Comune di Moneglia

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intervento di adeguamento idraulico dei tratti terminali del torrente San Lorenzo e del rio Sorba finalizzato alla messa in sicurezza della zona di ponente del centro storico della Città di Moneglia

PROGETTO DI FATTIBILITÀ TECNICA ED ECONOMICA

(D. Lgs. 50/2016 – art. 23 – comma 5 + comma 6)

ALLEGATO 01 : modello idraulico stato attuale

TAV. ALL01

SCALA

STABS 0737

REV.	data	motivazione
A	marzo 2017	aggiornamento – nota Regione Liguria prot. n°PG/2017/35828 del 02/02/2017
	marzo 2016	prima emissione progettazione preliminare

il Responsabile del Procedimento

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HEC-RAS Plan: San_Lorenzo_

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
monte	31	Q 50	45.40	8.70	11.29	10.97	11.88	0.008165	3.41	13.33	6.94	0.78
monte	31	Q 200	65.70	8.70	11.74	11.71	12.49	0.008876	3.90	18.56	16.58	0.82
monte	30	Q 50	45.40	8.47	11.38		11.72	0.004237	2.64	19.09	16.56	0.56
monte	30	Q 200	65.70	8.47	11.93	11.33	12.30	0.003890	2.82	28.18	16.58	0.54
monte	29.5	Q 50	45.40	8.39	11.15		11.65	0.006828	3.17	15.38	10.32	0.70
monte	29.5	Q 200	65.70	8.39	11.30	11.30	12.18	0.011334	4.23	16.89	10.37	0.91
monte	29.1	Q 50	45.40	8.30	11.29	10.31	11.55	0.003080	2.40	23.70	16.31	0.46
monte	29.1	Q 200	65.70	8.30	11.51	11.10	11.93	0.004565	3.08	27.32	16.31	0.57
monte	29		Bridge									
monte	28.9	Q 50	45.40	8.18	10.24	10.62	11.44	0.022990	4.86	9.44	8.84	1.25
monte	28.9	Q 200	65.70	8.18	10.70	11.02	11.95	0.019079	5.09	14.59	11.52	1.16
monte	28.5	Q 50	45.40	8.10	9.78	10.28	11.12	0.027578	5.13	8.85	6.91	1.45
monte	28.5	Q 200	65.70	8.10	11.21	10.69	11.56	0.003867	2.84	28.35	15.96	0.56
monte	28.4	Q 50	45.40	7.85	10.69	9.89	10.91	0.002637	2.21	25.15	17.66	0.46
monte	28.4	Q 200	65.70	7.85	11.26		11.49	0.002333	2.32	35.26	18.07	0.44
monte	28.1	Q 50	45.40	7.82	10.70	9.84	10.89	0.002325	2.10	26.70	18.54	0.44
monte	28.1	Q 200	65.70	7.82	11.27	10.41	11.47	0.001968	2.19	39.21	28.59	0.41
monte	28		Bridge									
monte	27.9	Q 50	45.40	7.82	10.67	9.84	10.88	0.002424	2.13	26.25	18.54	0.44
monte	27.9	Q 200	65.70	7.82	11.24		11.45	0.002063	2.23	38.34	28.59	0.42
monte	27.5	Q 50	45.40	7.74	10.04	10.04	10.73	0.010848	3.77	13.50	10.72	0.87
monte	27.5	Q 200	65.70	7.74	10.46	10.46	11.28	0.011153	4.22	17.99	10.88	0.89
monte	27.4	Q 50	45.40	7.62	10.20	10.00	10.52	0.004404	2.76	22.92	21.20	0.58
monte	27.4	Q 200	65.70	7.62	9.89	10.29	11.14	0.018796	5.20	16.48	21.20	1.17

HEC-RAS Plan: San_Lorenzo_ (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
monte	27.3	Q 50	45.40	7.42	10.24		10.44	0.002984	2.32	29.80	26.26	0.47
monte	27.3	Q 200	65.70	7.42	10.53	10.16	10.78	0.003438	2.68	37.40	26.26	0.51
monte	27.1	Q 50	45.40	7.42	10.19	9.94	10.42	0.003500	2.48	27.84	26.26	0.50
monte	27.1	Q 200	65.70	7.42	10.47	10.18	10.75	0.003999	2.85	35.28	26.26	0.55
monte	27		Bridge									
monte	26.9	Q 50	45.40	7.42	9.94	9.94	10.34	0.006462	3.14	21.32	26.26	0.67
monte	26.9	Q 200	65.70	7.42	10.18	10.18	10.67	0.007413	3.60	27.72	26.26	0.73
monte	26.5	Q 50	45.40	7.15	9.80	9.24	10.11	0.004289	2.55	20.12	15.80	0.58
monte	26.5	Q 200	65.70	7.15	10.21	9.76	10.59	0.004392	2.86	26.69	16.05	0.60
monte	26.4	Q 50	45.40	6.94	9.83		10.05	0.002850	2.14	24.60	18.46	0.48
monte	26.4	Q 200	65.70	6.94	10.26		10.52	0.002895	2.40	32.51	18.51	0.49
monte	26.1	Q 50	45.40	6.80	9.82	8.82	10.02	0.002493	2.02	26.06	20.93	0.45
monte	26.1	Q 200	65.70	6.80	10.26	9.53	10.49	0.002463	2.24	35.26	22.13	0.46
monte	26		Bridge									
monte	25.9	Q 50	45.40	6.80	9.58	8.82	9.86	0.004044	2.40	20.91	20.84	0.57
monte	25.9	Q 200	65.70	6.80	10.14		10.40	0.003011	2.41	32.65	21.05	0.50
monte	25.5	Q 50	45.40	6.60	9.09	8.75	9.72	0.009501	3.54	13.75	14.00	0.77
monte	25.5	Q 200	65.70	6.60	9.79		10.30	0.006550	3.38	23.50	14.07	0.64
monte	25	Q 50	45.40	6.48	8.84	8.65	9.56	0.011468	3.76	12.09	7.29	0.86
monte	25	Q 200	65.70	6.48	9.55	9.36	10.18	0.007910	3.66	20.99	14.61	0.72
monte	24	Q 50	45.40	6.15	8.86	8.33	9.39	0.007411	3.22	14.47	10.52	0.68
monte	24	Q 200	65.70	6.15	9.53	9.05	10.06	0.006153	3.34	22.26	11.65	0.62
monte	23.5	Q 50	45.40	6.12	8.61		9.31	0.010713	3.70	12.28	6.72	0.80
monte	23.5	Q 200	65.70	6.12	9.06	9.06	9.96	0.011847	4.29	16.77	10.75	0.85

HEC-RAS Plan: San_Lorenzo_ (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
monte	23	Q 50	45.40	6.12	8.55	8.36	9.28	0.012392	3.79	11.96	6.07	0.86
monte	23	Q 200	65.70	6.12	8.96	9.06	9.94	0.013856	4.43	16.02	11.13	0.92
monte	22.1	Q 50	45.40	5.75	8.74		9.13	0.005306	2.77	17.26	12.16	0.57
monte	22.1	Q 200	65.70	5.75	8.02	8.50	9.73	0.032482	5.80	11.33	6.61	1.41
monte	22	Q 50	45.40	5.38	8.79		9.10	0.004000	2.49	19.36	12.86	0.49
monte	22	Q 200	65.70	5.38	7.66	8.24	9.68	0.042019	6.29	10.44	6.52	1.59
monte	21.5	Q 50	45.40	5.37	8.74		9.04	0.003571	2.59	22.15	14.79	0.48
monte	21.5	Q 200	65.70	5.37	8.93	8.61	9.42	0.005592	3.38	24.98	14.79	0.61
monte	21.4	Q 50	45.40	5.29	8.83		8.97	0.001412	1.82	34.28	20.64	0.32
monte	21.4	Q 200	65.70	5.29	9.10		9.31	0.001999	2.28	39.87	20.64	0.39
monte	21.1	Q 50	45.40	5.24	8.81	7.61	8.96	0.001585	1.90	33.17	20.62	0.35
monte	21.1	Q 200	65.70	5.24	9.08	8.36	9.29	0.002231	2.38	38.58	20.62	0.42
monte	21		Bridge									
monte	20.9	Q 50	45.40	5.24	8.04	7.61	8.60	0.007342	3.35	14.86	12.38	0.71
monte	20.9	Q 200	65.70	5.24	8.61		9.20	0.006238	3.59	21.95	12.62	0.68
monte	20.5	Q 50	45.40	5.03	8.10		8.51	0.005564	2.95	18.56	16.01	0.60
monte	20.5	Q 200	65.70	5.03	8.70		9.10	0.004542	3.07	28.17	18.25	0.56
monte	20.1	Q 50	45.40	4.98	8.03	7.35	8.48	0.005854	3.02	16.91	15.07	0.61
monte	20.1	Q 200	65.70	4.98	8.69	8.20	9.08	0.004236	3.00	29.51	23.09	0.54
monte	20		Bridge									
monte	19.9	Q 50	45.40	4.98	7.48	7.35	8.30	0.013468	4.00	11.35	5.71	0.91
monte	19.9	Q 200	65.70	4.98	8.20	8.20	8.96	0.009279	3.97	19.64	17.27	0.77
monte	19.6	Q 50	45.40	4.93	7.48	7.27	8.20	0.011370	3.77	12.03	6.05	0.85
monte	19.6	Q 200	65.70	4.93	7.83	7.99	8.85	0.013812	4.52	15.74	11.78	0.95

HEC-RAS Plan: San_Lorenzo_ (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
monte	19.5	Q 50	45.40	4.98	7.51	7.15	8.09	0.008354	3.39	13.48	9.23	0.76
monte	19.5	Q 200	65.70	4.98	7.52	7.83	8.73	0.017157	4.87	13.60	9.81	1.09
monte	19	Q 50	45.40	4.98	7.73		7.99	0.002930	2.25	21.22	15.11	0.49
monte	19	Q 200	65.70	4.98	8.28	7.28	8.57	0.002719	2.47	30.06	20.36	0.48
monte	18	Q 50	45.40	4.61	7.35	6.94	7.87	0.007367	3.22	14.43	11.91	0.72
monte	18	Q 200	65.70	4.61	7.82	7.57	8.46	0.007505	3.62	20.07	12.01	0.73
monte	17.5	Q 50	45.40	4.30	7.33		7.68	0.003996	2.63	18.39	12.09	0.52
monte	17.5	Q 200	65.70	4.30	7.80	6.89	8.25	0.004474	3.06	25.05	22.06	0.56
monte	17.1	Q 50	45.40	4.33	7.27	6.45	7.65	0.004733	2.79	17.69	12.86	0.56
monte	17.1	Q 200	65.70	4.33	7.81	7.19	8.21	0.004295	2.97	27.76	18.16	0.54
monte	17		Bridge									
monte	16.9	Q 50	45.40	4.32	7.03		7.35	0.003728	2.50	18.81	16.20	0.54
monte	16.9	Q 200	65.70	4.32	7.62		7.95	0.003037	2.63	30.17	20.67	0.50
monte	16.5	Q 50	45.40	4.32	6.92	6.25	7.31	0.004747	2.77	17.12	16.62	0.59
monte	16.5	Q 200	65.70	4.32	7.56		7.92	0.003447	2.79	29.10	18.87	0.53
monte	16.1	Q 50	45.40	4.29	6.91	6.24	7.27	0.004709	2.67	17.79	15.95	0.58
monte	16.1	Q 200	65.70	4.29	7.54	6.65	7.90	0.003838	2.75	27.79	15.95	0.52
monte	16		Bridge									
monte	15.9	Q 50	45.40	4.08	6.75		7.11	0.005167	2.67	17.73	15.41	0.59
monte	15.9	Q 200	65.70	4.08	7.38		7.73	0.004035	2.72	27.98	16.15	0.52
monte	15	Q 50	45.40	4.06	6.73		7.10	0.004509	2.71	17.91	13.93	0.55
monte	15	Q 200	65.70	4.06	7.29		7.71	0.004165	2.98	25.74	13.93	0.55
monte	14	Q 50	45.40	3.89	6.76		7.05	0.003335	2.46	20.58	16.01	0.50
monte	14	Q 200	65.70	3.89	7.34		7.67	0.002930	2.66	29.93	16.01	0.49

HEC-RAS Plan: San_Lorenzo_ (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
monte	13	Q 50	45.40	3.55	6.78		7.00	0.002383	2.15	25.22	19.75	0.41
monte	13	Q 200	65.70	3.55	7.39		7.61	0.002056	2.28	37.12	19.75	0.40
monte	10	Q 50	45.40	3.48	6.50	5.70	6.95	0.005928	3.00	15.80	13.99	0.59
monte	10	Q 200	65.70	3.48	7.21		7.58	0.003990	2.88	29.96	20.00	0.50
monte	9	Q 50	45.40	3.48	6.59		6.91	0.003763	2.50	19.58	20.00	0.48
monte	9	Q 200	65.70	3.48	7.27		7.55	0.003000	2.49	33.14	20.00	0.43
monte	8	Q 50	48.00	3.14	6.64		6.85	0.002167	2.05	25.46	16.00	0.38
monte	8	Q 200	69.50	3.14	7.28		7.52	0.002170	2.26	35.58	16.00	0.38
valle	7.5	Q 50	78.80	3.00	6.23	5.50	6.77	0.005729	3.25	24.25	8.90	0.63
valle	7.5	Q 200	114.00	3.00	6.73	6.06	7.42	0.006861	3.76	33.73	14.57	0.67
valle	7.4		Lat Struct									
valle	7.1	Q 50	78.75	2.90	6.30	5.17	6.67	0.003659	2.72	31.03	14.22	0.50
valle	7.1	Q 200	109.72	2.90	6.81	5.67	7.30	0.004174	3.15	38.35	14.22	0.53
valle	7		Bridge									
valle	6.9	Q 50	78.75	2.90	6.19	5.17	6.62	0.004063	2.88	27.32	9.23	0.53
valle	6.9	Q 200	109.72	2.90	6.78	5.67	7.28	0.004310	3.19	37.87	14.22	0.54
valle	6.8		Lat Struct									
valle	6.1	Q 50	78.75	2.80	6.07	5.15	6.55	0.005076	3.08	25.54	9.23	0.59
valle	6.1	Q 200	105.50	2.80	6.73	5.67	7.22	0.004739	3.18	36.43	14.30	0.55
valle	6		Bridge									
valle	5.9	Q 50	78.75	2.80	5.91	5.15	6.45	0.006011	3.27	24.06	9.23	0.65
valle	5.9	Q 200	105.50	2.80	6.67	5.67	7.18	0.005035	3.25	35.58	14.30	0.56
valle	5.8		Lat Struct									

HEC-RAS Plan: San_Lorenzo_ (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
valle	5	Q 50	78.75	2.65	5.13	5.13	6.24	0.014627	4.66	16.89	7.63	1.00
valle	5	Q 200	103.94	2.65	6.63	5.85	7.12	0.005299	3.14	36.22	19.00	0.60
valle	4.5	Q 50	78.75	2.65	4.69	5.08	6.20	0.026966	5.44	14.48	9.44	1.40
valle	4.5	Q 200	103.89	2.65	6.69	5.47	7.09	0.003738	2.83	40.17	19.00	0.51
valle	4.1	Q 50	78.75	2.60	4.46	4.79	5.78	0.024814	5.09	15.48	10.99	1.37
valle	4.1	Q 200	100.77	2.60	6.81	5.10	6.99	0.001356	2.05	64.70	36.63	0.34
valle	4		Bridge									
valle	3.9	Q 50	78.75	2.60	4.79	4.79	5.65	0.013107	4.12	19.09	11.04	1.00
valle	3.9	Q 200	100.77	2.60	6.78	5.10	6.97	0.001573	2.08	63.33	36.63	0.35
valle	3.8		Lat Struct									
valle	3.1	Q 50	78.75	2.15	3.77	4.23	5.41	0.017060	5.68	13.87	9.92	1.53
valle	3.1	Q 200	99.11	2.15	6.78	4.54	6.96	0.000695	1.98	65.94	26.78	0.30
valle	3	Q 50	78.75	2.15	4.32	4.31	5.27	0.010716	4.31	18.25	9.35	0.99
valle	3	Q 200	99.11	2.15	6.65	4.63	6.94	0.005673	2.71	46.14	17.13	0.36
valle	2.95	Q 50	78.75	2.13	4.40	4.04	5.08	0.006804	3.65	21.60	9.50	0.77
valle	2.95	Q 200	99.11	2.13	6.04	4.36	6.80	0.011397	3.86	25.65		0.62
valle	2.90	Q 50	78.75	1.91	4.51	3.82	5.03	0.004763	3.19	24.70	9.50	0.63
valle	2.90	Q 200	99.11	1.91	6.10	4.14	6.76	0.009302	3.60	27.55		0.56
valle	2.85	Q 50	78.75	1.90	4.37	3.79	4.96	0.009706	3.40	23.16		0.69
valle	2.85	Q 200	99.11	1.90	5.69	4.11	6.62	0.015374	4.28	23.16		0.70
valle	2.80	Q 50	78.75	1.90	4.41	3.72	4.94	0.008482	3.22	24.48		0.65
valle	2.80	Q 200	99.11	1.90	5.76	4.03	6.59	0.013435	4.05	24.48		0.66
valle	2.75	Q 50	78.75	1.33	4.23	3.05	4.71	0.007755	3.07	25.64		0.58
valle	2.75	Q 200	99.11	1.33	5.46	3.33	6.22	0.012284	3.87	25.64		0.61

HEC-RAS Plan: San_Lorenzo_ (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
valle	2.70	Q 50	78.75	1.27	4.06	2.96	4.59	0.008979	3.21	24.51		0.61
valle	2.70	Q 200	99.11	1.27	5.20	3.24	6.03	0.014223	4.04	24.51		0.65
valle	2.60	Q 50	78.75	0.99	3.77	2.88	4.33	0.009157	3.33	23.64		0.64
valle	2.60	Q 200	99.11	0.99	4.73	3.20	5.63	0.014504	4.19	23.64		0.69
valle	2.55	Q 50	78.75	0.95	3.61	2.74	4.10	0.007532	3.08	25.60		0.60
valle	2.55	Q 200	99.11	0.95	4.49	3.04	5.25	0.011931	3.87	25.60		0.66
valle	2.50	Q 50	78.75	0.95	3.04	2.65	4.04	0.022209	4.43	17.76		0.98
valle	2.50	Q 200	99.11	0.95	3.58	2.65	5.17	0.035178	5.58	17.76		1.10
valle	2.45	Q 50	78.75	0.83	2.84	2.63	3.77	0.019568	4.27	18.45		0.96
valle	2.45	Q 200	99.11	0.83	3.27	2.63	4.74	0.030995	5.37	18.45		1.10
valle	2.40	Q 50	78.75	0.83	2.90	2.59	3.74	0.017505	4.07	19.35		0.90
valle	2.40	Q 200	99.11	0.83	3.36	2.63	4.70	0.027728	5.12	19.35		1.03
valle	2.30	Q 50	78.75	0.67	2.50	2.50	3.44	0.010710	4.30	18.32	10.00	1.01
valle	2.30	Q 200	99.11	0.67	2.55	2.50	4.05	0.031277	5.42	18.30		1.26
valle	2.25	Q 50	78.75	0.50	2.13	2.31	3.24	0.013732	4.68	16.82	10.35	1.17
valle	2.25	Q 200	99.11	0.50	2.50	2.50	3.67	0.012169	4.78	20.72	10.35	1.08
valle	2.20	Q 50	78.75	0.50	1.87	2.21	3.21	0.018363	5.13	15.35	11.20	1.40
valle	2.20	Q 200	99.11	0.50	2.14	2.50	3.63	0.017527	5.41	18.32	11.20	1.35
valle	2.15	Q 50	78.75	0.45	2.01	2.13	2.98	0.011691	4.36	18.04	11.55	1.11
valle	2.15	Q 200	99.11	0.45	2.25	2.40	3.41	0.012410	4.77	20.77	11.55	1.14
valle	2.10	Q 50	78.75	0.44	1.93	2.02	2.82	0.010719	4.18	18.85	12.65	1.09
valle	2.10	Q 200	99.11	0.44	2.25	2.28	3.20	0.009774	4.34	22.84	12.65	1.03
valle	2	Q 50	78.75	0.15	1.69	1.55	2.27	0.006368	3.39	23.26	15.15	0.87
valle	2	Q 200	99.11	0.15	1.58	1.79	2.65	0.012408	4.57	21.69	15.15	1.22
valle	1.9	Q 50	78.75	0.15	1.58	1.54	2.24	0.007614	3.59	21.95	15.35	0.96

HEC-RAS Plan: San_Lorenzo_ (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
valle	1.9	Q 200	99.11	0.15	1.58	1.77	2.62	0.012043	4.51	21.96	15.35	1.20
valle	1.1	Q 50	78.75	0.15	1.66	1.48	2.18	0.004650	3.20	24.58	16.30	0.83
valle	1.1	Q 200	99.11	0.15	1.42	1.70	2.59	0.012687	4.79	20.67	16.30	1.36
valle	1		Bridge									
valle	0.9	Q 50	78.75	-0.50	0.96	0.83	1.52	0.005106	3.30	23.86	16.30	0.87
valle	0.9	Q 200	99.11	-0.50	0.55	1.06	2.26	0.023214	5.80	17.08	16.30	1.81
valle	0.6	Q 50	78.75	-0.55	0.98	0.80	1.51	0.004640	3.22	24.47	16.00	0.83
valle	0.6	Q 200	99.11	-0.55	0.51	1.02	2.25	0.023438	5.85	16.93	16.00	1.82
valle	0.5		Bridge									
valle	0.4	Q 50	80.35	-0.55	0.50	0.26	0.55	0.001474	1.52	119.04	187.90	0.49
valle	0.4	Q 200	99.11	-0.55	0.04	0.30	1.84	0.078640	7.36	32.52	187.90	3.21

HEC-RAS Plan: San_Lorenzo_ River: rio Sorba Reach: rio Sorba

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
rio Sorba	105	Q 50 x sorba	45.40	5.10	7.34	6.94	7.92	0.008438	3.37	13.79	8.42	0.74
rio Sorba	105	Q 200 x sorba	65.70	5.10	7.81	7.52	8.58	0.009317	3.92	17.72	8.46	0.78
rio Sorba	104	Q 50 x sorba	45.40	4.95	6.96	6.96	7.76	0.012343	3.97	11.95	8.39	0.94
rio Sorba	104	Q 200 x sorba	65.70	4.95	7.42	7.42	8.40	0.012325	4.46	15.83	8.43	0.95
rio Sorba	103	Q 50 x sorba	45.40	4.85	6.45	6.70	7.54	0.020703	4.65	10.26	8.39	1.20
rio Sorba	103	Q 200 x sorba	65.70	4.85	6.85	7.13	8.18	0.020258	5.21	13.58	8.42	1.20
rio Sorba	102	Q 50 x sorba	45.40	3.49	6.99	5.59	7.19	0.002167	2.08	25.59	11.91	0.37
rio Sorba	102	Q 200 x sorba	65.70	3.49	7.49	6.34	7.76	0.002563	2.47	31.66	12.22	0.41
rio Sorba	101	Q 50 x sorba	45.40	3.34	6.90		7.16	0.002571	2.30	21.31	8.10	0.42
rio Sorba	101	Q 200 x sorba	65.70	3.34	7.31		7.72	0.003528	2.91	24.70	8.41	0.50
rio Sorba	100.5	Q 50 x sorba	45.40	3.21	6.91		7.14	0.002286	2.15	22.63	8.36	0.38
rio Sorba	100.5	Q 200 x sorba	65.70	3.21	7.33		7.69	0.003268	2.72	26.11	8.40	0.46
rio Sorba	100	Q 50 x sorba	45.40	3.28	6.16	5.24	7.05	0.037323	4.19	11.21	8.78	0.78
rio Sorba	100	Q 200 x sorba	65.70	3.28	7.45	5.35	7.61	0.005149	1.97	38.33	22.73	0.28

san_lorenzo_stato_attuale

Torr San Lorenzo valle

Torr San Lorenzo monte

Legend

EG Q 200

EG Q 50

WS Q 50

WS Q 200

Ground

LOB

ROB

Left Levee

Right Levee

Elevation (m)

15

10

5

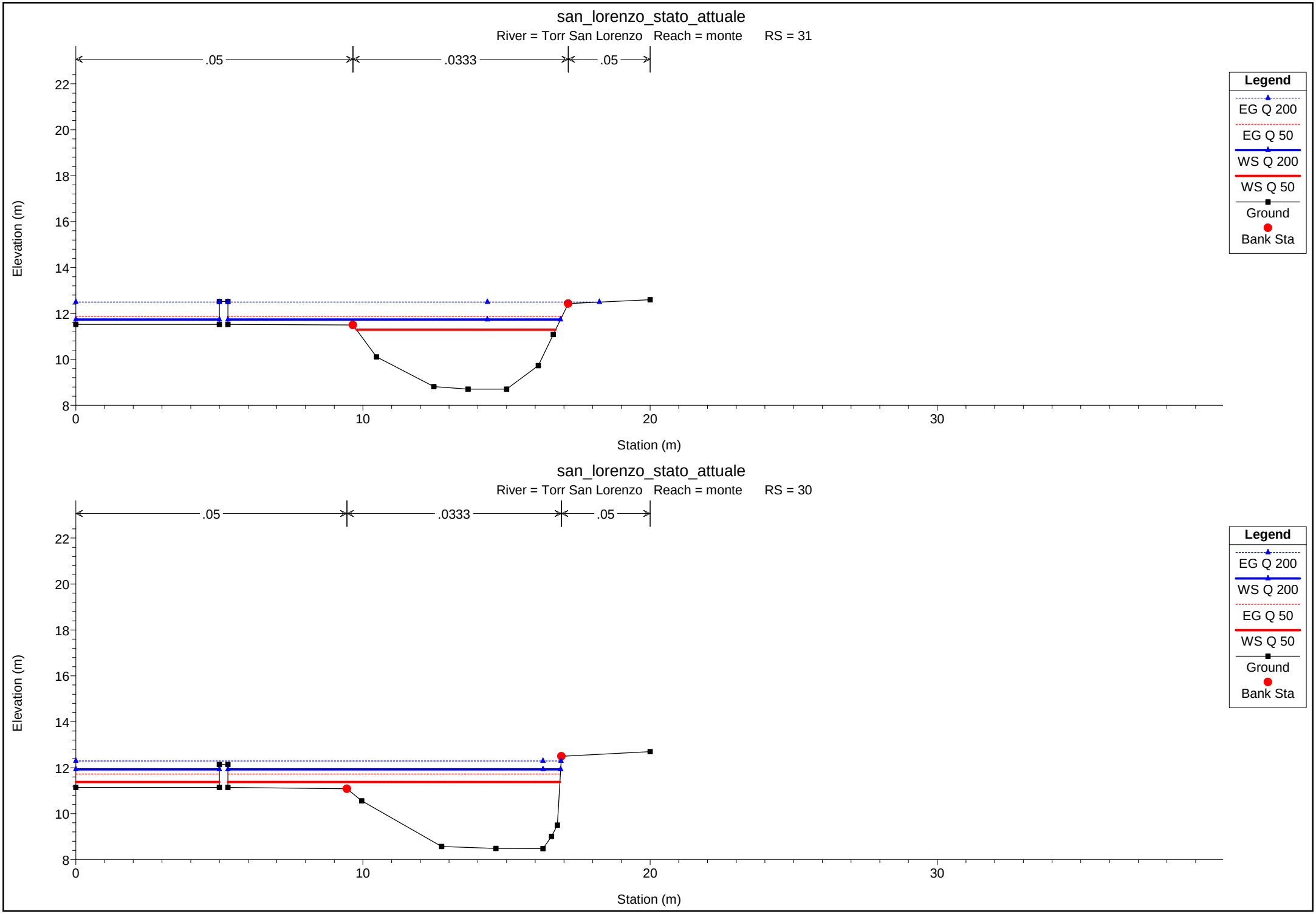
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0.4 0.5 1 2.10 2.15 2.20 2.30 2.40 2.50 2.60 2.70 2.75 2.80 2.90 3 3.9 4.5 5.9 6.9 7.5 8 9 13 14 15.9 16 16.5 16.9 17.5 18 19 19.6 20 20.9 21.4 21.5 22 23 24 25 25.5 25.9 26.4 26.5 26.9 27.3 27.4 27.5 27.9 28.5 28.9 29 29.5 30 31

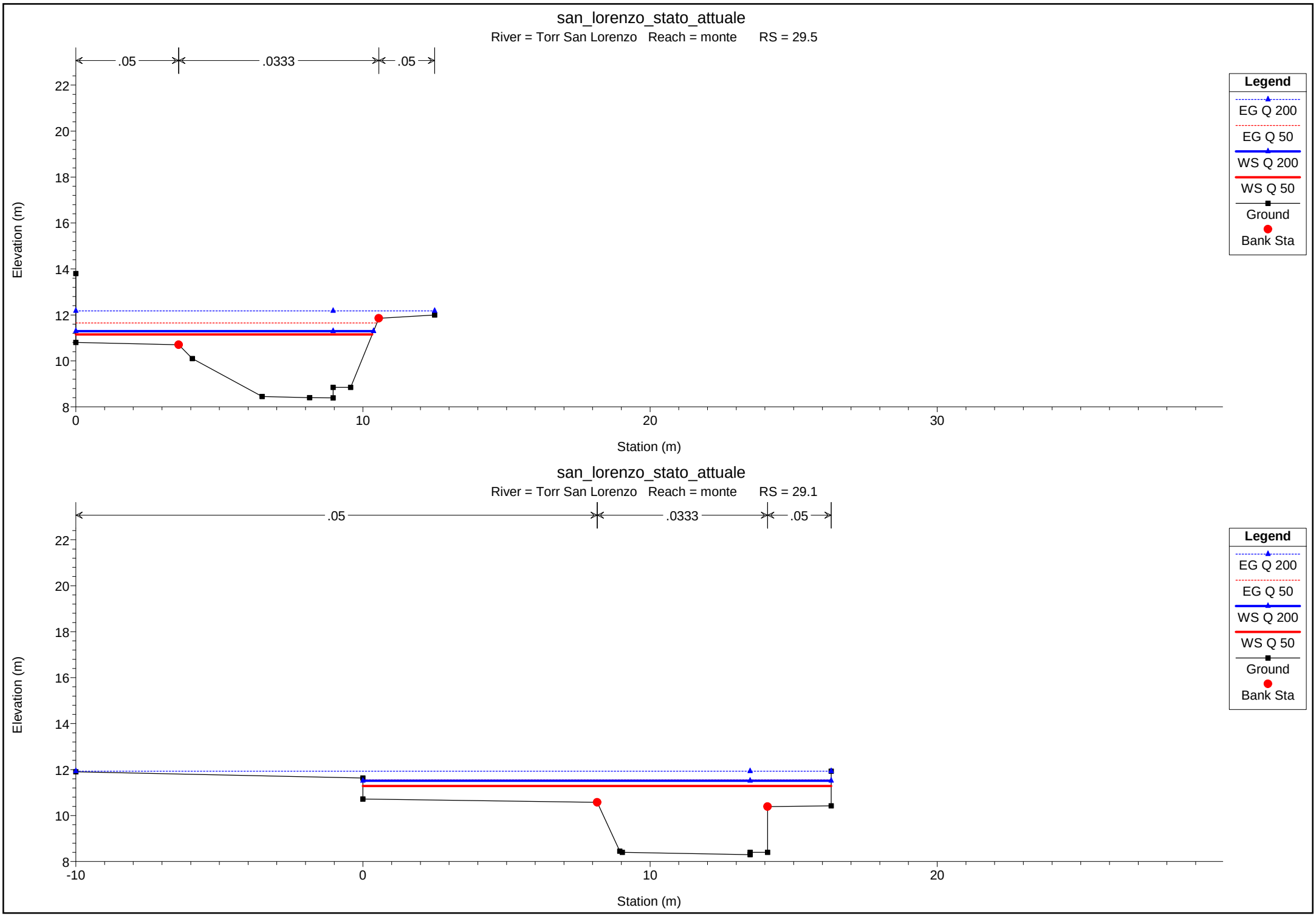
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Main Channel Distance (m)

