Sampling depth[a] (cm)	As		Cd		Hg		Pb		Sb		Tl		Zn		Layer number	Datation
	µg.g^{-1}	EF	µg.g^{-1}	EF	µg.g^{-1}	EF	µg.g^{-1}	EF	µg.g^{-1}	EF	µg.g^{-1}	EF	µg.g^{-1}	EF		
12	33.2	1.8	0.53	3.3	0.053	3.7	84.8	3.2	4.78	2.1	1.26	1.8	130.7	2.0	GE20	2002
20	46.4	2.1	0.63	3.4	0.043	2.7	106.0	3.4	5.16	1.9	1.59	1.9	159.4	2.1		
36	84.7	3.1	0.95	4.0	0.225	10.9	253.7	3.8	9.14	2.7	2.09	2.0	212.8	2.3	GE19	1976
40	165.2	5.7	0.97	4.0	0.223	10.4	471.3	6.7	10.82	3.0	2.74	2.5	246.2	2.5		
44	275.8	9.8	1.04	4.3	0.376	17.9	720.0	10.5	12.60	3.6	3.45	3.2	247.9	2.6		
52	59.2	2.0	0.86	3.5	0.301	13.8	153.2	3.7	9.15	2.5	2.07	1.9	214.0	2.1	GE18	1969
60	53.1	1.8	0.80	3.1	0.155	6.8	142.6	3.3	10.05	2.7	2.09	1.8	187.2	1.8		
68	39.3	1.3	0.59	2.3	0.101	4.5	78.1	1.8	10.32	2.8	1.67	1.5	143.7	1.4	GE17	1963
76	30.7	1.4	0.52	2.7	0.071	4.2	55.1	1.7	4.84	1.7	1.33	1.6	123.8	1.6	GE16	1958
88	34.9	1.4	0.72	3.4	0.069	3.8	68.5	1.9	6.97	2.3	1.54	1.7	147.5	1.8		
96	47.0	1.5	0.67	2.5	0.075	3.2	74.7	1.6	6.69	1.7	1.76	1.5	155.4	1.4	GE15	1951?
108	38.4	1.5	0.58	2.8	0.044	2.4	65.3	1.8	5.91	1.9	1.46	1.5	124.8	1.5	GE14	1943?
116	38.4	1.3	0.53	2.2	0.058	2.7	73.5	1.8	6.35	1.8	1.60	1.5	118.8	1.2	GE13	1933?
124	31.9	1.2	0.44	2.0	0.043	2.2	66.7	1.8	4.03	1.3	1.15	1.2	98.2	1.1	GE12	1915?
132	43.5	1.3	0.56	2.0	0.036	1.5	91.8	2.0	5.32	1.3	1.46	1.2	137.5	1.2		
136	37.2	1.5	0.45	2.1	0.028	1.5	66.3	1.8	5.99	1.9	1.24	1.3	109.5	1.3	GE11	1907?
140	34.3	1.4	0.28	1.3	0.039	2.0	55.0	1.5	4.37	1.4	1.10	1.1	94.5	1.1	GE10	1900?
148	27.6	1.1	0.26	1.2	0.025	1.3	39.3	1.1	3.46	1.1	0.99	1.0	83.8	0.9		
160	30.4	1.0	0.23	0.9	0.025	1.2	38.3	0.9	3.68	1.0	1.07	1.0	85.8	0.9	GE9	1890?
172	31.5	0.9	0.31	1.1	0.035	1.4	44.7	0.9	4.68	1.1	1.19	0.9	103.3	0.9	GE8	n.d.
180	31.8	1.0	0.40	1.4	0.047	1.9	46.9	1.0	4.22	1.0	1.15	0.9	114.7	1.0		
188	35.5	1.0	0.33	1.1	0.048	1.8	57.3	1.1	5.96	1.4	1.77	1.3	139.6	1.1	GE7	n.d.
