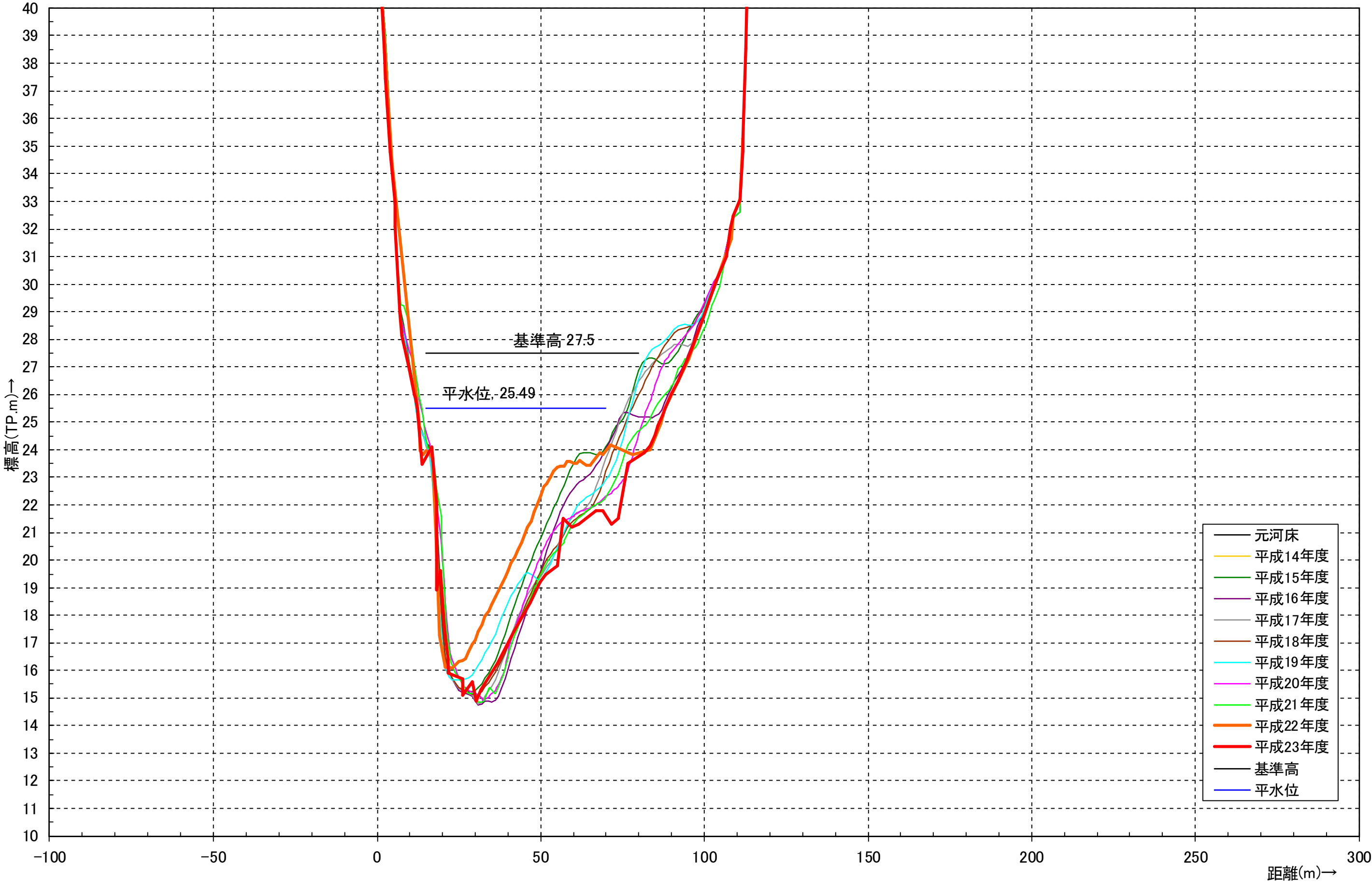


測点No.20 (24k910)

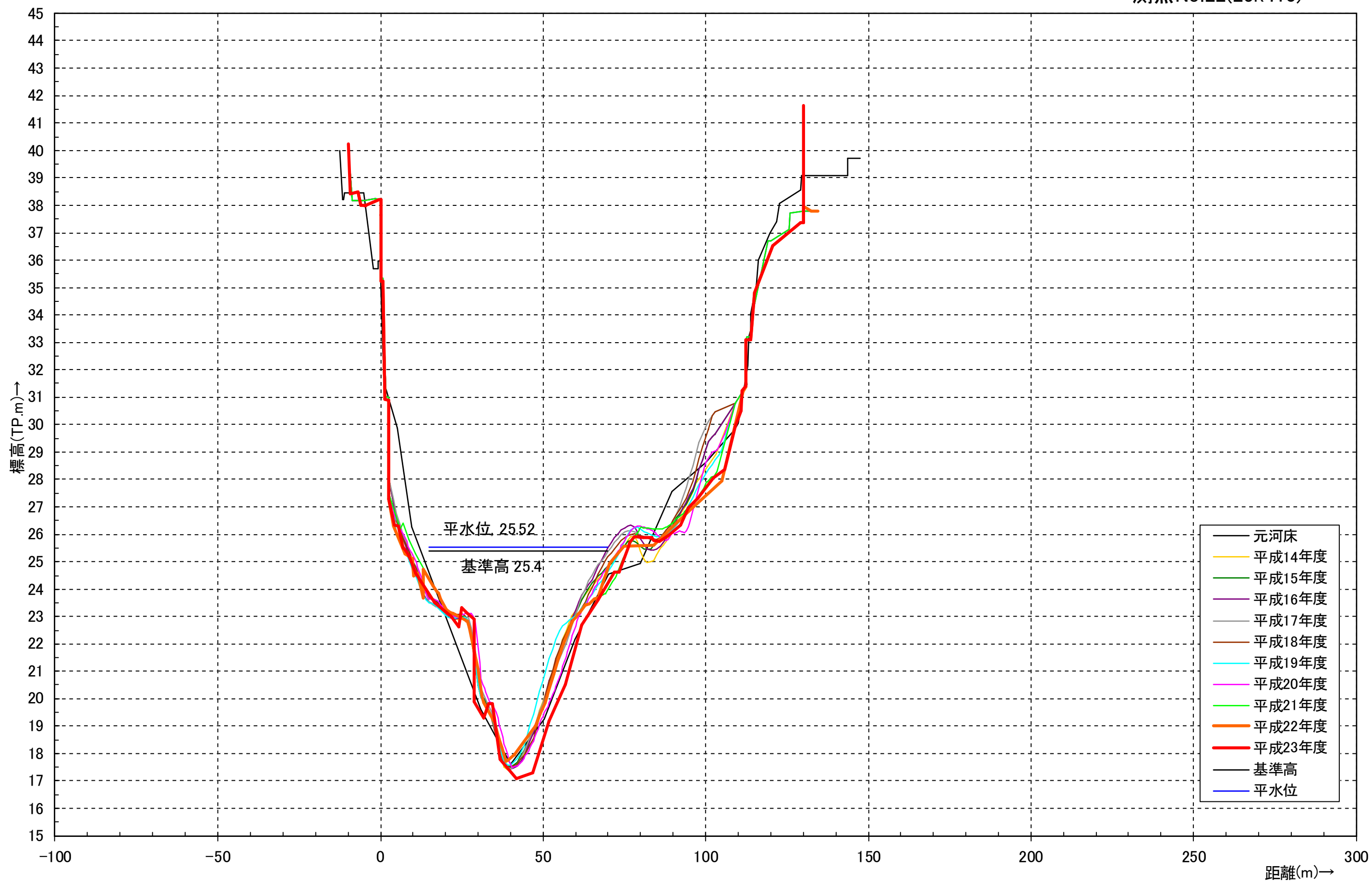


測点No.21 (25k160)