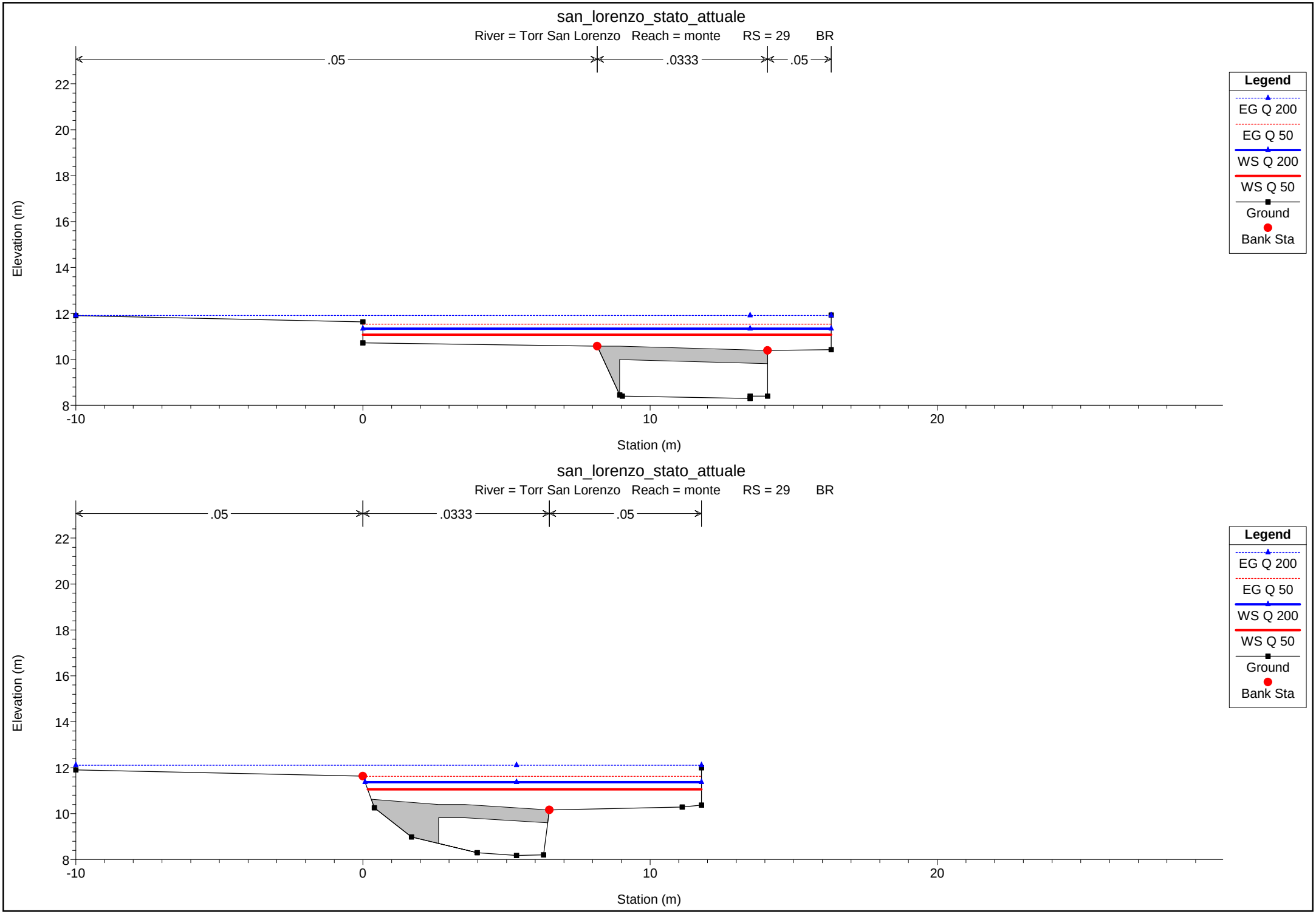
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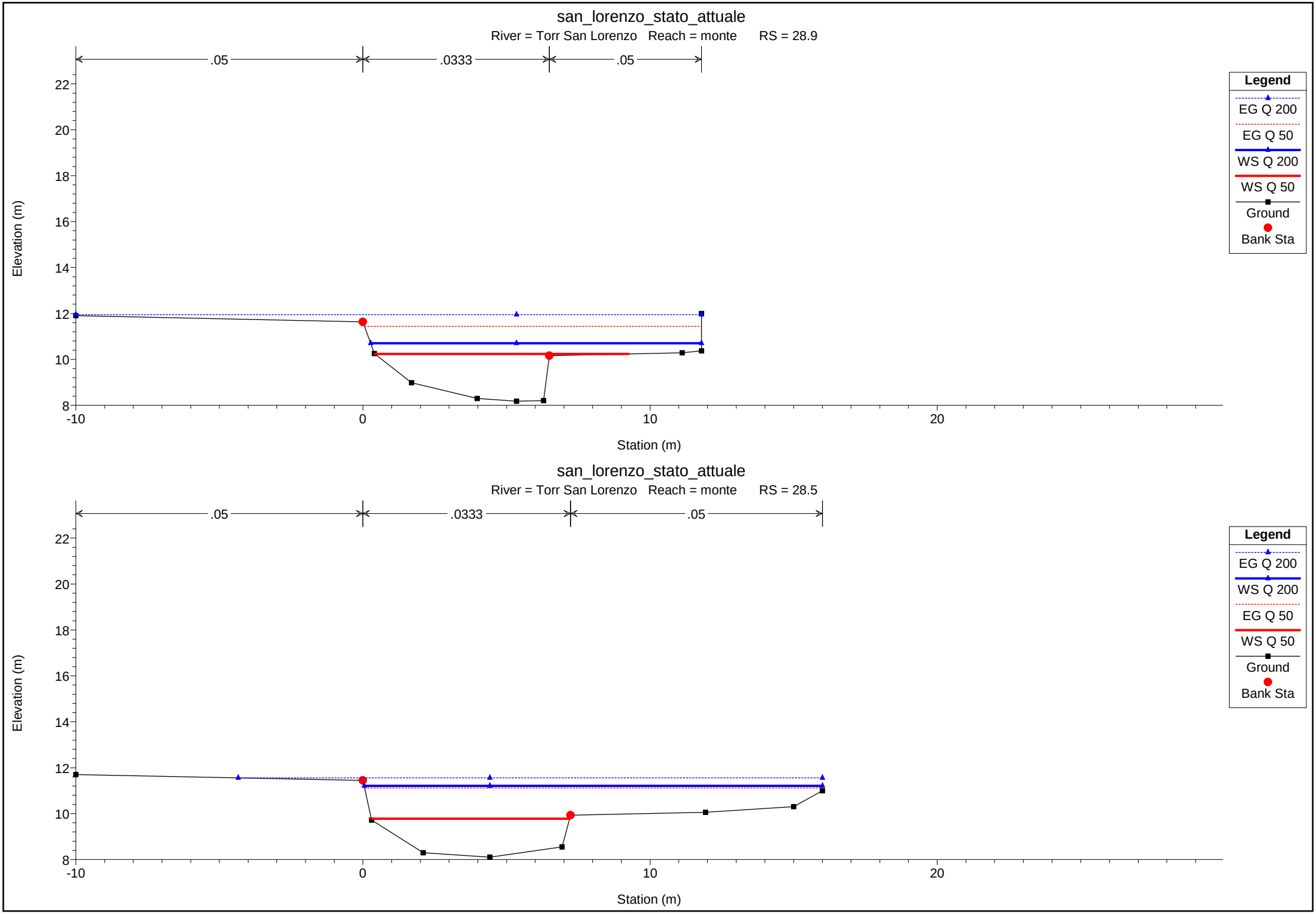
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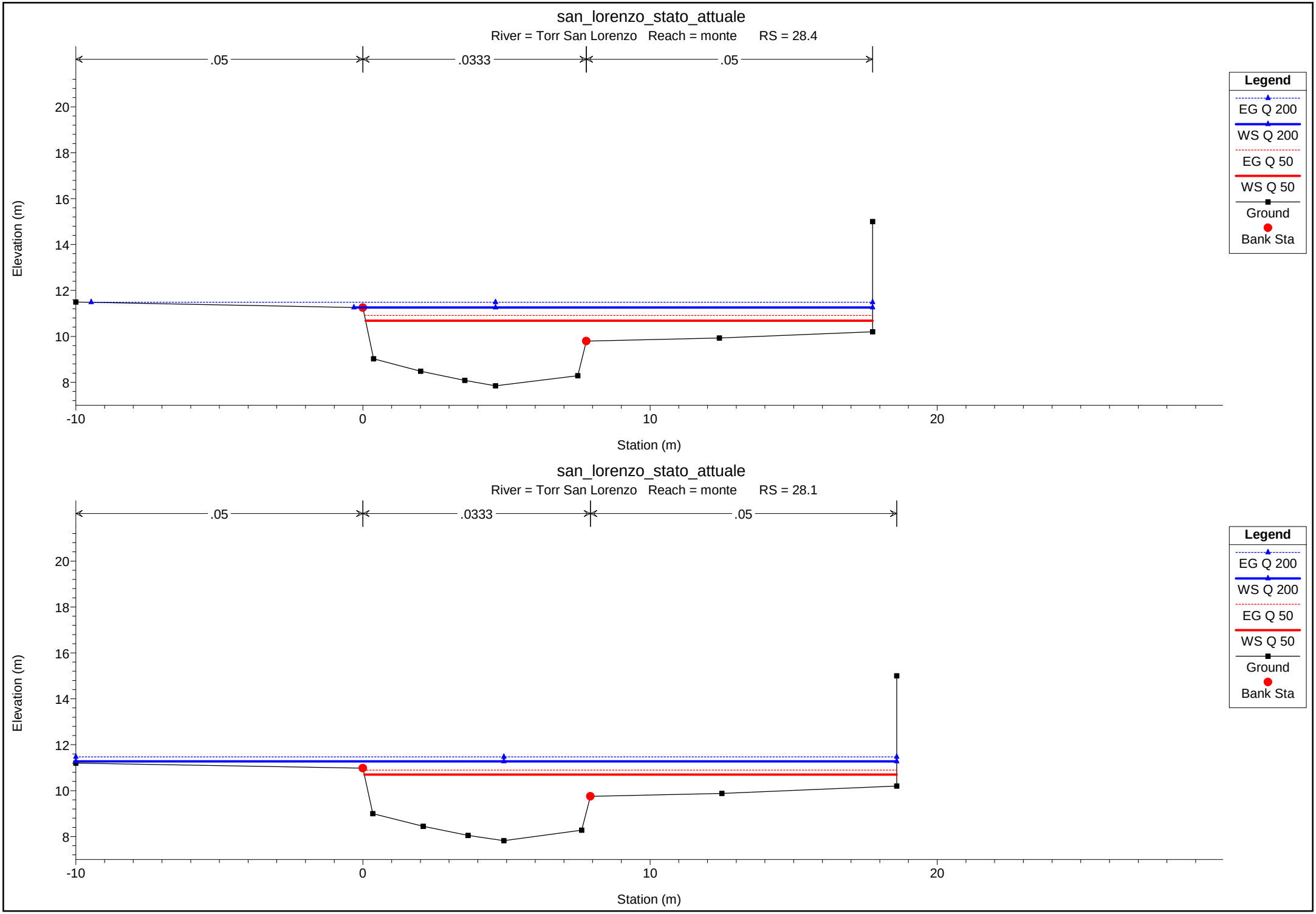
1 cm Horiz. = 1.6 m 1 cm Vert. = 2 m



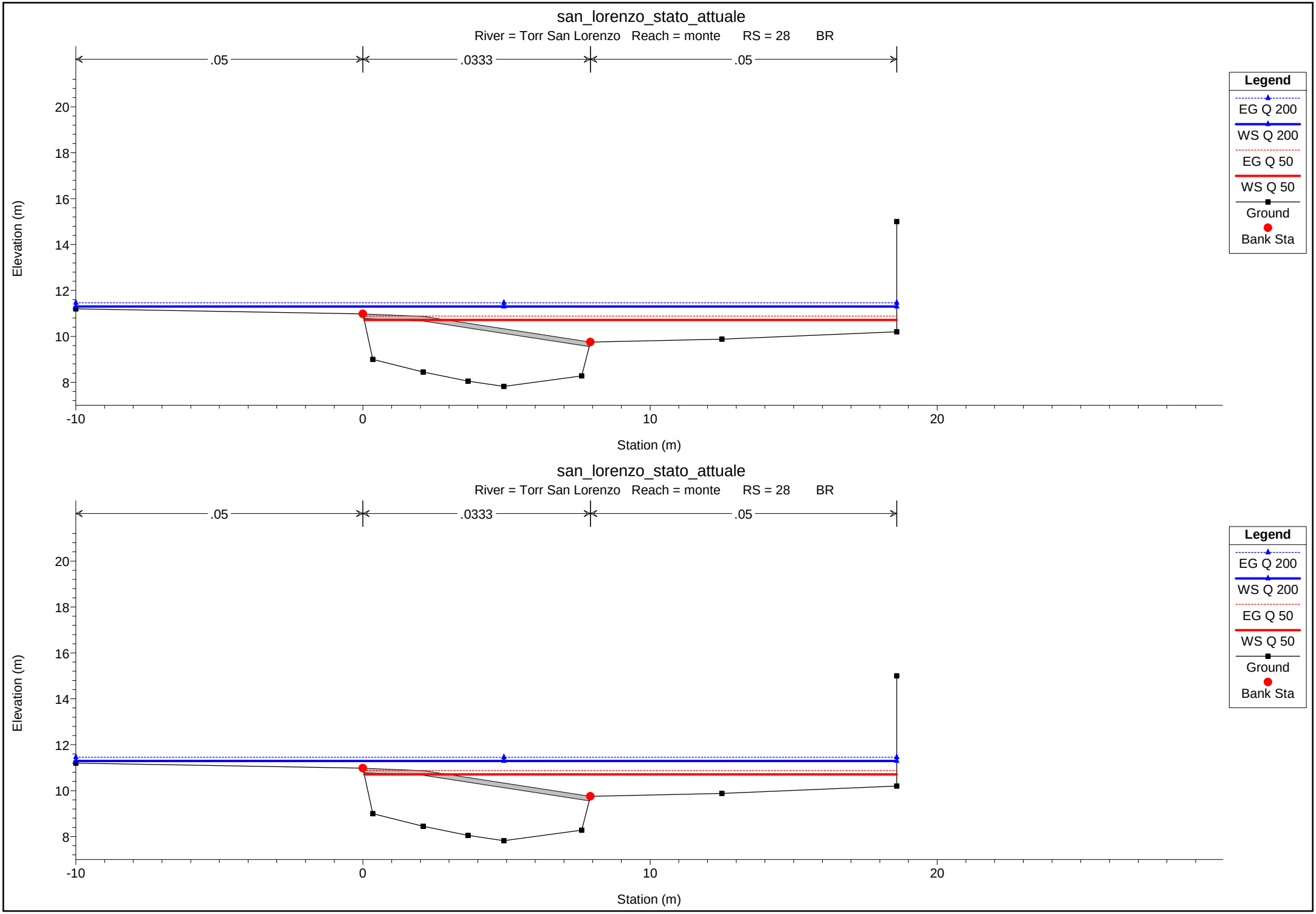
1 cm Horiz. = 1.6 m 1 cm Vert. = 2 m



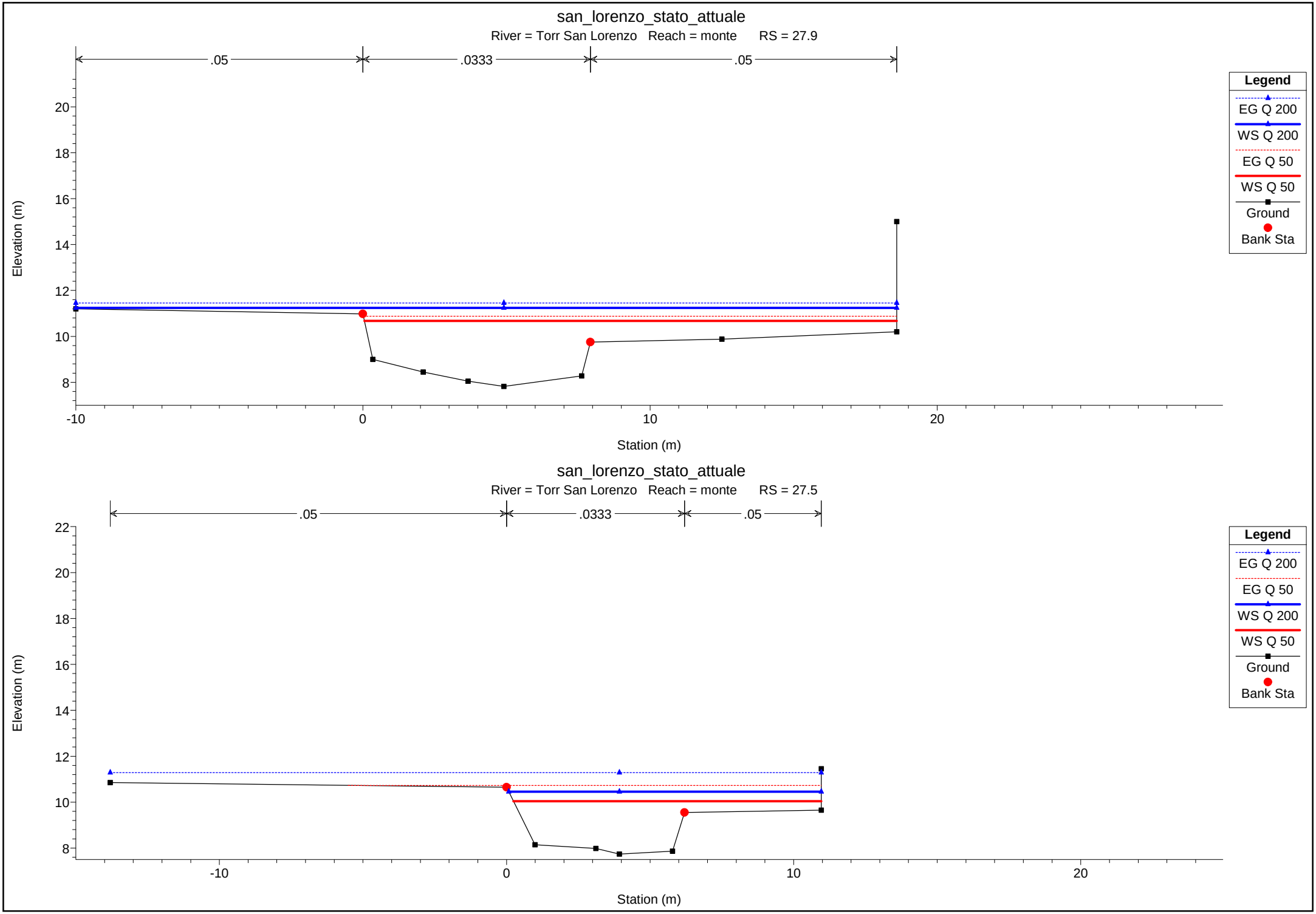
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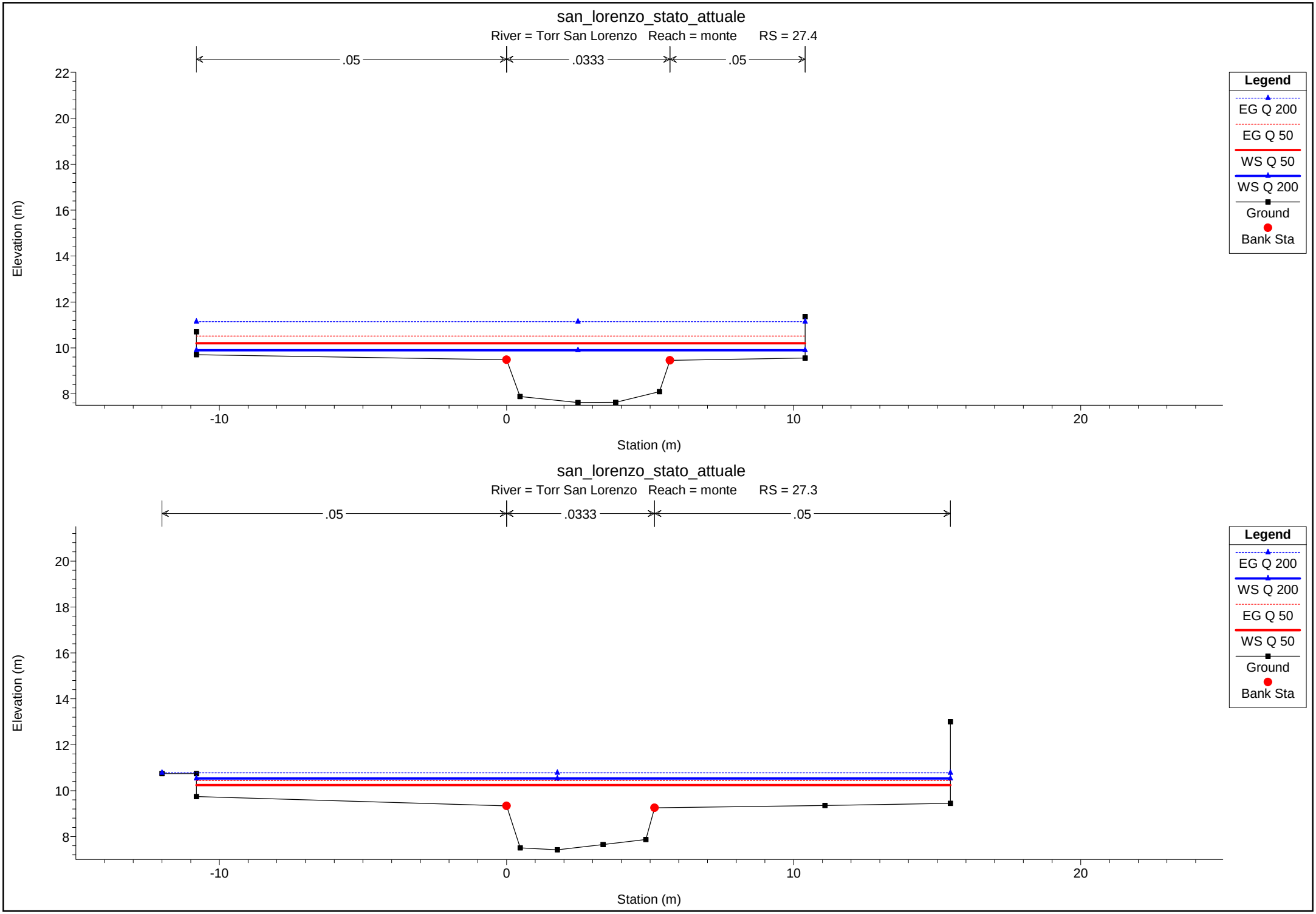
1 cm Horiz. = 1.6 m 1 cm Vert. = 2 m



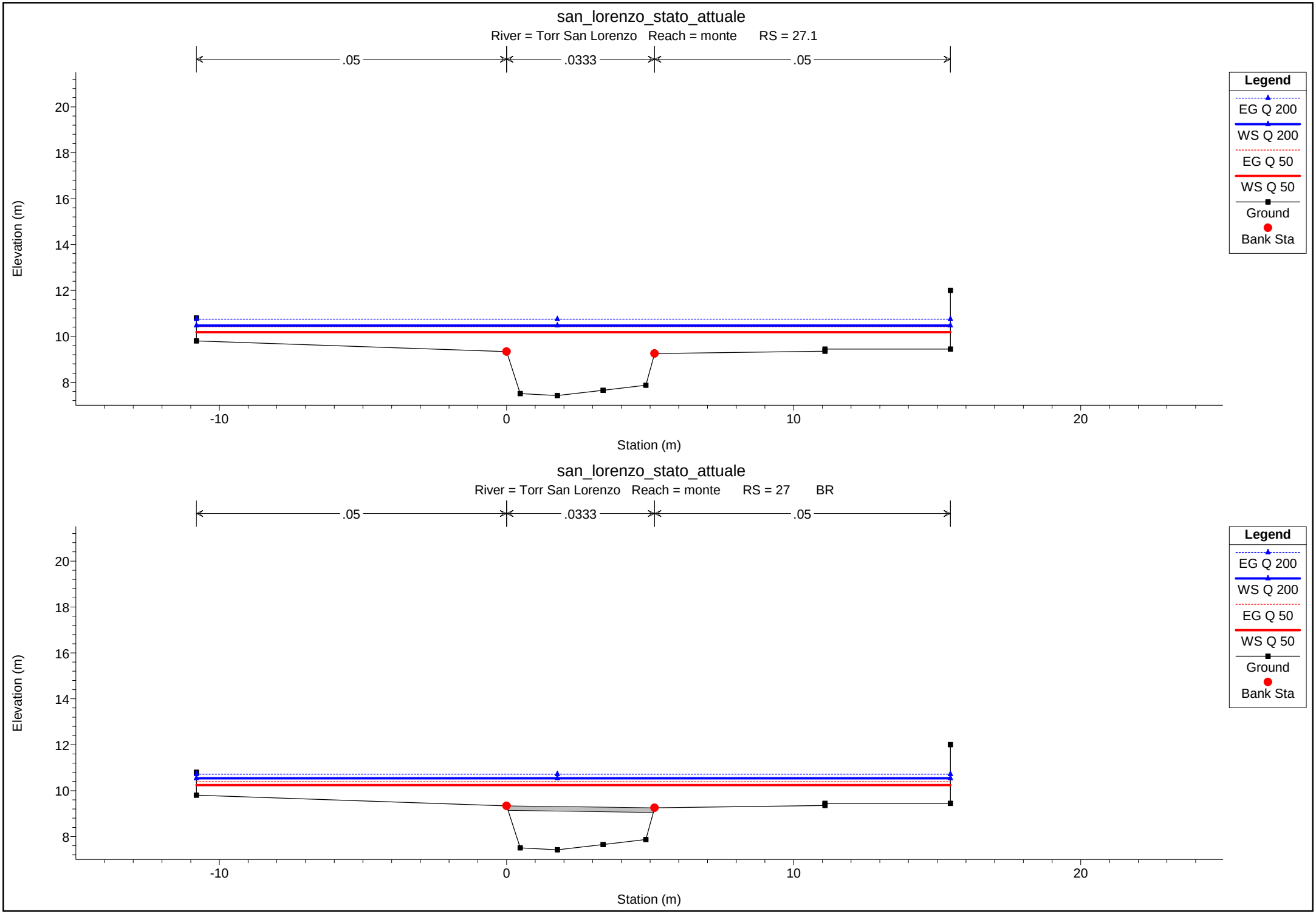
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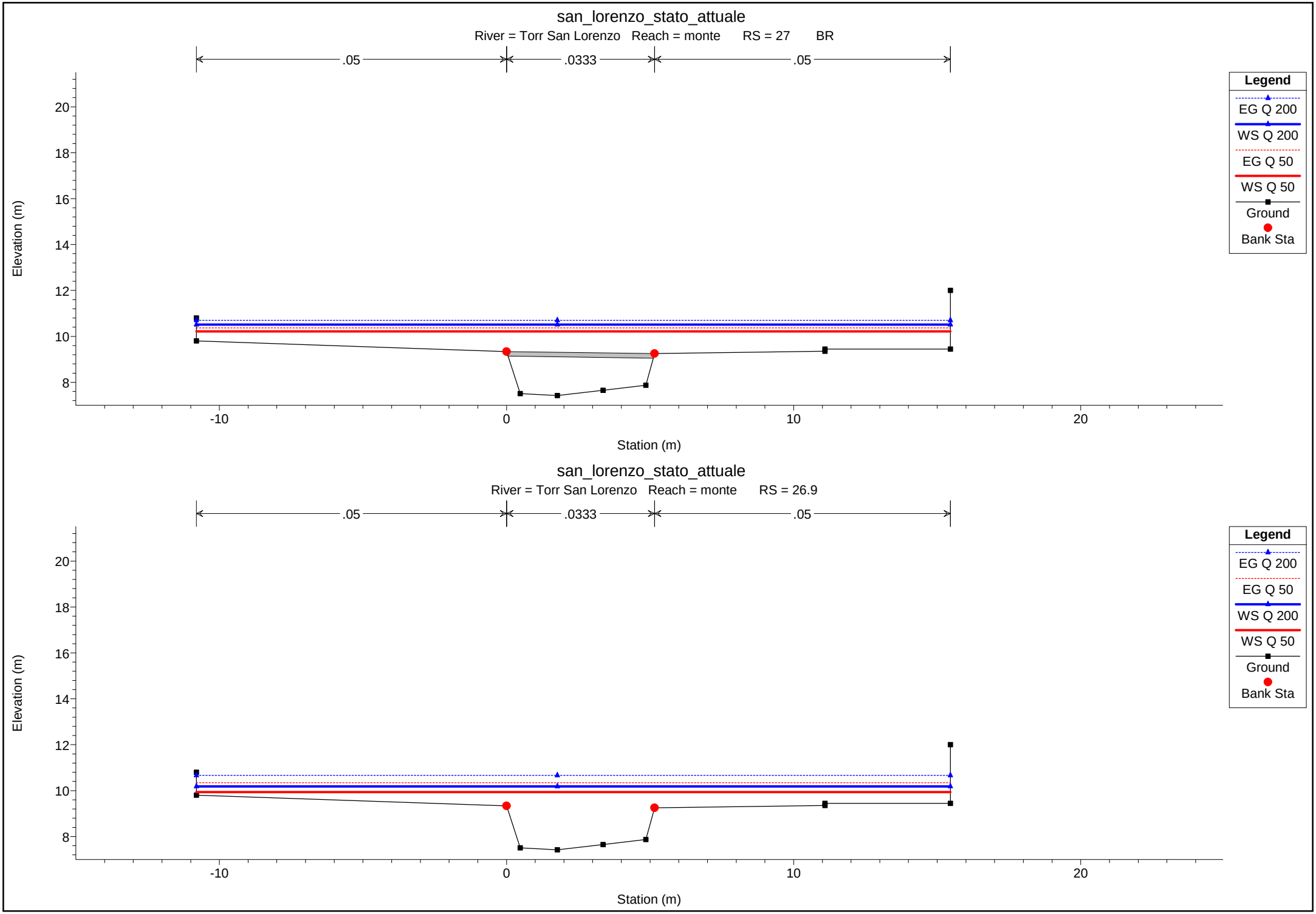
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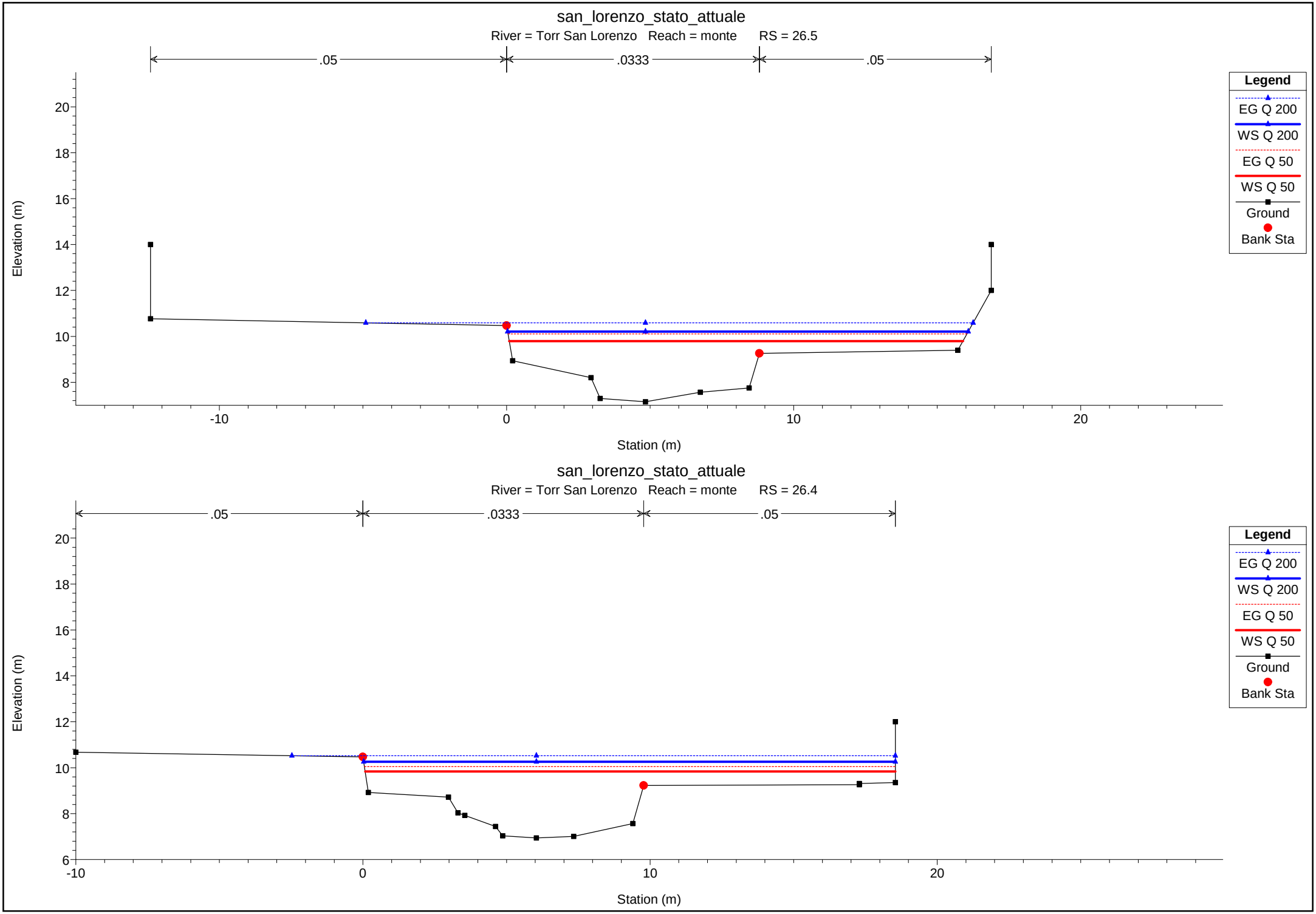
1 cm Horiz. = 1.6 m 1 cm Vert. = 2 m