192	37.8	1.1	0.33	1.1	0.043	1.6	58.1	1.1	5.97	1.4	1.73	1.3	131.7	1.1		
200	29.0	1.1	0.35	1.5	0.021	1.0	40.3	1.0	7.16	2.1	1.02	1.0	102.3	1.1		
208	36.7	1.0	0.27	0.9	0.034	1.3	49.5	1.0	4.27	1.0	1.30	1.0	114.8	1.0		
228	32.7	1.0	0.28	1.0	0.024	1.0	44.3	1.0	3.99	1.0	1.18	1.0	110.2	1.0	GE6	n.d.
236	32.0	1.0	0.25	0.9	0.023	1.0	41.8	0.9	4.22	1.1	1.12	0.9	104.6	0.9	GE5	n.d.
252	22.5	0.9	0.24	1.1	0.019	1.0	40.6	1.1	2.75	0.9	1.08	1.1	93.5	1.1	GE4	n.d.
260	29.4	1.1	0.30	1.3	0.034	1.7	41.7	1.1	3.87	1.1	1.15	1.1	98.9	1.1	GE3	n.d.
272	33.8	1.1	0.25	0.9	0.017	0.7	45.0	1.0	3.97	1.0	1.13	1.0	102.2	1.0	GE2	n.d.
280	28.9	1.0	0.20	0.8	0.018	0.8	41.0	1.0	3.32	0.9	1.12	1.0	92.2	1.0	GE1	n.d.
304	25.2	0.9	0.24	1.0	0.018	0.9	38.9	0.9	3.30	0.9	1.01	0.9	100.1	1.0		

[a]mesured from the top of the terrace

n.d. not determined

Station number	As		Cd		Hg		Pb		Sb		Tl		Zn		Hydrological conditions	Sampling date	River
	µg.g^{-1}	EF	µg.g^{-1}	EF	µg.g^{-1}	EF	µg.g^{-1}	EF	µg.g^{-1}	EF	µg.g^{-1}	EF	µg.g^{-1}	EF			
1	27.5	1.0	0.34	1.4	0.009	0.4	40.1	1.0	5.58	1.6	0.72	0.7	153.5	1.6	Low flow	December 6-7, 2012	
2	24.6	0.9	0.63	2.8	n.d.	n.d.	48.3	1.3	19.97	6.1	0.62	0.6	172.9	1.9	High flow	March 17, 2011	
3	26.0	0.8	0.37	1.4	n.d.	n.d.	45.1	1.0	51.72	13.4	0.72	0.6	142.6	1.3	Low flow	March 10, 2011	
	24.8	0.6	0.29	0.8	0.033	1.1	54.7	0.9	29.42	5.7	0.97	0.6	152.4	1.1	High flow	November 7, 2011	
	21.9	0.7	0.33	1.3	0.011	0.5	41.0	1.0	27.22	7.4	0.67	0.6	127.1	1.3	Low flow	December 6-7, 2012	
4	20.5	0.8	0.26	1.3	n.d.	n.d.	26.0	0.7	19.41	6.4	0.64	0.7	82.5	1.0	Low flow	March 10, 2011	
5	20.6	0.7	0.28	1.2	n.d.	n.d.	36.0	0.9	7.85	2.3	0.70	0.7	82.2	0.9	Low flow	March 10, 2011	
	21.8	0.9	0.20	0.9	0.048	2.5	51.1	1.4	12.38	3.9	0.71	0.7	85.3	1.0	High flow	November 7, 2011	
	42.3	1.6	0.28	1.3	0.227	11.6	76.2	2.0	19.68	6.1	0.84	0.8	105.0	1.2	Low flow	December 6-7, 2012	Gardon of Ales River
6	17.4	0.6	0.59	2.5	n.d.	n.d.	67.2	1.7	4.93	1.4	1.00	1.0	194.5	2.1	High flow	March 17, 2011	
7	34.9	1.5	1.13	5.7	n.d.	n.d.	83.1	2.5	13.48	4.7	1.38	1.6	323.0	4.1	High flow	November 16, 2010	
8	29.8	1.2	0.55	2.6	0.092	5.0	58.7	1.7	8.15	2.7	1.53	1.6	192.6	2.3	High flow	November 7, 2011	
