○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	Latitude and longitude of the location		Survey date and time			Water	Sediment				Other	
	Latitude	Longitude	Date	Time (water)	Time (sediment)	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Contaminants	Water depth (m)	Transparency (cm)
F-1	37.5974°	140.9249°	2014/10/25	7:58	8:00	14.3	14.2	Sediment with sand	2.5Y4/2	None	0.44	>50.0
F-2	37.6015°	140.9436°		8:54	8:59	14.5	14.9	Sand	2.5Y4/4	None	0.41	>50.0
F-3	37.6046°	140.9641°		10:12	10:17	14.8	14.9	Sediment with sand	2.5Y4/3	Plant	0.53	>50.0
F-4	37.6071°	140.9721°		10:51	11:00	15.7	15.8	Sand	2.5Y4/4	Roots	0.57	>50.0
F-5	37.6023°	140.9874°		12:25	12:30	16.3	16.4	Fine sand	2.5Y5/4	None	0.37	>50.0
F-6	37.5955°	141.0126°		13:30	—	17.3	—	—	—	—	1.01	>50.0

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

Items / Locations	Latitude and longitude of the location		Survey date and time		pH	BOD	COD	DO	Electrical conductivity	Salinity	TOC	SS	Turbidity	Cs-134	Cs-137	Sr-90
	Latitude	Longitude	Date	Time (water)		(mg/L)	(mg/L)	(mg/L)	(mS/m)		(mg/L)	(mg/L)	(FNU)	(Bq/L)	(Bq/L)	(Bq/L)
F-1	37.5974°	140.9249°	2014/10/25	7:58	7.3	<0.5	2.5	10.6	4.9	0.03	1.1	1	0.7	0.11	0.33	—
F-2	37.6015°	140.9436°		8:54	7.2	<0.5	2.7	9.7	5.5	0.03	1.1	1	0.7	0.11	0.32	0.0038
F-3	37.6046°	140.9641°		10:12	7.3	<0.5	2.4	10.0	5.8	0.03	1.0	1	0.7	0.086	0.25	—
F-4	37.6071°	140.9721°		10:51	7.1	<0.5	2.1	9.6	6.2	0.04	0.9	<1	0.6	0.068	0.21	—
F-5	37.6023°	140.9874°		12:25	7.2	<0.5	2.2	9.9	6.7	0.04	1.0	1	0.7	0.063	0.18	—
F-6	37.5955°	141.0126°		13:30	7.1	0.5	2.9	10.1	11.6	0.06	1.4	6	1.7	0.056	0.17	—

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

Items / Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential $E_{N.H.E}$	Water content	IL	TOC	Soil particle density	Grain size distribution								Cs-134	Cs-137	Sr-90
											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	Maximum grain diameter			
	Latitude	Longitude	Date	Time		(mV)	(%)	(%)	(mg/g-dry)	(g/cm3)	(%)	(%)	(%)	(%)	(%)	(%)	(mm)	(mm)	(Bq/kg-dry)	(Bq/kg-dry)	(Bq/kg-dry)
F-1	37.5974°	140.9249°	2014/10/25	8:00	6.7	342	18.6	1.5	2.6	2.665	39.5	31.1	13.0	9.6	2.9	3.9	1.6	9.5	2,700	8,400	—
F-2	37.6015°	140.9436°		8:59	6.7	328	14.3	0.6	1.5	2.655	47.8	42.9	8.4	0.3	0.6		1.9	9.5	1,100	3,500	0.31
F-3	37.6046°	140.9641°		10:17	6.7	356	18.4	0.9	1.4	2.647	36.2	43.8	13.9	4.1	0.5	1.5	1.6	19	930	2,900	—
F-4	37.6071°	140.9721°		11:00	6.7	366	16.0	0.7	1.8	2.646	39.2	28.9	24.3	6.5	1.1		1.6	19	1,000	3,200	—
F-5	37.6023°	140.9874°		12:30	6.8	373	20.7	0.8	1.9	2.649	2.7	25.6	68.5	2.0	1.2		0.64	9.5	500	1,600	—