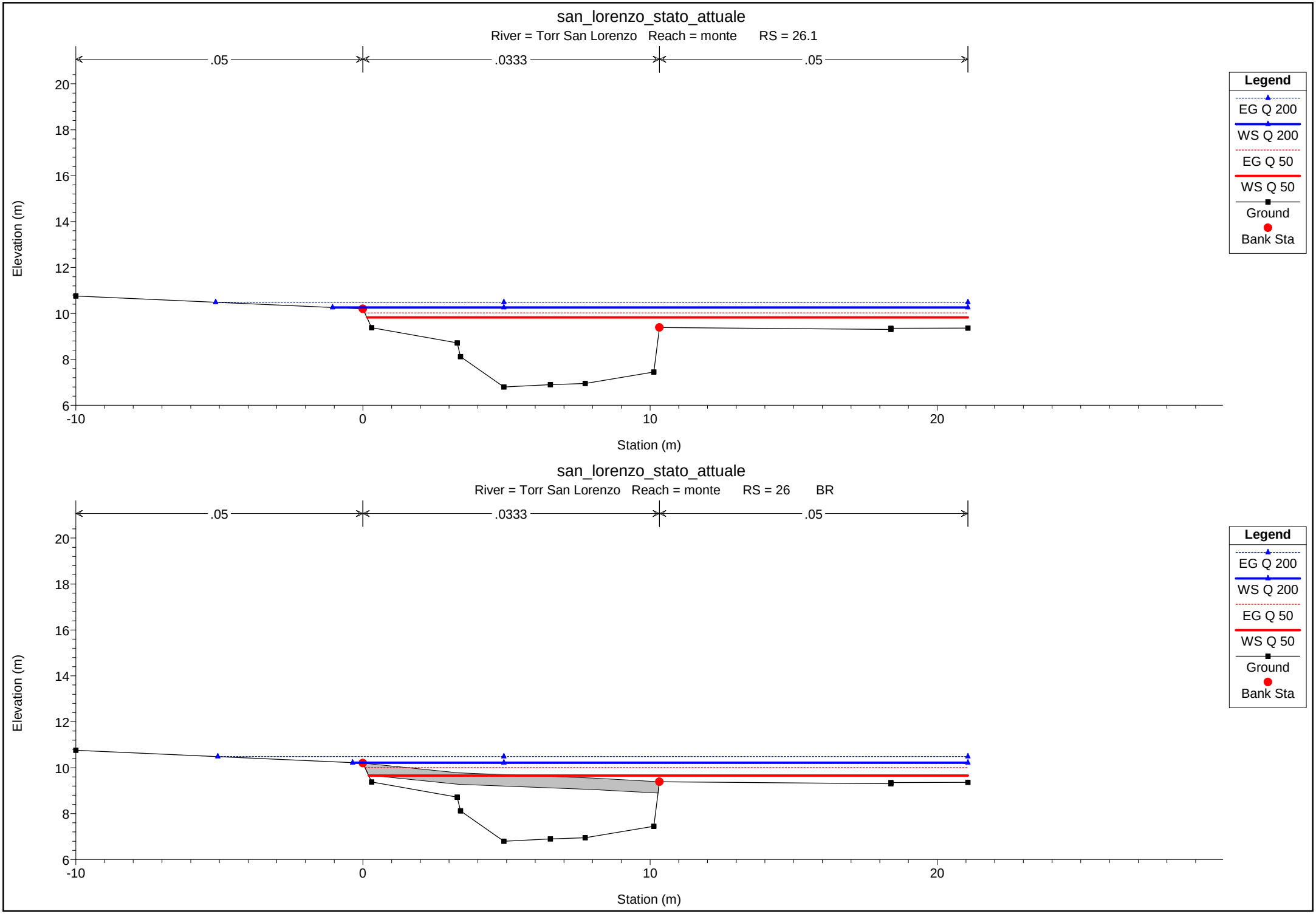
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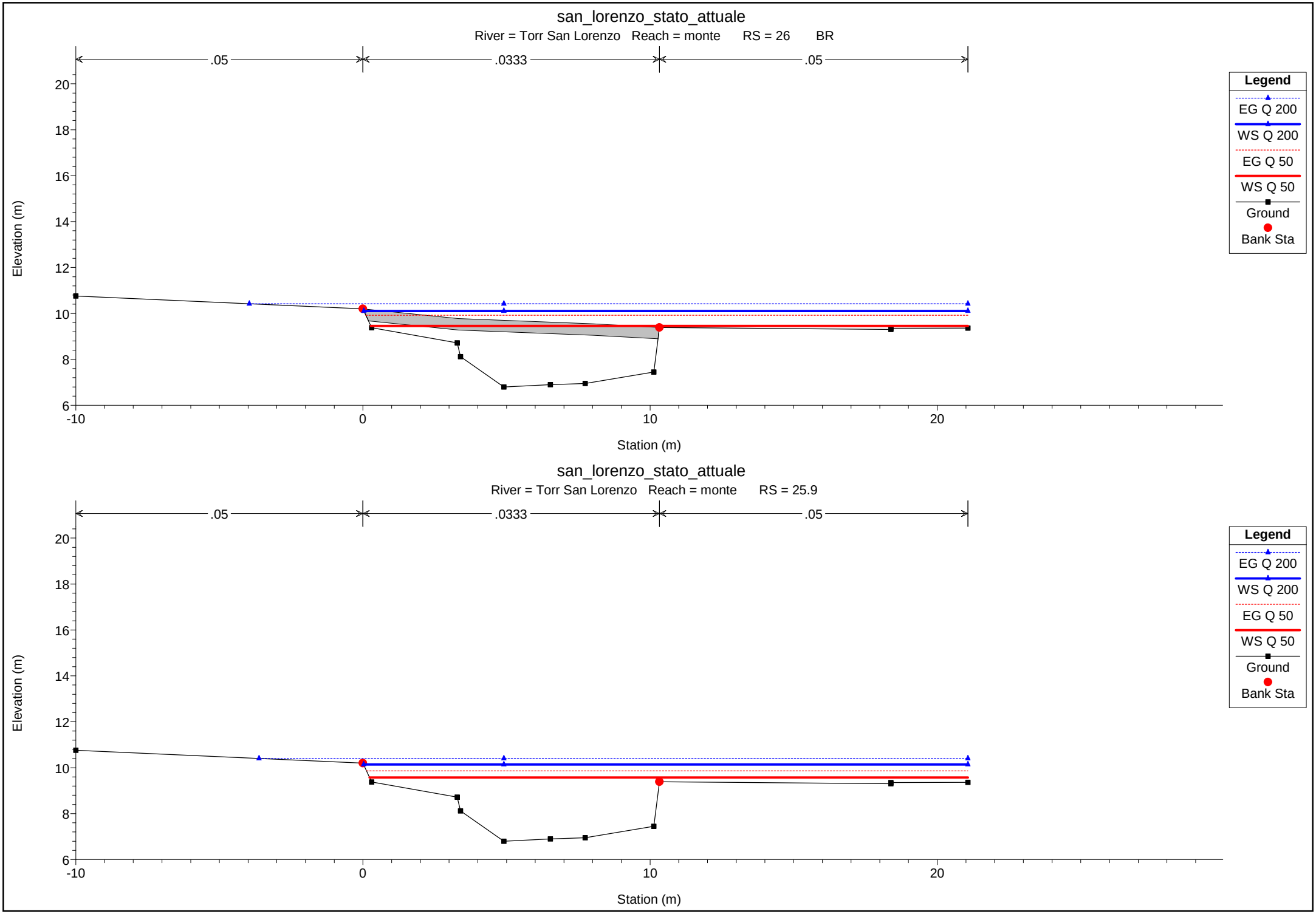
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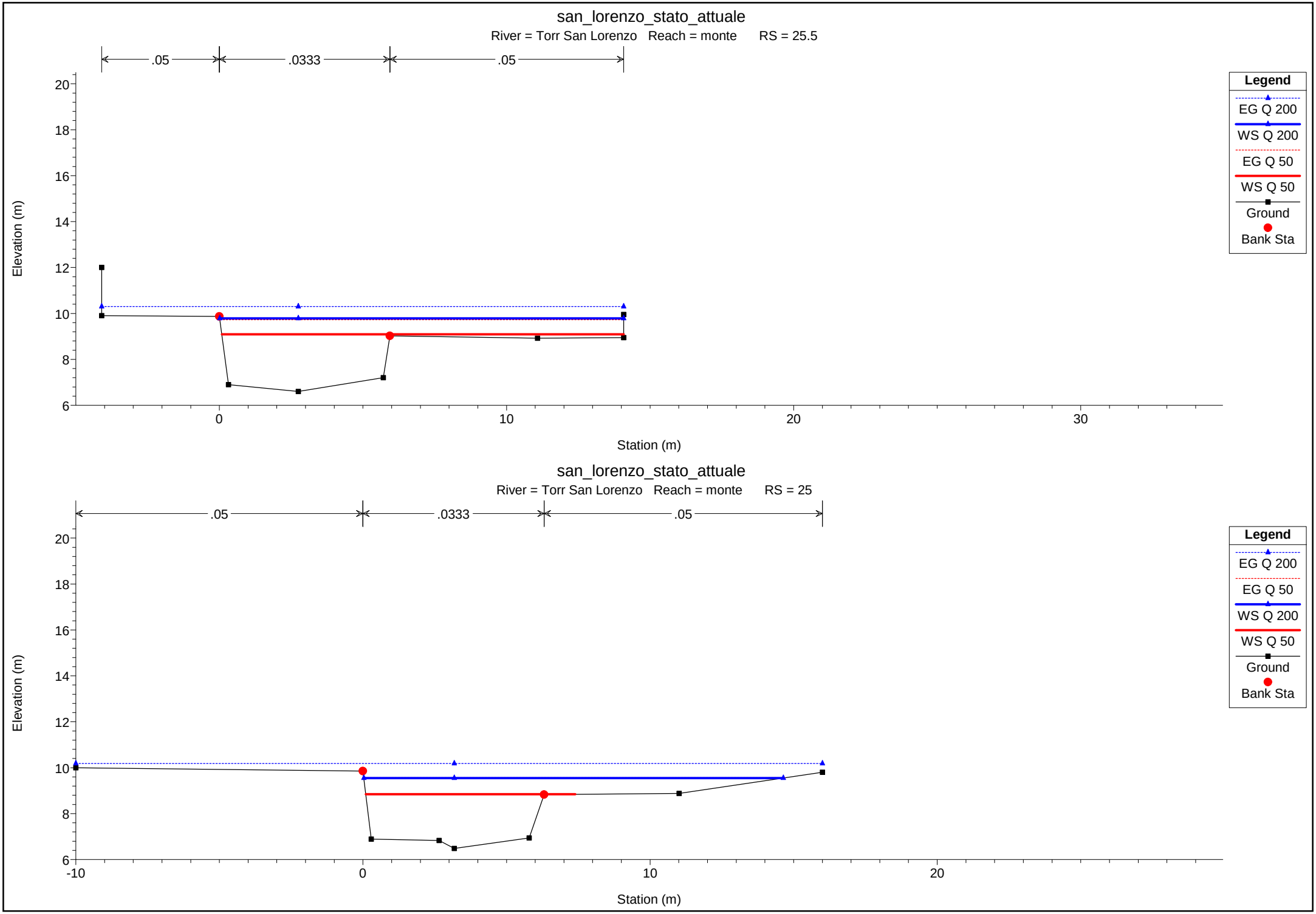
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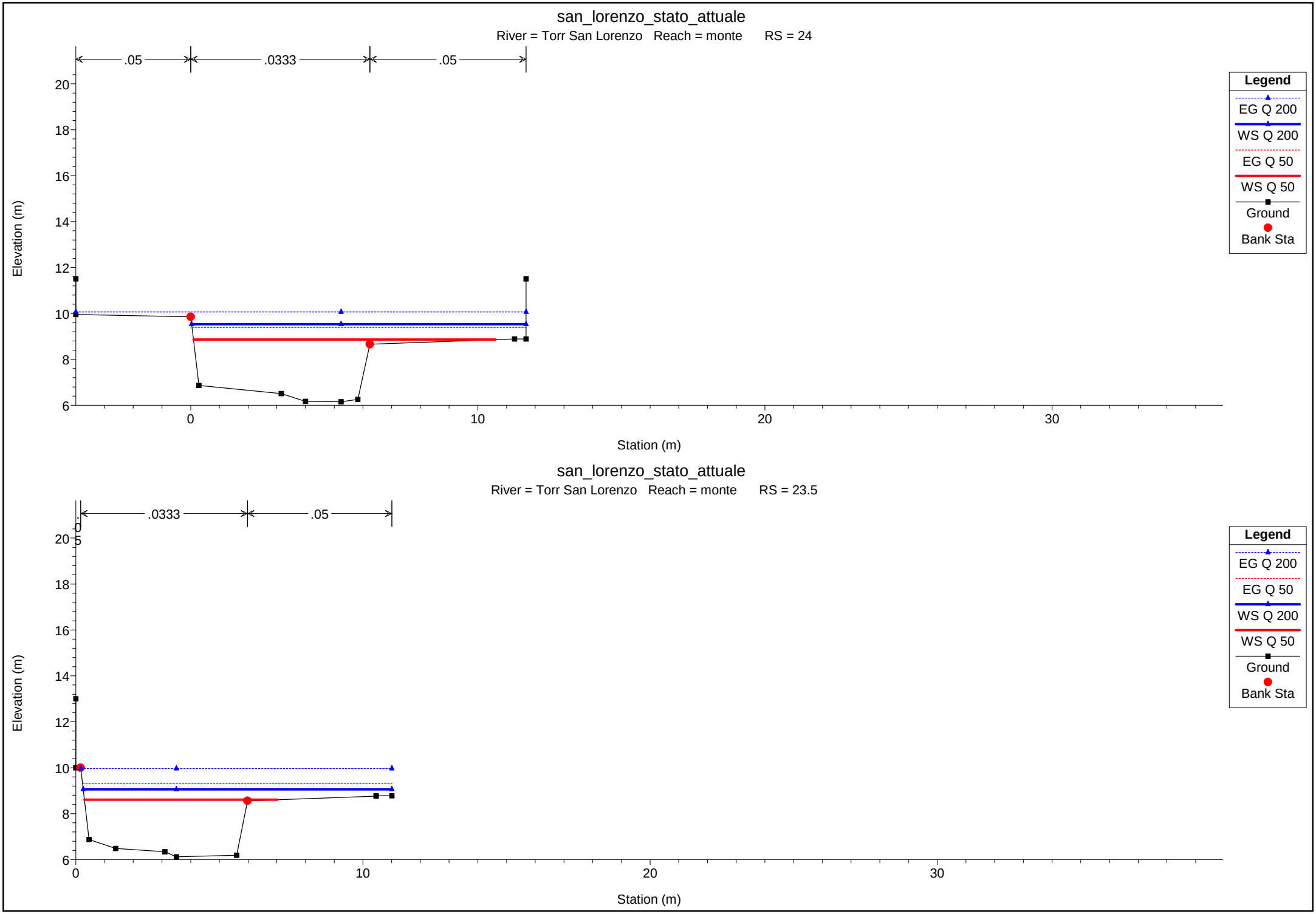
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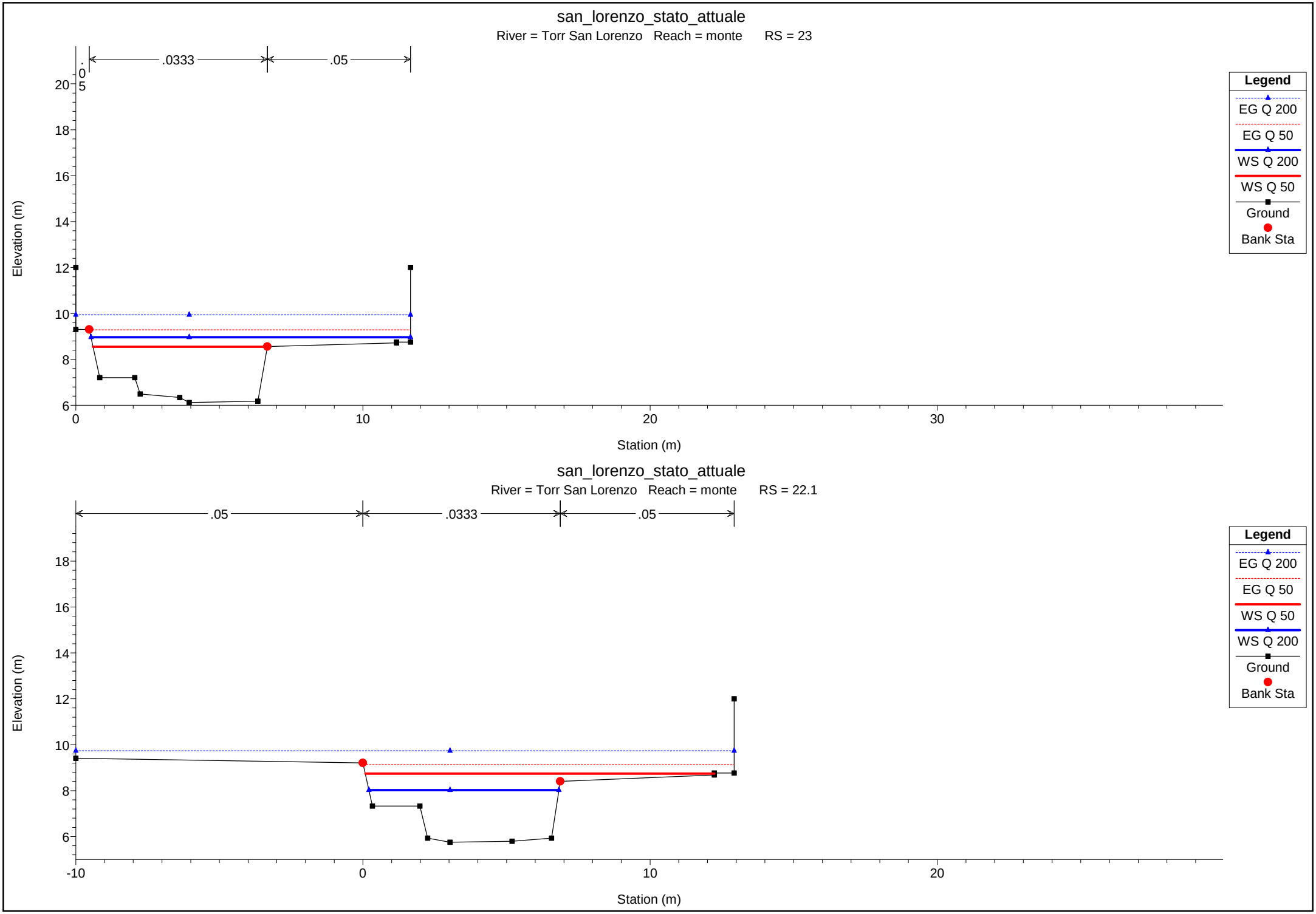
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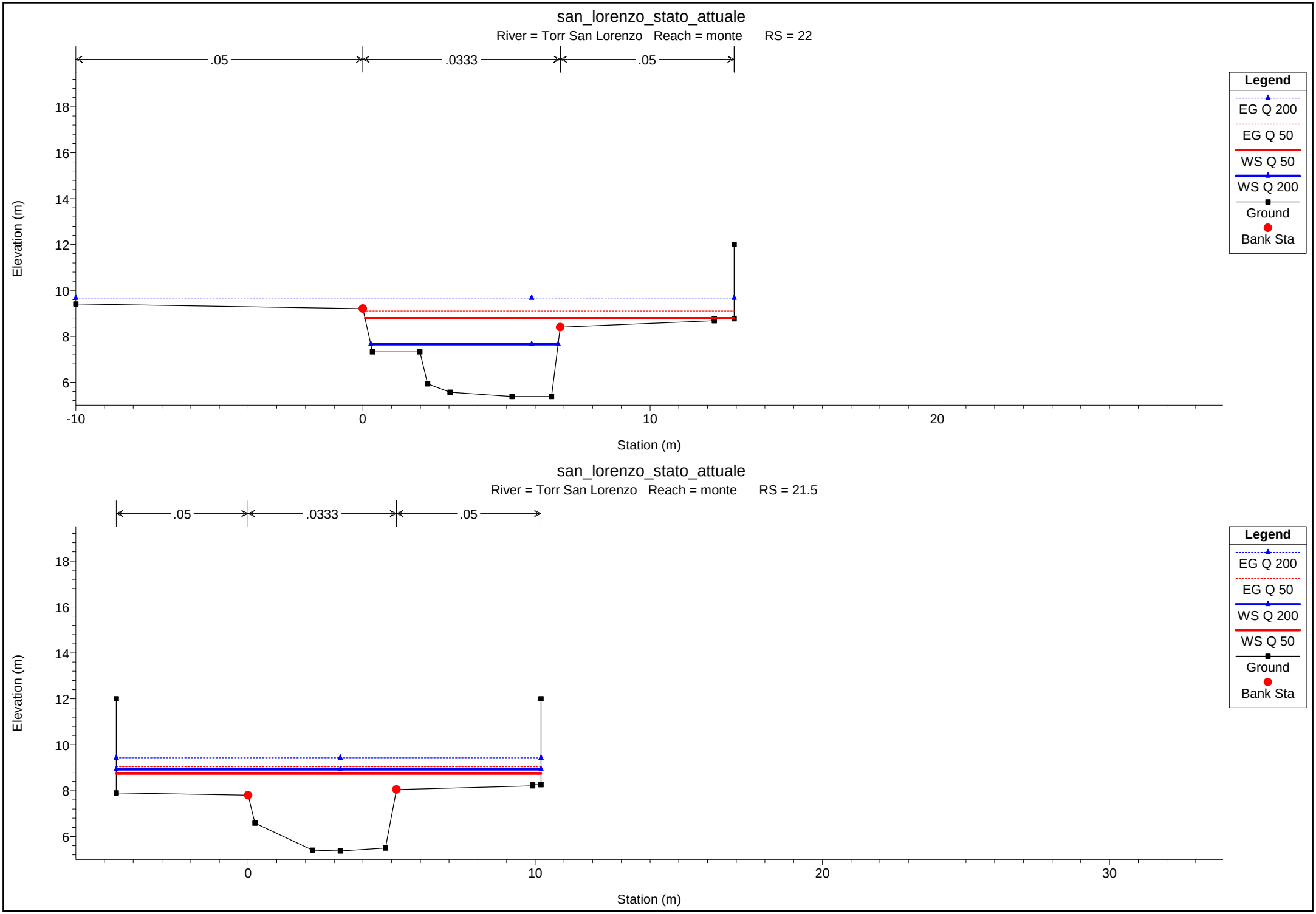
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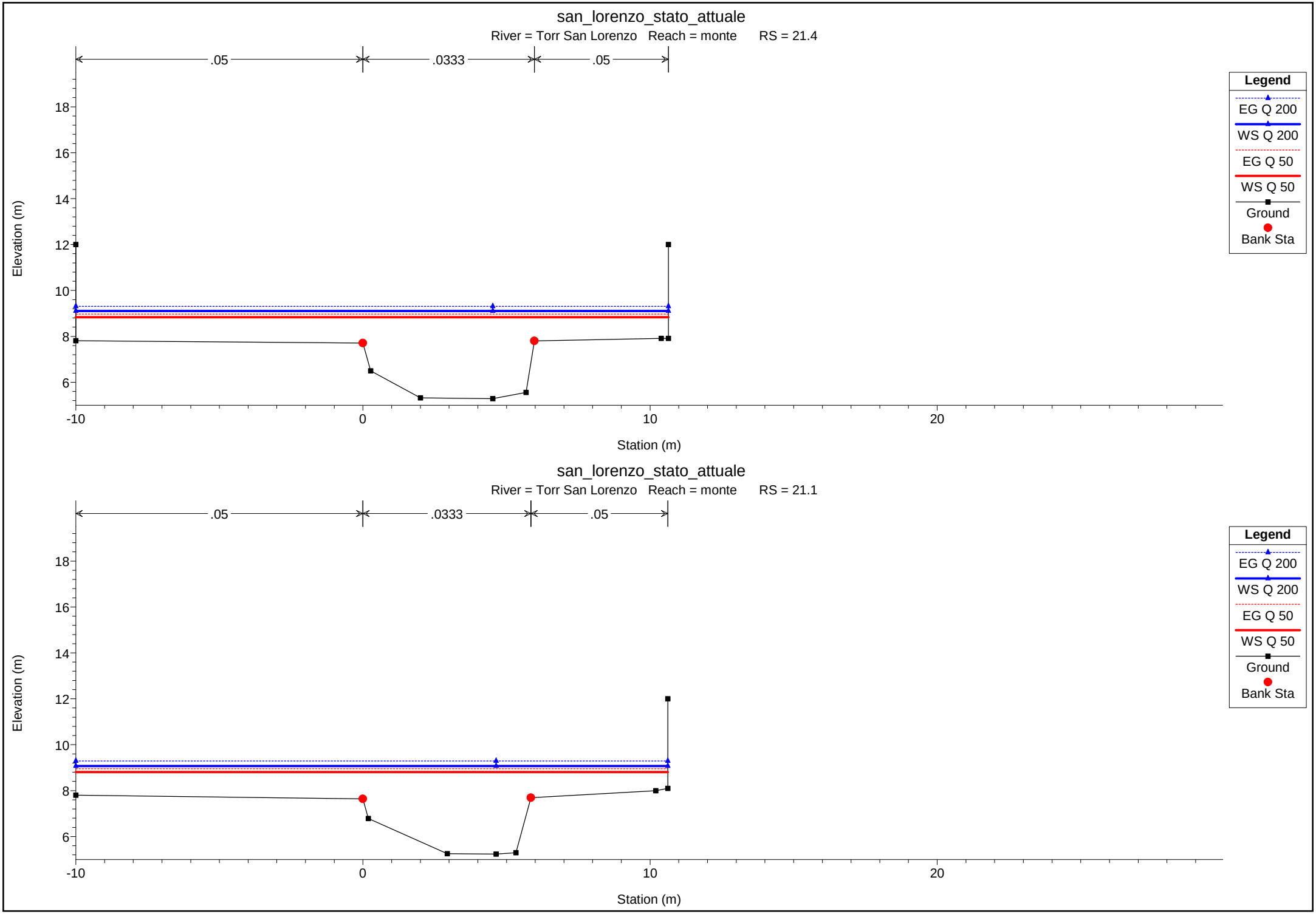
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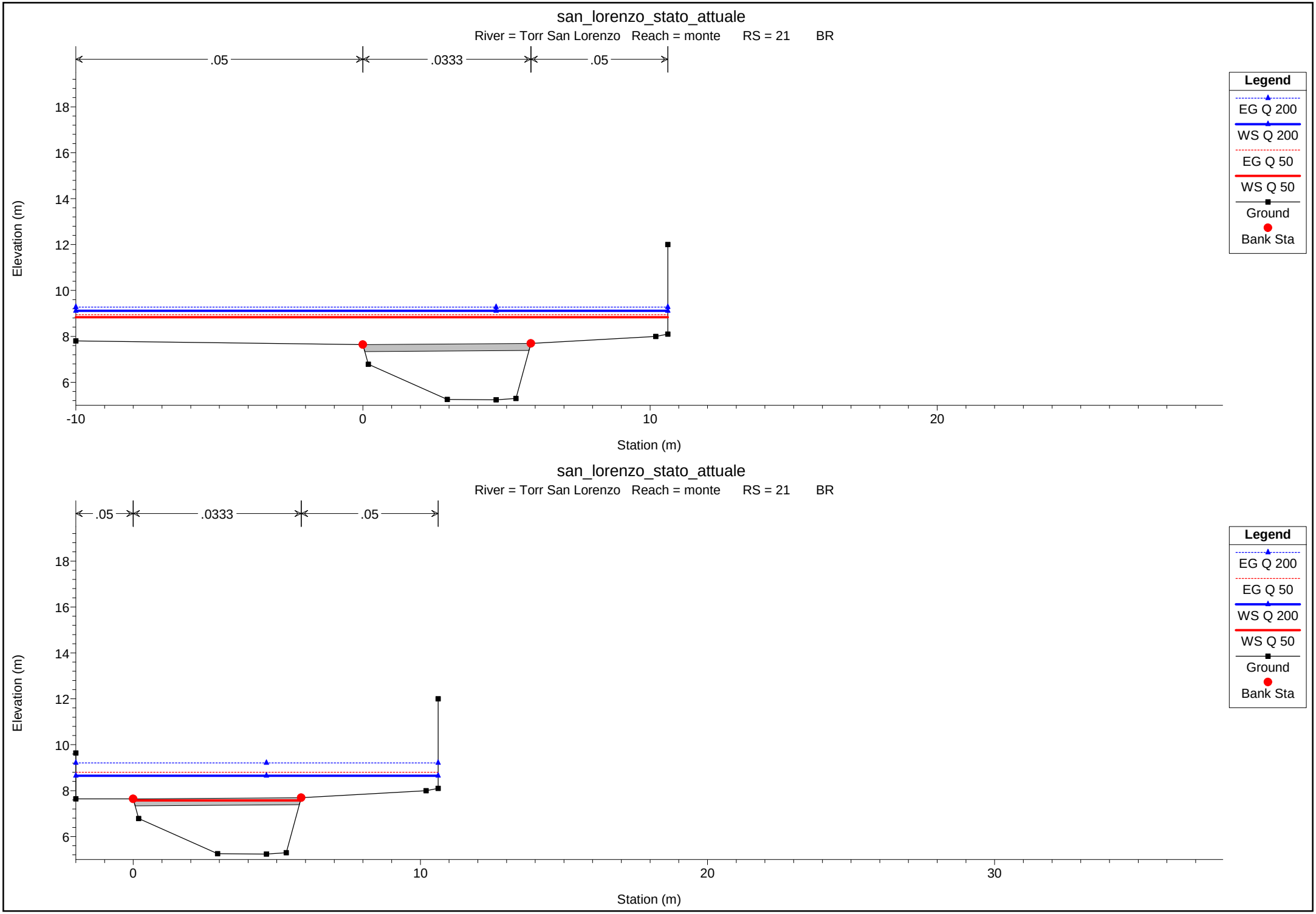
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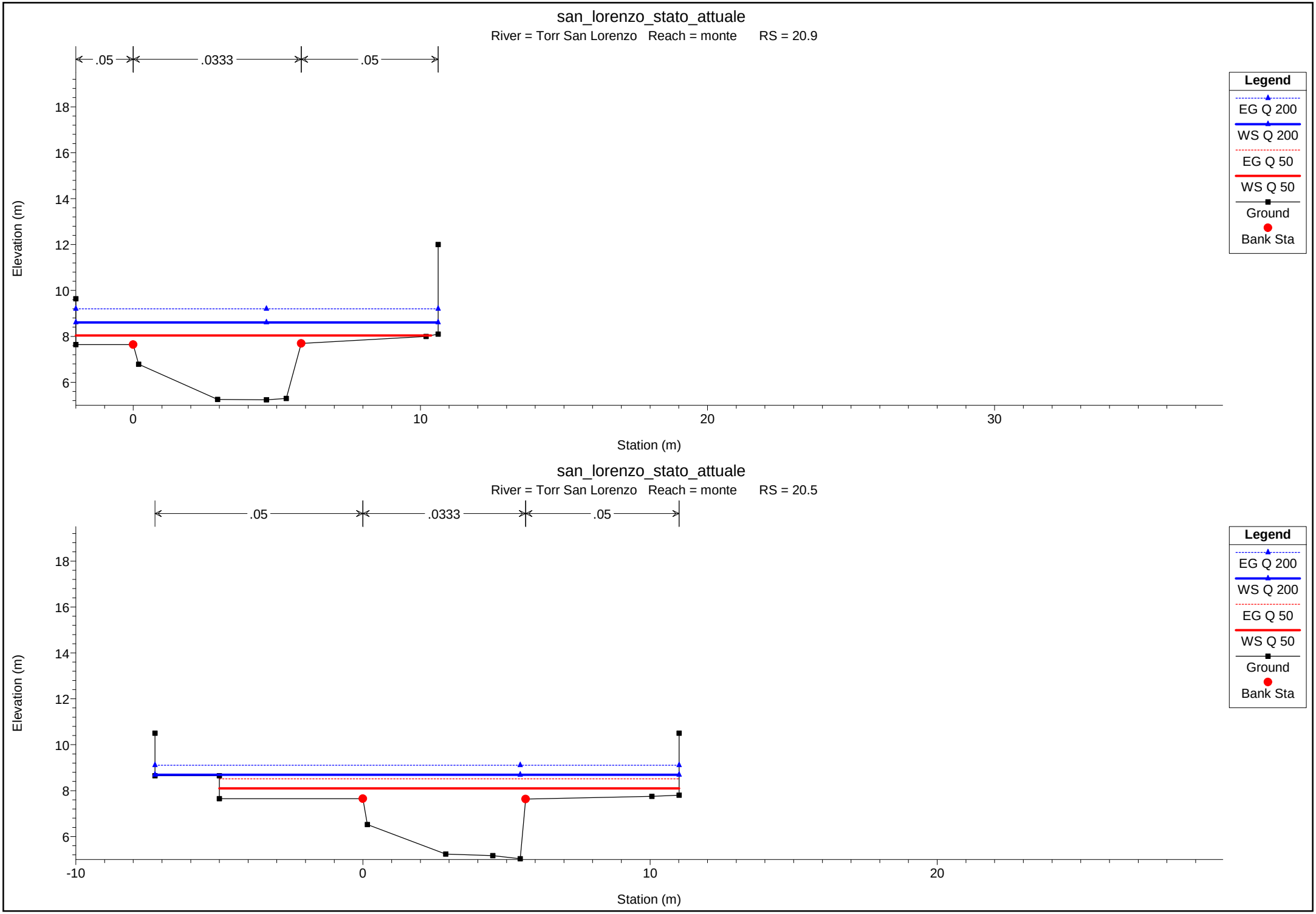
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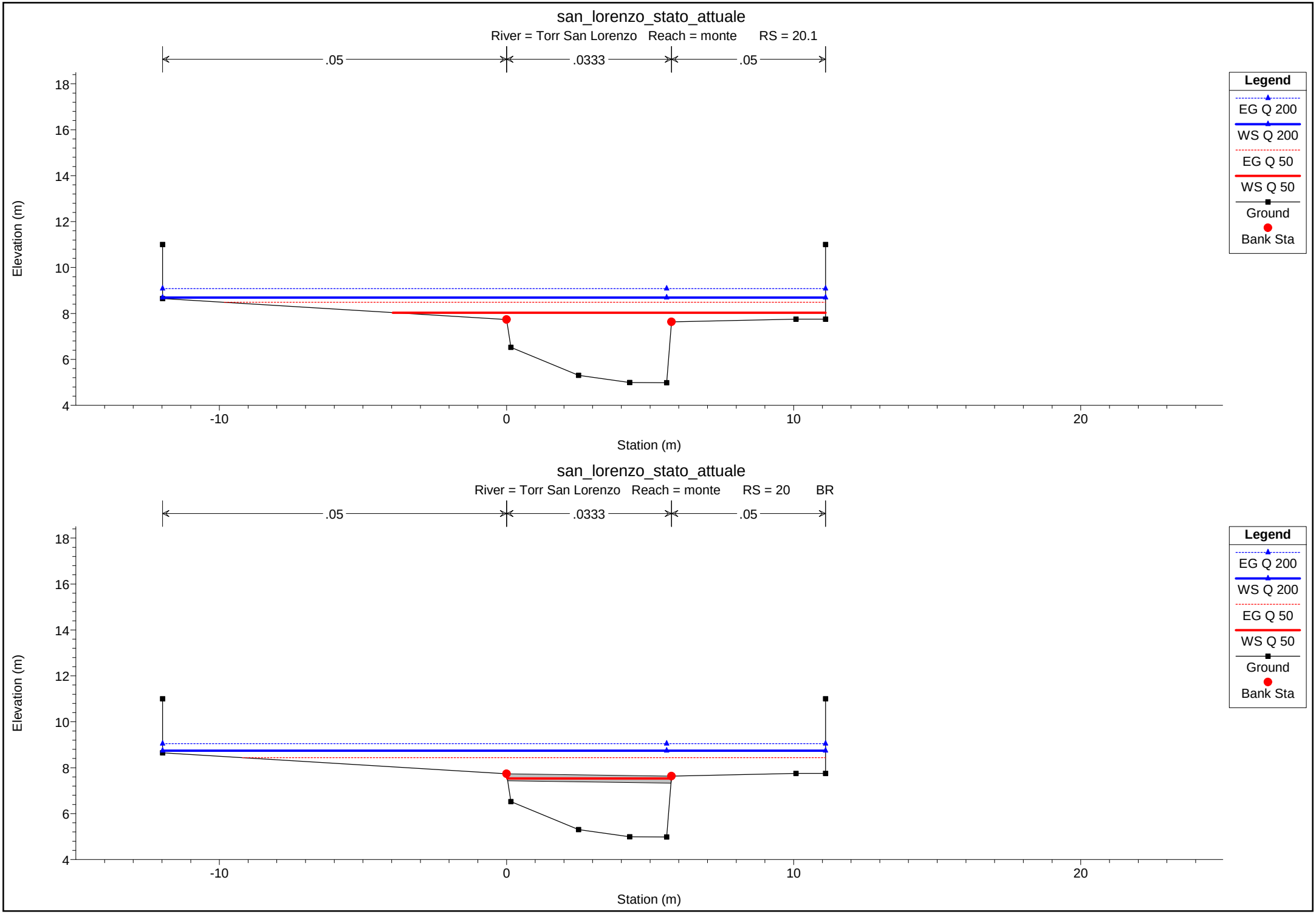
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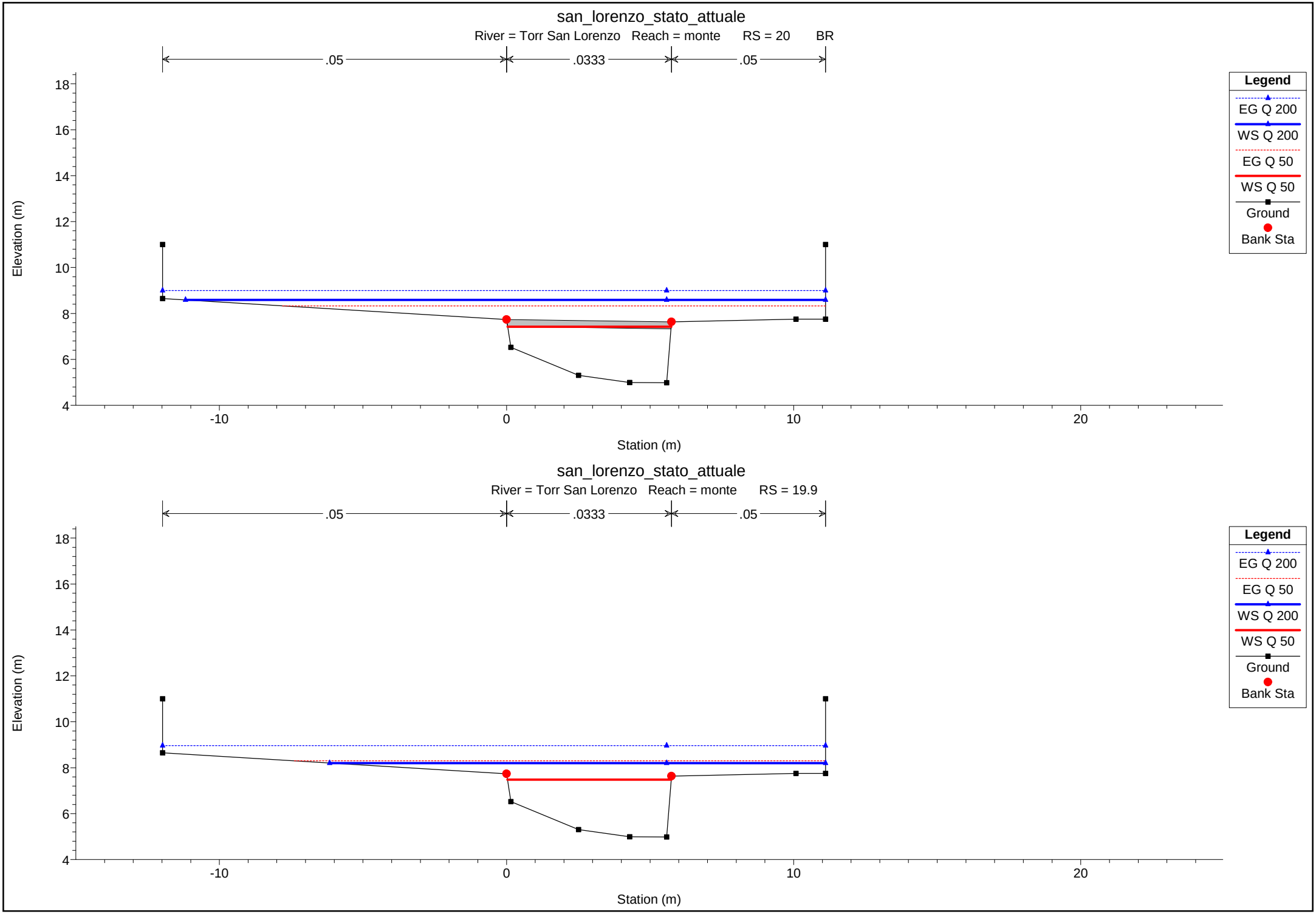
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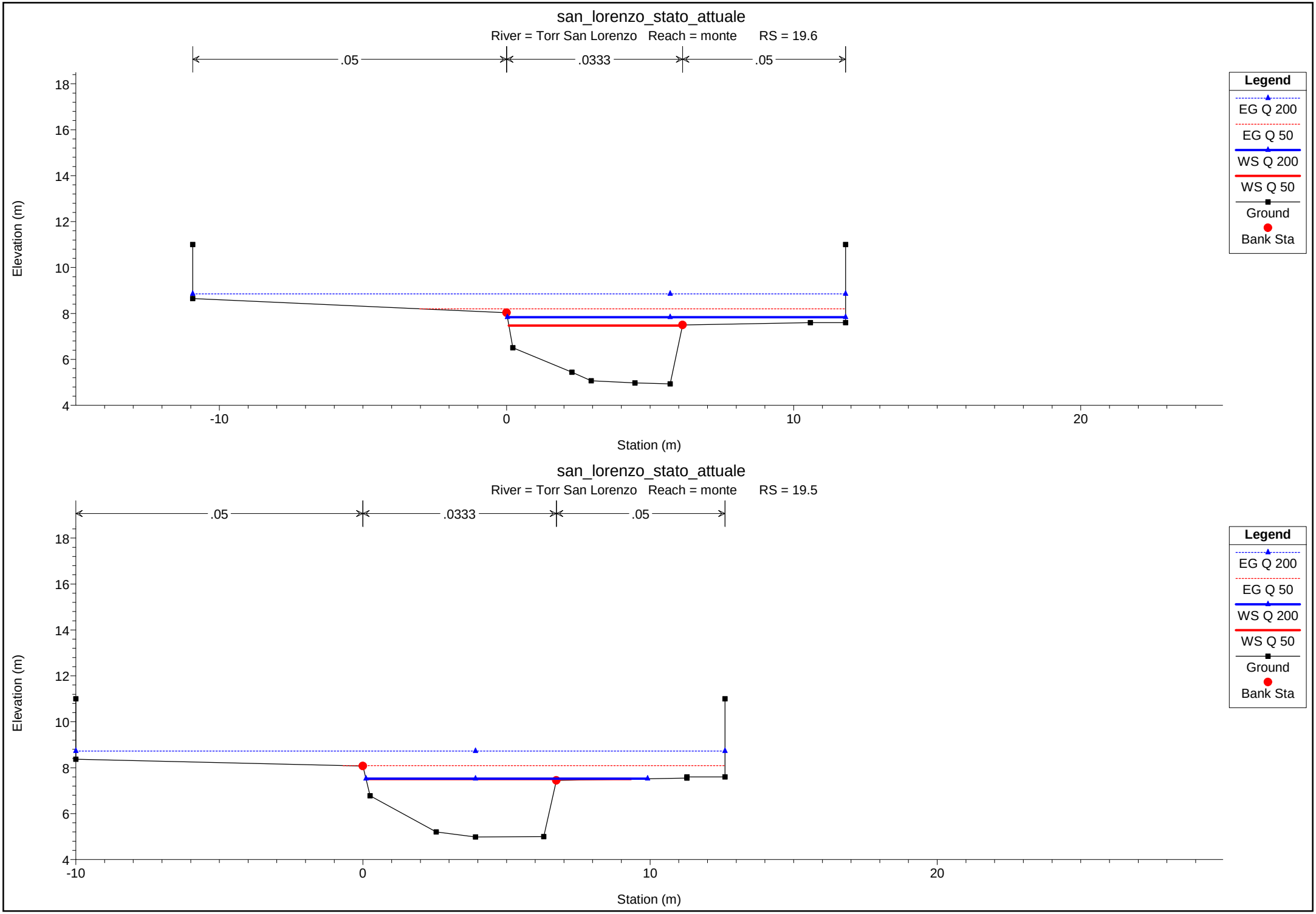
