

TORRENTE IMPERO

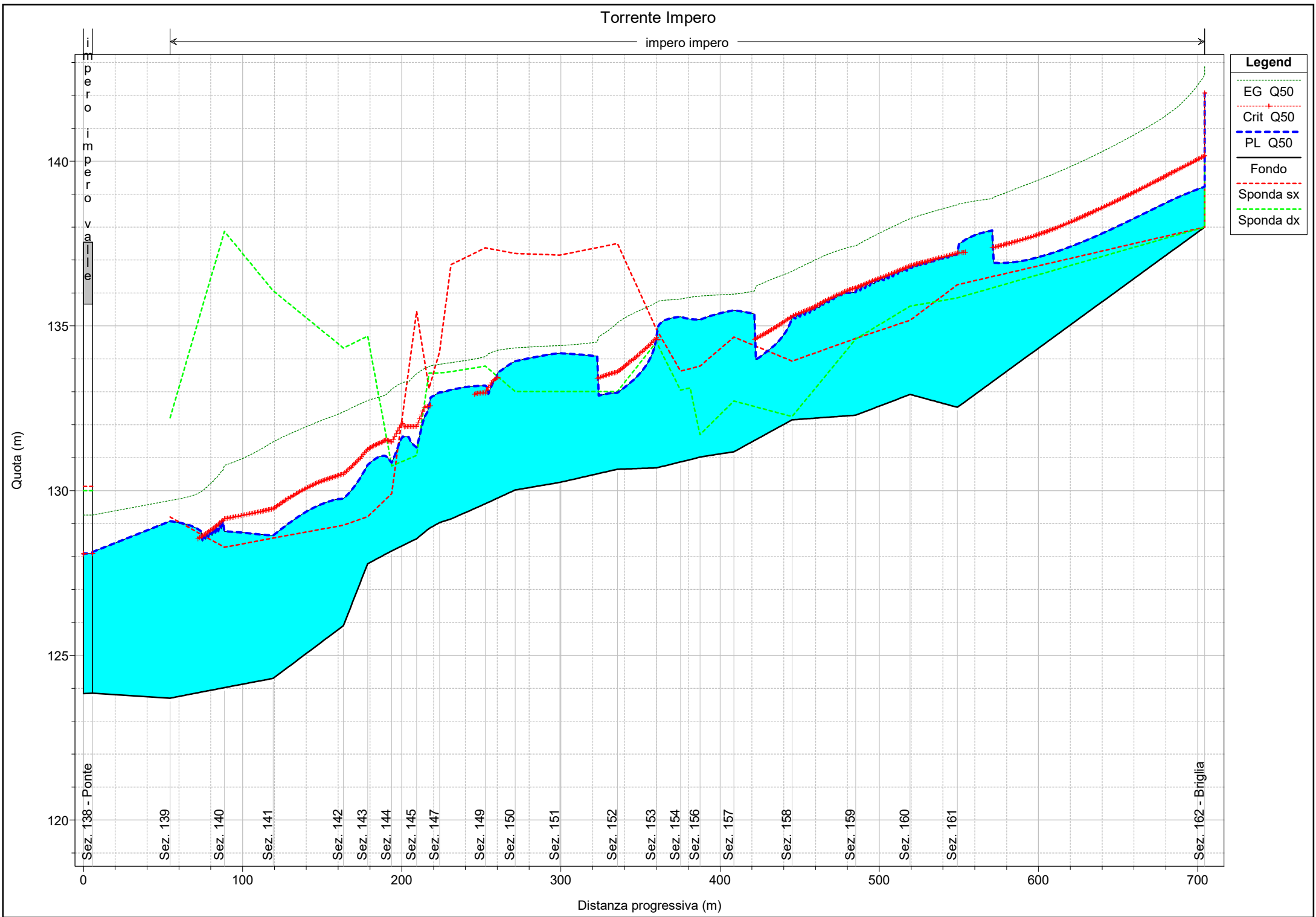
Ambito di Bacino n.6 - IMPERO

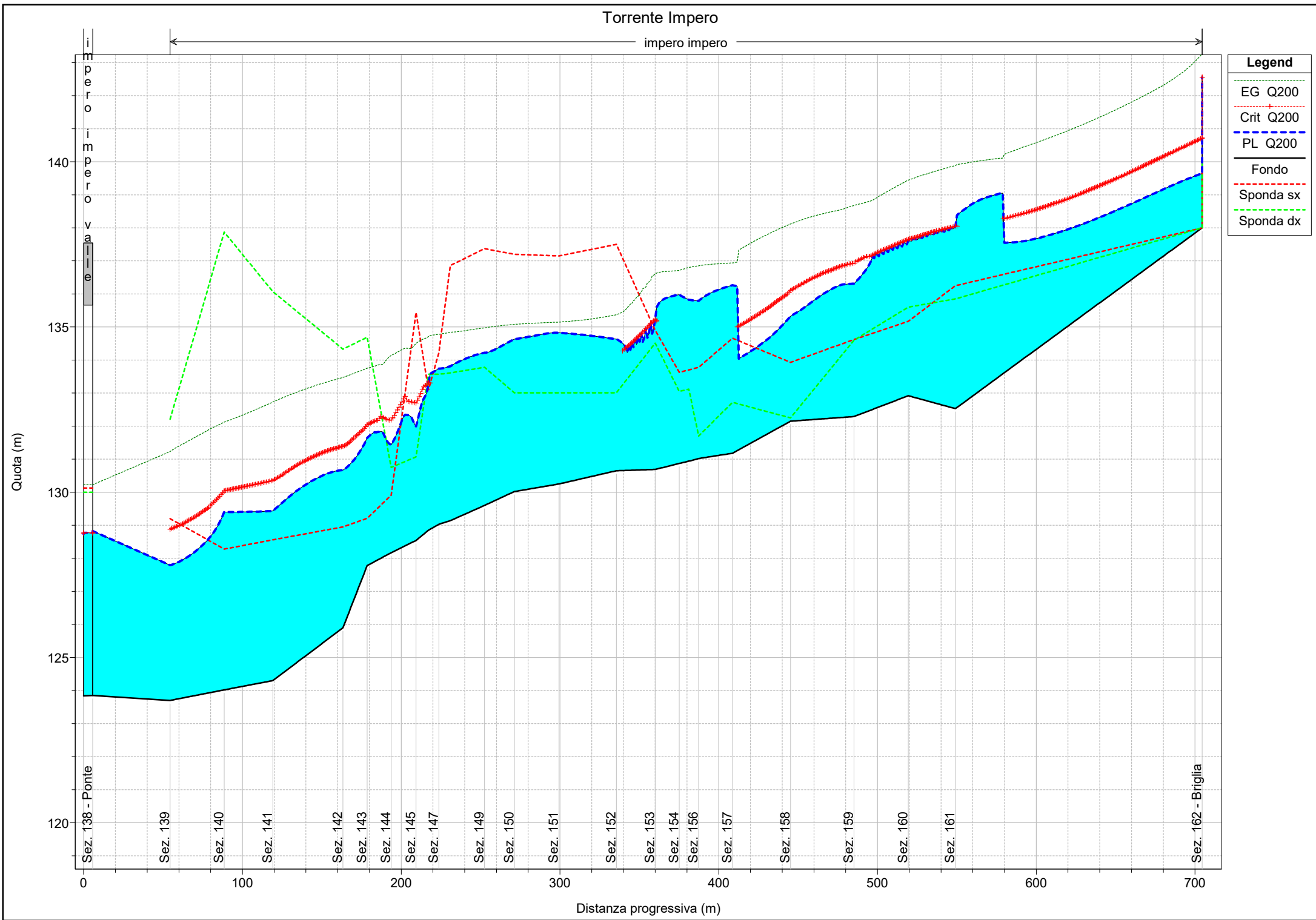
**PIANO DI BACINO STRALCIO
PER LA TUTELA DAL RISCHIO IDROGEOLOGICO**
(ai sensi dell'art. 1, comma 1, del D.L. 180/1998 convertito in L. 267/1998)