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

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

Location		Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species name	English name	Population	Sample weight(kg-wet)	Note			Cs-134 (Bq/kg-wet)	Cs-137 (Bq/kg-wet)	Sr-90 (Bq/kg-wet)
		Latitude	Longitude										Growth stage	Stomach contents	Measurement site			
F-1	—	37.5974°	140.9249°	2014/10/23 2014/10/25	Algae/plant	—	—	—	—	River bottom materials (incl. algae)	Considerable number	0.066	—	—	—	460	1,400	—
					Arthropod	Insecta	Odonata	Corduliidae	*Macromia amphigena amphigena*	Macromia amphigena	103	0.031	Larva (dragonfly larva)	—	—	110	370	—
					Arthropod	Insecta	Odonata	Cordulegastridae	*Anotogaster sieboldii*	Anotogester sieboldii								
					Arthropod	Insecta	Odonata	Gomphidae	*Onychogomphus viridicostus*	Onychogomphus viridicostus								
					Arthropod	Insecta	Odonata	Gomphidae	*Sieboldius albardae*	Albardae								
					Arthropod	Insecta	Odonata	Gomphidae	*Davidius* sp.	Davidius								
					Arthropod	Insecta	Odonata	Gomphidae	*Asiagomphus melaenops*	Asiagomphus melaenops								
					Arthropod	Insecta	Odonata	Aeshnidae	*Boyeria maclachlani*	Boyeria maclachlani								
					Arthropod	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis	33	0.015	Larva	—	—	68	220	—
					Arthropoda	Insecta	Neuroptera	Corydalidae	*Parachaulioides japonicus ,*	Parachaulioides japonicus								
					Arthropoda	Malacostraca	Decapoda	Atyidae	*Paratya improvisa*	Freshwater shrimp	295	0.080	Imago	—	—	210	680	—
					Arthropod	Malacostraca	Decapoda	Grapsidae	*Eriocheir japonica*	Japanese mitten crab	4	0.040	Imago	—	—	250	760	—
					Mollusca	Gastropoda	Sorbeoconcha	Pleuroceridae	*Semisulcospira libertina*	Semisulcospira libertina	61	0.054	Imago	—	Molluscan body	94	310	—
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	*Anguilla japonica*	Japanese eel	4	1.5	Mature fish (9-year-old)	Some (details unknown)	Viscera removed	51	150	0.36
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	6	0.010	Immature fish	—	—	280	750	—
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Zacco platypus*	Pale chub	18	0.15	Mature fish	—	—	170	480	—
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Nipponocypris temminckii*	Dark chub	6	0.060	Mature fish	—	—	110	360	—
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	*Cobitis biwae*	Cobitis biwae	5	0.012	Mature fish	—	—	240	660	—
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius* sp.	R. sp. CB	5	0.024	Mature fish	—	—	430	1,400	—
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	*Silurus asotus*	Amur catfish	1	0.29	Mature fish (4-year-old)	Some (details unknown)	Viscera removed	29	89	—
					coarse particulate organic matters (CPOMs)	—	—	—	—	Fallen leaves	Considerable number	0.29	—	—	—	250	790	—

*1: Organisms were collected in or around the targeted water areas.

*2: When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.

*3: For a sample made of multiple types of aquatic organisms, the name of the dominant one largest in number is underlined.

*4: Basically, measurement was conducted for all organism samples. Viscera (stomach and bowels) were removed for the measurement when possible so that undigested food and sediments, etc. in the digestive system would be excluded.

*5: A statement in red in the “Growth stage” column shows the age assessed based on squama or otolith

*6: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40μm-mesh).

*7: River bottom materials (incl. algae) are algae, etc. that were scratched off stones with a brush, etc. and may include very fine particles such as inorganic silt and clay.

*8: N.D. means to be below the detection limit and figures in parentheses show the detection limit.

*9: Activity concentrations include counting errors, but the details are omitted here.