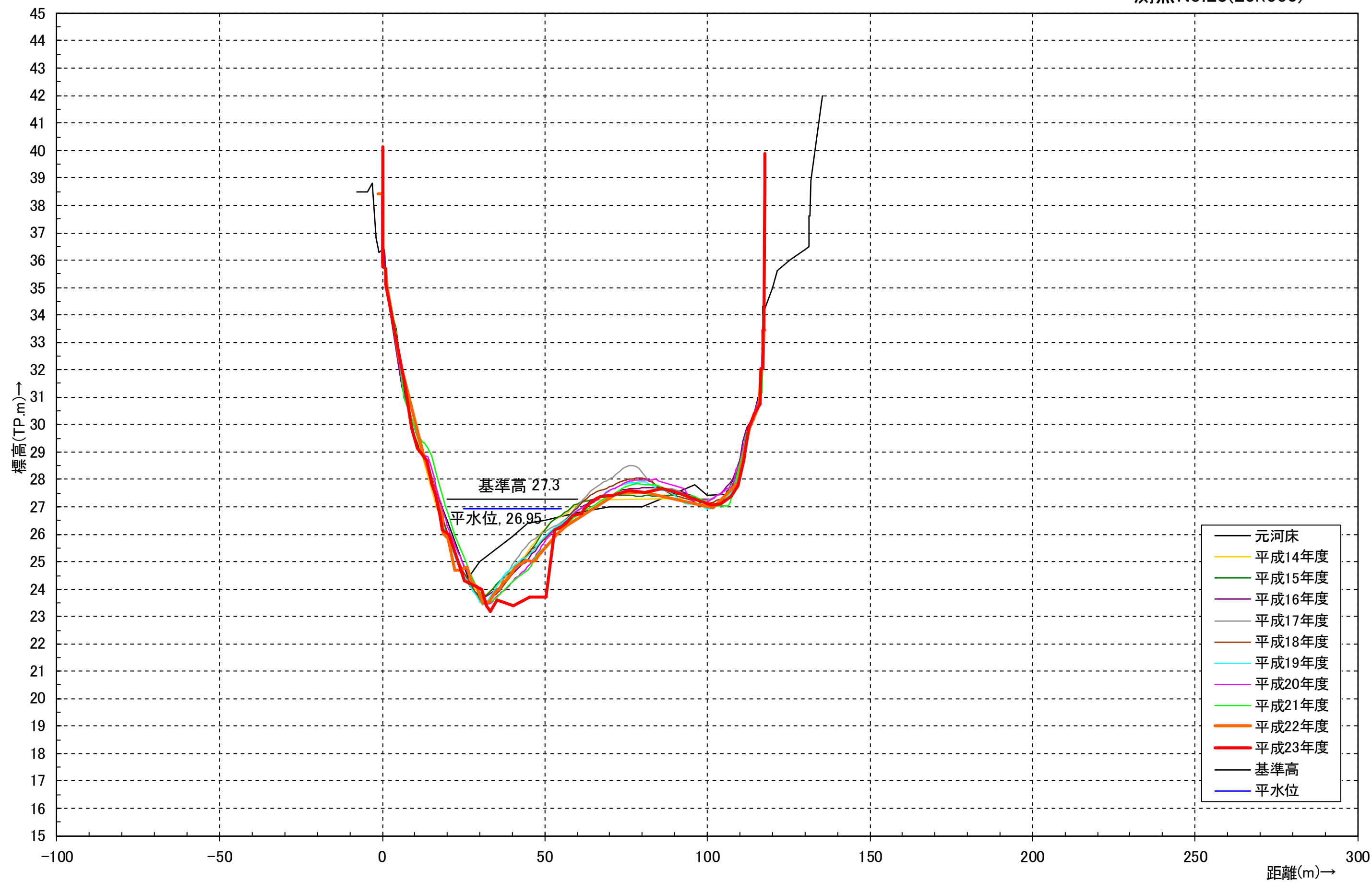




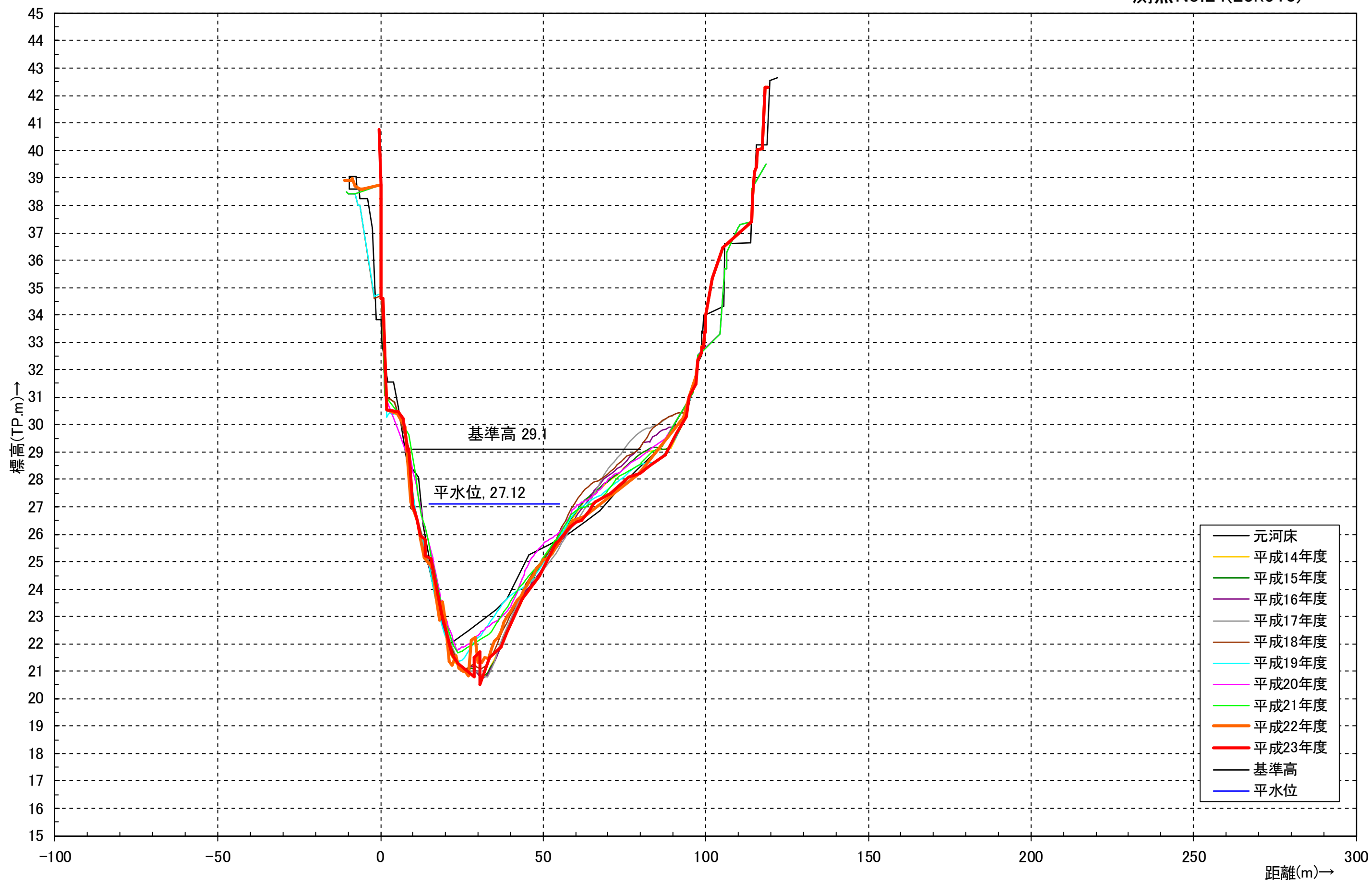
測点No.22(25k410)



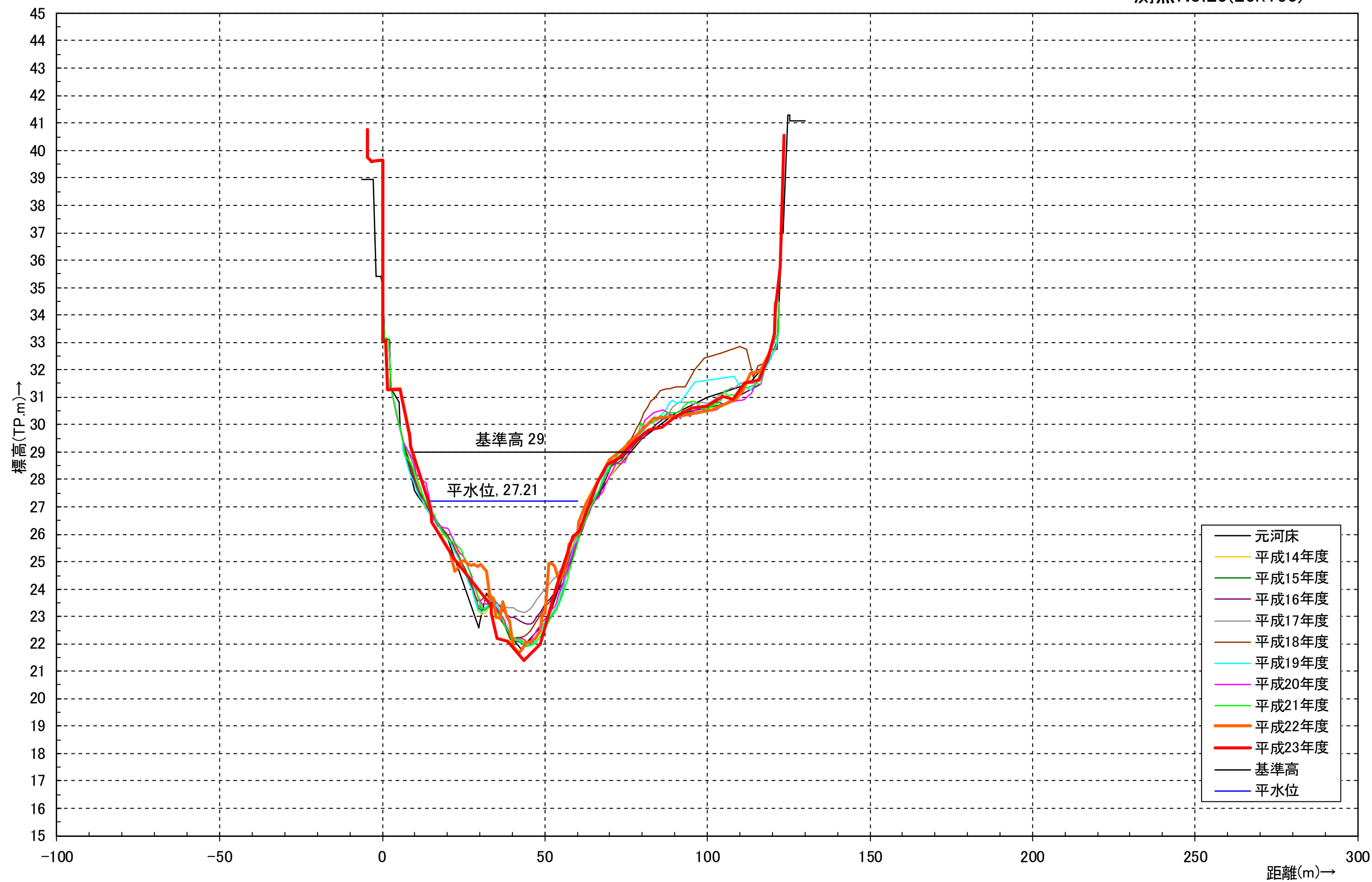
測点No.23(25k660)



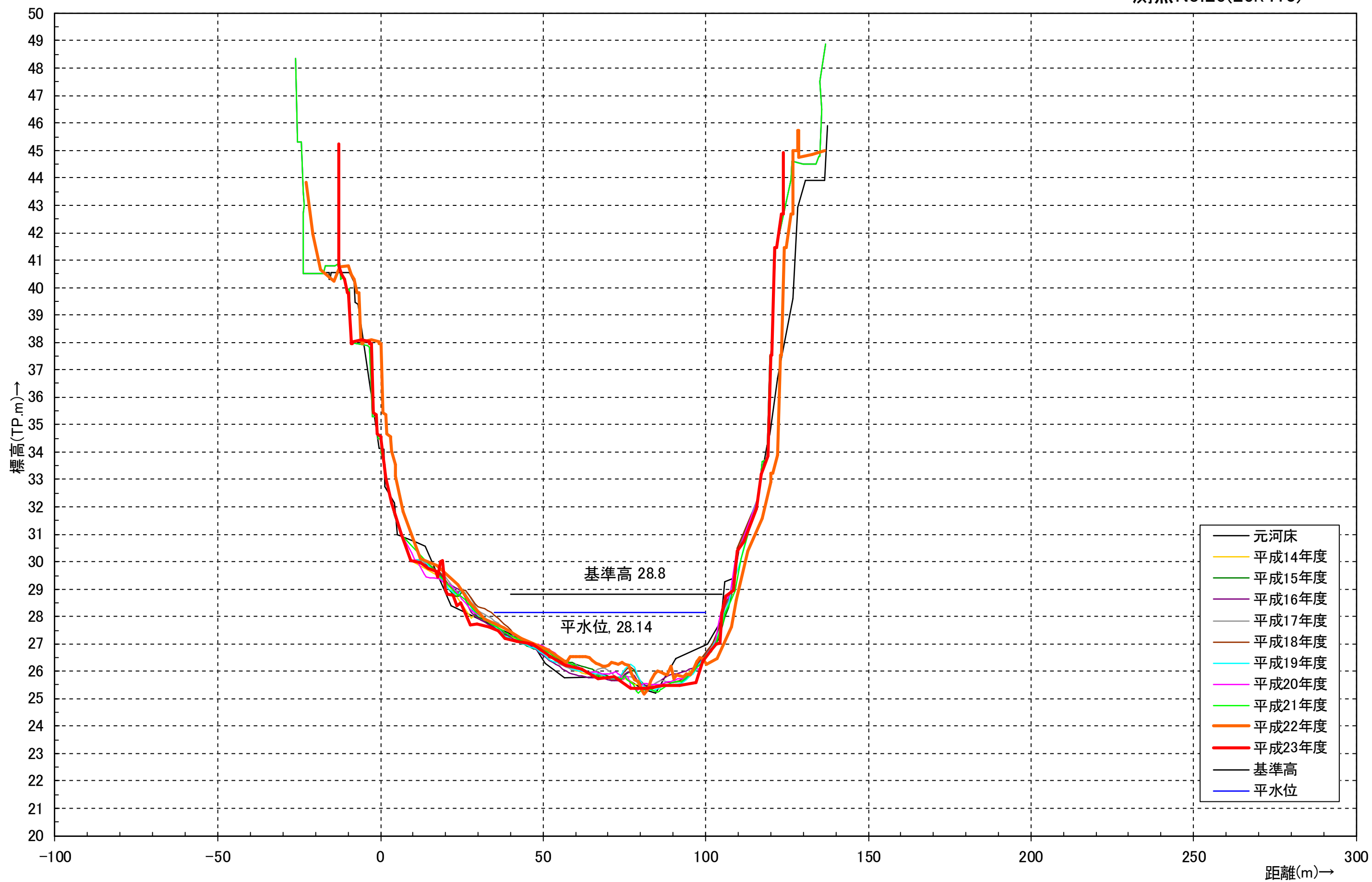
測点No.24(25k910)