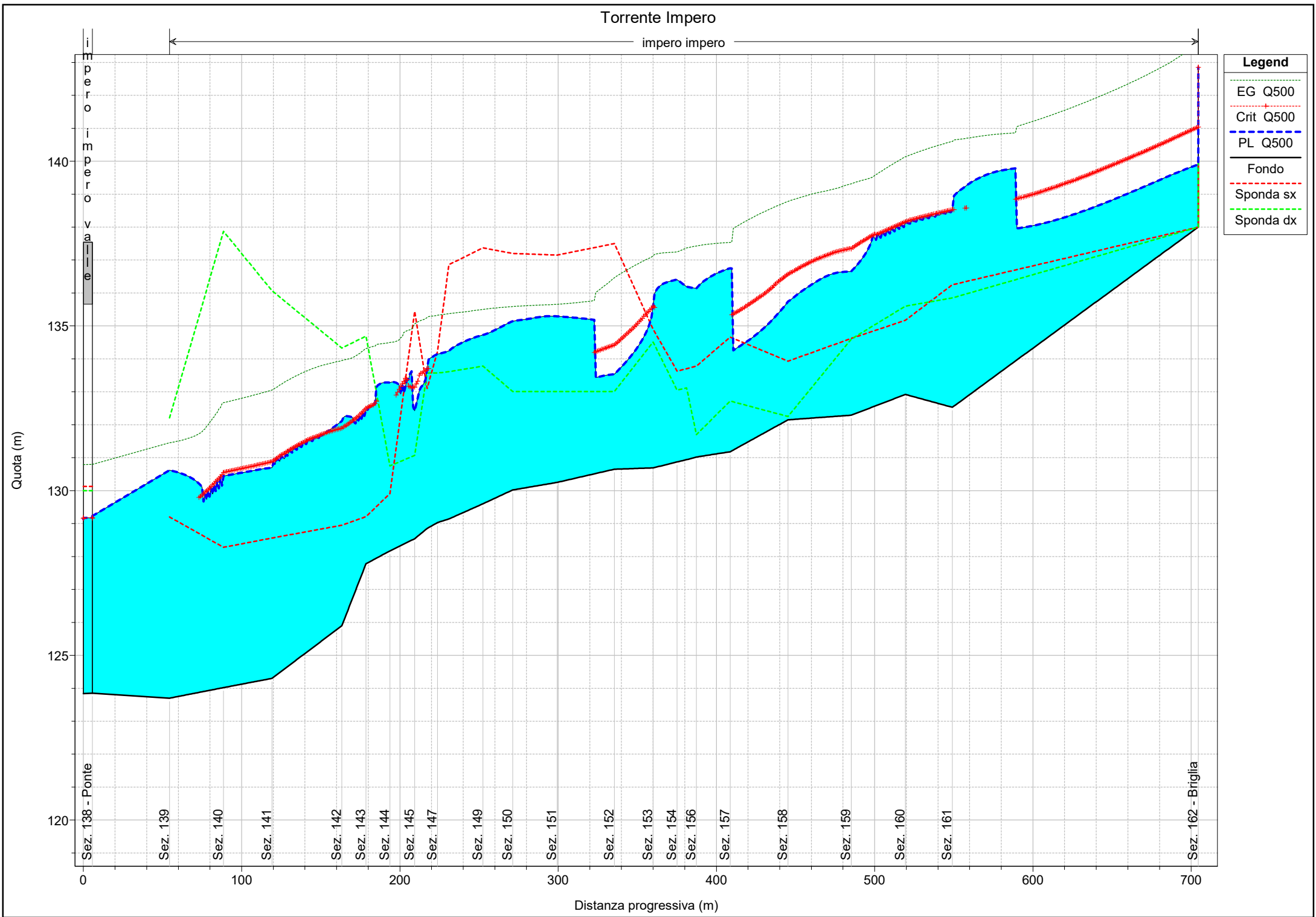


VERIFICHE IDRAULICHE – T. IMPERO (sez. 138-163)

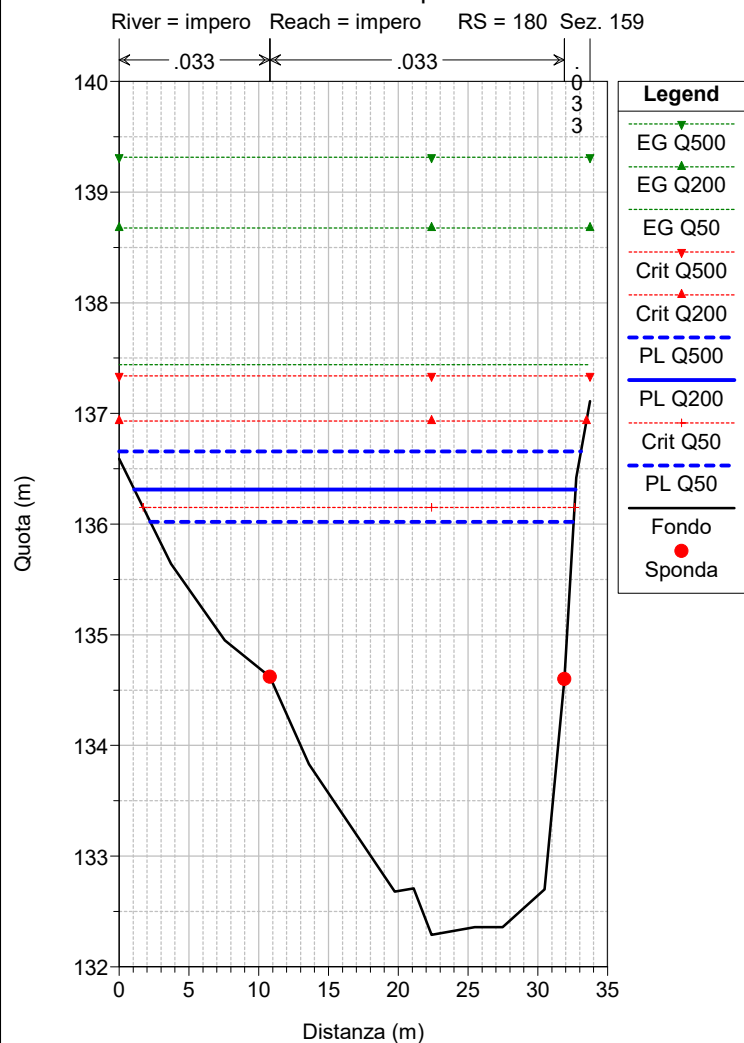
APPROVAZIONE	Delibera del Consiglio Provinciale di Imperia n. 88 del 15/10/2002
ULTIMA MODIFICA DELL'ELABORATO	Decreto del Segretario Generale n. 143 del 15/12/2022
ENTRATA IN VIGORE	BURL n. 3 del 18/01/2023 – parte II



