○Results of Radioactive Material Monitoring of Aquatic Organisms (Location O along the Tomioka River)

<Location O along the Tomioka River: Samples collected>

Items / Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
O-1	○	○	○	○	○	○
O-2	○	○	○	-	○	-

<Location O along the Tomioka 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)
O-1	37.3547°	140.9780°	2023/12/4	08:14	08:16	8.3	8.3	Sand	7.5Y6/3	None	0.46	>100
O-2	37.3624°	140.9612°		08:48	08:50	8.2	8.2	Sand	7.5Y6/3	Plant pieces	0.25	>100

<Location O along the Tomioka 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	Electric 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)
O-1	37.3547°	140.9780°	2023/12/4	08:14	7.4	0.6	1.6	11.4	8.7	0.05	0.8	<1	0.5	N.D.(0.0014)	0.0082	0.0027
O-2	37.3624°	140.9612°		08:48	7.5	0.8	1.5	11.6	8.2	0.04	0.8	<1	0.6	N.D.(0.0016)	0.013	-

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

<Location O along the Tomioka 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_{NHE}	Water content	IL	TOC	Soil particle density	Grain size distribution									
											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	Cs-134	Cs-137	Sr-90
	Latitude	Longitude	Date	Time (sediment)		(mV)	(%)	(%)	(mg/g-dry)	(g/cm^3)	(%)	(%)	(%)	(%)	(%)	(%)	(mm)	(mm)	(Bq/kg-dry)	(Bq/kg-dry)	(Bq/kg-dry)
O-1	37.3547°	140.9780°	2023/12/4	08:16	7.4	469	17.7	1.4	1.7	2.670	3.7	34.9	51.6	5.5	1.1	3.2	0.70	9.5	5.9	270	0.14
O-2	37.3624°	140.9612°		08:50	7.3	503	20.0	1.4	0.8	2.680	10.5	33.0	45.0	7.3	1.0	3.2	0.74	9.5	3.8	220	-

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

<Location O along the Tomioka River: Analysis items Aquatic organisms>

Locations	Sampling point	Latitude and longitude of the location		Sampling date	Division	Class	Order	Family	Scientific name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)			Sr-90
													Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
		Latitude	Longitude																(Bq/kg-wet)
O-1	The main stream of the Tomioka River	37.3547°	140.9780°	2023/12/3	Algae/plant	-	-	-	-	Sediment deposited on riverbed (Including algae)	-	0.0066	-	-	-	150	N.D.(19)	150	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria uenoi*	Stonefly	112	0.0094	Larva	-	-	N.D.	N.D.(3.6)	N.D.(3.3)	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Oyamia lugubris*	Stonefly									
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	Stonefly									
					Arthropoda	Insecta	Plecoptera	Perlidae	*Neoperla geniculata*	Stonefly									
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Caddisfly	245	0.049	Larva	-	-	49	N.D.(4.7)	49	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Pseudaspius hakonensis*	Japanese dace	20	0.25	Immature fish, Mature fish	Obscure digesta	Viscera removed	19	N.D.(1.4)	19	-
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus masou masou*	Masu salmon	2	0.034	Immature fish	-	-	16	N.D.(1.4)	16	-
					Coarse Particulate Organic Matter	-	-	-	-	Water-bottom leaf litter	-	0.23	-	-	-	22	N.D.(1.6)	22	-
O-2	The main stream of the Tomioka River	37.3624°	140.9612°	2023/12/3	Algae/plant	-	-	-	-	Sediment deposited on riverbed (Including algae)	-	0.0036	-	-	-	620	N.D.(38)	620	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria uenoi*	Stonefly	97	0.0068	Larva	-	-	N.D.	N.D.(4.4)	N.D.(3.7)	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Oyamia lugubris*	Stonefly									
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	Stonefly									
					Arthropoda	Insecta	Plecoptera	Perlidae	*Paragnetina* sp.	Stonefly									
					Arthropoda	Insecta	Plecoptera	Perlidae	*Neoperla* sp.	Stonefly									
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Pseudaspius hakonensis*	Japanese dace	25	0.39	Immature fish, Mature fish	-	-	24	N.D.(1.3)	24	-
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus masou masou*	Masu salmon	6	0.18	Immature fish	Obscure digesta	Viscera removed	16	N.D.(1.4)	16	-
					Coarse Particulate Organic Matter	-	-	-	-	Water-bottom leaf litter	-	0.23	-	-	-	28	N.D.(1.5)	28	-

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

*6: 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.

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

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