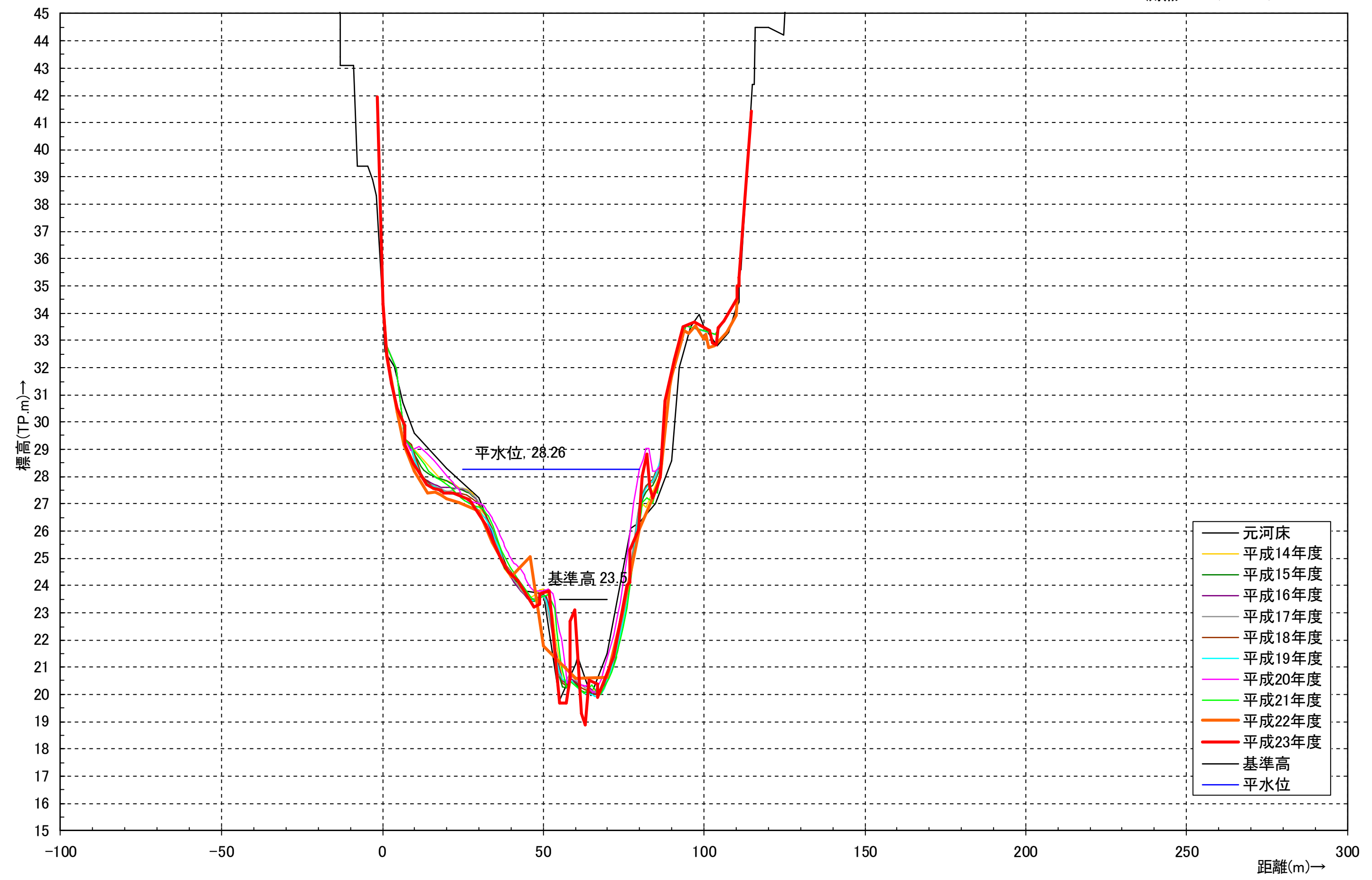


測点No.25(26k160)

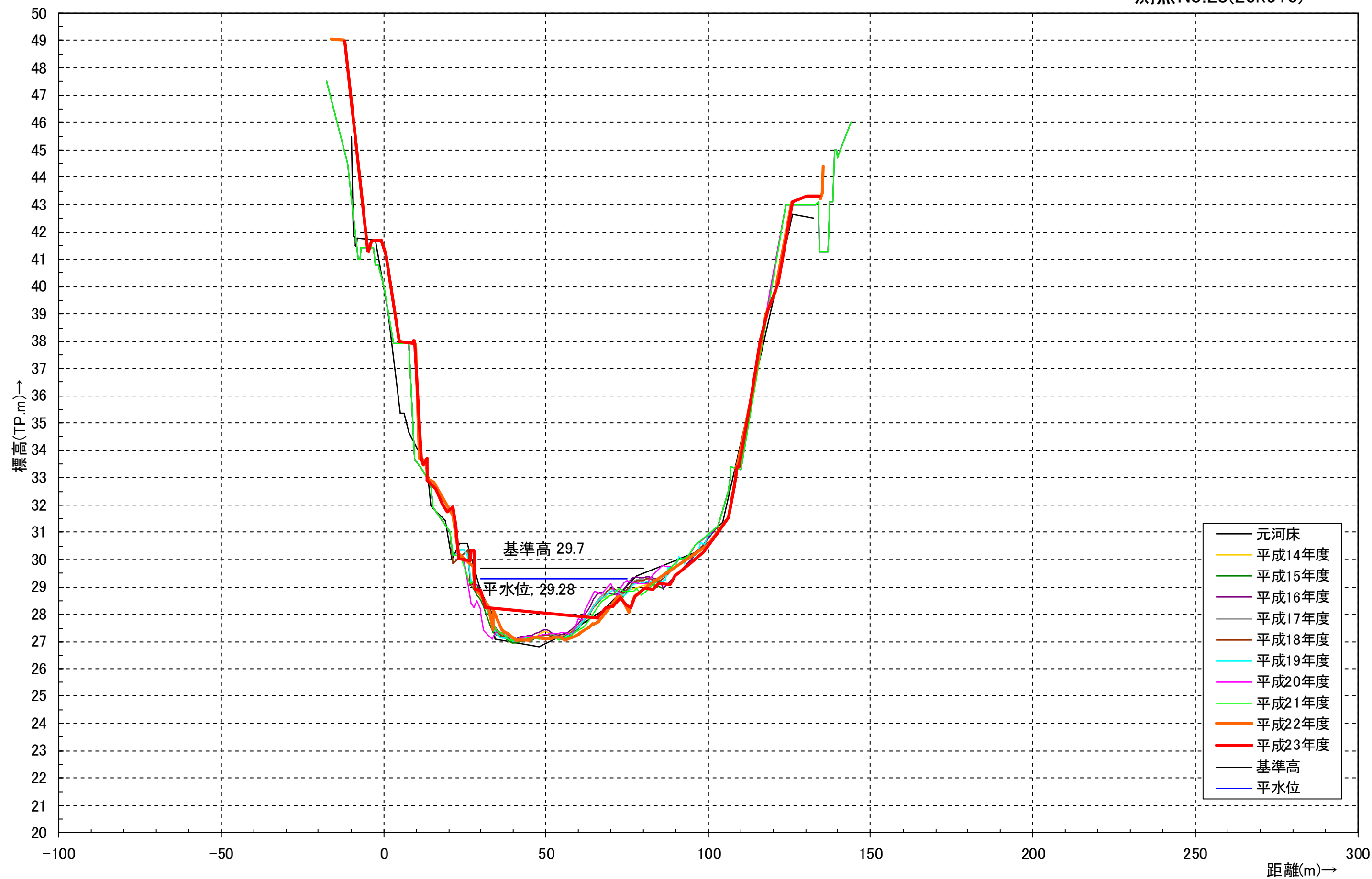


測点No.26(26k410)