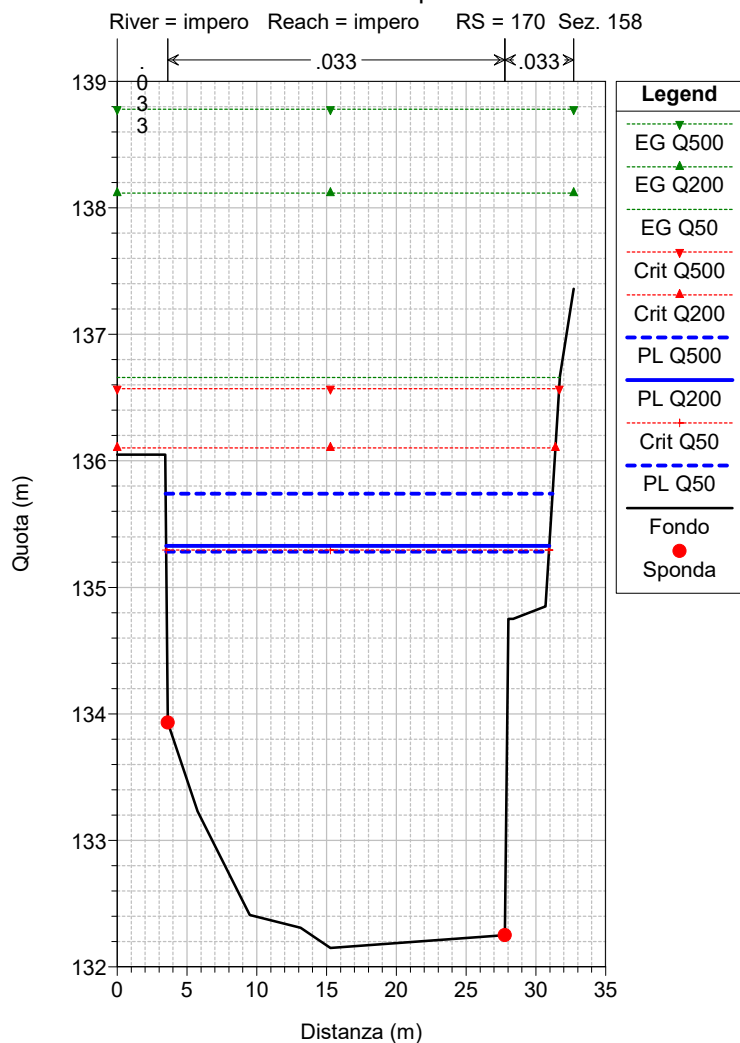




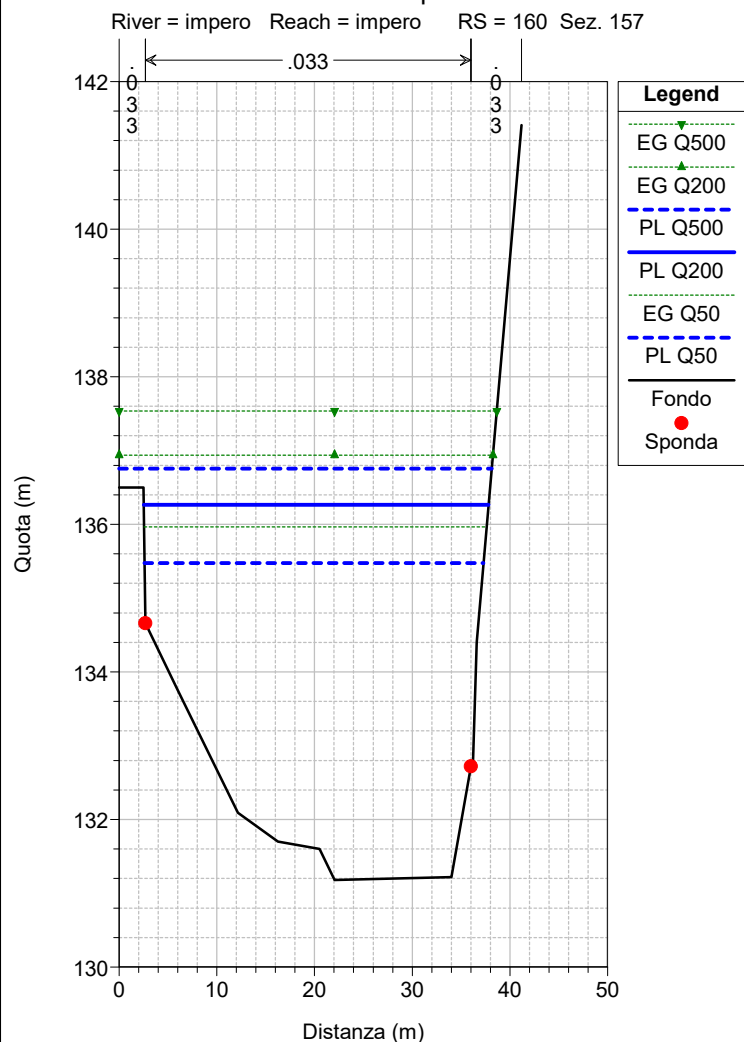
Torrente Impero



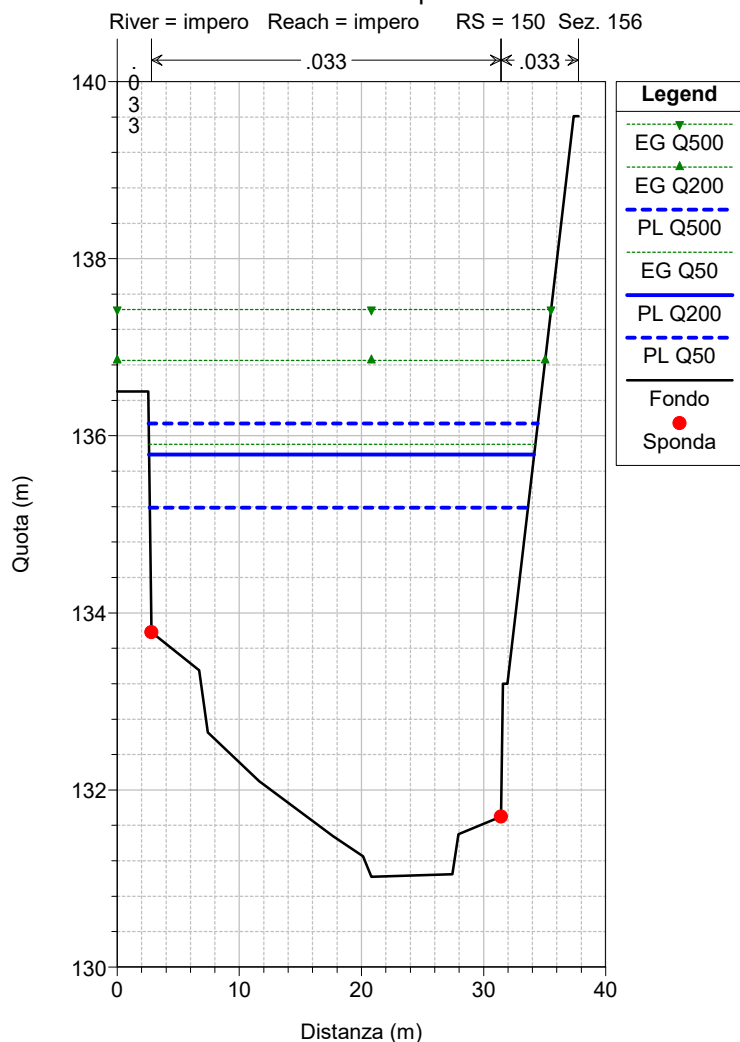
Torrente Impero



Torrente Impero

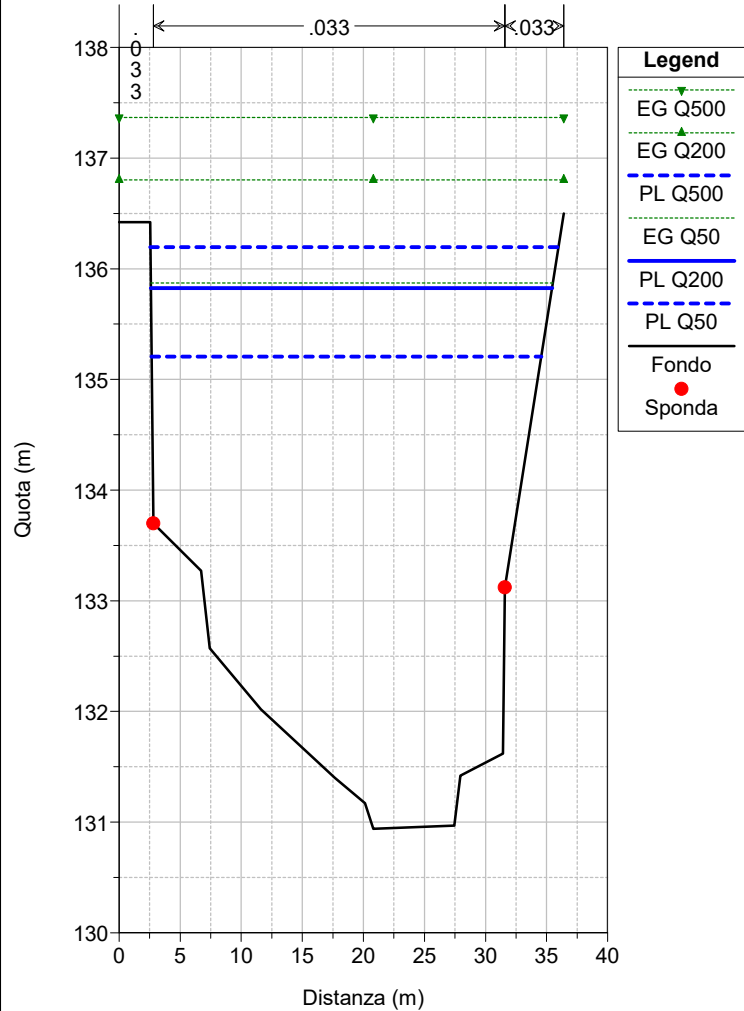


Torrente Impero



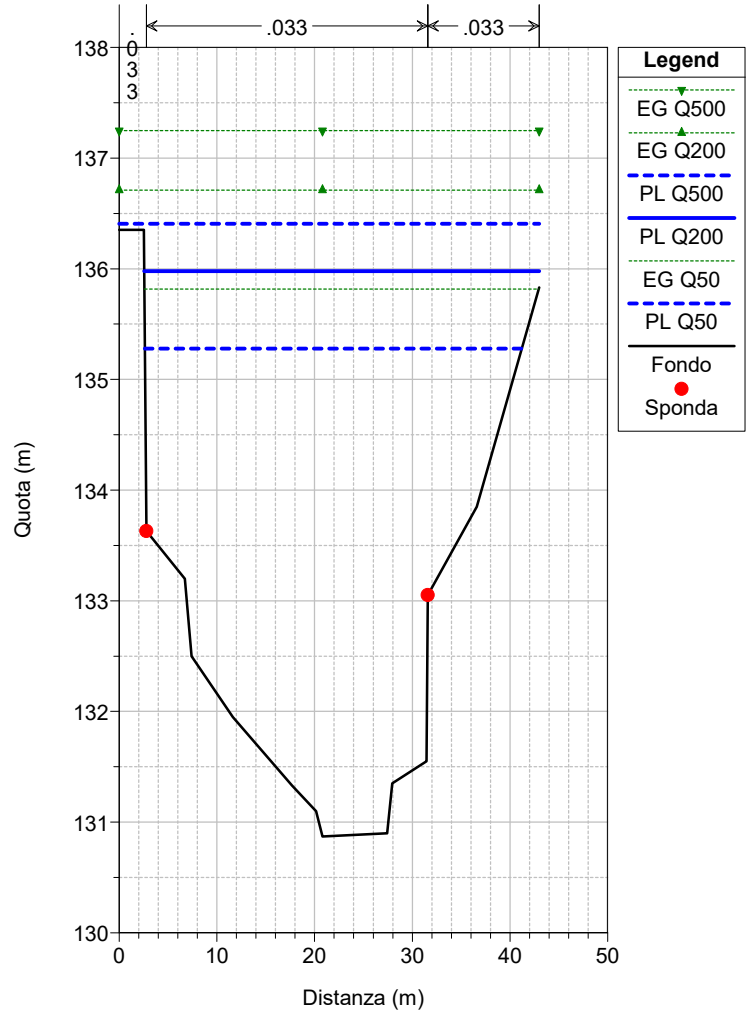
Torrente Impero

River = impero Reach = impero RS = 148 Sez. 155



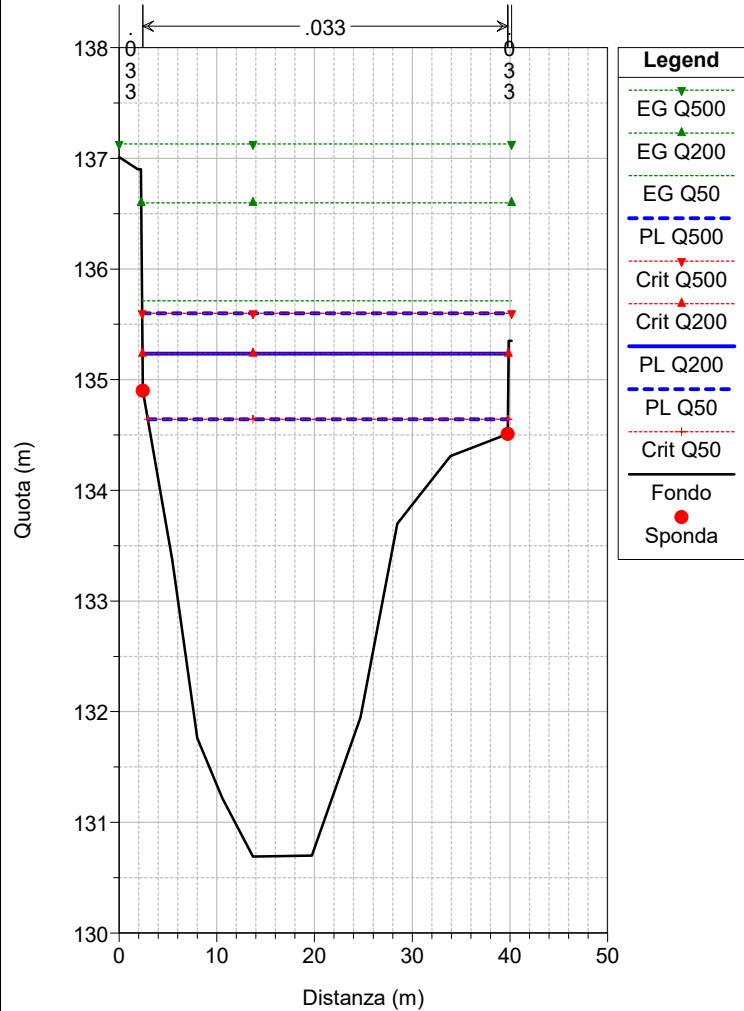
Torrente Impero

River = impero Reach = impero RS = 145 Sez. 154



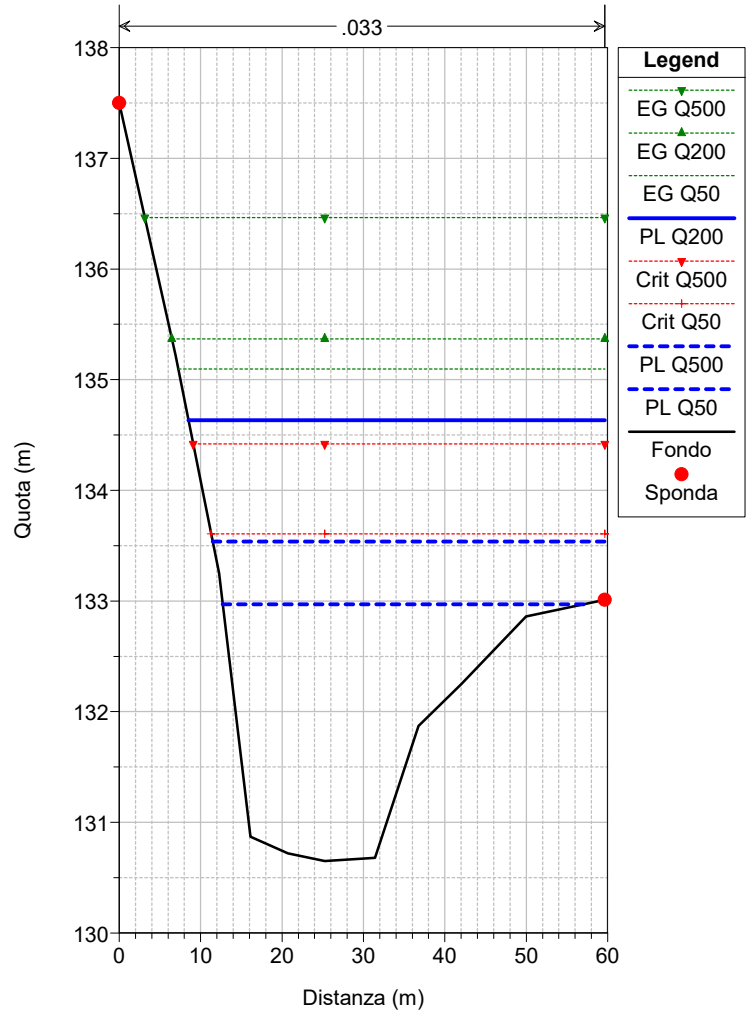
Torrente Impero

River = impero Reach = impero RS = 140 Sez. 153



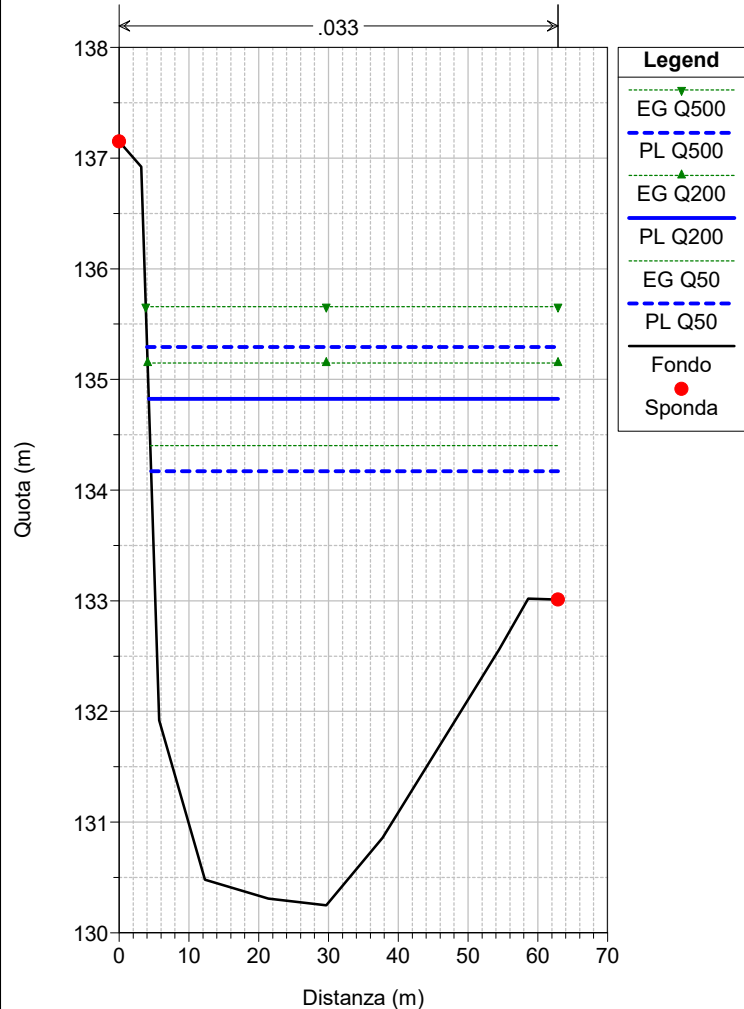
Torrente Impero

River = impero Reach = impero RS = 130 Sez. 152



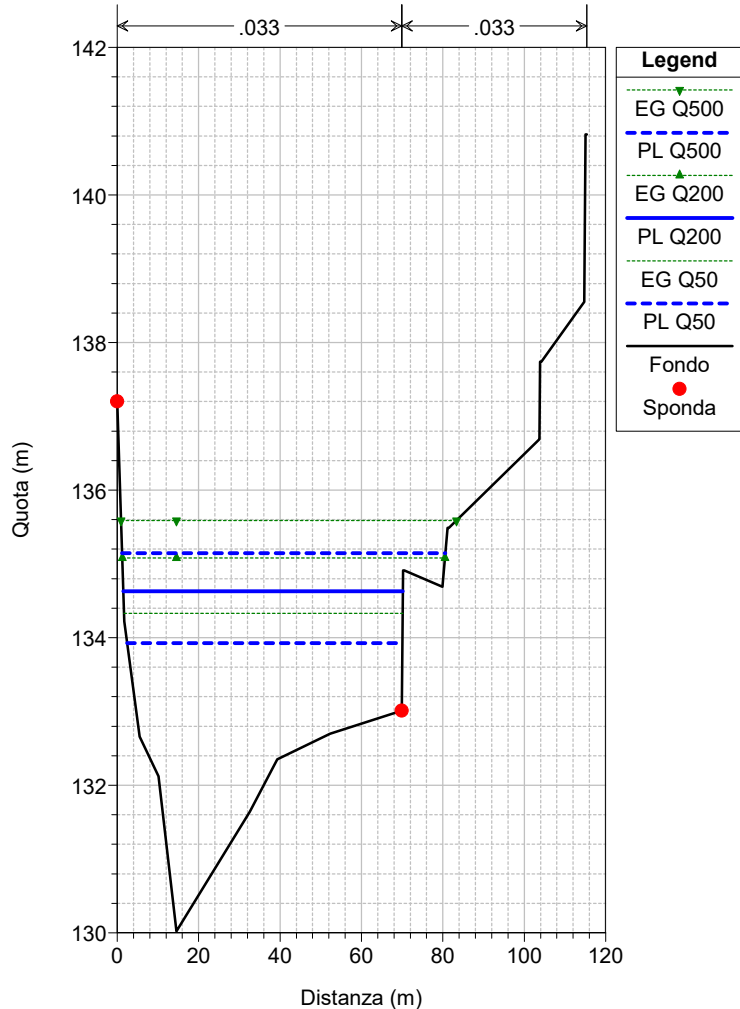
Torrente Impero

River = impero Reach = impero RS = 120 Sez. 151



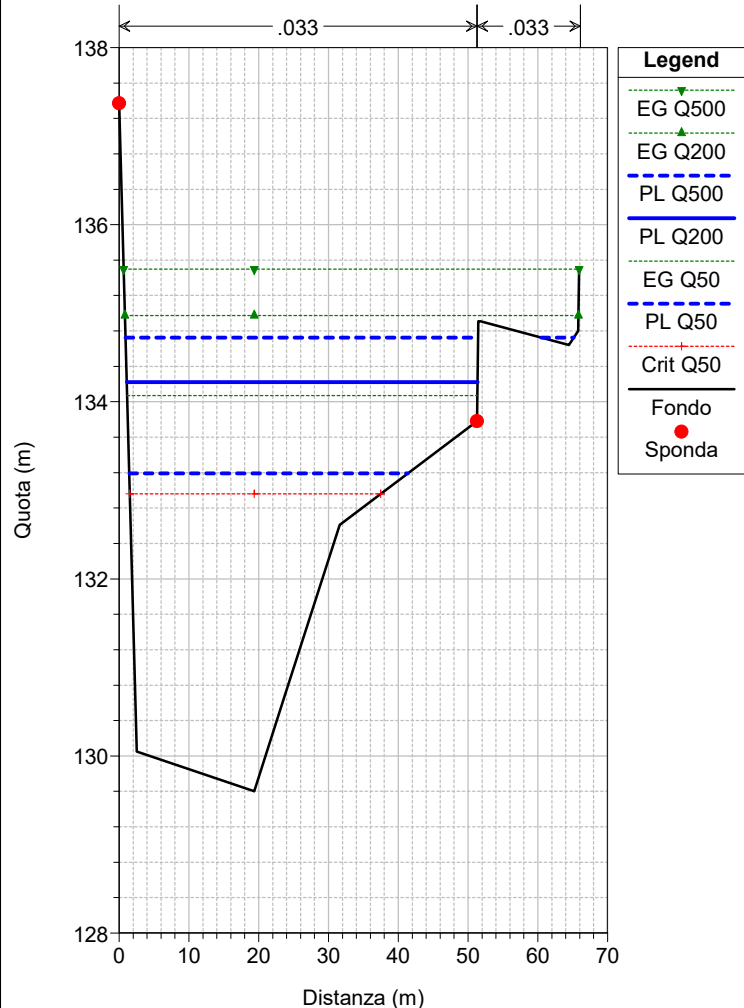
Torrente Impero

River = impero Reach = impero RS = 110 Sez. 150



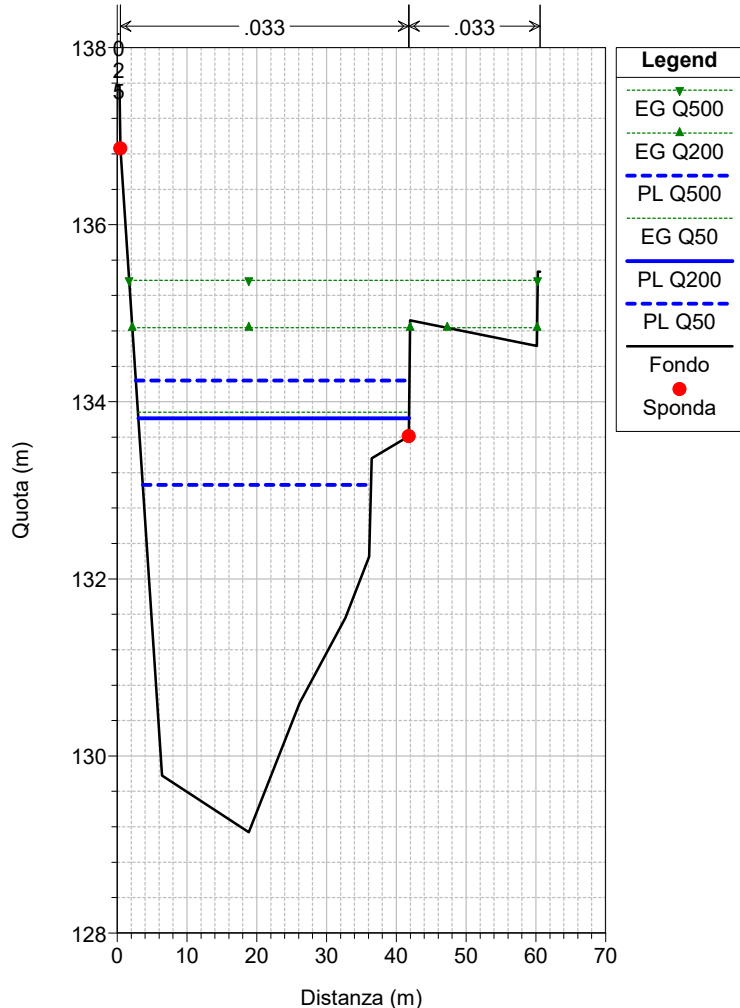
Torrente Impero

River = impero Reach = impero RS = 100 Sez. 149



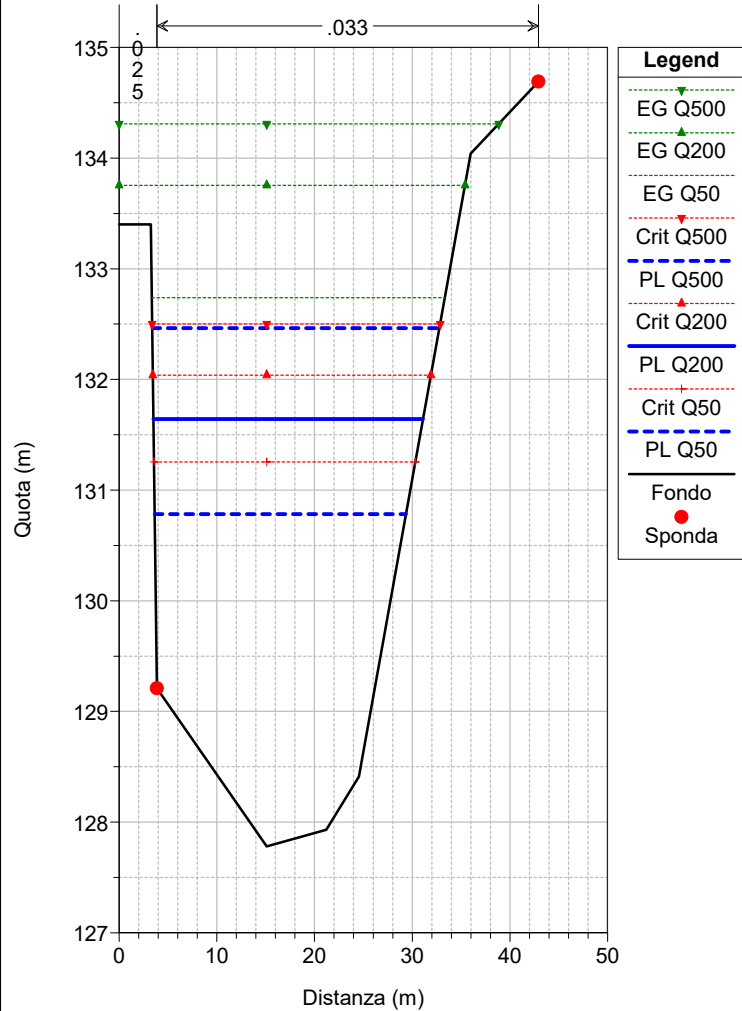
Torrente Impero

River = impero Reach = impero RS = 90 Sez. 148



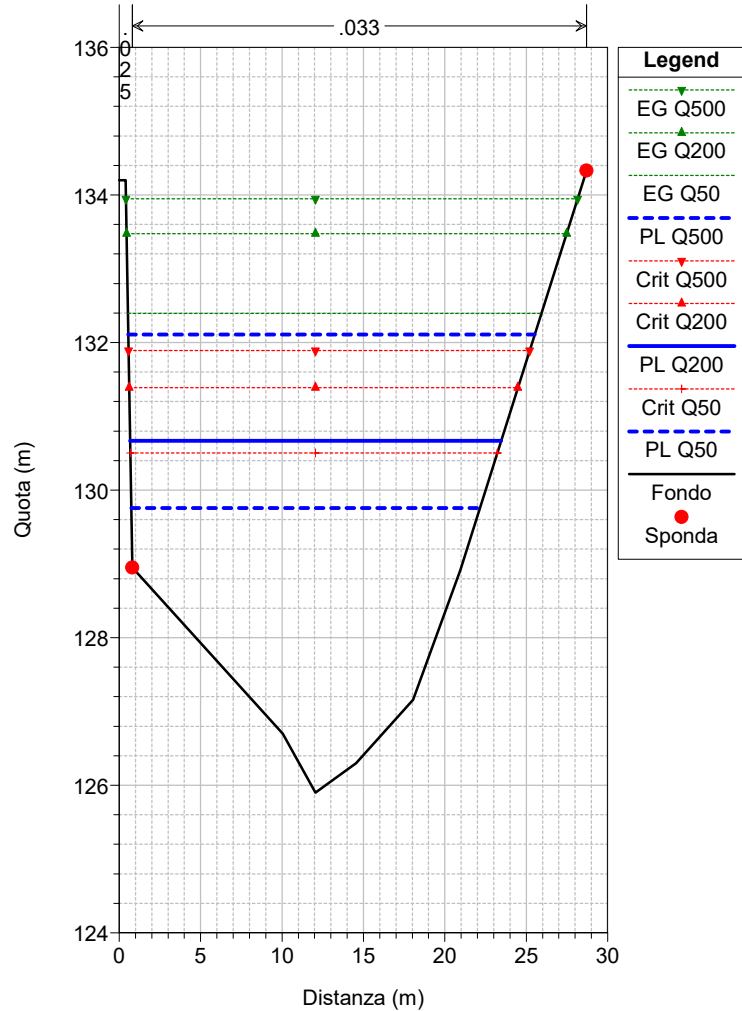
Torrente Impero

River = impero Reach = impero RS = 50 Sez. 143



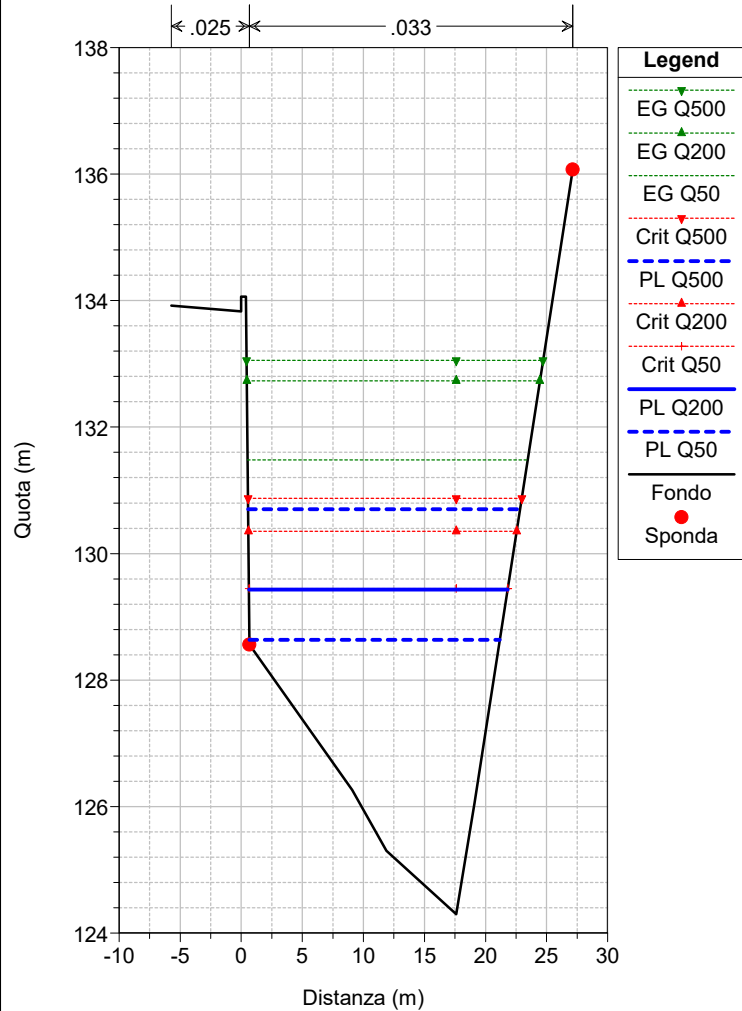
Torrente Impero

River = impero Reach = impero RS = 40 Sez. 142



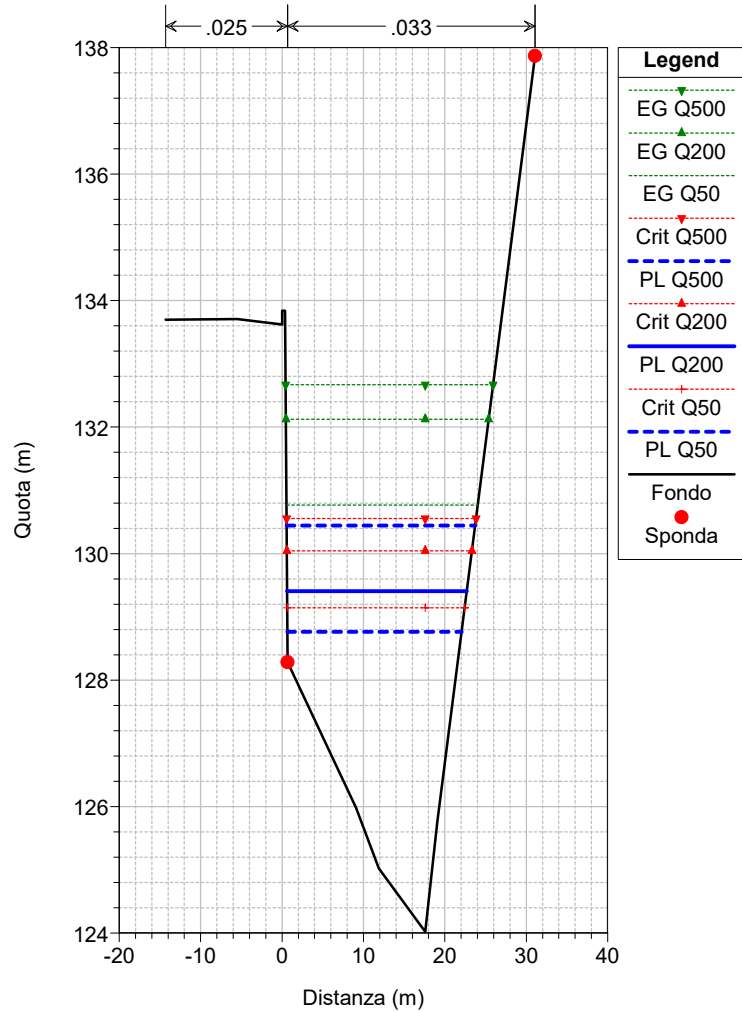
Torrente Impero

River = impero Reach = impero RS = 30 Sez. 141



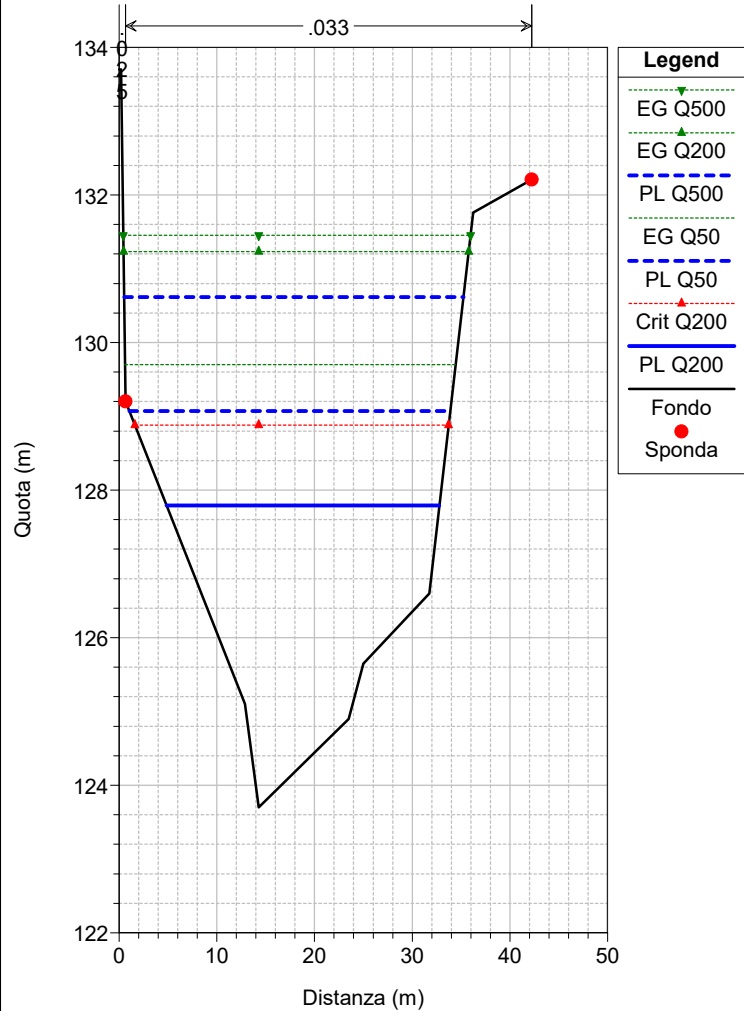
Torrente Impero

River = impero Reach = impero RS = 25 Sez. 140



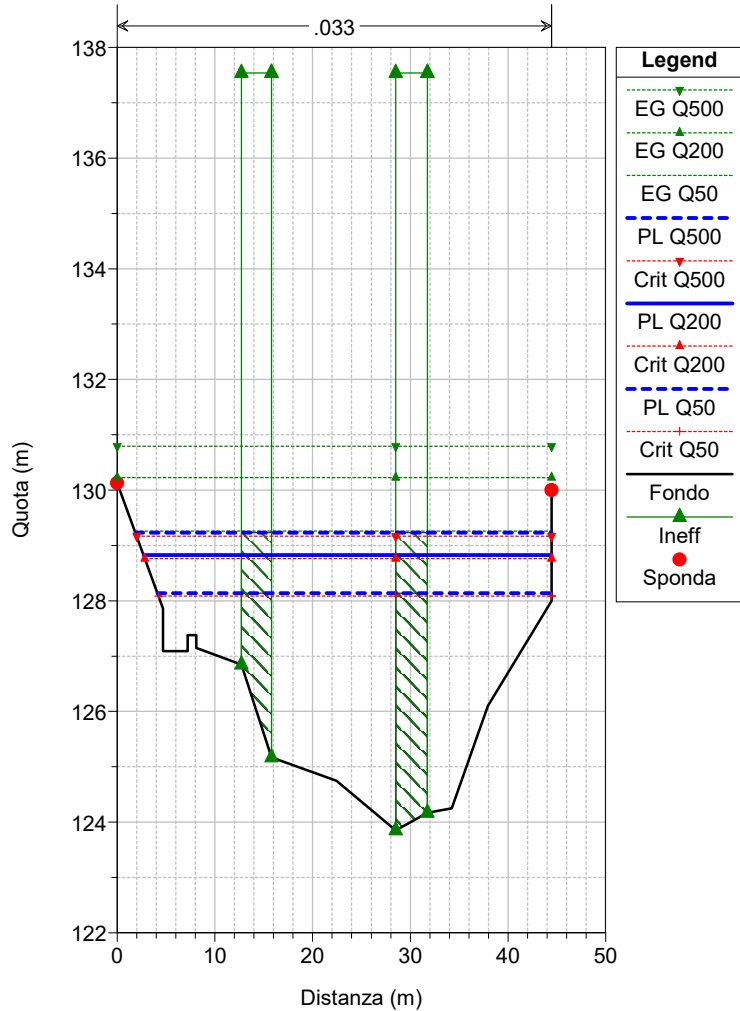
Torrente Impero

River = impero Reach = impero RS = 20 Sez. 139