9	51.8	3.2	0.92	6.8	n.d.	n.d.	168.3	7.3	14.90	7.5	1.06	1.7	338.3	6.2	Low flow	March 10, 2011	
	24.2	1.1	1.02	5.3	0.112	6.6	54.3	1.7	10.10	3.6	1.56	1.8	265.2	3.4	Low flow	December 6-7, 2012	
10	33.5	2.2	3.11	23.7	0.058	5.0	54.3	2.4	8.92	4.6	0.81	1.4	235.4	4.4	Low flow	December 6-7, 2012	
11	13.3	0.8	0.55	4.0	0.012	1.0	34.4	1.5	4.25	2.1	0.70	1.1	167.6	3.0	Low flow	October 10, 2011	
	40.5	2.4	0.67	4.6	0.084	6.6	102.2	4.2	11.99	5.7	1.25	1.9	284.2	4.9	Low flow	December 6-7, 2012	
12	16.8	0.6	0.16	0.7	0.005	0.2	20.7	0.5	4.78	1.3	0.63	0.6	94.1	1.0	Low flow	December 6-7, 2012	
13	26.5	1.2	0.19	1.0	0.005	0.3	23.0	0.7	2.87	1.1	0.61	0.7	83.3	1.1	Low flow	October 10, 2011	
	31.9	1.2	0.21	1.0	0.005	0.2	28.7	0.8	2.88	0.9	0.60	0.6	99.9	1.1	High flow	November 7, 2011	
	29.4	1.3	0.23	1.2	0.009	0.5	31.1	1.0	2.47	0.9	0.88	1.0	87.1	1.1	Low flow	December 6-7, 2012	
14	20.6	1.3	0.15	1.1	0.005	0.4	18.6	0.8	2.31	1.2	0.47	0.8	62.3	1.2	Low flow	December 6-7, 2012	
15	57.5	1.9	0.31	1.2	0.005	0.2	39.4	0.9	2.60	0.7	0.80	0.7	130.0	1.2	Low flow	December 6-7, 2012	
16	27.0	1.0	0.28	1.2	0.013	0.6	59.2	1.5	0.97	0.3	0.87	0.9	121.6	1.3	High flow	November 7, 2011	
	19.3	0.6	0.19	0.7	0.007	0.3	24.0	0.6	11.42	3.0	0.67	0.6	98.7	1.0	Low flow	December 6-7, 2012	
17	47.7	2.1	0.11	0.6	0.005	0.3	35.0	1.1	1.34	0.5	1.17	1.3	58.4	0.7	Low flow	October 10, 2011	Gardon of Anduze River
18	30.3	1.1	0.23	1.0	0.008	0.4	39.1	1.0	1.77	0.5	1.33	1.3	96.7	1.0	Low flow	October 10, 2011	
19	29.7	1.1	0.11	0.5	0.011	0.6	55.3	1.5	1.70	0.5	1.74	1.7	71.0	0.8	Low flow	October 10, 2011	
20	46.4	2.0	0.68	3.4	0.033	1.8	99.3	2.9	3.04	1.0	2.11	2.3	213.7	2.6	Low flow	December 6-7, 2012	
21	25.3	1.5	0.27	1.9	0.021	1.7	51.4	2.2	2.46	1.2	0.83	1.3	106.0	1.9	Low flow	December 6-7, 2012	
22	35.2	1.7	0.39	2.3	0.044	2.9	68.9	2.4	2.09	0.8	1.05	1.4	109.1	1.6	Low flow	October 10, 2011	
	68.2	3.1	0.45	2.4	0.055	3.3	266.6	8.4	4.98	1.8	1.01	1.2	155.6	2.0	High flow	November 7, 2011	
	45.8	2.0	0.34	1.8	0.036	2.1	65.4	2.0	2.69	1.0	1.04	1.2	115.1	1.5	Low flow	December 6-7, 2012	