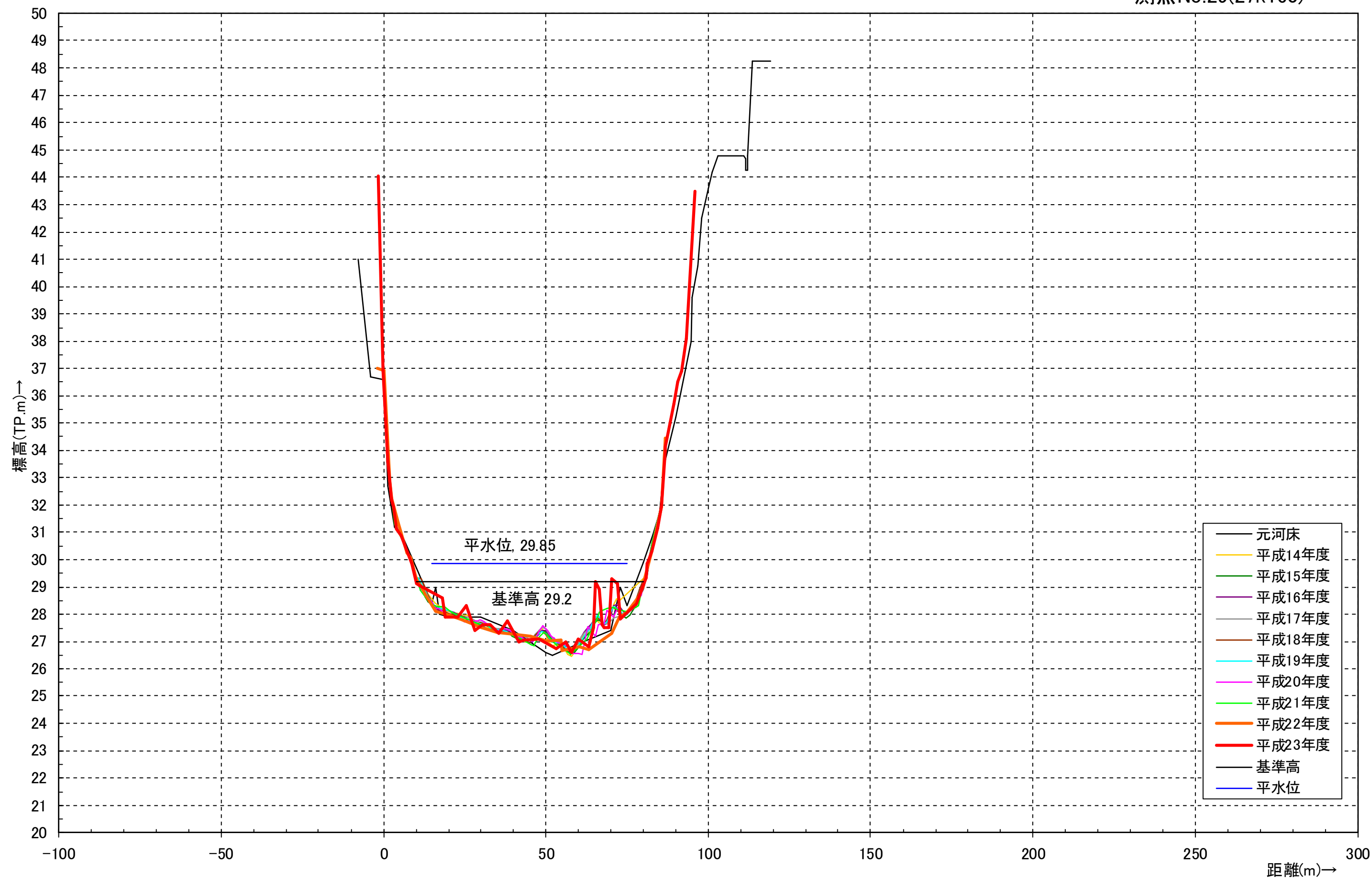




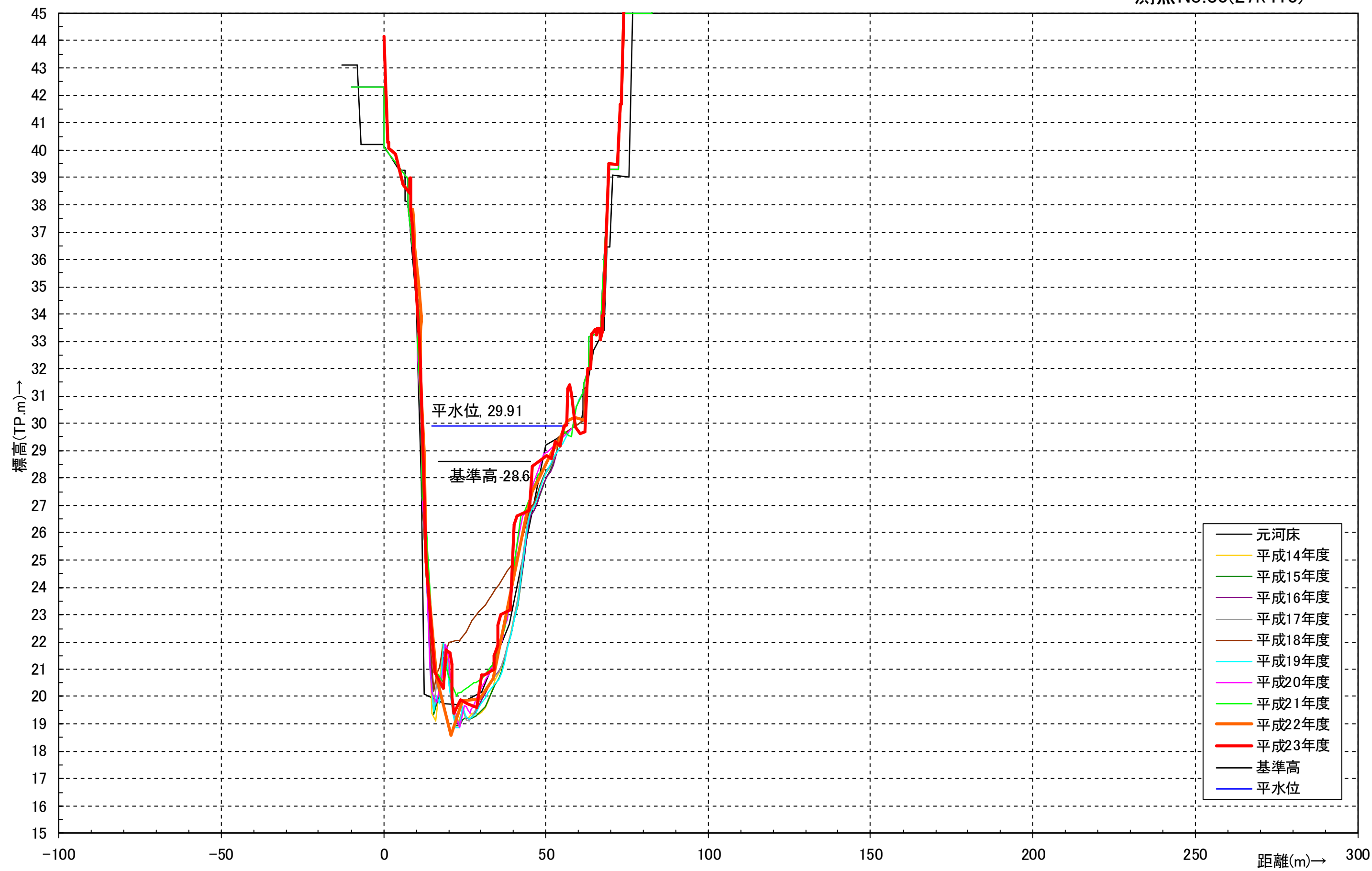
測点No.28(26k910)



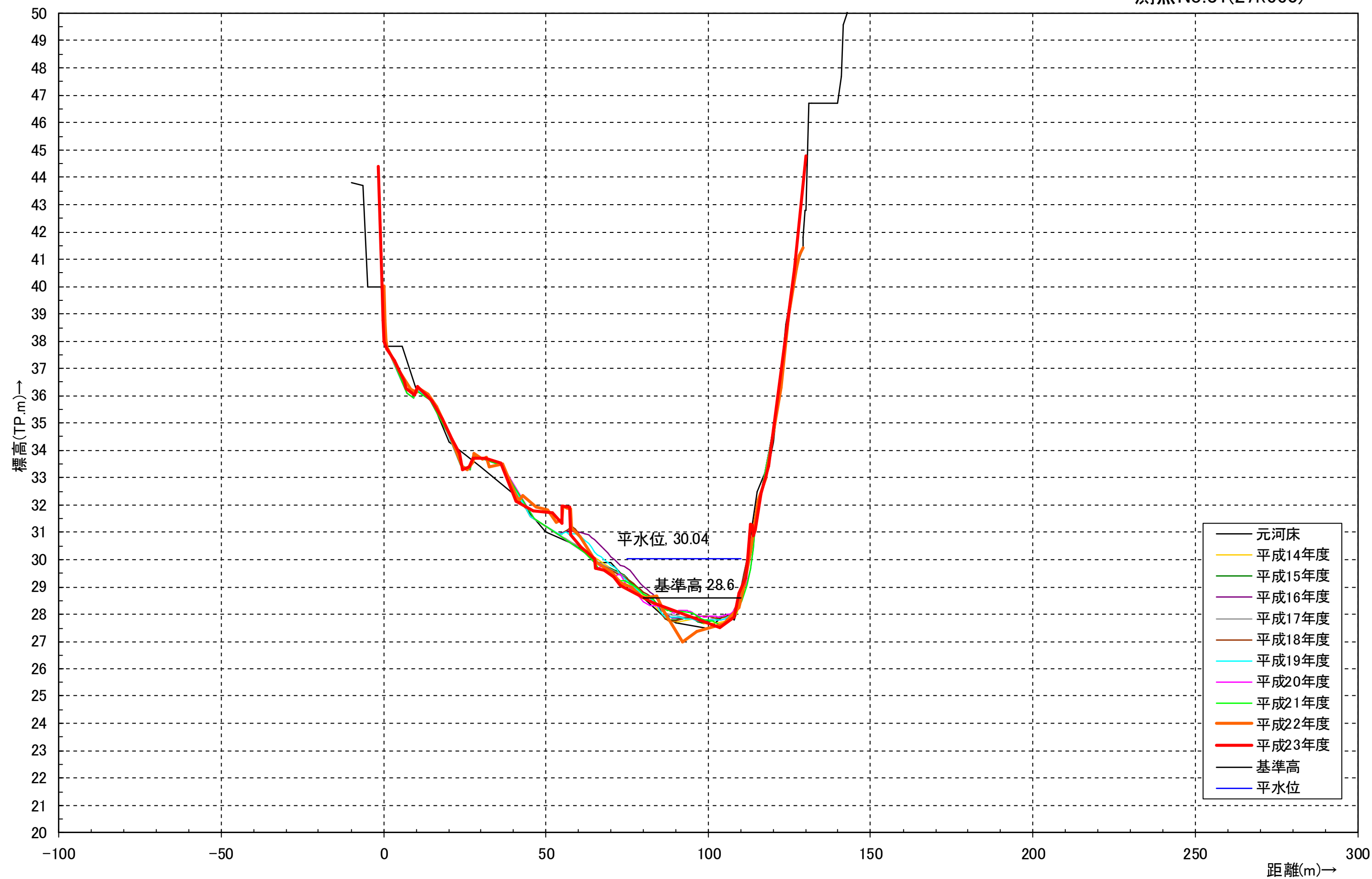
測点No.29(27k160)



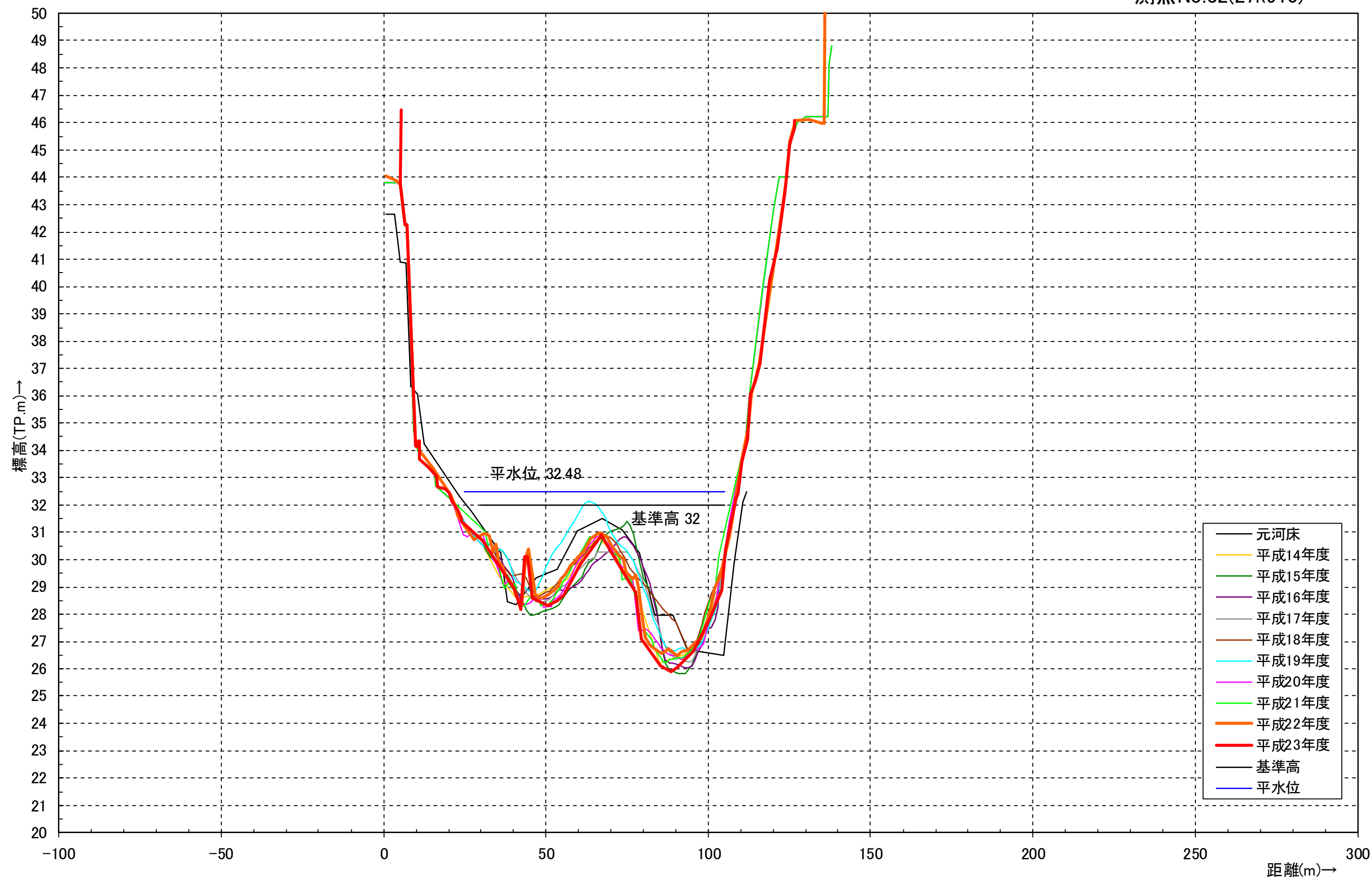
測点No.30(27k410)