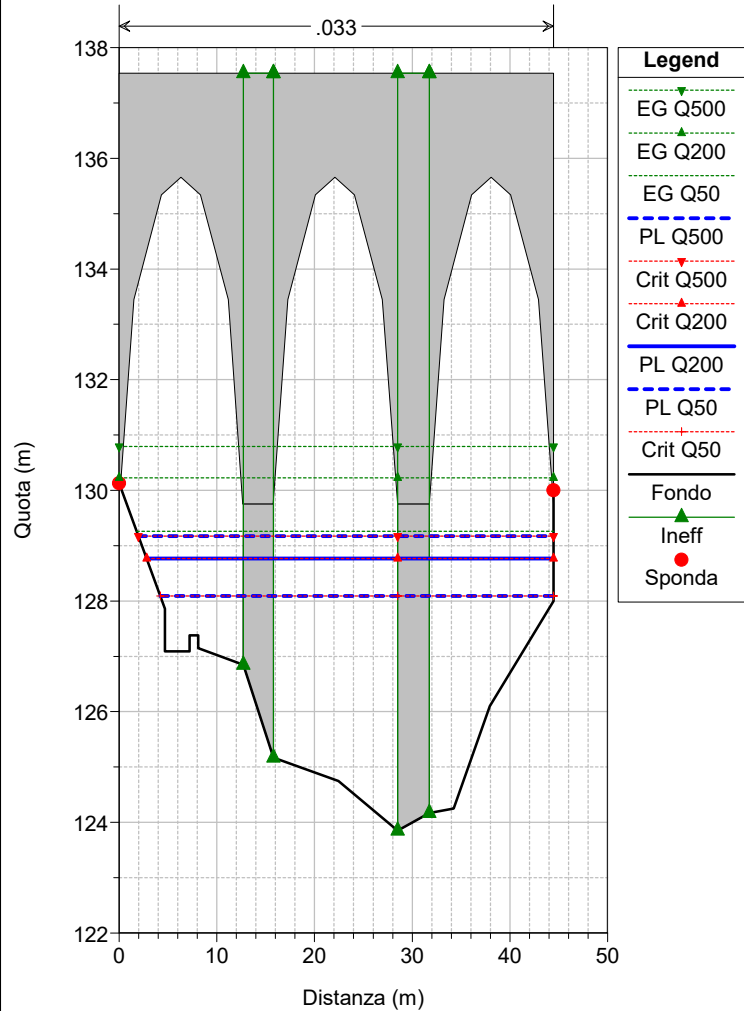
Torrente Impero

River = impero Reach = impero valle RS = 15 Sez. 138 - Ponte



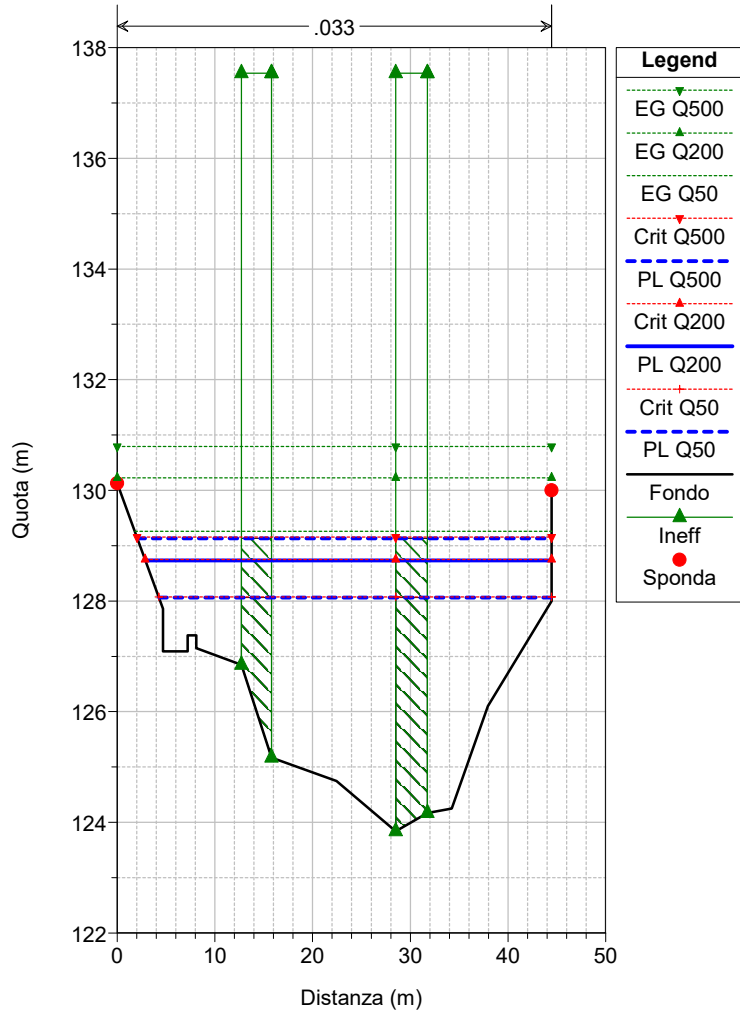
Torrente Impero

River = impero Reach = impero valle RS = 10 BR



Torrente Impero

River = impero Reach = impero valle RS = 5 Ponte



HEC-RAS Plan: Impero

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area
			(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)
impero	220	Q50	359.50	140.00	142.07	140.00	-2.07	140.00	-2.07	142.07	142.88	0.007568	4.28	95.33
impero	220	Q200	520.20	140.00	142.56	140.00	-2.56	140.00	-2.56	142.56	143.53	0.007053	4.76	126.66
impero	220	Q500	625.80	140.00	142.85	140.00	-2.85	140.00	-2.85	142.85	143.90	0.006708	4.99	147.00
impero	210	Q50	359.50	138.00	139.23	138.00	-1.23	138.00	-1.23	140.17	142.62	0.058841	8.42	45.31
impero	210	Q200	520.20	138.00	139.65	138.00	-1.65	138.00	-1.65	140.72	143.26	0.043198	8.78	63.96
impero	210	Q500	625.80	138.00	139.90	138.00	-1.90	138.00	-1.90	141.04	143.63	0.037174	8.96	76.07
impero	200	Q50	359.50	132.53	137.21	136.25	-0.96	135.85	-1.36	137.21	138.67	0.007889	5.37	67.41
impero	200	Q200	520.20	132.53	138.05	136.25	-1.80	135.85	-2.20	138.05	139.88	0.007089	6.02	87.90
impero	200	Q500	625.80	132.53	138.53	136.25	-2.28	135.85	-2.68	138.53	140.60	0.006862	6.41	99.90
impero	190	Q50	359.50	132.92	136.77	135.17	-1.60	135.60	-1.17	136.82	138.26	0.007865	5.44	67.82
impero	190	Q200	520.20	132.92	137.62	135.17	-2.45	135.60	-2.02	137.65	139.44	0.006986	6.06	89.56
impero	190	Q500	625.80	132.92	138.15	135.17	-2.98	135.60	-2.55	138.16	140.13	0.006469	6.35	103.87
impero	180	Q50	359.50	132.29	136.02	134.62	-1.40	134.60	-1.42	136.15	137.44	0.007814	5.38	71.19
