

○ Results of Radioactive Material Monitoring of Aquatic Organisms (Location F along the Ota River)

< Location F along the Ota River: Samples collected >

Items Locations	General items		Radioactive materials			
	Water	Sediment	Water(Cs)	Water(Sr)	Sediment(Cs)	Sediment(Sr)
F-1	○	○	○	○	○	○
F-2	○	○	○	○	○	○
F-3	○	○	○	○	○	○
F-4	○	○	○	○	○	○
F-5	○	○	○	○	○	○
F-6	○	○	○	○	○	○

< Location F along the Ota River: Site measurement item >

Items Locations	Survey date and time			Latitude and longitude of the location		Water	Sediment					Other	
	Date	Time(Water)	Time(Sediment)	Latitude	Longitude	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Odor	Contaminants	Water depth (m)	Transparency (cm)
F-1	2012/12/7	8:05	8:17	37.597533°	140.925167°	6.5	6.5	Sand	2.5Y-3/3	None	Plant	0.40	>50
F-2	2012/12/7	8:58	9:25	37.601617°	140.942283°	6.6	6.8	Sand gravel	2.5Y-3/3	None	Plant	0.45	>50
F-3	2012/12/7	10:09	10:17	37.604517°	140.963617°	6.0	5.8	Sand gravel	2.5Y-3/2	None	Stones/crabs	0.35	>50
F-4	2012/12/7	10:30	11:00	37.606967°	140.971983°	9.9	10.0	Sand	2.5Y-3/3	None	None	0.35	>50
F-5	2012/12/7	11:33	11:38	37.602183°	140.986750°	9.0	8.7	Sand gravel	2.5Y-3/3	None	Pebbles	0.25	>50
F-6	2012/12/7	12:23	—	37.595333°	141.012300°	7.5	—	—	—	—	—	0.30	>50

< Location F along the Ota River: General survey items/Analysis of radioactive materials Water >

Items Locations	Survey date and time		Latitude and longitude of the location		pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)	Electrical conductivity (mS/m)	Salinity	TOC (mg/L)	SS (mg/L)	Turbidity (FNU)	Cs-134 (Bq/L)	Cs-137 (Bq/L)	Sr-90 (Bq/L)
	Date	Time(Water)	Latitude	Longitude												
F-1	2012/12/7	8:05	37.597533°	140.925167°	7.4	0.5	2.4	12.3	6.3	0.03	0.7	<1	0.6	0.21	0.36	—
F-2	2012/12/7	8:58	37.601617°	140.942283°	7.1	-0.5	2.7	11.7	7.1	0.03	0.6	<1	0.4	0.17	0.29	0.0048
F-3	2012/12/7	10:09	37.604517°	140.963617°	7.4	-0.5	1.7	12.0	7.2	0.03	0.6	<1	0.3	0.21	0.36	—
F-4	2012/12/7	10:30	37.606967°	140.971983°	6.7	-0.5	1.2	9.7	7.8	0.04	0.3	<1	0.2	0.093	0.16	—
F-5	2012/12/7	11:33	37.602183°	140.986750°	7.0	0.6	1.9	10.6	8.9	0.04	0.6	2	1.5	0.16	0.29	—
F-6	2012/12/7	12:23	37.595333°	141.012300°	7.0	0.6	1.9	11.1	419.0	2.06	1.0	3	2.5	0.14	0.25	—

< Location F along the Ota River: General survey items/Analysis of radioactive materials Sediment >

Items Locations	Survey date and time		Latitude and longitude of the location		pH	Redox potential E _{NHE} (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm ³)	Grain size distribution							Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)	
	Date	Time	Latitude	Longitude							Gravel (2-75mm) (%)	Coarse sand (0.85-2mm) (%)	Medium sand (0.25-0.85mm) (%)	Fine sand (0.075-0.25mm) (%)	Silt (0.005-0.075mm) (%)	Clay (Less than 0.005mm) (%)	Median grain diameter (mm)				maximum grain diameter (mm)
F-1	2012/12/7	8:17	37.597533°	140.925167°	6.7	362	24.8	2.4	2	2.642	22.3	34.3	26.6	8.2	3.8	4.8	1.000	19.00	—	—	
F-2	2012/12/7	9:25	37.601617°	140.942283°	6.5	363	18.4	2.0	1	2.622	55.1	24.3	13.5	1.7	2.1	3.3	2.500	19.00	5,300	9,300	0.45
F-3	2012/12/7	10:17	37.604517°	140.963617°	7.0	364	19.9	1.2	2	2.626	61.3	21.1	11.1	2.5	2.1	1.9	3.200	26.50	4,200	7,300	—
F-4	2012/12/7	11:00	37.606967°	140.971983°	6.9	377	18.0	0.6	<1	2.632	27.0	31.0	35.2	5.6	1.2	1.2	1.000	19.00	1,600	2,800	—
F-5	2012/12/7	11:38	37.602183°	140.986750°	6.5	416	15.6	0.6	<1	2.658	43.4	27.1	26.7	1.7	1.1	1.1	1.600	26.50	460	840	—