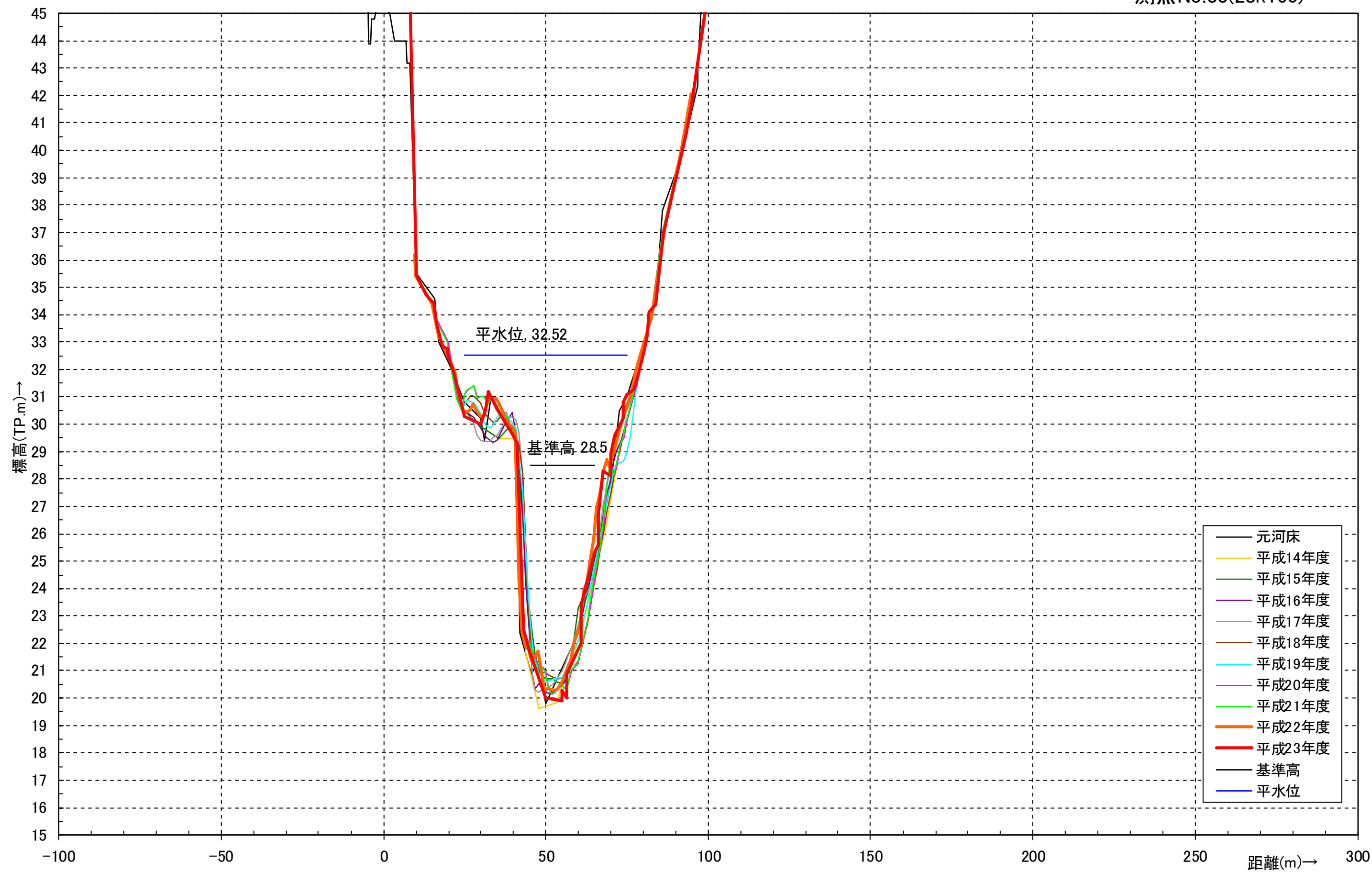
測点No.31(27k660)



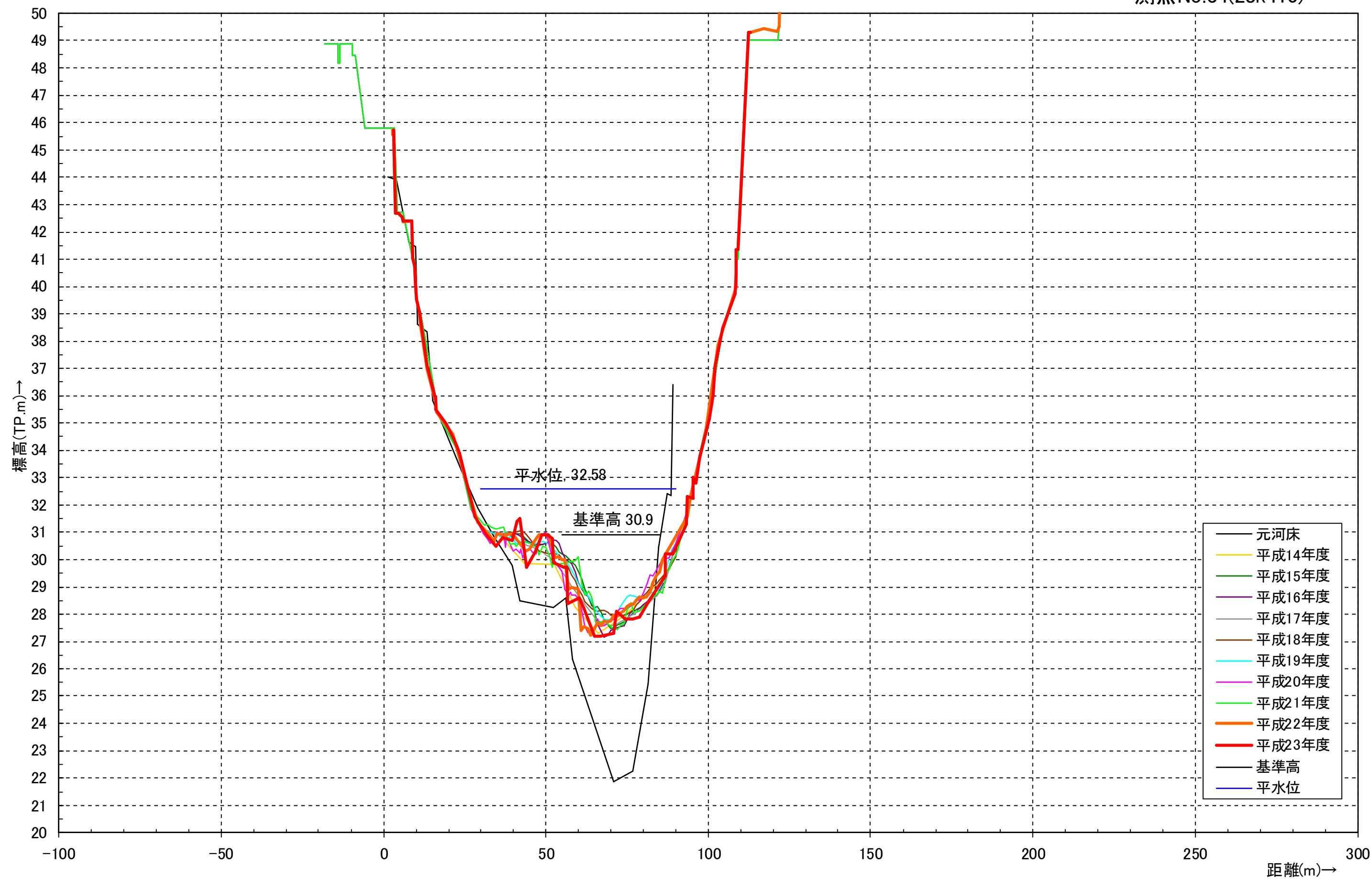
測点No.32(27k910)



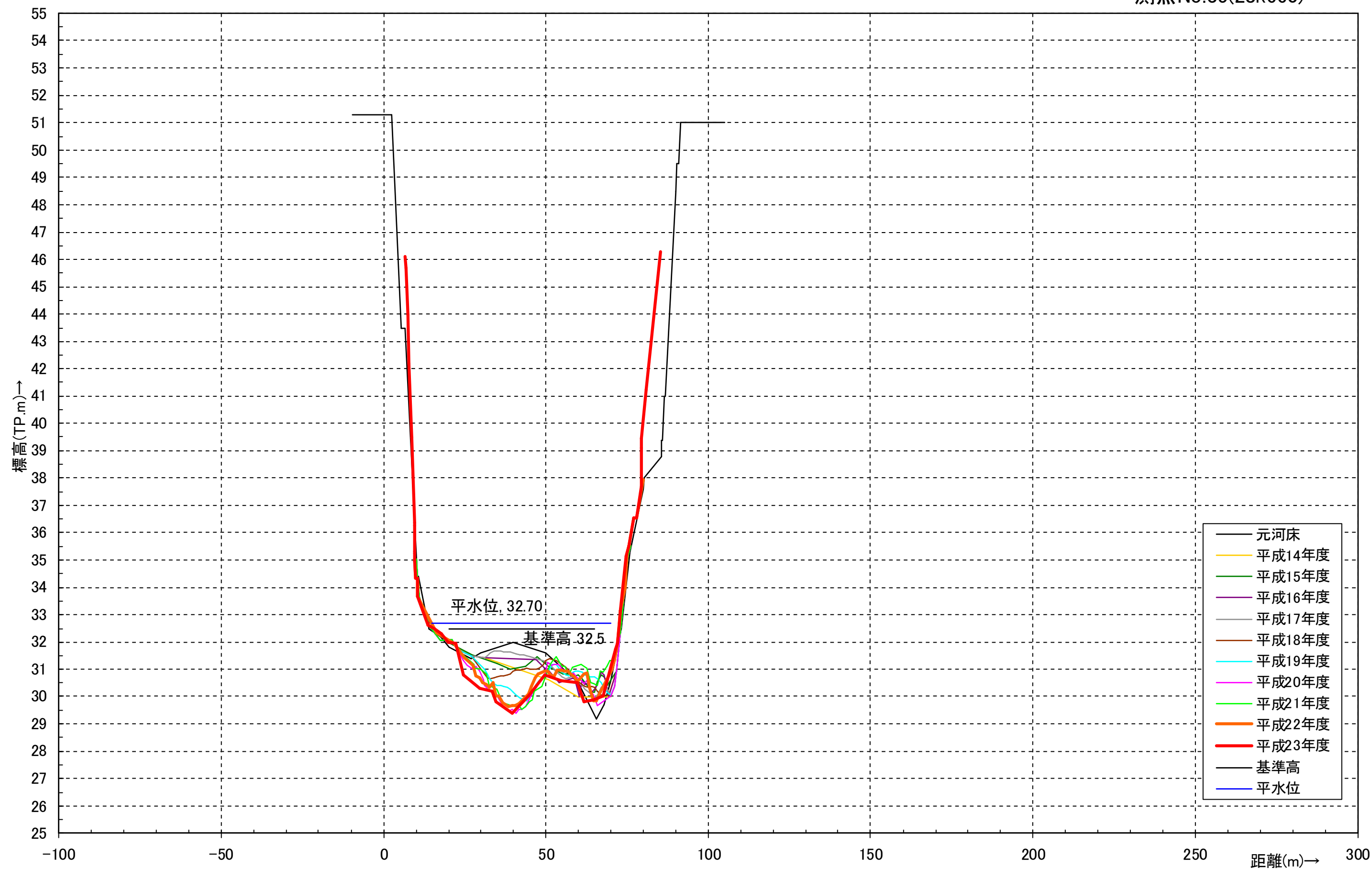
測点No.33(28k160)