impero	180	Q200	520.20	132.29	136.31	134.62	-1.69	134.60	-1.71	136.93	138.67	0.011630	6.98	80.26
impero	180	Q500	625.80	132.29	136.66	134.62	-2.04	134.60	-2.06	137.34	139.32	0.011624	7.46	91.41
impero	170	Q50	359.50	132.15	135.28	133.93	-1.35	132.25	-3.03	135.30	136.66	0.007456	5.21	70.40
impero	170	Q200	520.20	132.15	135.33	133.93	-1.40	132.25	-3.08	136.10	138.12	0.014784	7.42	71.66
impero	170	Q500	625.80	132.15	135.74	133.93	-1.81	132.25	-3.49	136.57	138.78	0.013552	7.77	83.03
impero	160	Q50	359.50	131.18	135.47	134.66	-0.81	132.72	-2.75		135.96	0.002080	3.10	116.99
impero	160	Q200	520.20	131.18	136.26	134.66	-1.60	132.72	-3.54		136.94	0.002187	3.65	144.60
impero	160	Q500	625.80	131.18	136.75	134.66	-2.09	132.72	-4.03		137.53	0.002191	3.93	162.61
impero	150	Q50	359.50	131.02	135.19	133.78	-1.41	131.70	-3.49		135.91	0.003236	3.77	97.37
impero	150	Q200	520.20	131.02	135.79	133.78	-2.01	131.70	-4.09		136.85	0.003855	4.60	116.11
impero	150	Q500	625.80	131.02	136.14	133.78	-2.36	131.70	-4.44		137.43	0.004169	5.06	127.22
impero	148	Q50	359.50	130.94	135.21	133.70	-1.51	133.12	-2.09		135.87	0.003075	3.63	100.92
impero	148	Q200	520.20	130.94	135.83	133.70	-2.13	133.12	-2.71		136.80	0.003630	4.41	121.01
impero	148	Q500	625.80	130.94	136.19	133.70	-2.49	133.12	-3.07		137.37	0.003885	4.84	133.24
impero	145	Q50	359.50	130.87	135.28	133.63	-1.65	133.05	-2.23		135.82	0.002430	3.32	114.39
impero	145	Q200	520.20	130.87	135.98	133.63	-2.35	133.05	-2.93		136.71	0.002649	3.91	142.11
impero	145	Q500	625.80	130.87	136.41	133.63	-2.78	133.05	-3.36		137.25	0.002686	4.20	159.65
impero	140	Q50	359.50	130.69	134.64	134.90	0.26	134.51	-0.13	134.64	135.71	0.008773	4.58	78.49