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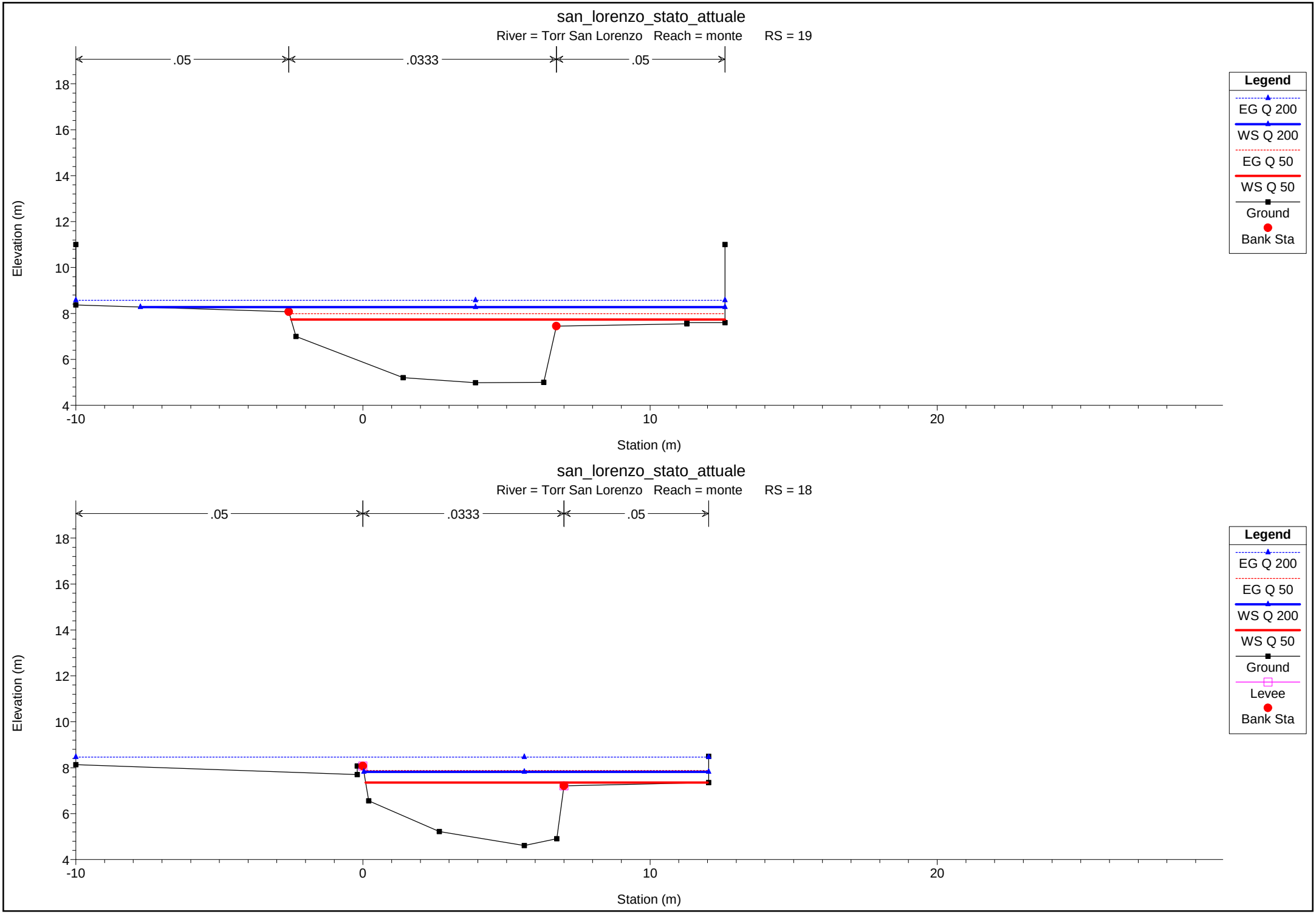
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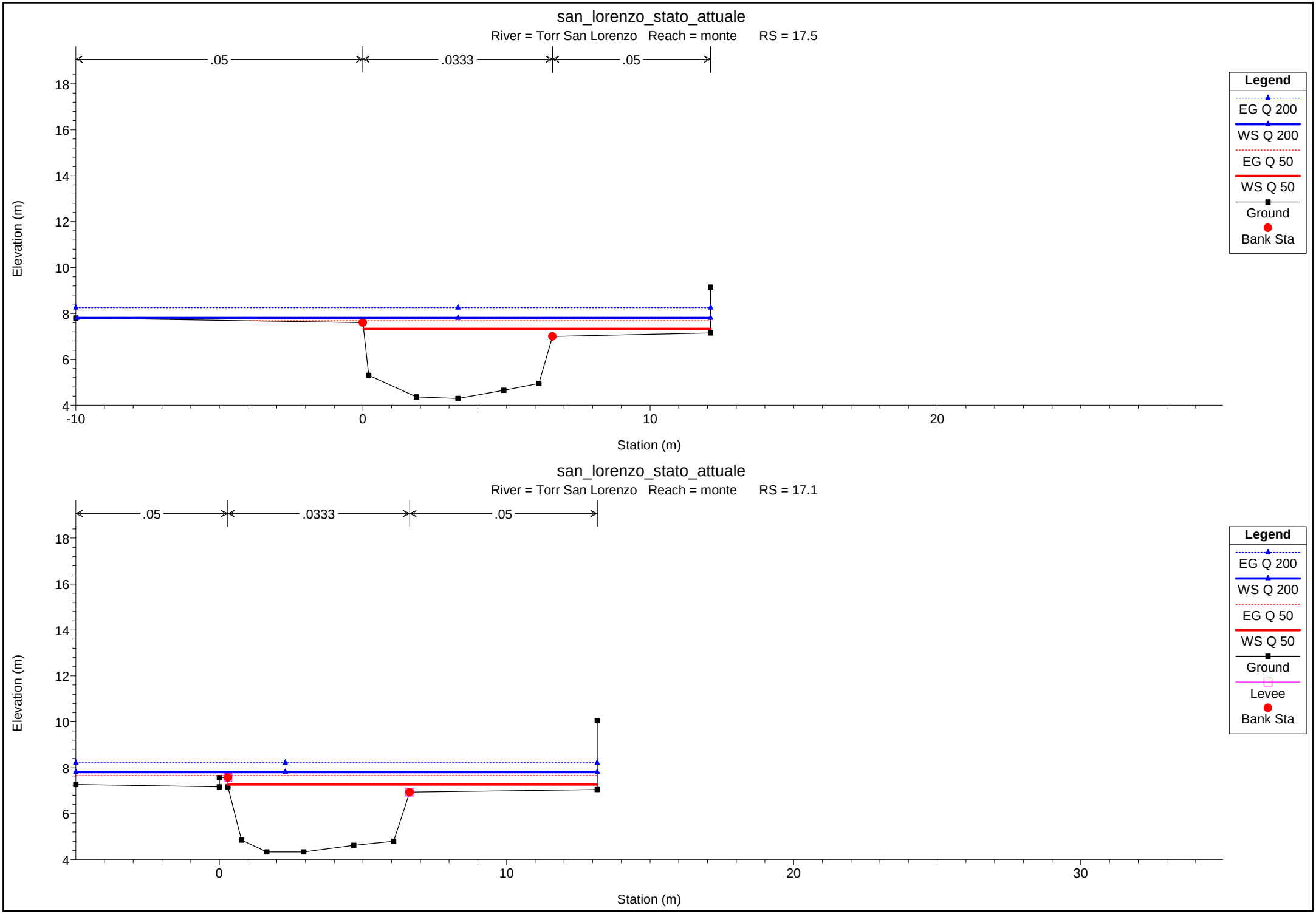
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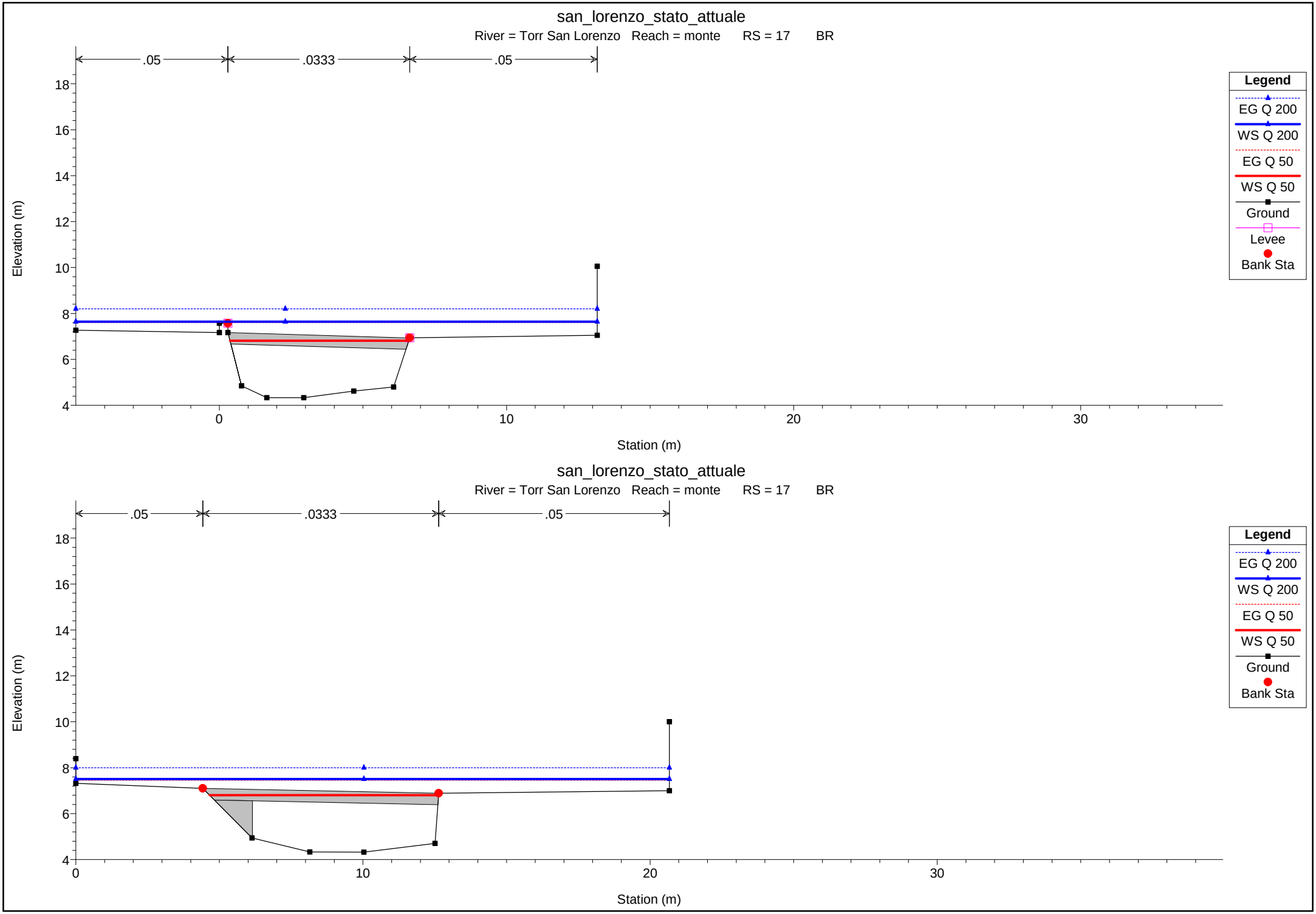
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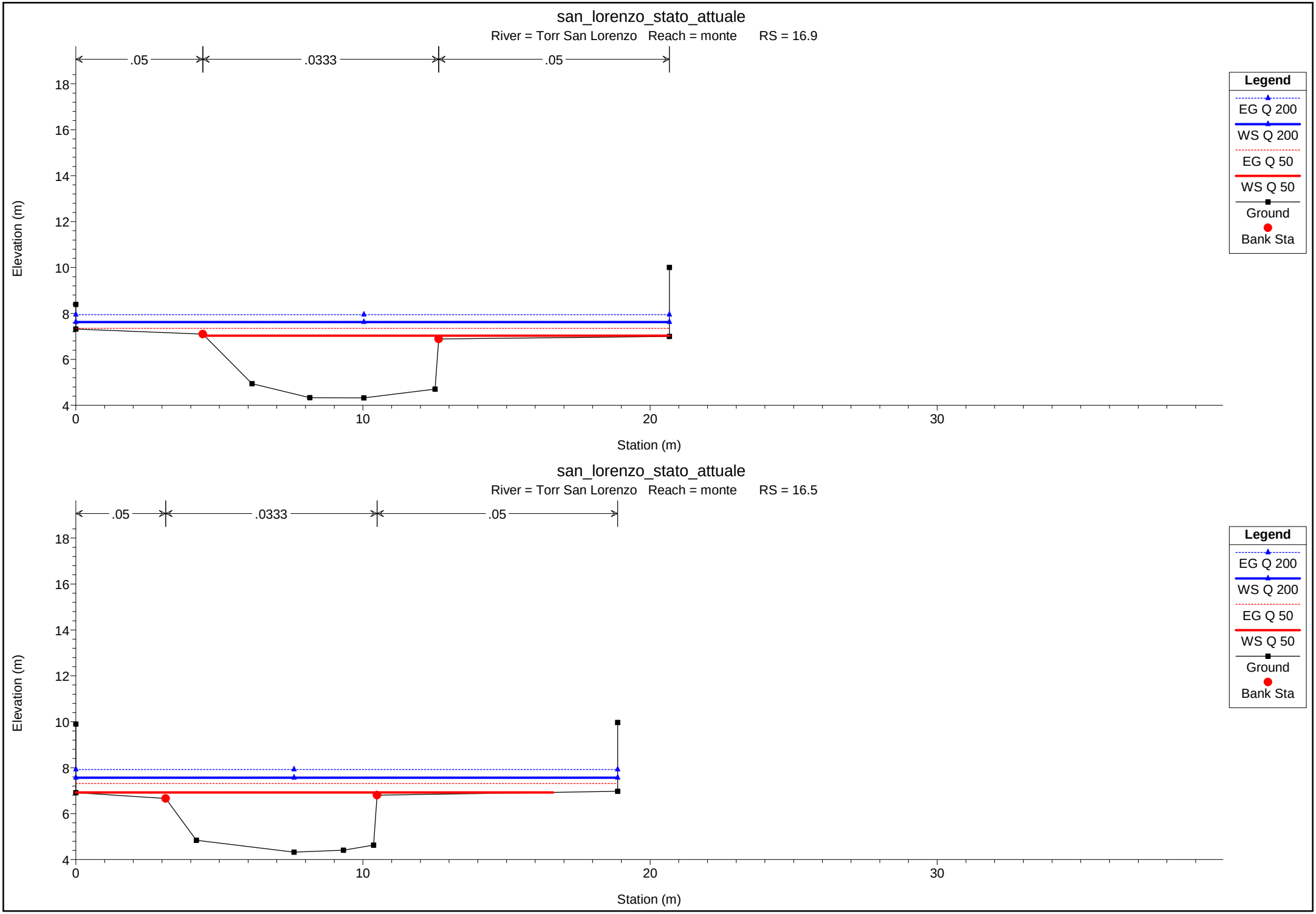
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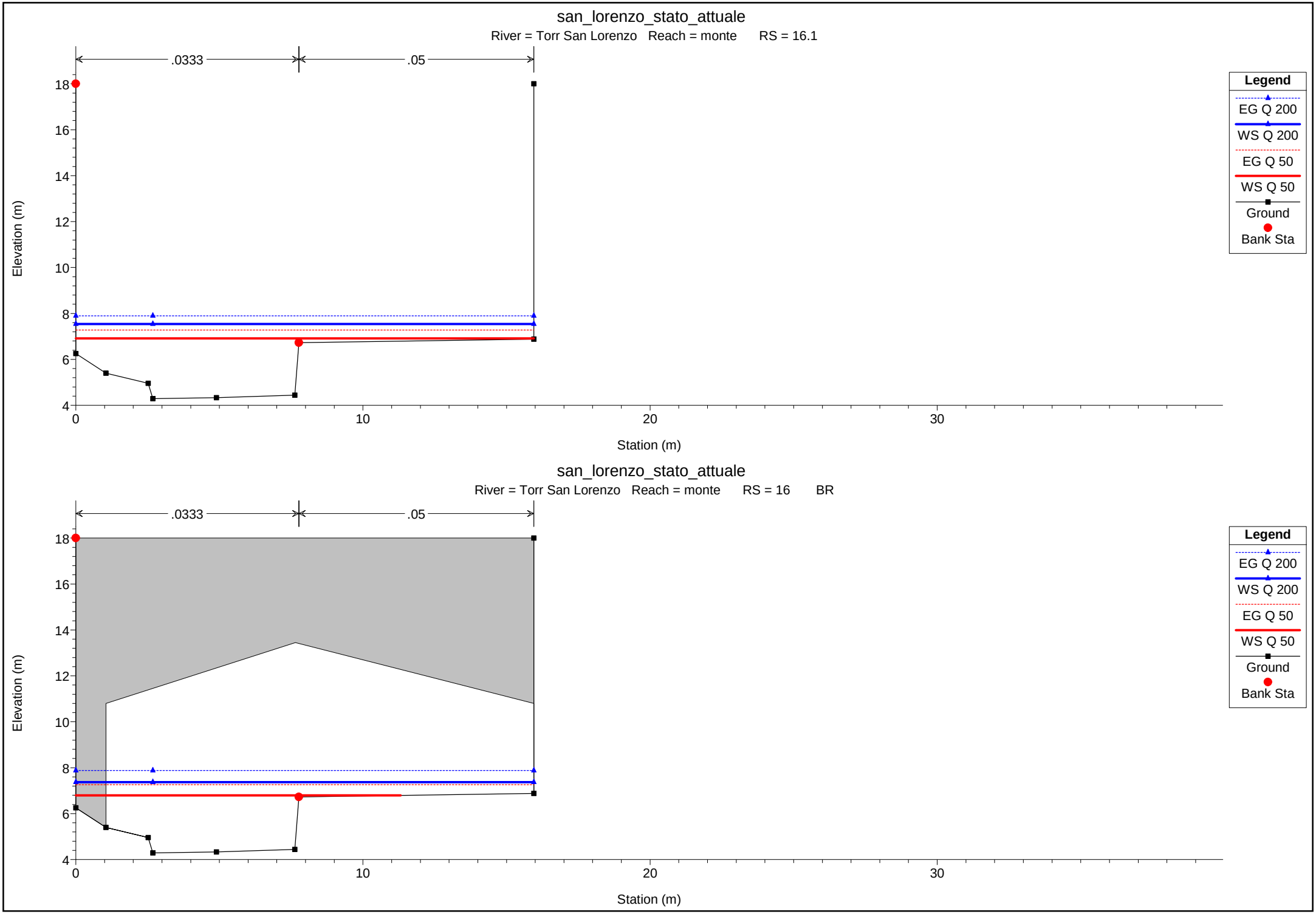
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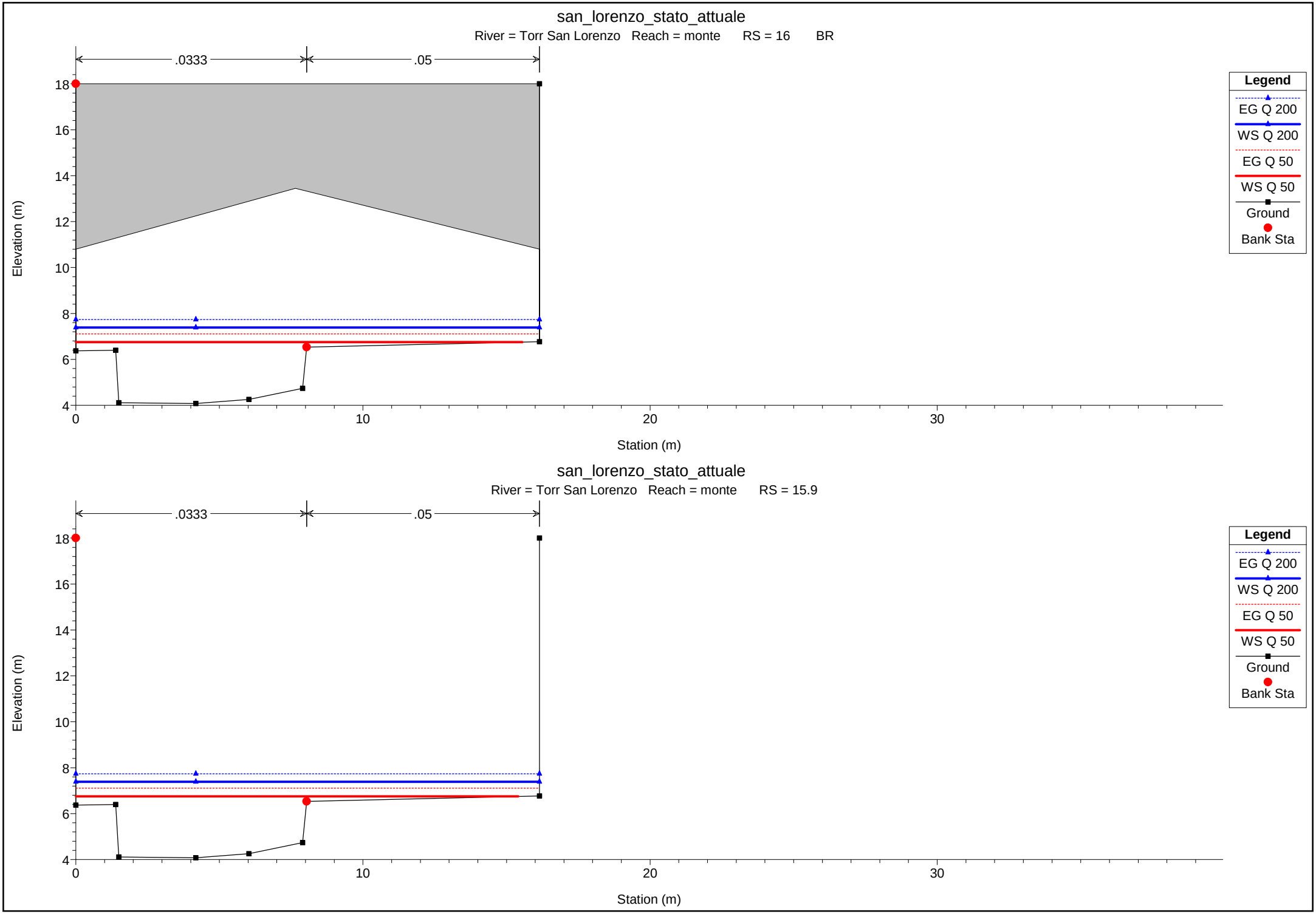
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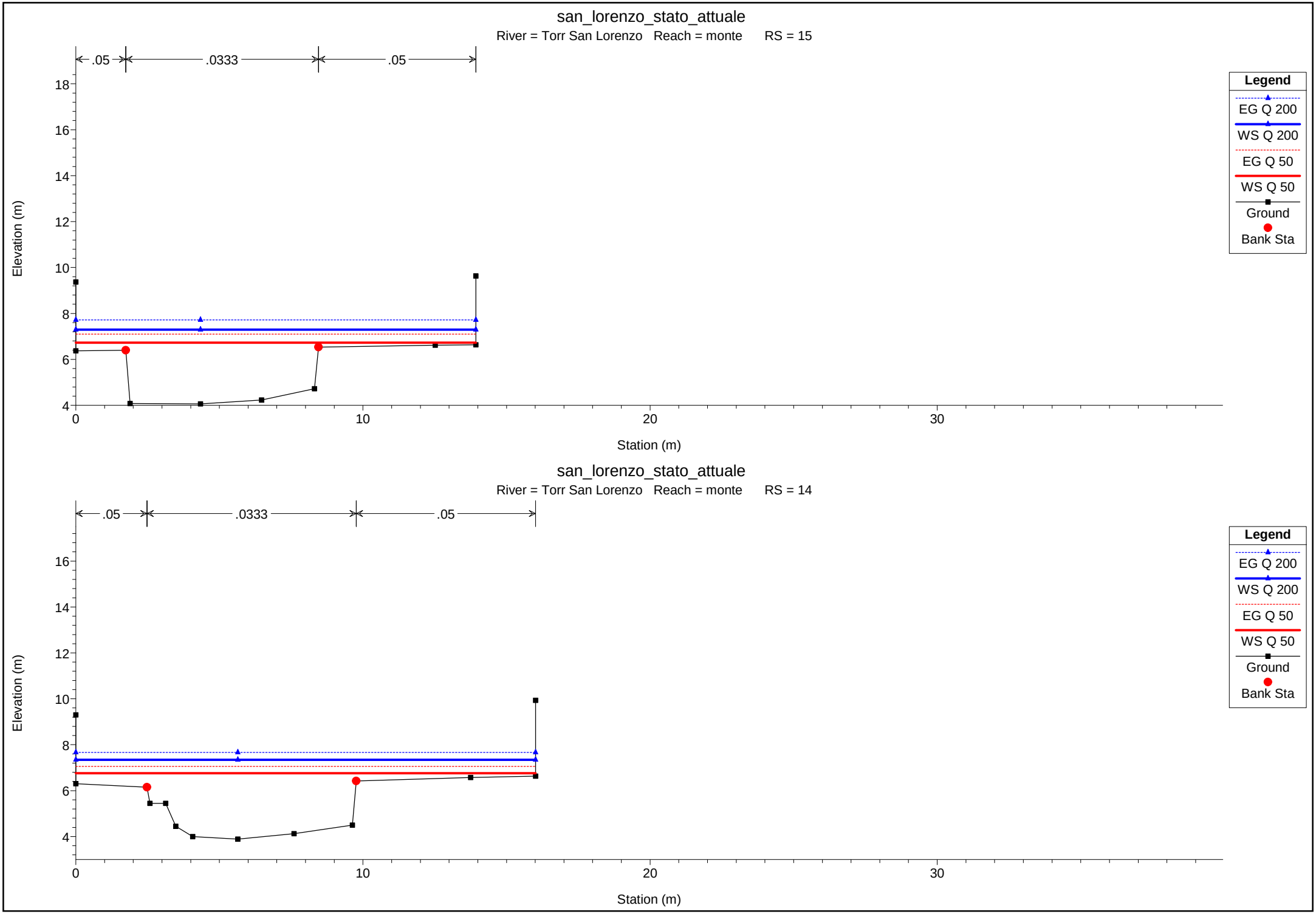
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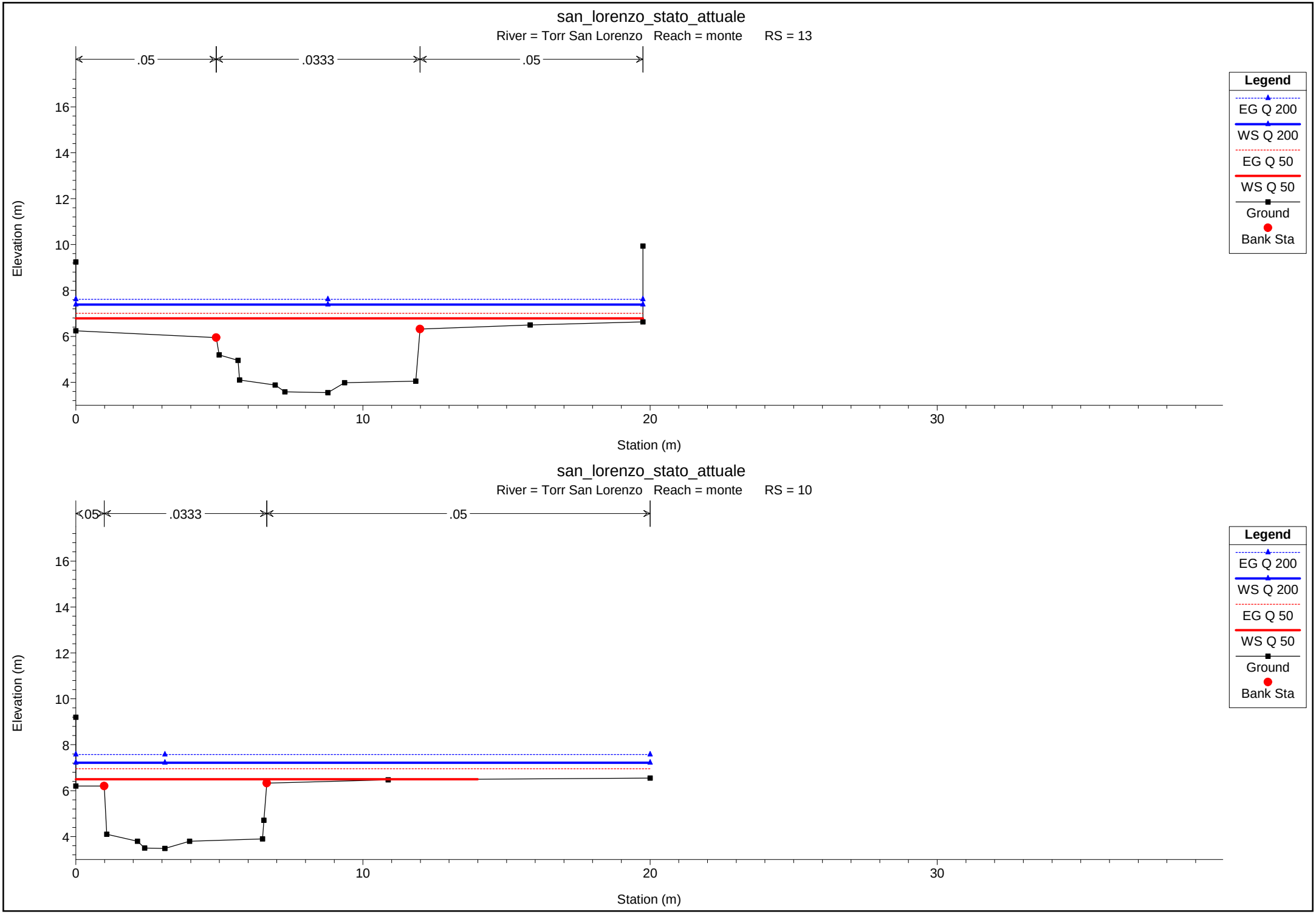
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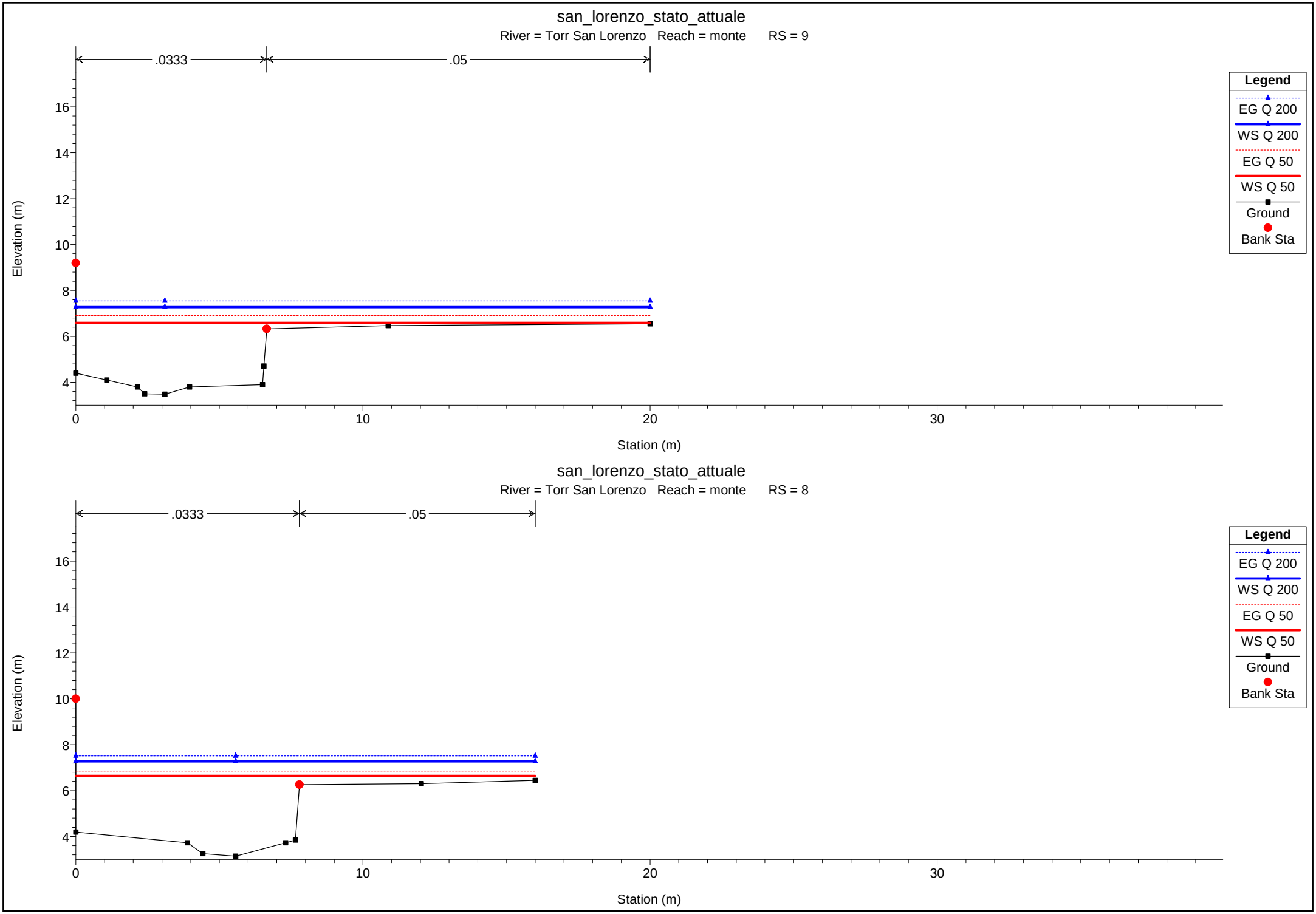
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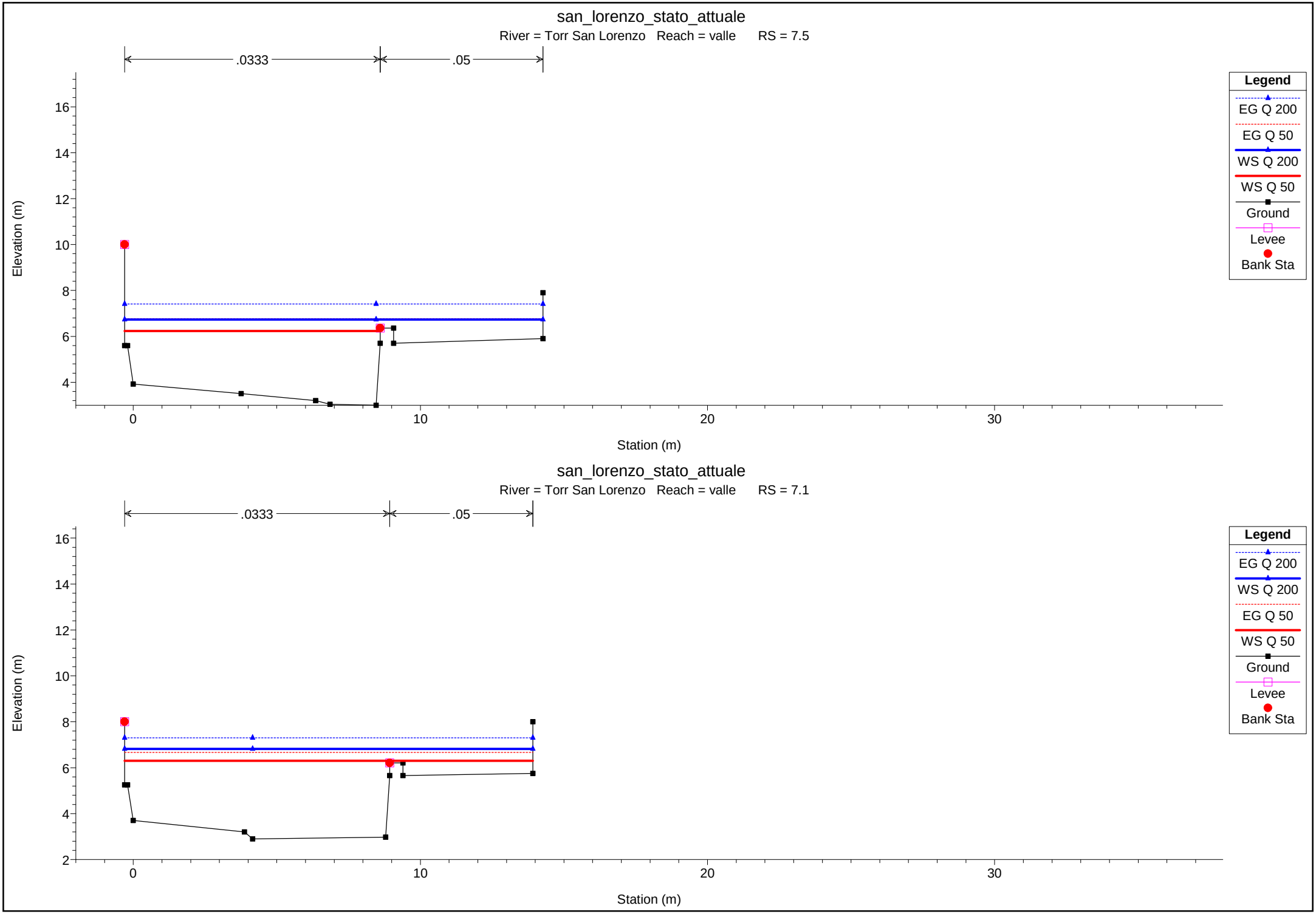
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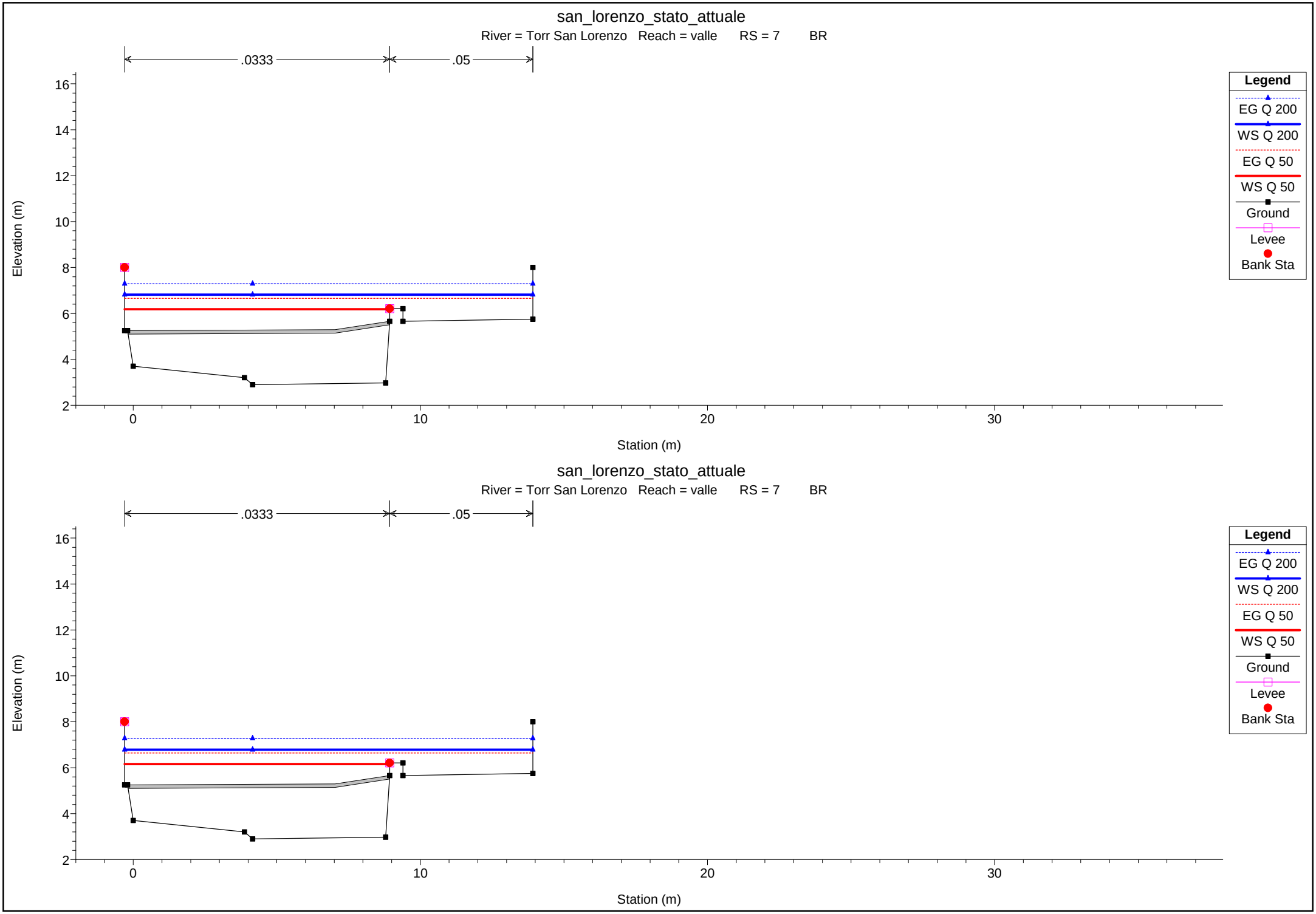
1 cm Horiz. = 1.6 m 1 cm Vert. = 2 m