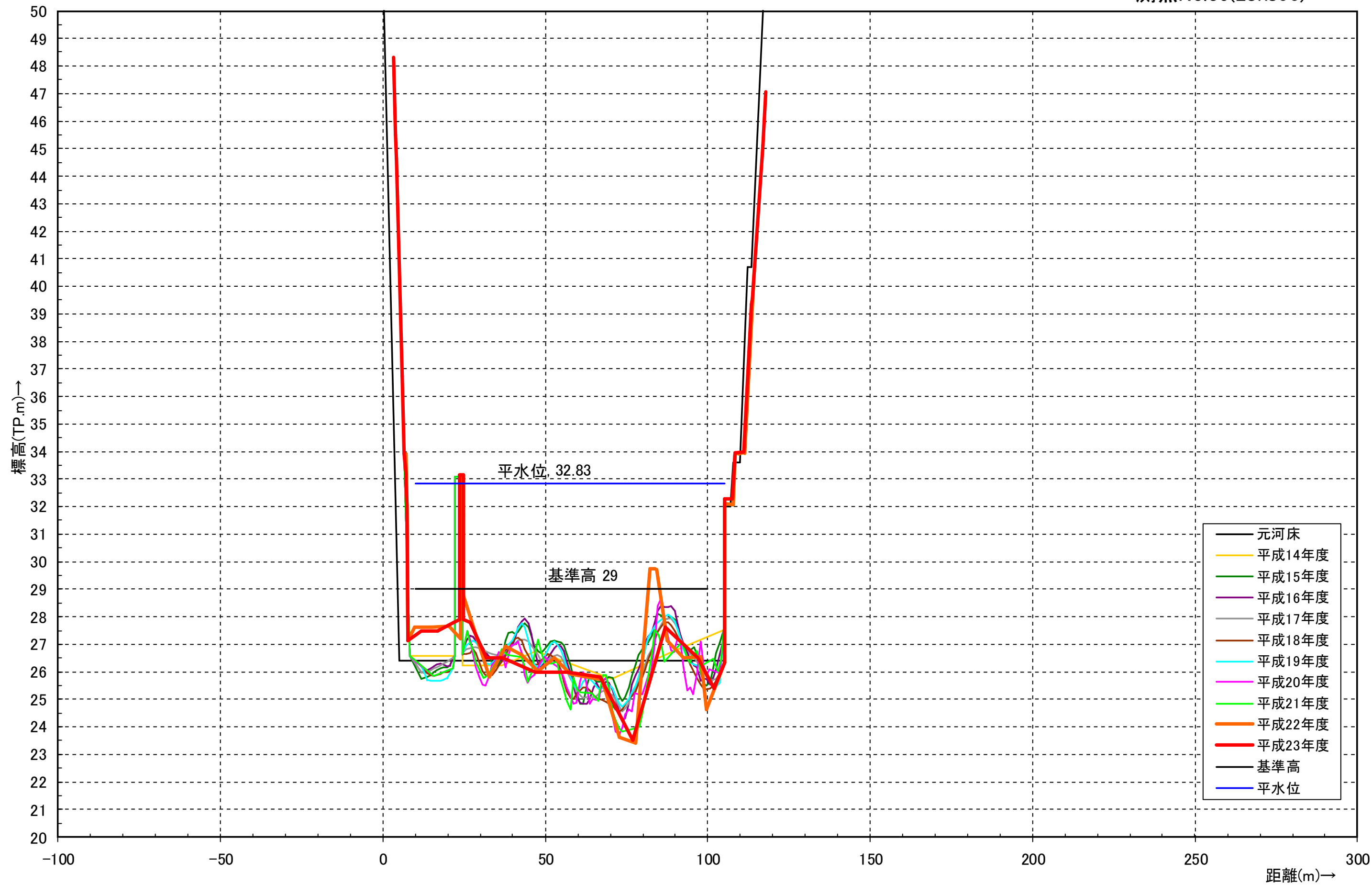
測点No.34(28k410)



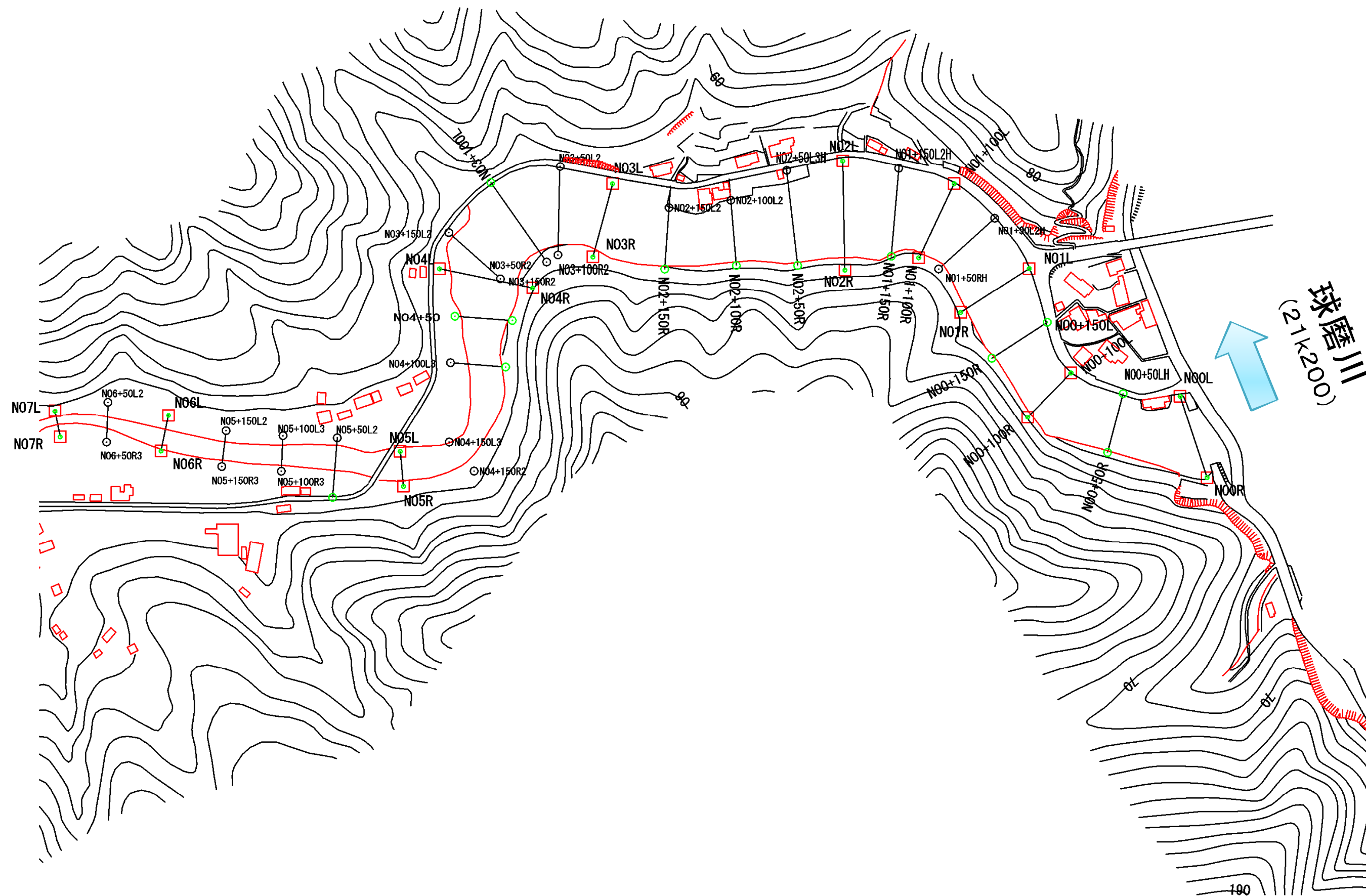
測点No.35(28k660)



測点No.36(28k800)