impero	140	Q200	520.20	130.69	135.23	134.90	-0.33	134.51	-0.72	135.23	136.60	0.008206	5.17	100.58
impero	140	Q500	625.80	130.69	135.60	134.90	-0.70	134.51	-1.09	135.60	137.13	0.007773	5.48	114.33

HEC-RAS Plan: Impero (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area
			(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)
impero	130	Q50	359.50	130.65	132.97	137.50	4.53	133.01	0.04	133.61	135.10	0.034307	6.46	55.68
impero	130	Q200	520.20	130.65	134.63	137.50	2.87	133.01	-1.62		135.37	0.004521	3.80	136.99
impero	130	Q500	625.80	130.65	133.54	137.50	3.96	133.01	-0.53	134.42	136.47	0.031668	7.58	82.59
impero	120	Q50	359.50	130.25	134.17	137.15	2.98	133.01	-1.16		134.40	0.001287	2.14	168.31
impero	120	Q200	520.20	130.25	134.82	137.15	2.33	133.01	-1.81		135.15	0.001404	2.52	206.53
impero	120	Q500	625.80	130.25	135.29	137.15	1.86	133.01	-2.28		135.66	0.001368	2.67	234.01
impero	110	Q50	359.50	130.02	133.93	137.20	3.27	133.01	-0.92		134.33	0.003746	2.81	127.81
impero	110	Q200	520.20	130.02	134.63	137.20	2.57	133.01	-1.62		135.08	0.002780	2.96	175.83
impero	110	Q500	625.80	130.02	135.15	137.20	2.05	133.01	-2.14		135.59	0.002194	2.96	214.71
impero	100	Q50	359.50	129.60	133.19	137.37	4.18	133.78	0.59	132.96	134.07	0.007278	4.15	86.58
impero	100	Q200	520.20	129.60	134.22	137.37	3.15	133.78	-0.44		134.98	0.004692	3.85	135.21
impero	100	Q500	625.80	129.60	134.72	137.37	2.65	133.78	-0.94		135.50	0.003881	3.90	160.79
impero	90	Q50	359.50	129.14	133.06	136.86	3.80	133.61	0.55		133.88	0.005023	4.01	89.62
impero	90	Q200	520.20	129.14	133.81	136.86	3.05	133.61	-0.20		134.84	0.005568	4.48	116.23
impero	90	Q500	625.80	129.14	134.24	136.86	2.62	133.61	-0.63		135.37	0.005254	4.71	132.87