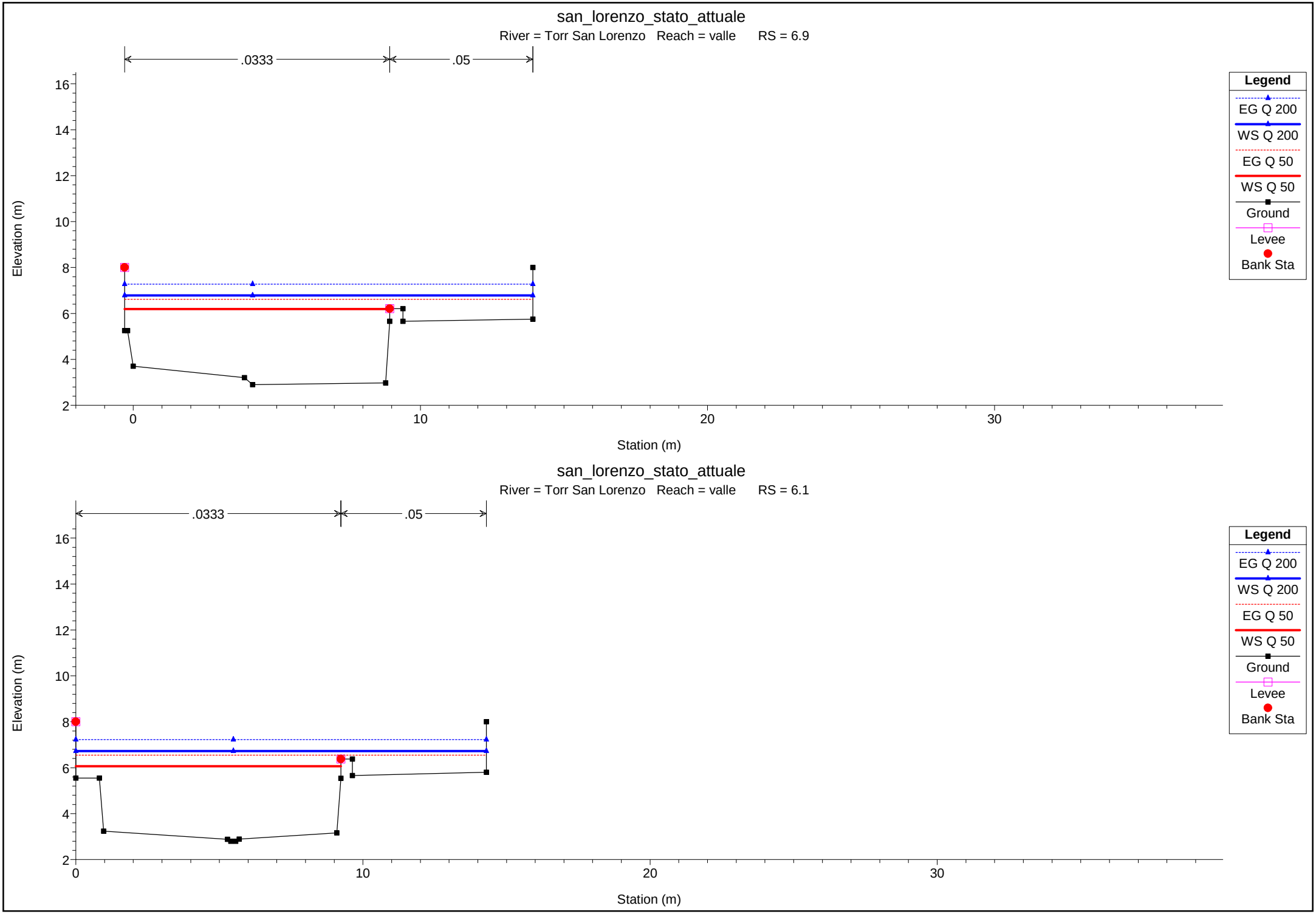
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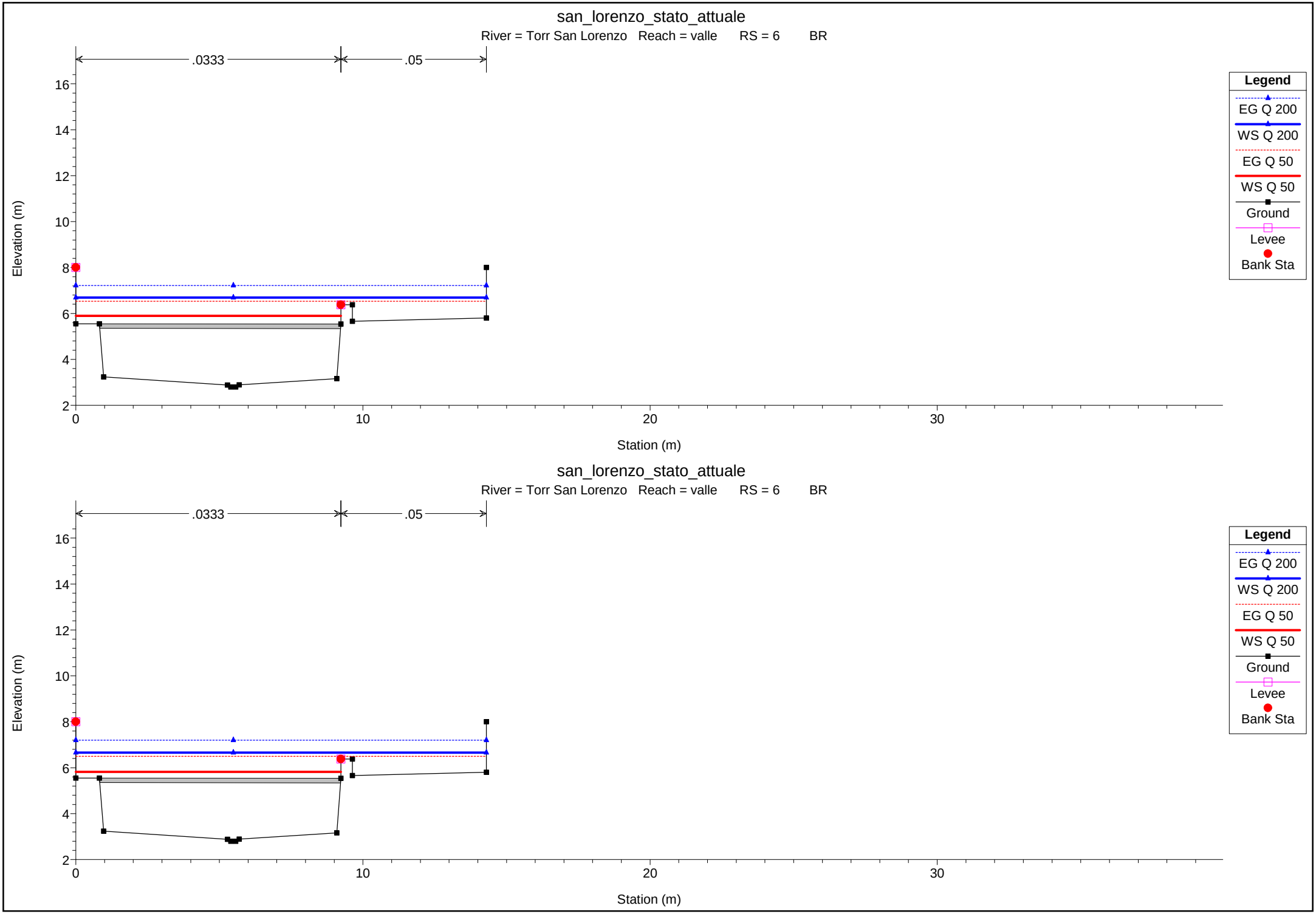
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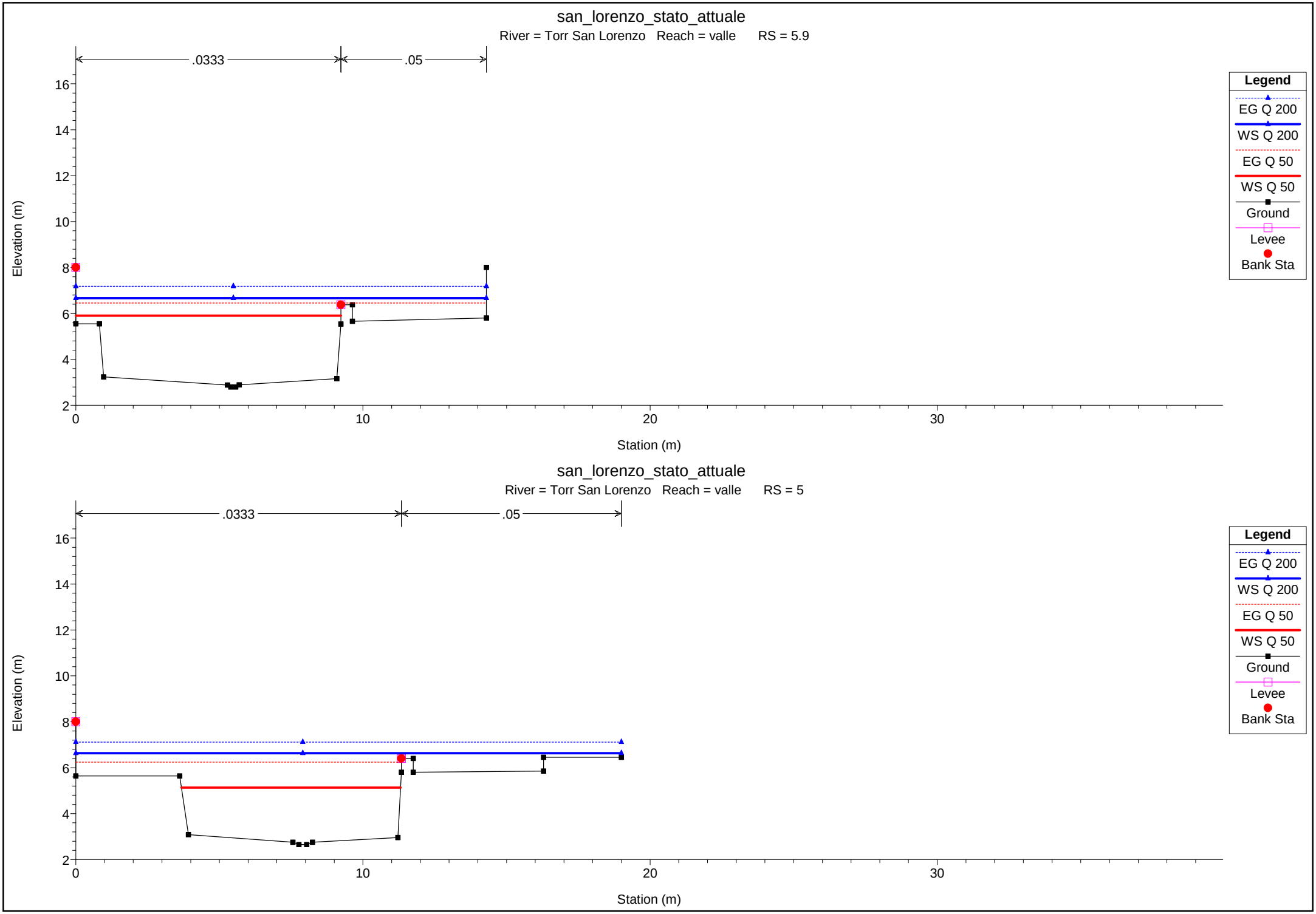
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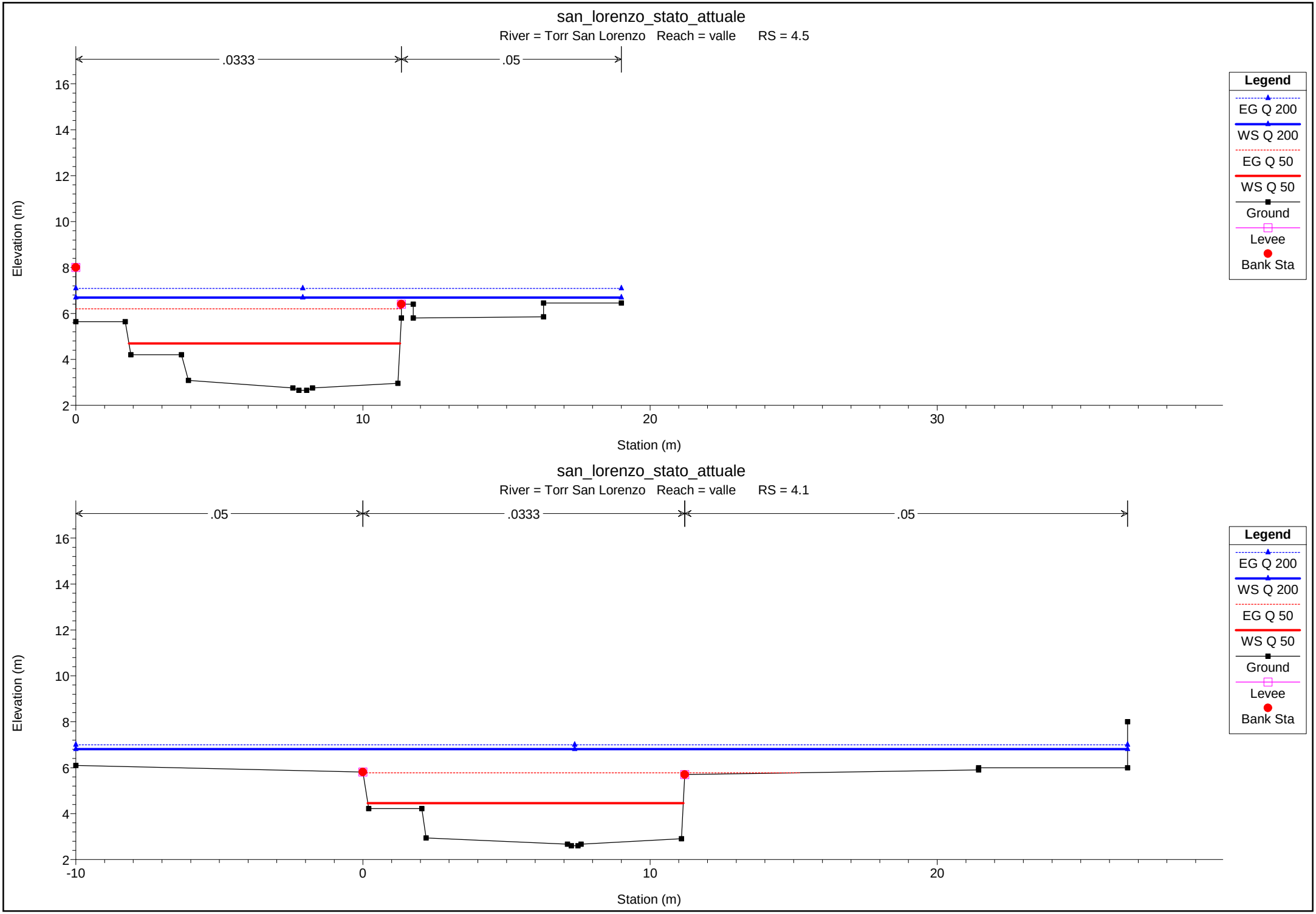
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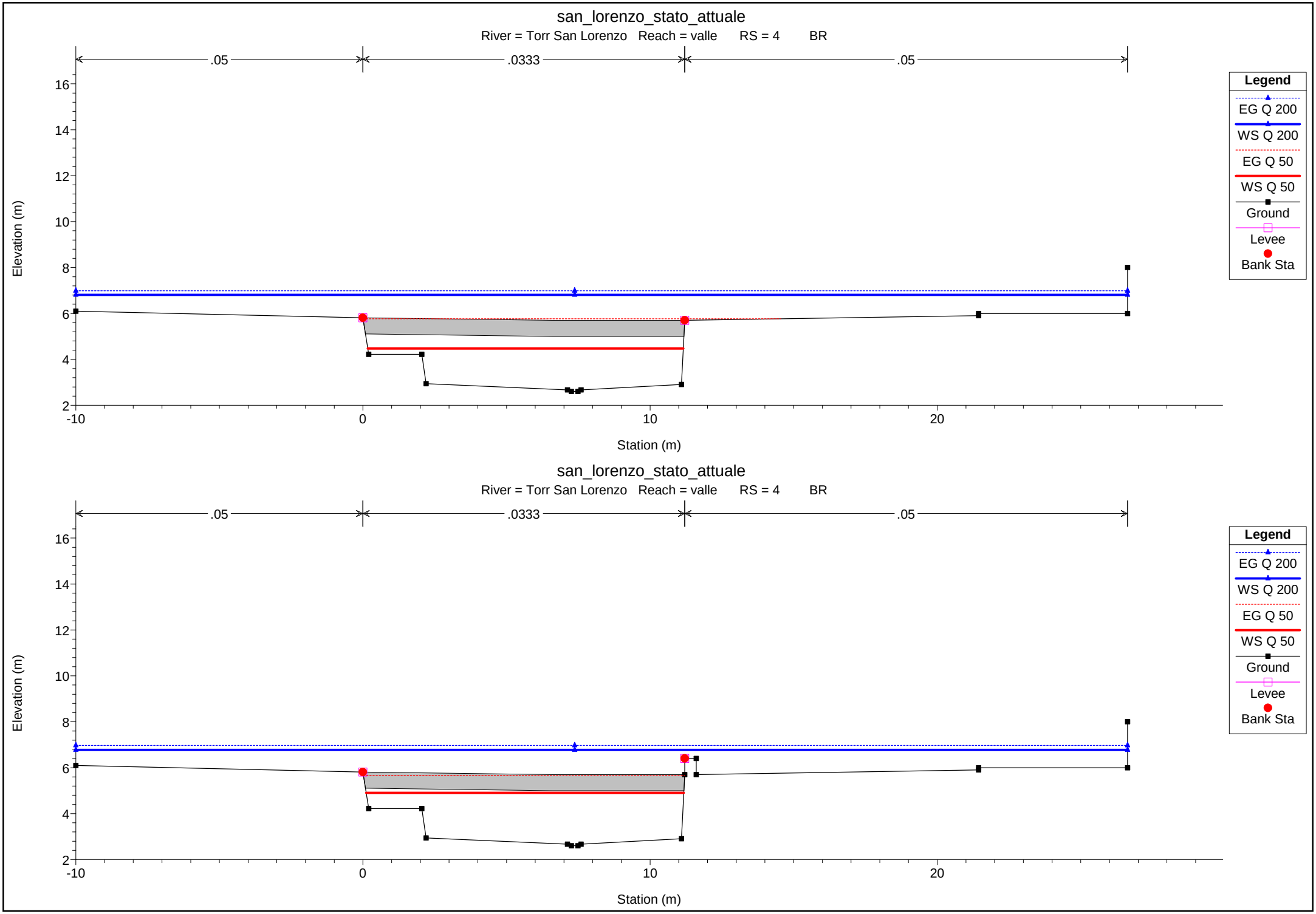
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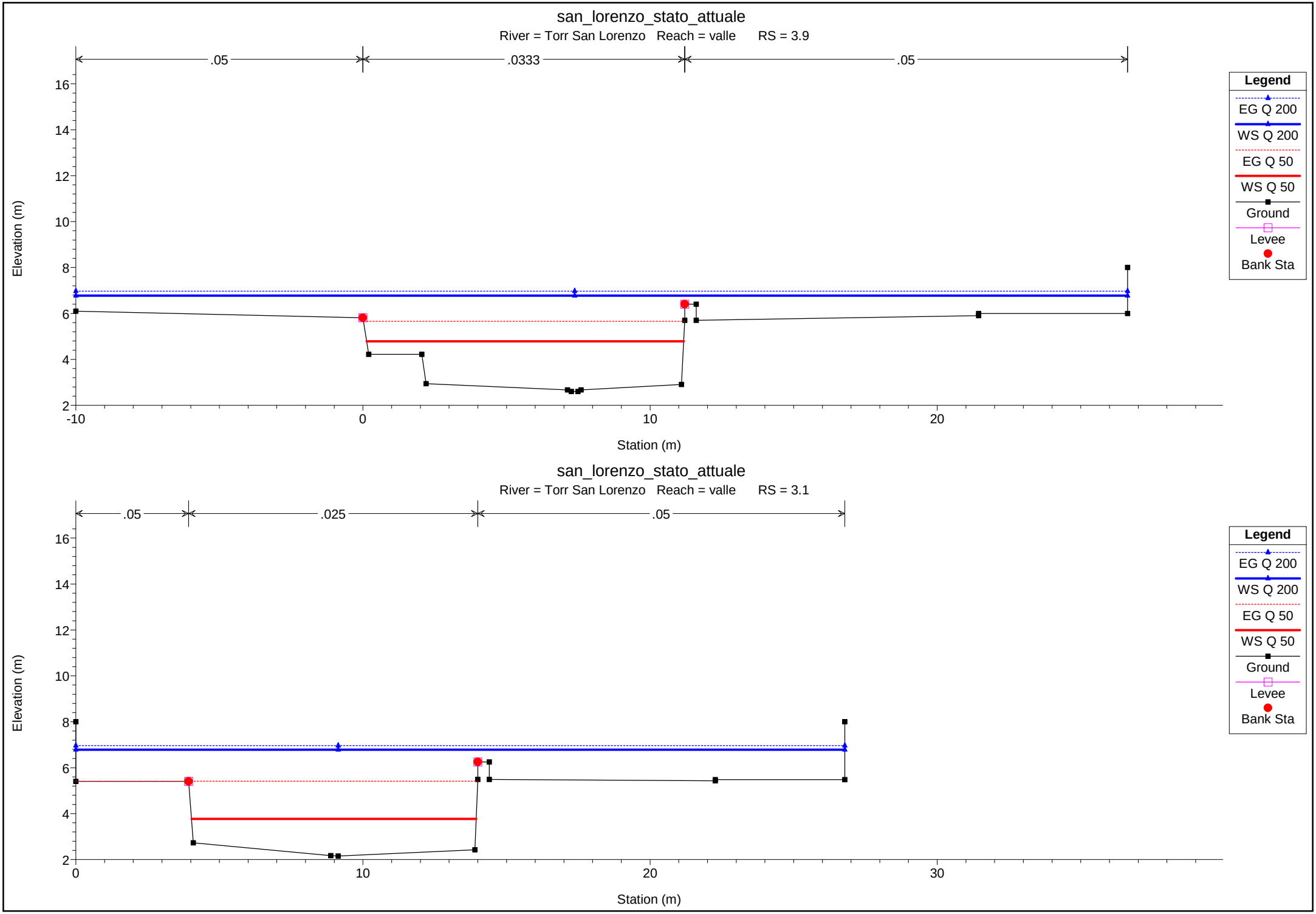
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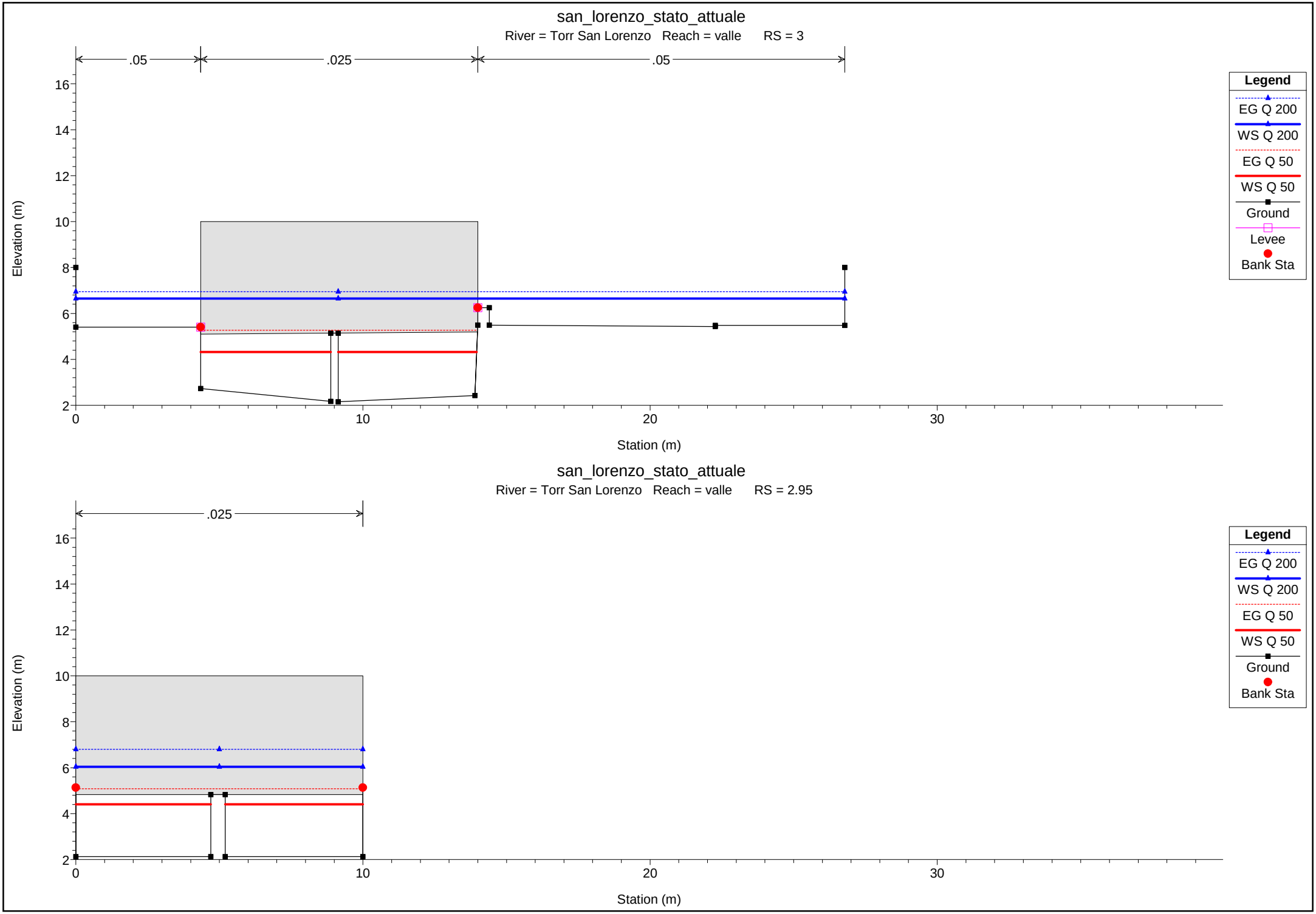
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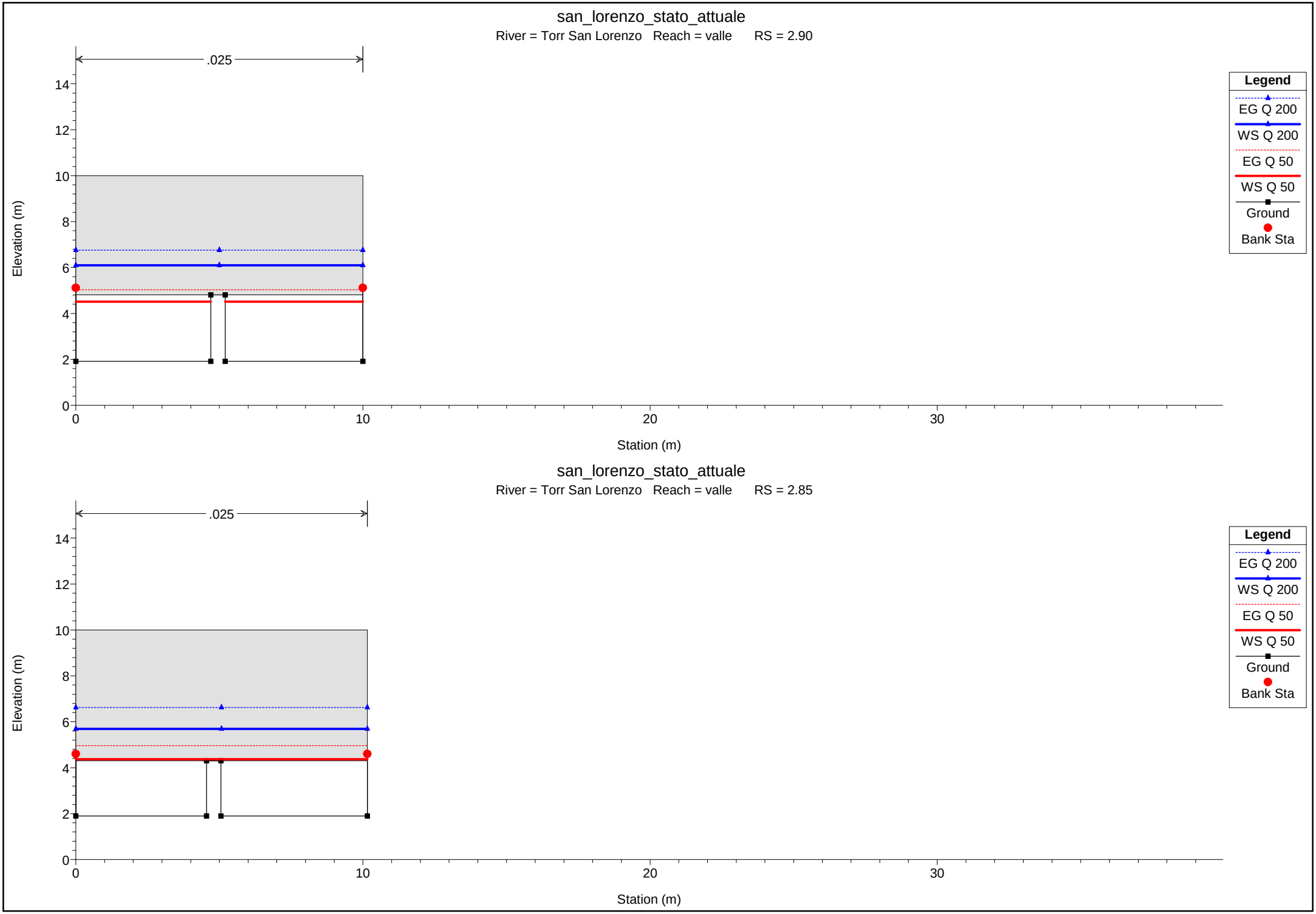
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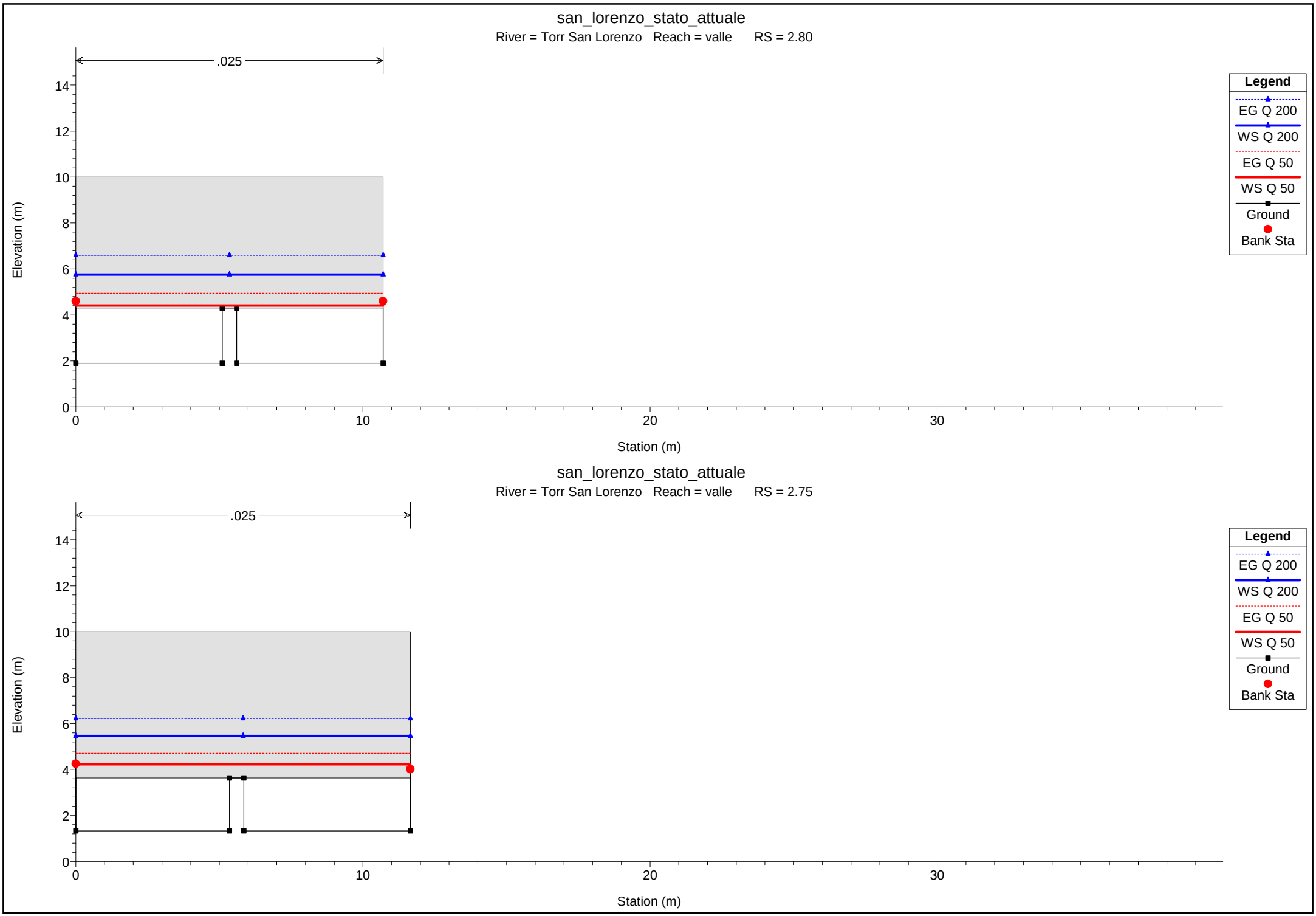
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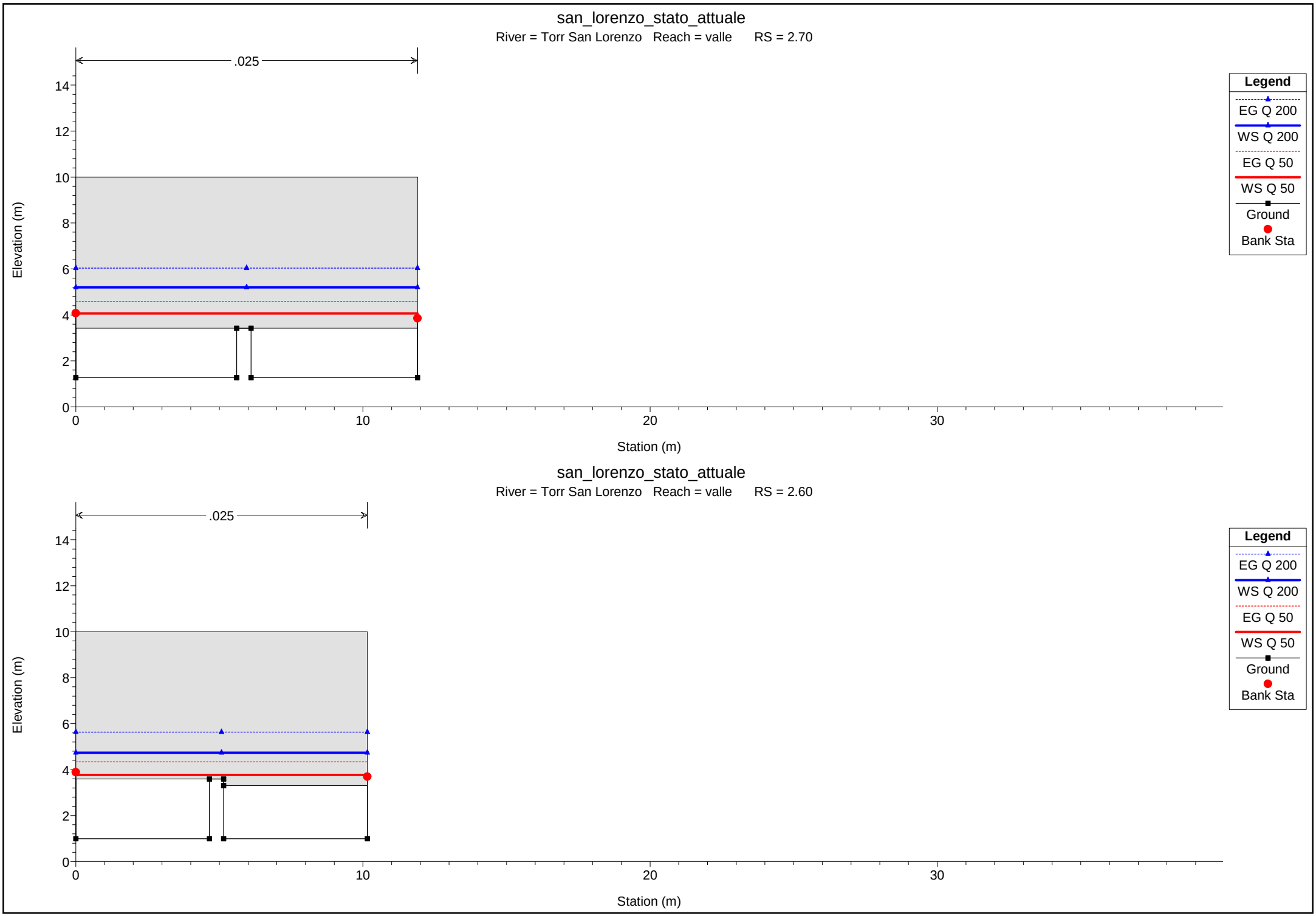