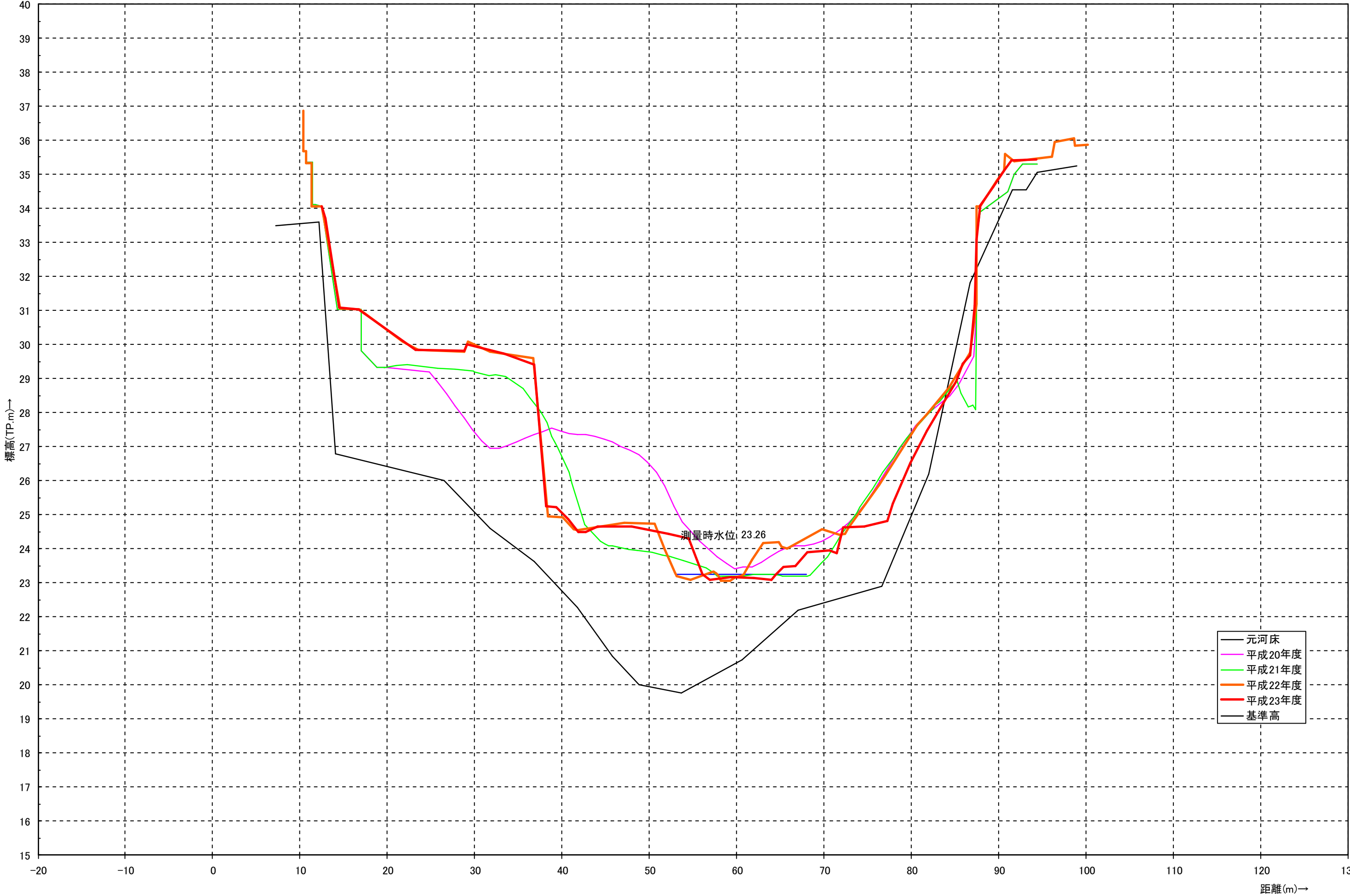


百済木川 測線図



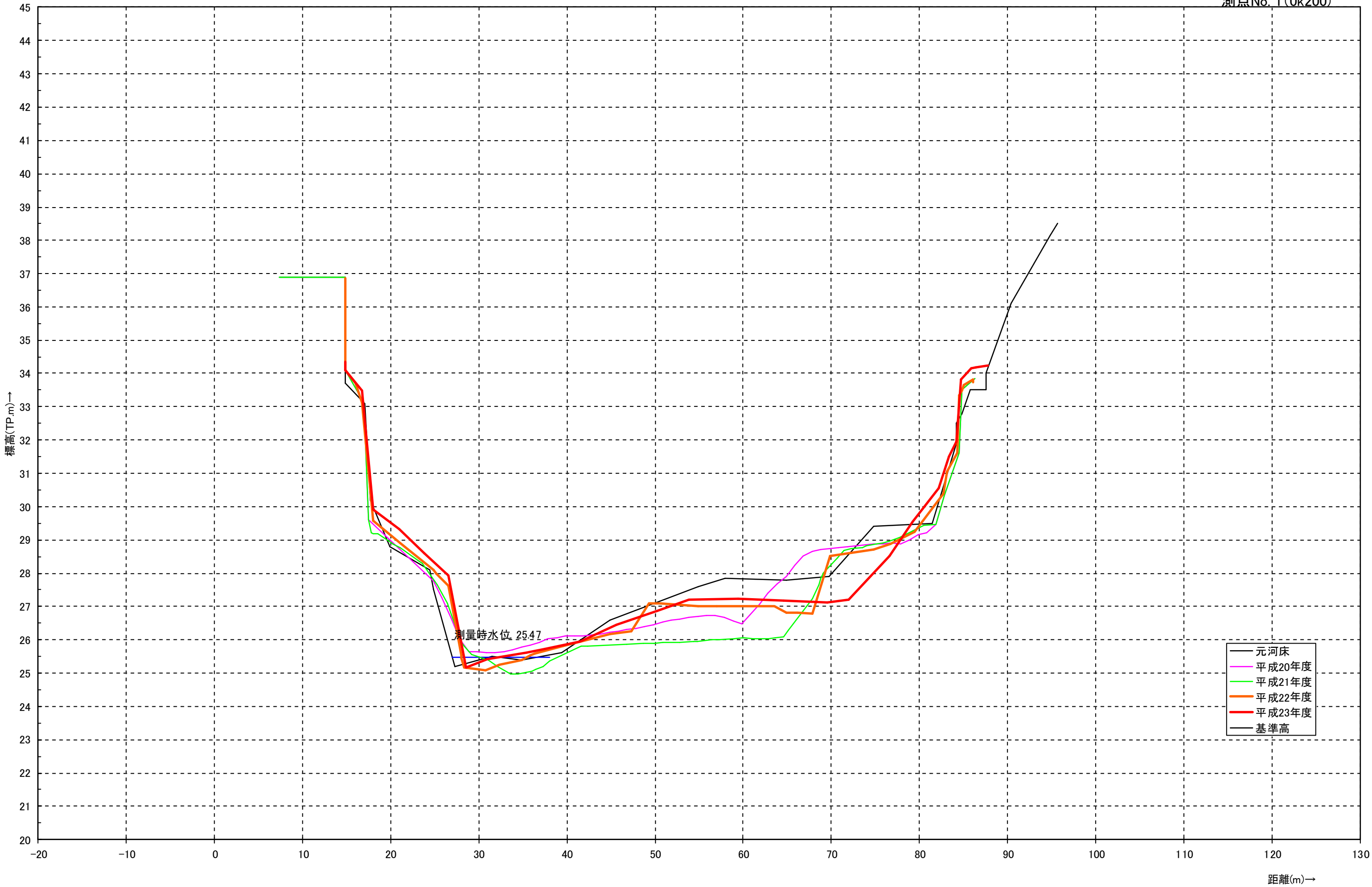
百 済 木 川 横 断 比 較 図

測点No.0 (0k000)



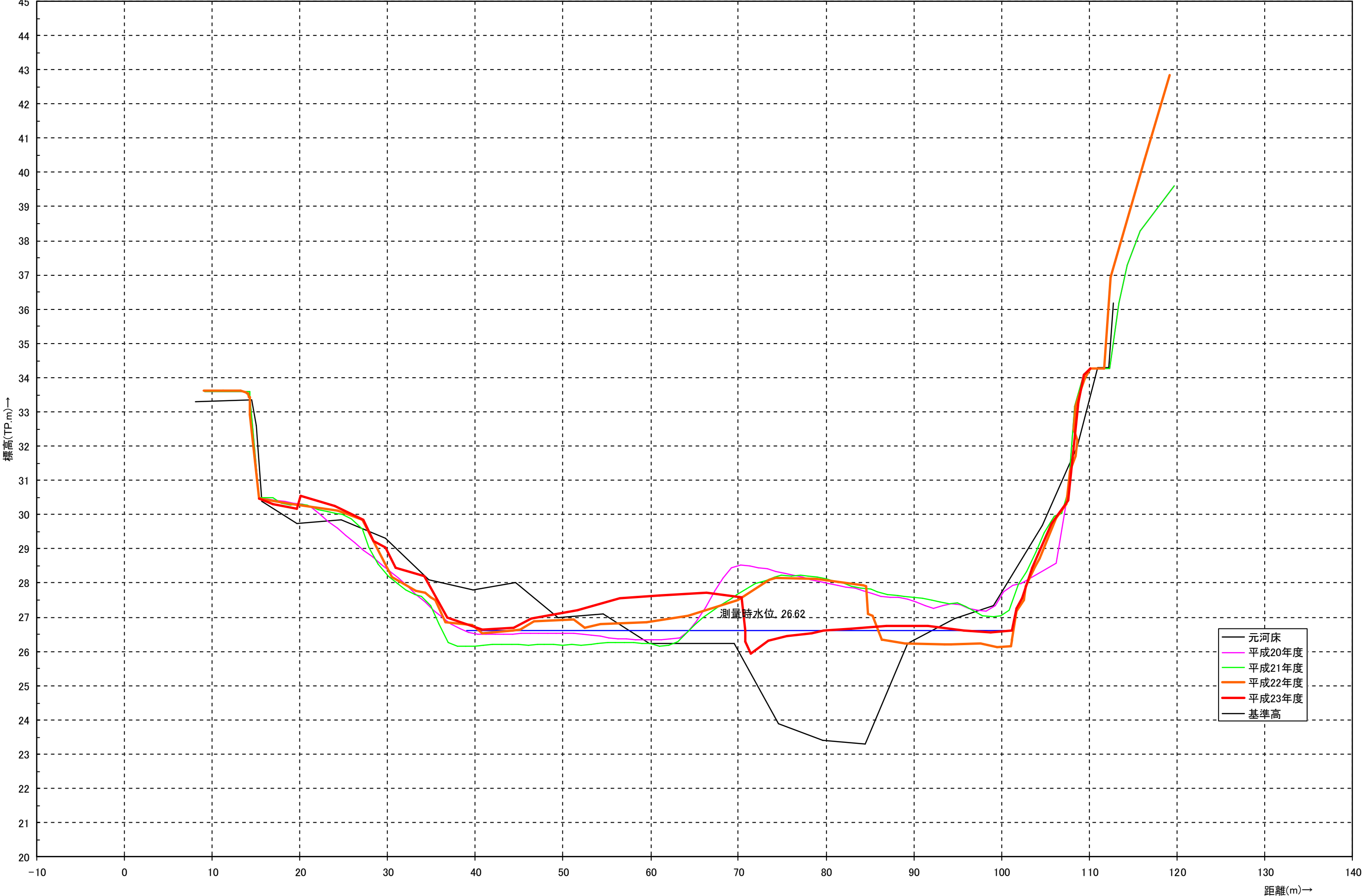
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測点No. 1 (0k200)



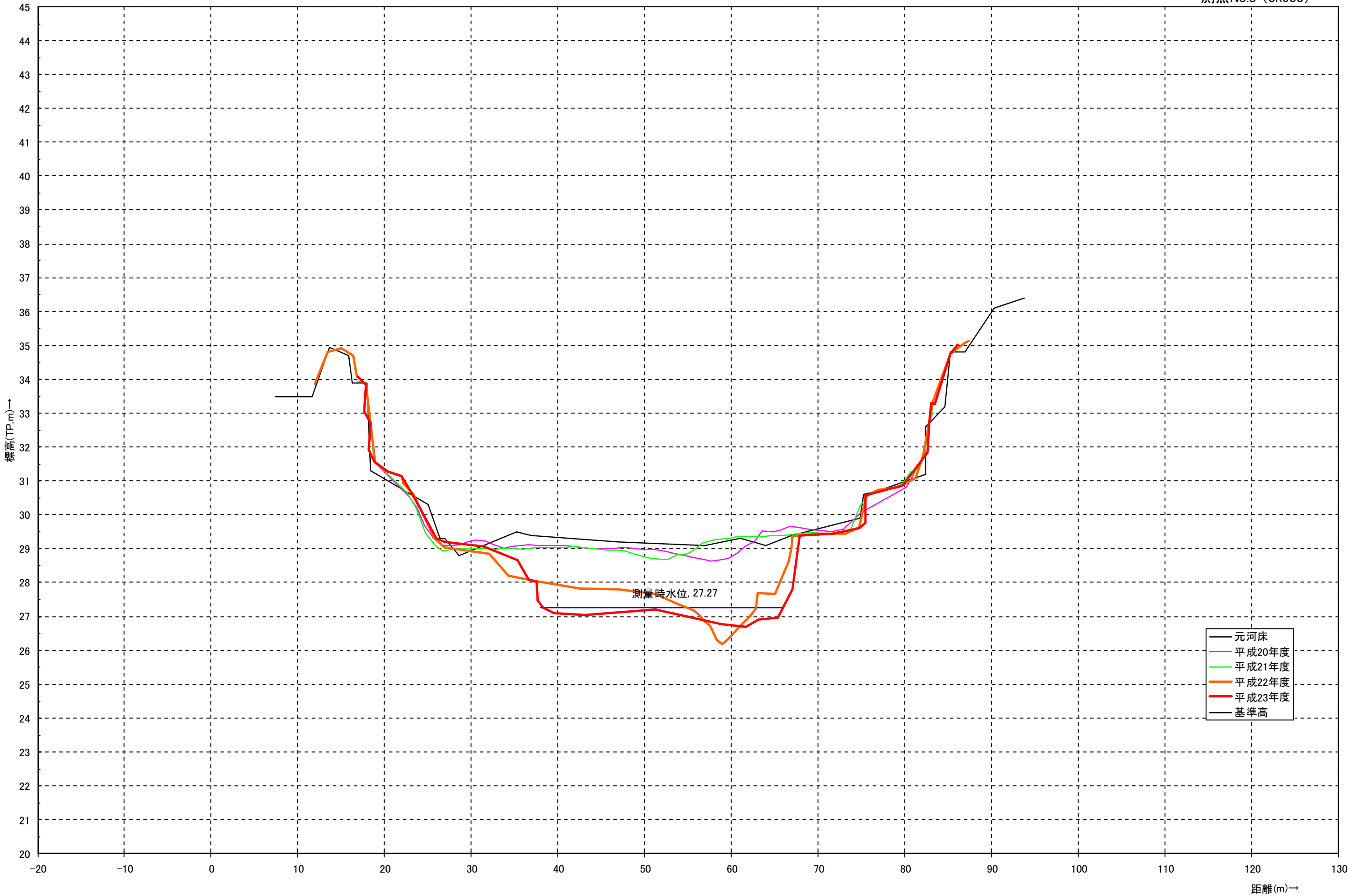
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測点No.2 (0k400)