impero	80	Q50	359.50	129.03	132.99	134.22	1.23	133.57	0.59		133.83	0.005402	4.08	88.13
impero	80	Q200	520.20	129.03	133.74	134.22	0.48	133.57	-0.17		134.78	0.005322	4.52	115.16
impero	80	Q500	625.80	129.03	134.15	134.22	0.07	133.57	-0.58		135.32	0.005174	4.79	130.63
impero	75	Q50	359.50	128.85	132.57	133.10	0.53	133.57	1.00	132.57	133.76	0.008590	4.84	74.21
impero	75	Q200	520.20	128.85	133.31	133.10	-0.21	133.57	0.26	133.31	134.71	0.008059	5.25	99.10
impero	75	Q500	625.80	128.85	133.70	133.10	-0.60	133.57	-0.13	133.70	135.26	0.007782	5.53	113.23
impero	70	Q50	359.50	128.54	131.31	135.44	4.13	131.07	-0.24	131.95	133.55	0.021451	6.62	54.30
impero	70	Q200	520.20	128.54	131.99	135.44	3.45	131.07	-0.92	132.70	134.51	0.016703	7.02	74.15
impero	70	Q500	625.80	128.54	132.43	135.44	3.01	131.07	-1.36	133.14	135.06	0.014479	7.18	87.42
impero	60	Q50	359.50	128.17	130.85	129.91	-0.94	130.75	-0.10	131.48	133.09	0.021404	6.62	54.30
impero	60	Q200	520.20	128.17	131.43	129.91	-1.52	130.75	-0.68	132.19	134.14	0.017973	7.29	71.50
impero	60	Q500	625.80	128.17	133.28	129.91	-3.37	130.75	-2.53		134.50	0.003866	4.92	131.18
impero	50	Q50	359.50	127.78	130.78	129.21	-1.57	134.69	3.91	131.25	132.74	0.014467	6.19	58.19
impero	50	Q200	520.20	127.78	131.64	129.21	-2.43	134.69	3.05	132.04	133.75	0.011088	6.44	81.10
impero	50	Q500	625.80	127.78	132.46	129.21	-3.25	134.69	2.23	132.50	134.31	0.007550	6.02	104.51
impero	40	Q50	359.50	125.90	129.76	128.95	-0.81	134.33	4.57	130.50	132.39	0.019619	7.19	50.01
impero	40	Q200	520.20	125.90	130.67	128.95	-1.72	134.33	3.66	131.39	133.48	0.014571	7.42	70.20