< Location F along the Ota River: Survey items Aquatic organisms >

Location	Sampling Date	Latitude and longitude of the location		Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Cs-134 (Bq/kg-wet)	Cs-137 (Bq/kg-wet)	Sr-90 (Bq/kg-wet)	Note								
		Latitude	Longitude												Growth stage	Stomach contents							
F-1 F-2 F-3	2012/12/20	37.597533° 37.601617° 37.604517°	140.925167° 140.942283° 140.963617°	Arthropod	Insecta	Odonata	Odonata	<i>Macromia amphigena amphigena</i>	<u>Macromia amphigena</u>	101	0.028	460	760	—	Larva	—							
				Arthropod	Insecta	Odonata	Odonata	<i>Anotogaster sieboldii</i>	<u>Anotogaster sieboldii</u>														
				Arthropod	Insecta	Odonata	Odonata	<i>Calopteryx atrata</i>	<u>Calopteryx atrata</u>														
				Arthropod	Insecta	Odonata	Odonata	<i>Mnais costalis</i>	<u>Mnais costalis</u>														
				Arthropod	Insecta	Odonata	Odonata	<i>Asiagomphus melanocephalus</i>	<u>Asiagomphus melanocephalus</u>														
				Arthropod	Insecta	Odonata	Odonata	<i>Davidius nanus</i>	<u>Davidius nanus</u>														
				Arthropod	Insecta	Odonata	Odonata	<i>Davidius sp.</i>	<u>Davidius</u>														
				Arthropod	Insecta	Odonata	Odonata	<i>Onychogomphus viridicostus</i>	<u>Onychogomphus viridicostus</u>														
				Arthropod	Insecta	Odonata	Odonata	<i>Sieboldius albardae</i>	<u>Sieboldius albardae</u>														
				Arthropod	Insecta	Odonata	Odonata	<i>Stylogomphus suzukii</i>	<u>Stylogomphus suzukii</u>														
				Arthropod	Insecta	Odonata	Odonata	<i>Boyeria maclachlani</i>	<u>Boyeria maclachlani</u>														
				Arthropod	Insecta	Trichoptera	Trichoptera	<i>Stenopsyche marmorata</i>	<u>Stenopsyche marmorata</u>														
				Arthropod	Insecta	Trichoptera	Trichoptera	<i>Stenopsyche sauteri</i>	<u>Parastenopsyche sauteri</u>														
				Arthropod	Insecta	Megaloptera	Megaloptera	<i>Parachauliodes continentalis</i>	<u>Parachauliodes continentalis</u> Weele														
				Arthropod	Insecta	Megaloptera	Megaloptera	<i>Protohermes grandis</i>	<u>Protohermes grandis</u>														
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius sp.</i>	<u>Carassius</u>								2	0.072	720	1,300	—	Immature fish	Some (details unknown)
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon sp.</i>	<u>Tribolodon</u>								19	0.13	770	1,300	—	Mature fish/ Immature fish	—
Vertebrata	Osteichthyes	Cypriniformes	Cypriniformes	<i>Cobitis biwaensis</i>	<u>Cobitis biwaensis</u>	27	0.030	680	1,200	—	Mature fish/ Immature fish	—											
Vertebrata	Osteichthyes	Perciformes	Perciformes	<i>Rhinogobius fluvialis</i>	<u>R. fluvialis</u>	4	0.018	3,600	6,200	—	Mature fish	—											
—	—	—	—	—	—	—	0.80	560	990	—	—	—											

Note) Underlined names in the English name column indicate species largest in number in the respective samples.