23	58.0	3.3	0.20	1.3	0.087	6.5	90.4	3.6	2.32	1.1	0.89	1.3	118.6	1.9	Low flow	October 10, 2011	
	45.5	2.3	0.39	2.3	0.023	1.5	91.7	3.2	3.73	1.5	1.14	1.5	132.6	1.9	Low flow	December 6-7, 2012	
24	52.9	2.3	0.27	1.4	0.024	1.4	120.4	3.7	3.76	1.3	1.23	1.4	159.7	2.0	Low flow	October 10, 2011	Gardon River downstream from the confluence of the Gardon of Anduze and Ales Rivers
	31.5	1.2	0.36	1.7	0.024	1.2	87.4	2.4	1.94	0.6	1.10	1.1	147.9	1.7	High flow	November 7, 2011	
	44.6	2.2	0.70	4.0	0.053	3.5	106.2	3.6	3.69	1.4	1.62	2.1	178.3	2.5	Low flow	December 6-7, 2012	
25	43.9	2.1	0.45	2.5	0.033	2.1	114.4	3.8	5.10	2.0	1.40	1.7	151.3	2.1	High flow	November 7, 2011	
AF1	1461.0	48.4	0.30	1.2	0.120	5.3	160.6	3.7	6942.15	#####	1.56	1.4	157.8	1.5	Low flow	December 6-7, 2012	
AF2	155.3	3.8	0.61	1.7	n.d.	n.d.	312.1	5.3	132.50	25.8	1.01	0.6	198.4	1.4	High flow	March 17, 2011	
	47.7	1.3	0.46	1.5	0.009	0.3	124.0	2.4	133.99	30.5	0.93	0.7	167.5	1.4	Low flow	December 6-7, 2012	
AF3	6.5	0.4	0.16	1.0	n.d.	n.d.	12.7	0.5	1.02	0.5	0.38	0.6	65.0	1.1	High flow	November 16, 2010	
	25.2	1.0	0.16	0.8	0.014	0.8	29.7	0.8	4.22	1.4	0.60	0.6	99.6	1.2	Low flow	December 6-7, 2012	
AF4	278.2	29.3	5.06	62.5	n.d.	n.d.	315.8	23.2	31.49	26.6	8.25	22.8	1197.0	36.7	High flow	November 16, 2010	Gardon of Ales River Tributaries
	240.6	26.0	6.58	83.5	0.143	20.6	238.0	17.9	33.79	29.4	7.05	20.0	855.0	26.9	Low flow	December 6-7, 2012	
AF5	34.4	2.7	0.31	2.8	0.039	4.0	69.8	3.8	5.33	3.3	0.90	1.8	85.5	1.9	Low flow	December 6-7, 2012	
AF6	50.1	6.6	1.21	18.9	n.d.	n.d.	70.8	6.5	9.01	9.6	3.89	13.5	314.0	12.1	High flow	November 16, 2010	
	45.9	4.2	1.48	16.0	0.191	23.5	69.4	4.5	6.27	4.7	7.33	17.8	354.5	9.5	High flow	November 7, 2011	
	55.3	8.7	1.15	21.3	0.074	15.7	63.4	7.0	7.97	10.1	4.91	20.4	288.0	13.3	Low flow	December 6-7, 2012	
AF7	5.4	0.2	0.08	0.3	0.013	0.6	49.4	1.2	0.10	0.0	1.90	1.8	69.0	0.7	Low flow	October 10, 2011	
	15.9	0.7	0.14	0.7	0.009	0.5	40.3	1.2	0.86	0.3	1.68	1.9	42.7	0.5	Low flow	December 6-7, 2012	
AF8	216.7	38.5	5.56	116.1	0.733	173.9	1295.4	160.5	39.91	57.1	5.99	27.9	1148.1	59.5	Low flow	December 6-7, 2012	