impero	40	Q500	625.80	125.90	132.11	128.95	-3.16	134.33	2.22	131.89	133.95	0.006421	6.01	104.52

HEC-RAS Plan: Impero (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area
			(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)
impero	30	Q50	359.50	124.30	128.64	128.56	-0.08	136.07	7.43	129.45	131.48	0.022842	7.47	48.12
impero	30	Q200	520.20	124.30	129.43	128.56	-0.87	136.07	6.64	130.35	132.73	0.018908	8.04	64.69
impero	30	Q500	625.80	124.30	130.70	128.56	-2.14	136.07	5.37	130.88	133.05	0.009194	6.80	92.19
impero	25	Q50	359.50	124.02	128.76	128.28	-0.48	137.87	9.11	129.14	130.77	0.013425	6.27	57.31
impero	25	Q200	520.20	124.02	129.40	128.28	-1.12	137.87	8.47	130.04	132.12	0.014292	7.30	71.27
impero	25	Q500	625.80	124.02	130.44	128.28	-2.16	137.87	7.43	130.55	132.67	0.008647	6.61	94.80
impero	20	Q50	359.50	123.70	129.07	129.20	0.13	132.21	3.14		129.70	0.003293	3.52	102.21
impero	20	Q200	520.20	123.70	127.79	129.20	1.41	132.21	4.42	128.88	131.23	0.026913	8.22	63.32
impero	20	Q500	625.80	123.70	130.62	129.20	-1.42	132.21	1.59		131.45	0.002742	4.05	154.77
impero valle	15	Q50	379.20	123.85	128.14	130.13	1.99	130.00	1.86	128.09	129.26	0.008255	4.70	80.76
impero valle	15	Q200	548.60	123.85	128.82	130.13	1.31	130.00	1.18	128.76	130.23	0.007909	5.24	104.60
impero valle	15	Q500	660.00	123.85	129.23	130.13	0.90	130.00	0.77	129.16	130.79	0.007753	5.54	119.19
impero valle	10		Bridge											
impero valle	5	Q50	379.20	123.84	128.06	130.13	2.07	130.00	1.94	128.08	129.26	0.009100	4.85	78.22
impero valle	5	Q200	548.60	123.84	128.73	130.13	1.40	130.00	1.27	128.75	130.22	0.008668	5.41	101.45
impero valle	5	Q500	660.00	123.84	129.13	130.13	1.00	130.00	0.87	129.15	130.79	0.008474	5.71	115.68