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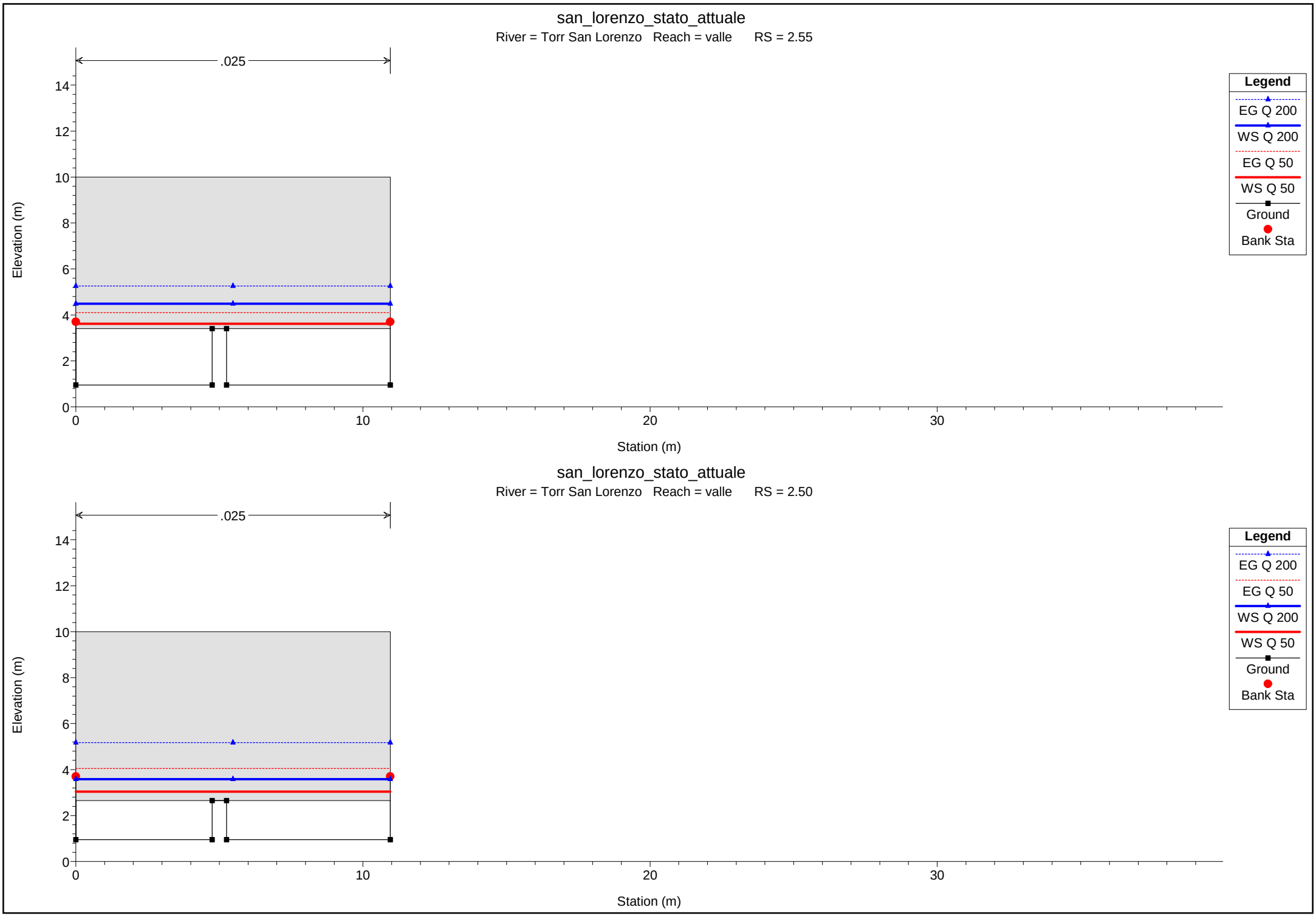
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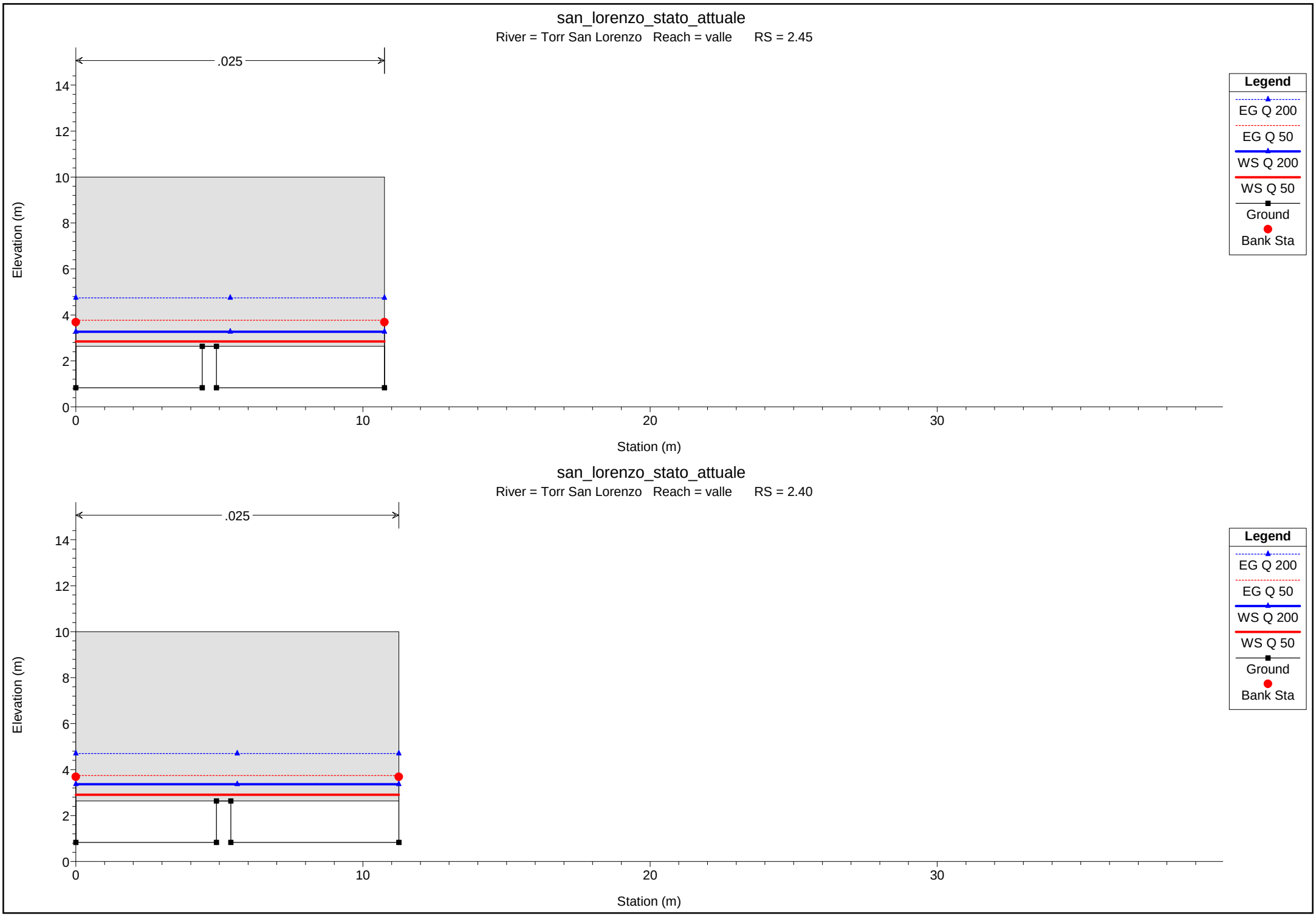
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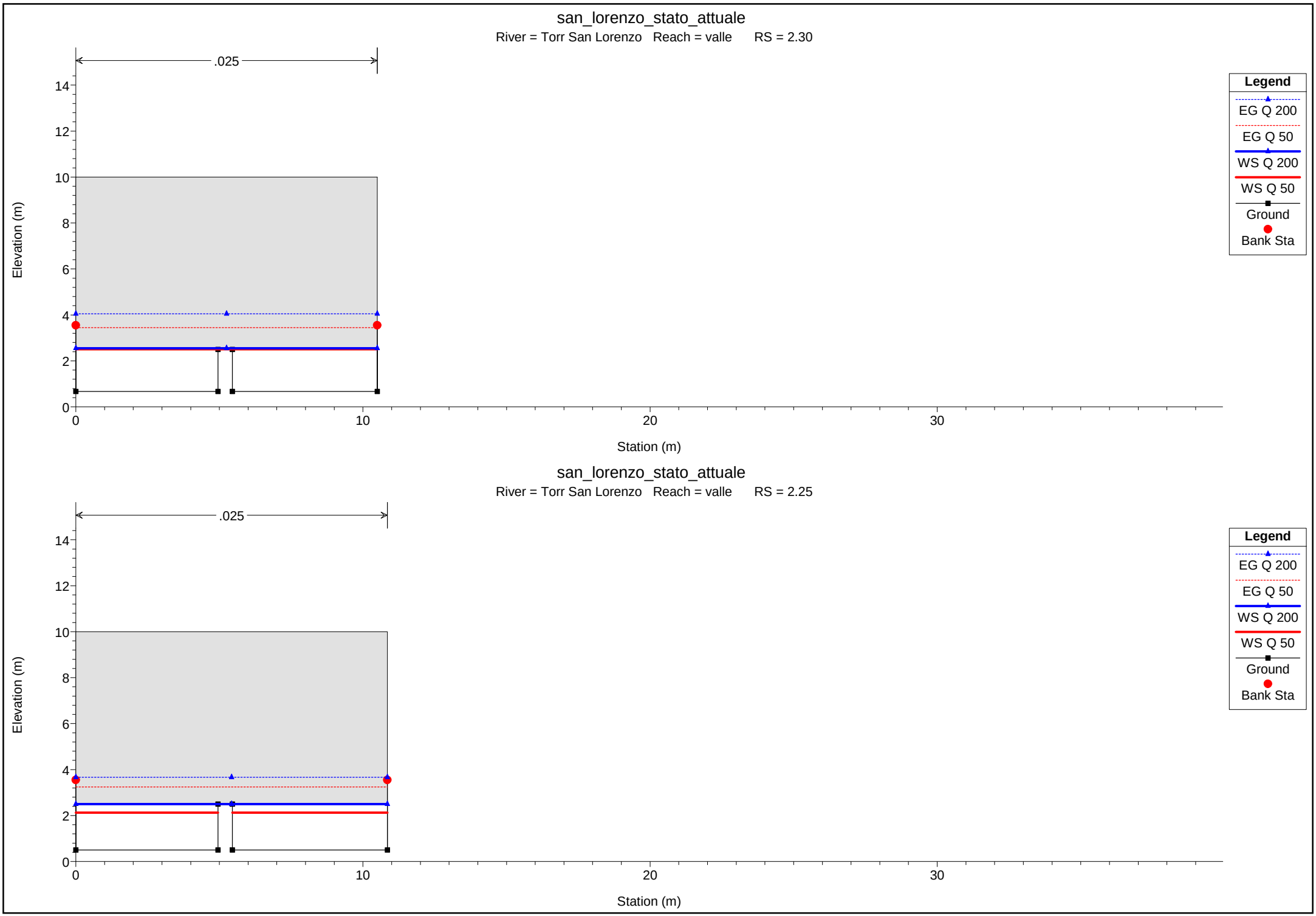
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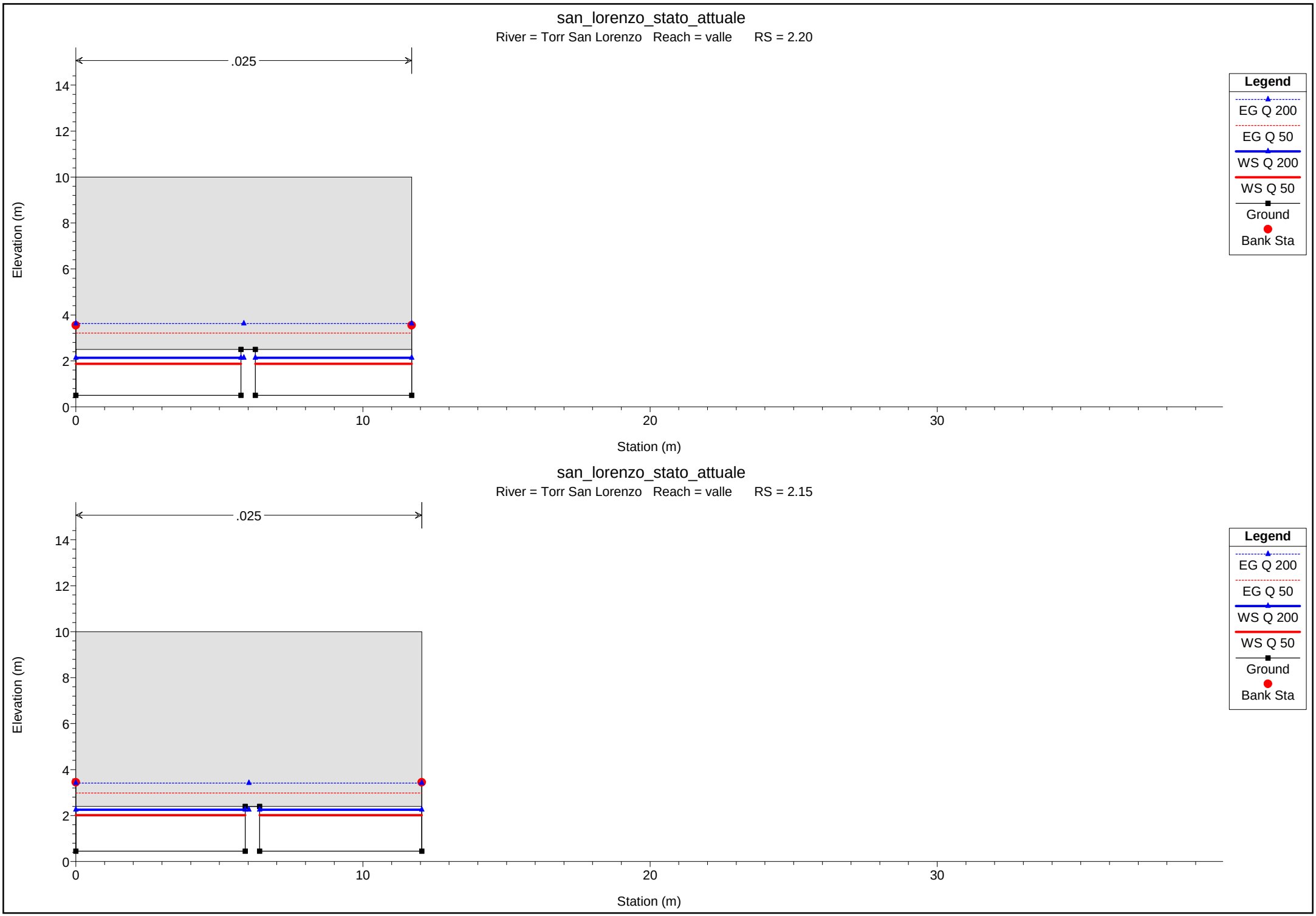
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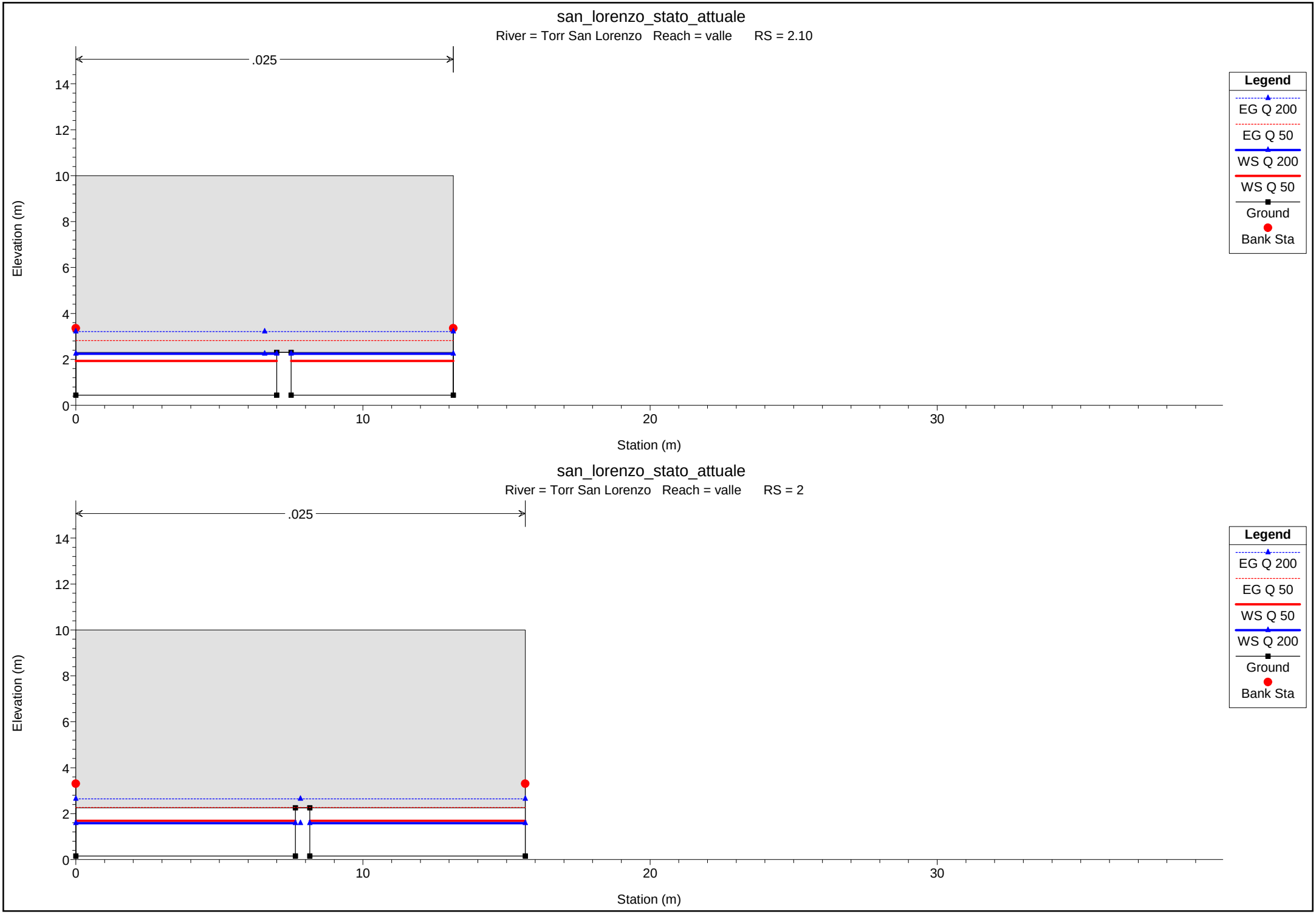
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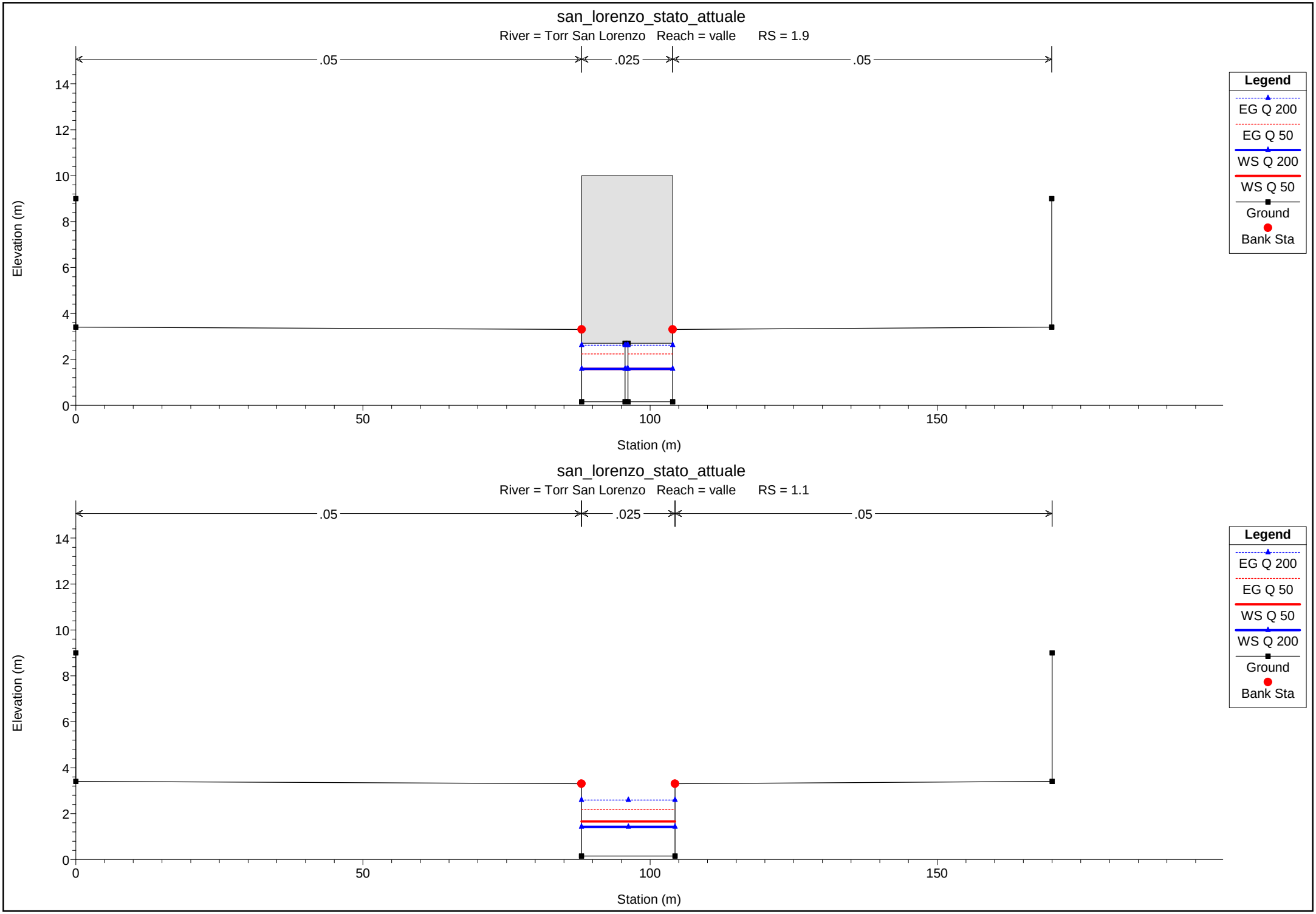
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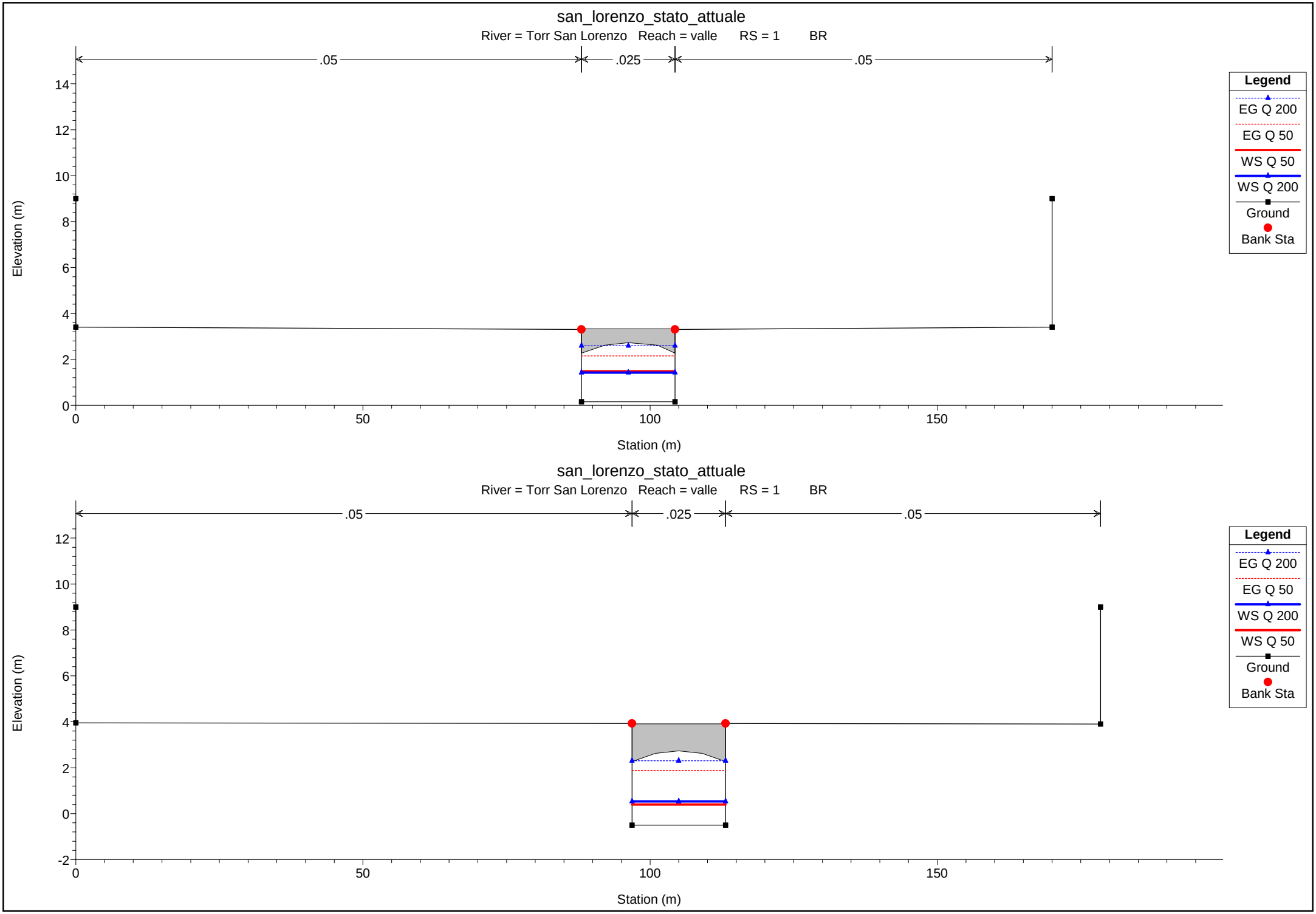
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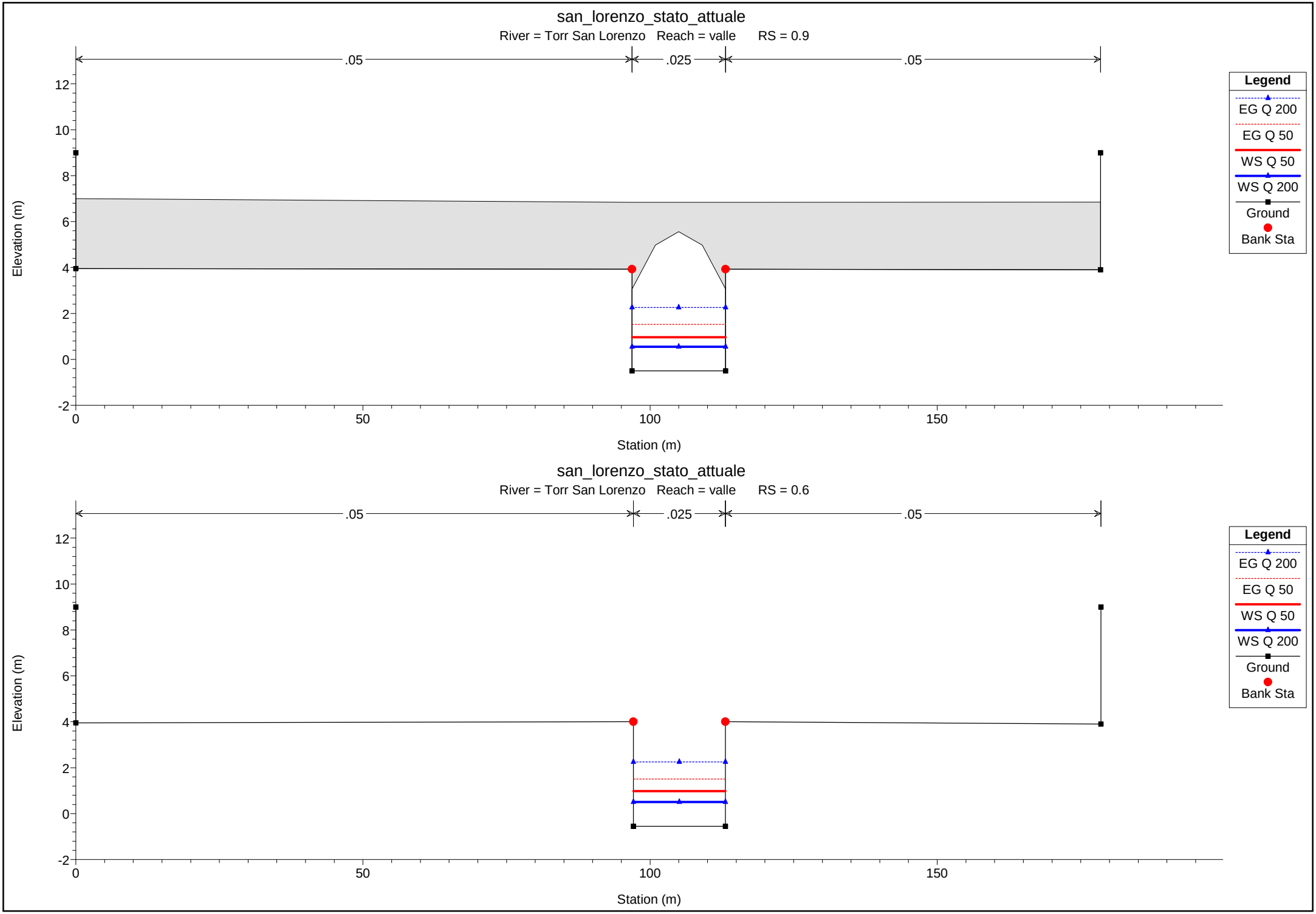
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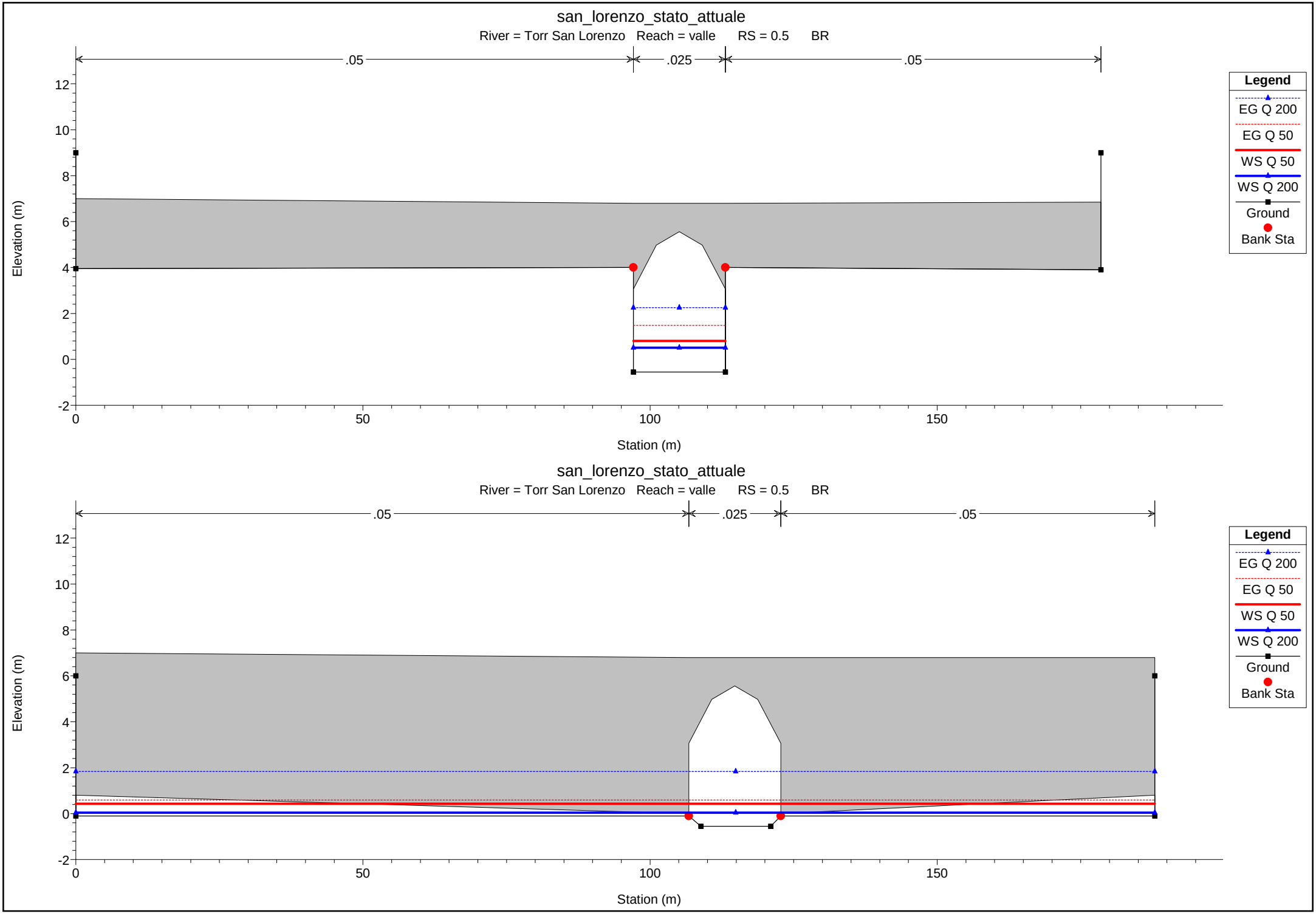
1 cm Horiz. = 8 m 1 cm Vert. = 2 m



