○Results of Radioactive Material Monitoring of Aquatic Organisms (Location E along the Niida River)

<Location E along the Niida River: Samples collected>

Items	General items		Radioactive materials			
Locations	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
E-2 a	○	○	○	○	○	○

<Location E along the Niida River: Site measurement item>

Items	Latitude and longitude of the location		Survey date and time			Water	Sediment				Other	
Locations	Latitude	Longitude	Date	Time (water)	Time (sediment)	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Contaminants	Water depth (m)	Transparency (cm)
E-2 a	37.6640°	140.9447°	2018/12/5	11:30	11:55	11.0	11.4	Silt	2.5Y3/3	Plant pieces	0.48	>50

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

Items	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
Locations	Latitude	Longitude	Date	Time (water)		(mg/L)	(mg/L)	(mg/L)	(mS/m)		(mg/L)	(mg/L)	(FNU)	(Bq/L)	(Bq/L)	(Bq/L)
E-2 a	37.6640°	140.9447°	2018/12/5	11:30	7.1	<0.5	2.1	12.1	7.4	0.04	0.9	1	1.2	0.0017	0.025	0.0014

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

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

Items	Latitude and longitude of the location		Survey date and time		pH	Redox potential	Water content	IL	TOC	Soil particle density	Grain size distribution								Cs-134	Cs-137	Sr-90
Locations	Latitude	Longitude	Date	Time (sediment)		E_{NHE} (mV)	(%)	(%)	(mg/g-dry)	(g/cm^3)	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)	(Bq/kg-dry)	(Bq/kg-dry)	(Bq/kg-dry)
E-2 a	37.6640°	140.9447°	2018/12/5	11:55	7.1	375	43.4	7.1	23.5	2.607	5.0	8.9	17.7	27.5	18.1	22.8	0.14	9.5	450	5000	0.93

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

<Location E along the Niida 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
		Latitude	Longitude										Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	(Bq/kg-wet)
E-2 b	The main stream of the Niida River	37.6635°	140.9452°	2018/12/2	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.011	-	-	-	540	40	500	-
					Arthropoda	Insecta	Ephemeroptera	Isonychiidae	*Isonychia valida*	Isonychia valida	835	0.033	Larva	-	-	88.7	7.7	81	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria uenoi*	Kamimuria uenoi Kohno	317	0.029	Larva	-	-	10	N.D.(5.6)	10	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Oyamia lugubris*	Oyamia lugubris									
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	Kamimura tibialis									
					Arthropoda	Insecta	Plecoptera	Perlidae	*Neoperla sp.*	Neoperla									
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	373	0.075	Larva	-	-	152	12	140	-
					Mollusca	Gastropoda	Discopoda	Pleuroceridae	*Semisulcospira libertina*	Semisulcospira libertina	30	0.013	Imago	-	Molluscous part	21	N.D.(3.4)	21	-
					Vertebrata	Amphibia	Anura	Glandirana	*Glandirana rugosa*	Wrinkled Frog	1	0.011	Imago	-	-	36.2	4.2	32	-
					Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.17	-	-	-	81.6	6.6	75	-

*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.