AF9	691.8	47.5	2.57	20.8	0.372	34.1	3957.7	189.5	4.59	2.5	4.41	7.9	763.9	15.3	Low flow	October 10, 2011	Gardon of Anduze River Tributaries
	877.9	70.3	3.47	32.6	0.365	39.0	4475.5	249.8	30.59	19.7	4.61	9.7	926.5	21.6	High flow	November 7, 2011	
	833.0	70.6	3.20	31.8	0.313	35.4	2927.2	172.9	24.14	16.5	4.63	10.3	679.8	16.8	Low flow	December 6-7, 2012	
AF10	125.4	20.2	2.83	53.7	0.163	35.1	1021.9	115.0	14.66	19.1	5.25	22.2	576.6	27.1	High flow	November 7, 2011	
	70.7	7.9	2.68	35.2	0.159	23.8	712.6	55.7	10.65	9.6	4.29	12.6	493.9	16.1	Low flow	December 6-7, 2012	

n.d. not determined

	Station	Longitude	Latitude
Main stream sediments	1	3.9015	44.2477
	2	3.9138	44.2474
	3	3.9724	44.2478
	3	3.9148	44.1236
	4	4.0137	44.2208
	5	4.0493	44.1736
	6	4.0783	44.1403
	7	4.0754	44.1322
	8	4.0795	44.1202
	9	4.0956	44.1066
	10	4.1026	44.0863
	11	4.1180	44.0374
	12	3.8429	44.1763
	14	3.9661	44.0794
	15	3.7626	44.1267
	16	3.8844	44.1034
	17	3.9221	44.0822
	18	3.9333	44.0771
	19	3.9429	44.0743
	20	3.9554	44.0731
	21	3.9735	44.0726
	22	3.9886	44.0521
	23	4.1101	44.0302
	24	4.1585	44.0182
	25	4.3221	43.9309
Tributary sediments	AF1	3.9054	44.2439
	AF2	3.9241	44.2381
	AF3	4.0493	44.1531
	AF4	4.0874	44.1394
	AF5	4.0892	44.0907
	AF6	4.1166	44.0829
	AF7	3.9348	44.0663
	AF8	3.9451	44.0669
	AF9	3.9854	44.0790
	AF10	4.0062	44.0226
Sedimentary archive	GE	4.4285	43.9369

Sampling depth[a] (cm)	$\delta^{66}Zn_{JMC\ 3\text{-}0749\text{-}L}$	$\delta^{66}Zn_{IRMM\ 3702}$
12	0.21	-0.08
20	0.21	-0.08
36	0.25	-0.04
40	0.24	-0.05
44	0.21	-0.08
52	0.21	-0.08
60	0.24	-0.05
68	0.22	-0.07
76	0.22	-0.07
88	0.25	-0.04
96	0.22	-0.07
108	0.20	-0.09
116	0.23	-0.06
124	0.26	-0.03
132	0.25	-0.04
136	0.23	-0.06
148	0.24	-0.05
160	0.20	-0.09
172	0.21	-0.08
180	0.21	-0.08
188	0.27	-0.02
192	0.26	-0.03
200	0.24	-0.05
228	0.25	-0.04
236	0.25	-0.04
252	0.25	-0.04
260	0.26	-0.03
272	0.27	-0.02
280	0.25	-0.04
304	0.25	-0.04

[a]mesured from the top of the terrace

Station number	$\delta^{66}Zn_{JMC\ 3\text{-}0749\text{-}L}$	$\delta^{66}Zn_{IRMM\ 3702}$
3	0.25	-0.04
5	0.22	-0.07
8	0.18	-0.11
13	0.23	-0.06
16	0.20	-0.09
22	0.18	-0.11
24	0.18	-0.11
AF6	0.31	0.02
AF9	0.08	-0.21
AF10	0.07	-0.22