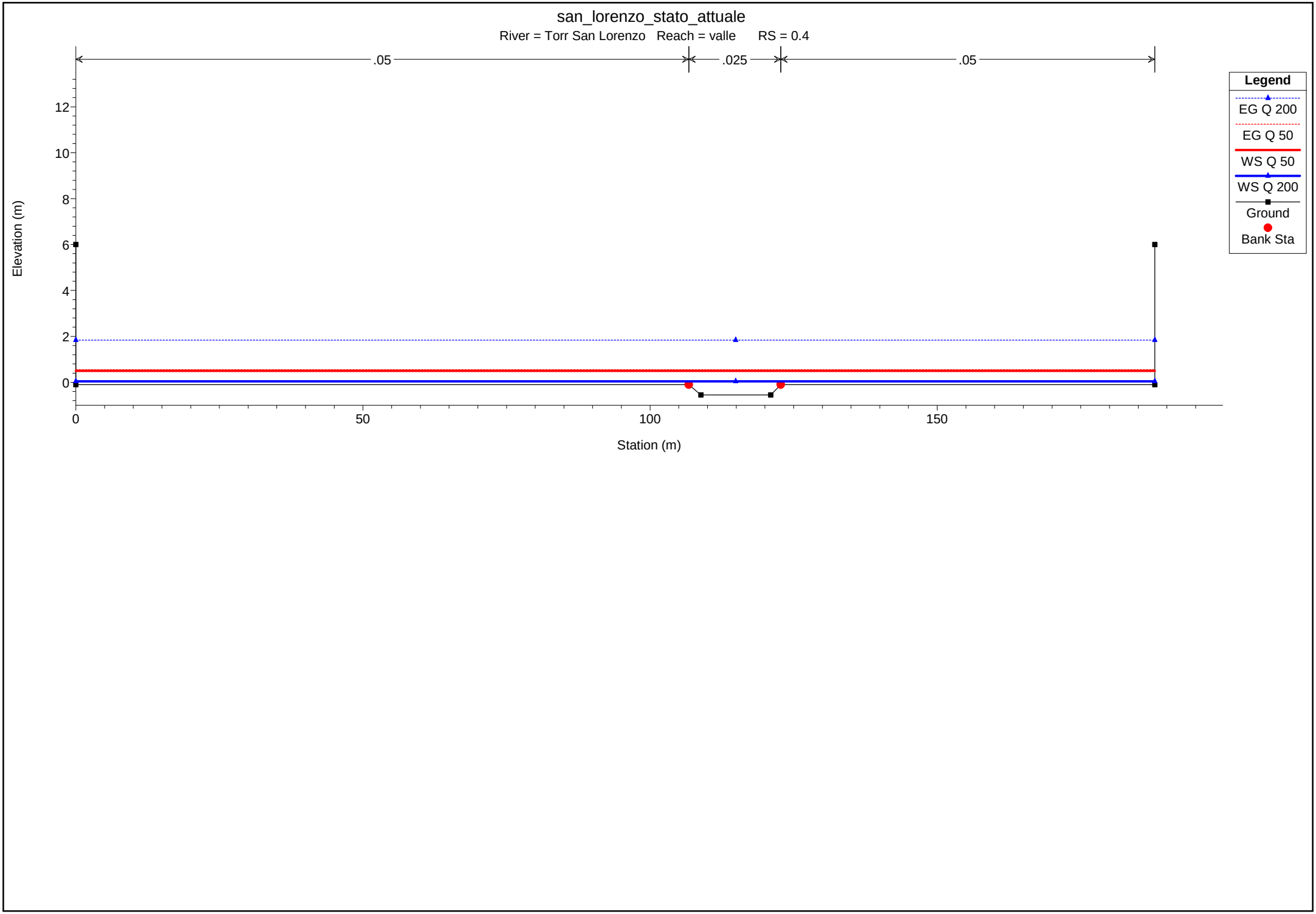
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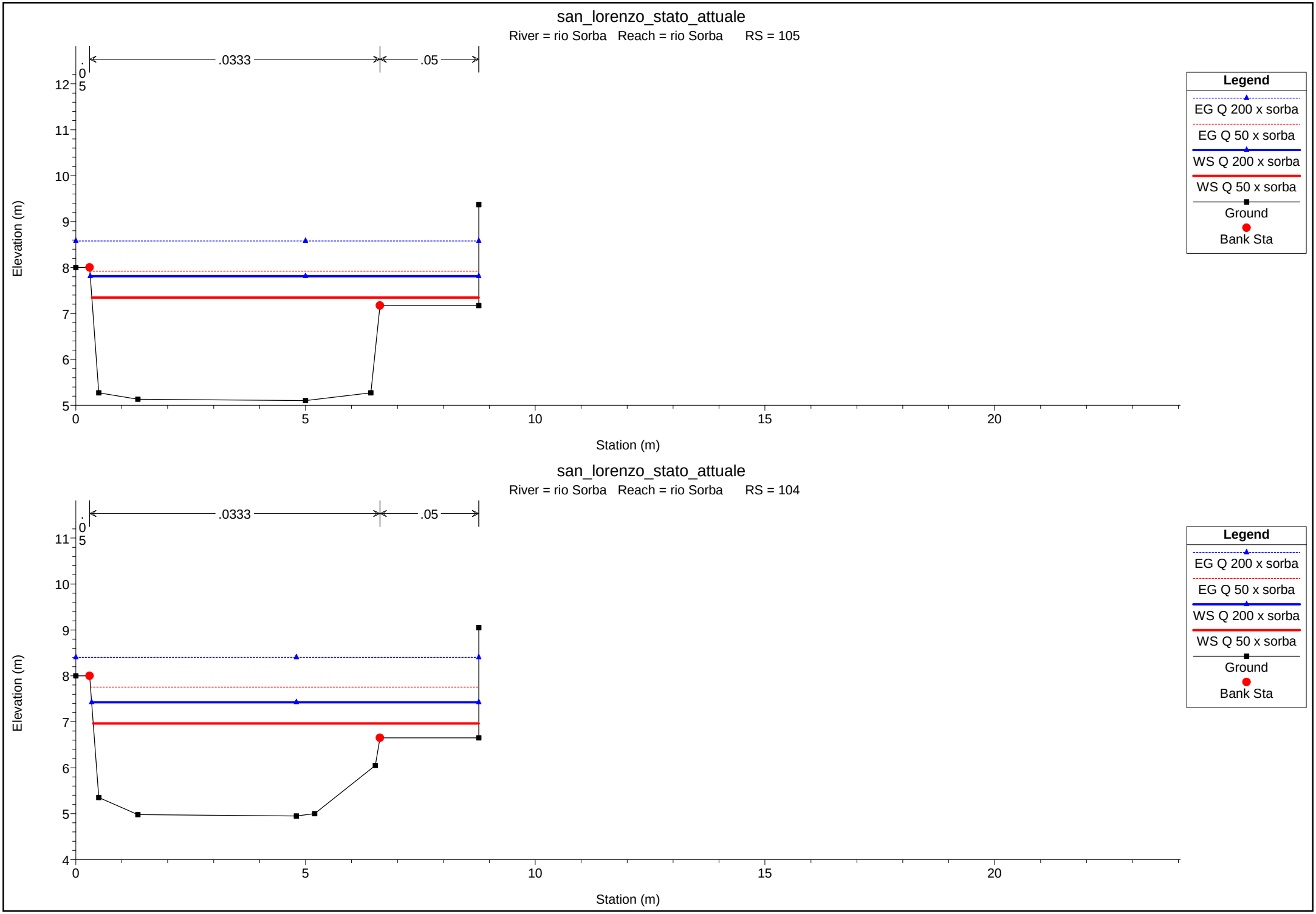
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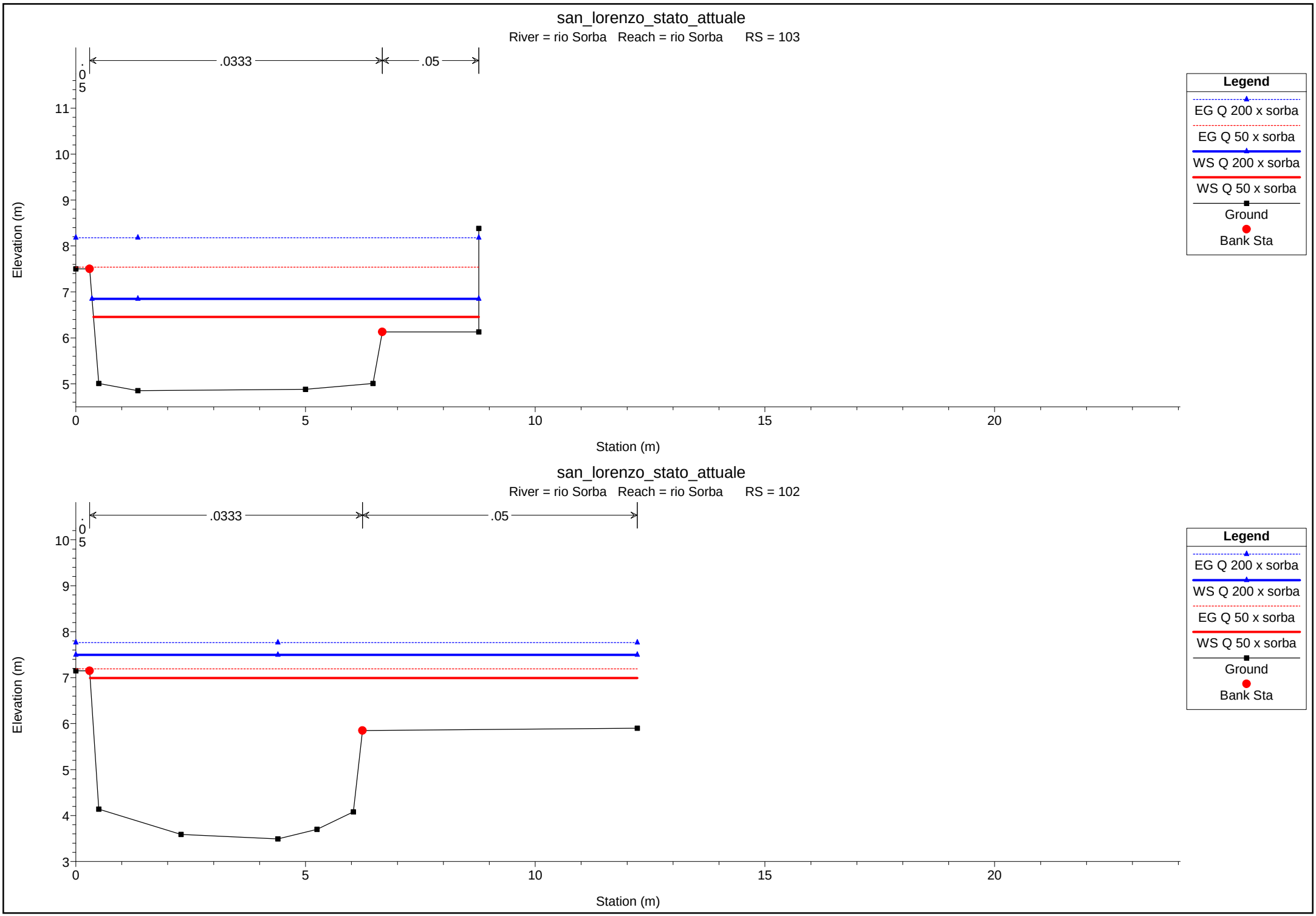
1 cm Horiz. = 8 m 1 cm Vert. = 2 m