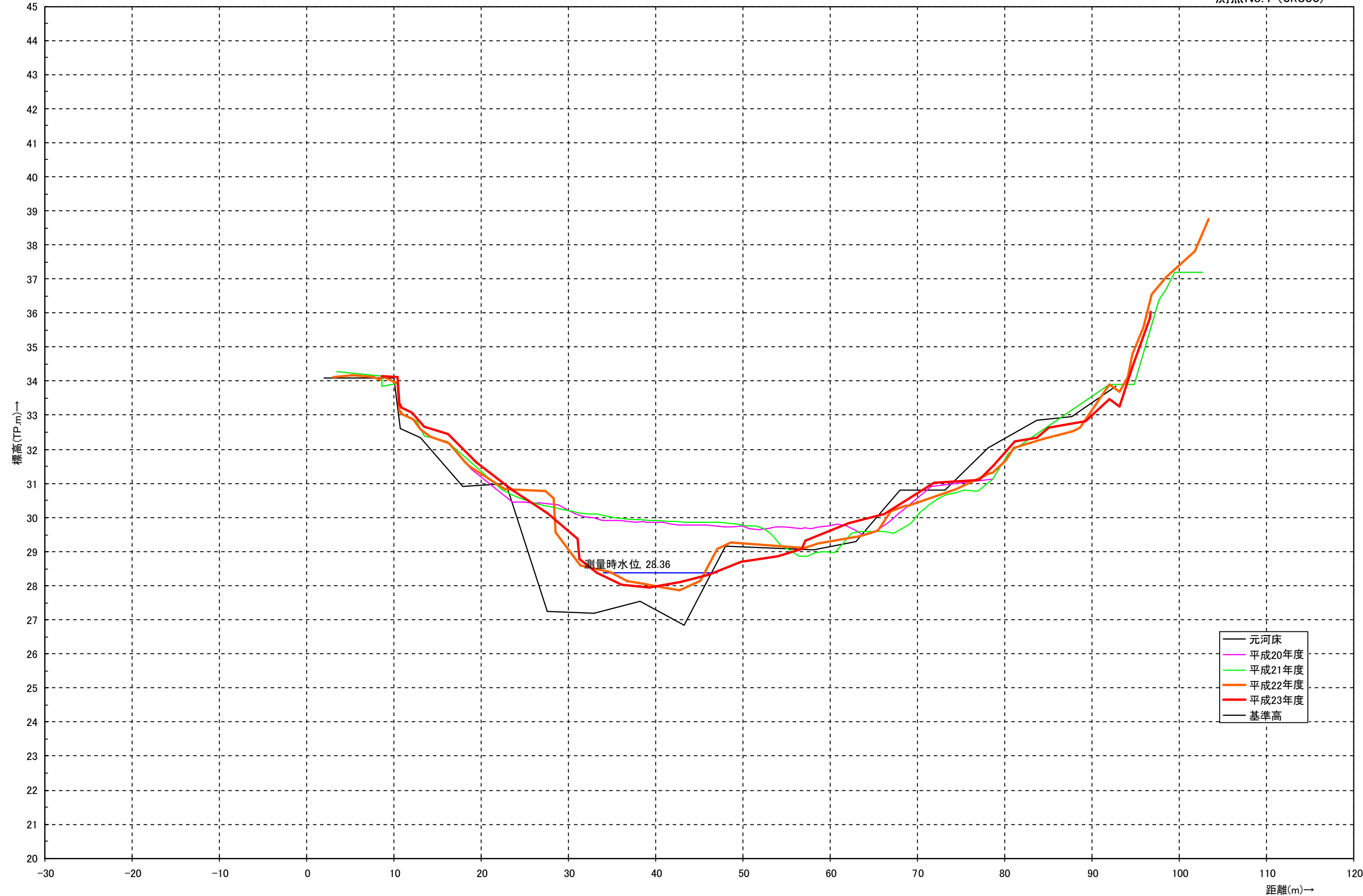
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測点No.3 (0k600)



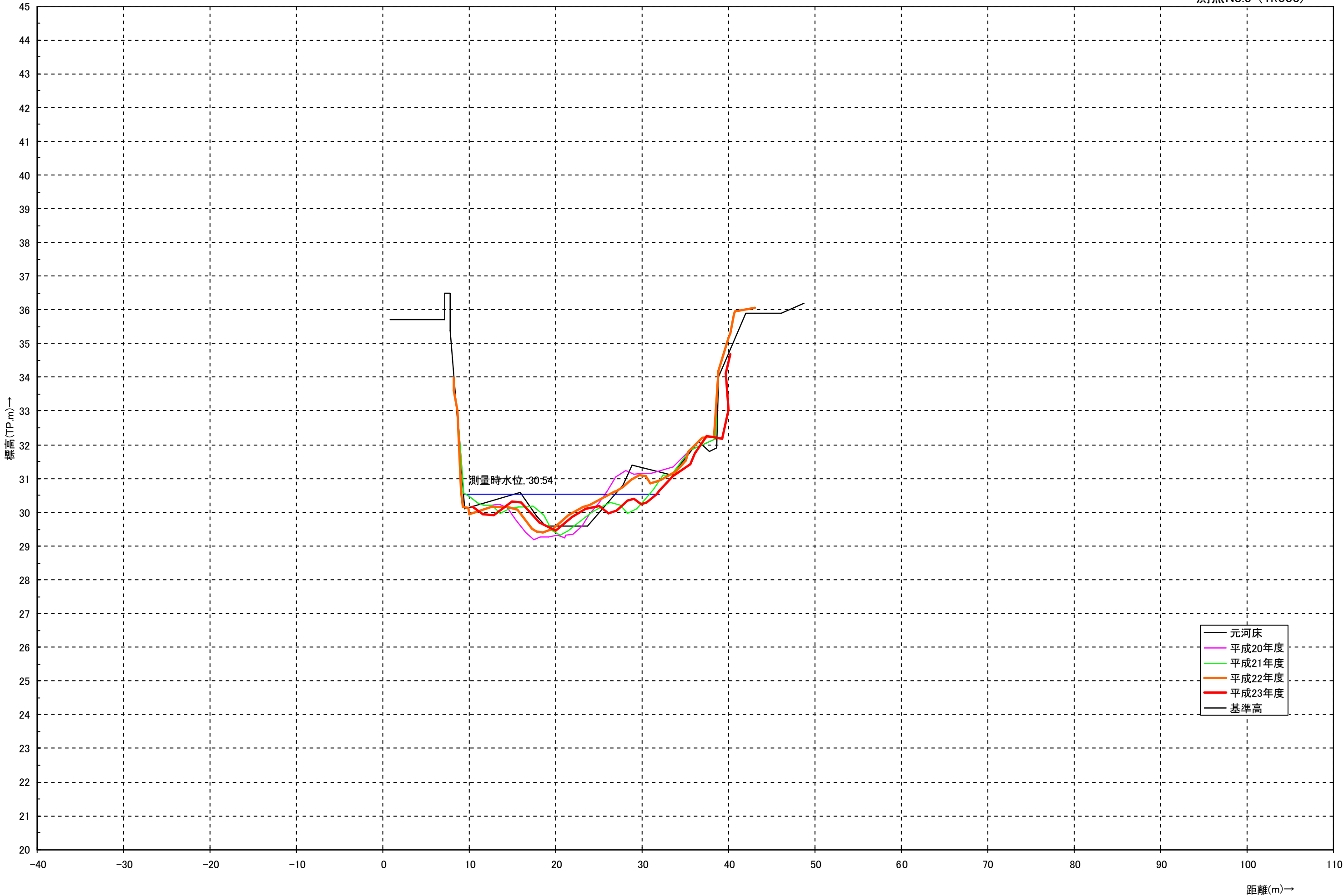
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測点No.4 (0k800)



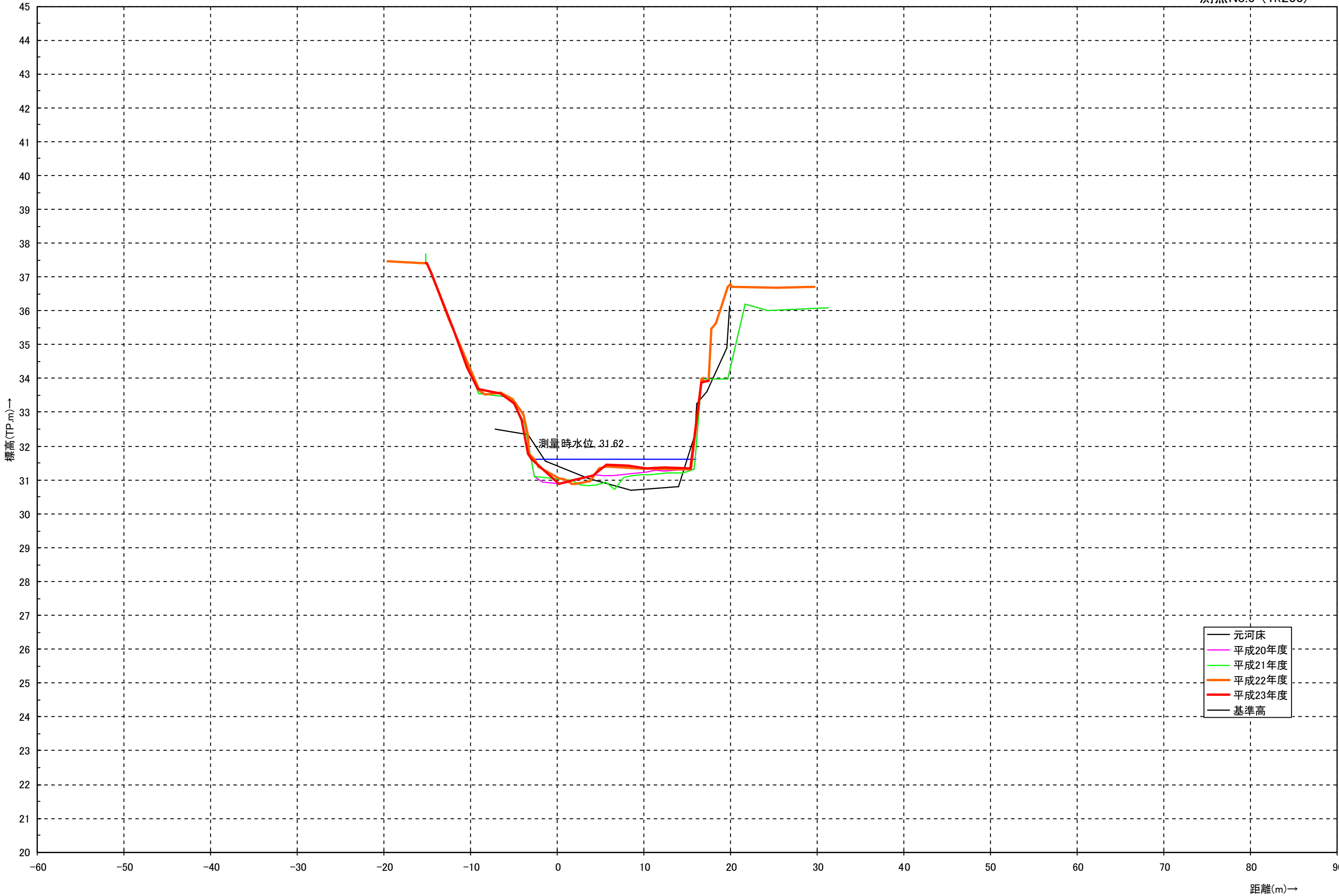
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測点No.5 (1k000)



百 済 木 川 横 断 比 較 図

測点No.6 (1k200)



百済木川 横断比較図

測点No.7 (1k300)