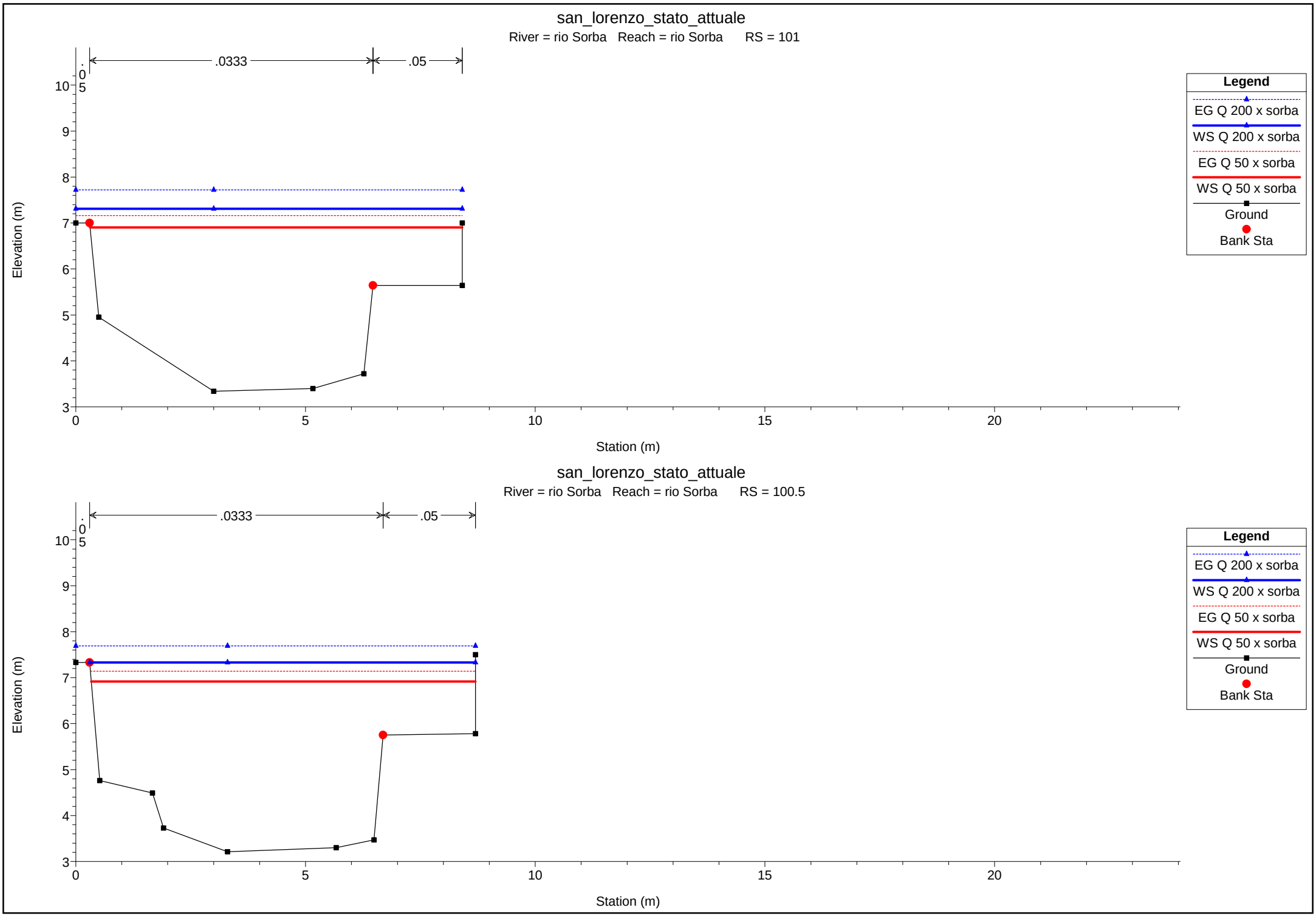
1 cm Horiz. = 8 m 1 cm Vert. = 2 m



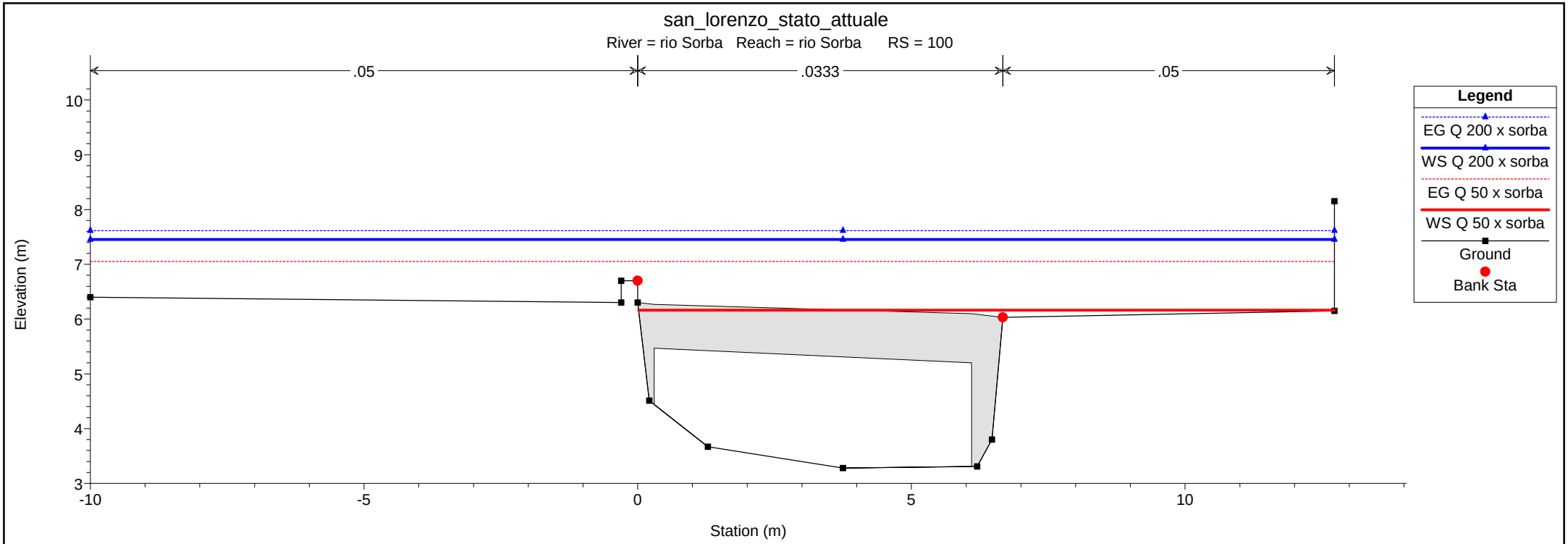
1 cm Horiz. = 1 m 1 cm Vert. = 1 m



1 cm Horiz. = 1 m 1 cm Vert. = 1 m



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