

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

< Location E along the Nida River: Samples collected >

Items	General items		Radioactive materials			
	Water	Sediment	Water(Cs)	Water(Sr)	Sediment(Cs)	Sediment(Sr)
E-1	○	○	○	○	○	○
E-2a	○	○	○	—	○	—
E-2b	○	—	○	—	—	—
E-3	○	○	○	—	○	—
E-4	○	○	○	—	○	—
E-5	○	○	○	—	○	—

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

Items	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)
E-1	2012/12/6	8:32	8:50	37.660933°	140.911450°	5.2	5.4	Sand gravel	2.5Y-3/3	None	Stones/leaves	0.3	>50
E-2a	2012/12/6	9:50	10:35	37.664000°	140.944717°	6.6	6.7	Silt	2.5Y-3/3	Faint hydrogen sulfide	Leaves/roots	0.8	>50
E-2b	2012/12/6	10:10	—	37.663450°	140.945150°	6.7	—	—	—	—	—	0.5	>50
E-3	2012/12/6	14:27	14:40	37.644400°	141.001783°	8.6	8.5	Sand	2.5Y-3/3	None	None	0.4	>50
E-4	2012/12/6	13:21	13:26	37.648467°	140.962950°	8.6	8.4	Sand	2.5Y-3/1	None	Plant/stones	0.5	>50
E-5	2012/12/6	11:27	11:40	37.665233°	140.916883°	6.6	6.6	Sand	2.5Y-5/3	None	Plant	0.7	>50

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

Items	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	Latitude	Longitude												
E-1	2012/12/6	8:32	37.660933°	140.911450°	7.4	<0.5	4.0	12.5	7.3	0.03	0.8	2	0.7	0.083	0.14	0.0029
E-2a	2012/12/6	9:50	37.664000°	140.944717°	7.3	<0.5	4.7	12.5	7.7	0.04	1.1	1	1.3	0.11	0.19	—
E-2b	2012/12/6	10:10	37.663450°	140.945150°	7.4	<0.5	4.4	12.4	7.7	0.04	1.4	<1	1.2	0.096	0.16	—
E-3	2012/12/6	14:27	37.644400°	141.001783°	7.3	1.2	3.6	11.3	9.8	0.05	1.3	5	1.3	0.097	0.16	—
E-4	2012/12/6	13:21	37.648467°	140.962950°	7.5	<0.5	4.3	12.4	8.1	0.04	1.1	2	1.1	0.089	0.15	—
E-5	2012/12/6	11:27	37.665233°	140.916883°	7.5	<0.5	2.7	13.0	7.3	0.03	1.1	<1	0.7	0.081	0.14	—

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

Items	Survey date and time		Latitude and longitude of the location		pH	Redox potential E <sub>NHE</sub> (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm <sup>3</sup> )	Grain size distribution						Median grain diameter (mm)	Maximum grain diameter (mm)	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) (%)					
											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) (%)					
E-1	2012/12/6	8:50	37.660933°	140.911450°	7.3	352	17.5	0.9	1	2.660	55.0	32.5	10.5	0.9	0.6	0.5	2.300	19.00	930	1,700	0.32
E-2a	2012/12/6	10:35	37.664000°	140.944717°	7.1	358	46.3	7.7	18	2.578	36.4	6.2	12.4	16.0	12.6	16.4	0.320	19.00	3,500	6,000	—
E-3	2012/12/6	14:40	37.644400°	141.001783°	7.2	338	19.0	1.9	2	2.655	29.4	36.9	17.7	5.2	5.3	5.5	1.300	19.00	1,000	1,800	—
E-4	2012/12/6	13:26	37.648467°	140.962950°	7.0	254	28.0	2.7	8	2.649	32.7	7.4	29.5	19.4	5.6	5.4	0.520	19.00	1,800	3,000	—
E-5	2012/12/6	11:40	37.665233°	140.916883°	7.1	344	23.5	1.2	1	2.647	11.7	43.4	40.4	2.6	0.9	1.0	0.920	19.00	1,700	2,900	—

< Location E along the Nida River:Analysis 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
E-1 E-2a E-2b	2012/12/19	37.660933° 37.664000° 37.663450°	140.911450° 140.944717° 140.945150°	Arthropoda	Insecta	Plecoptera	Plecoptera	<i>Kamimuria tibialis</i>	<u>Kamimuria tibialis</u>	509	0.040	33	58	—	Larva	—
				Arthropod	Insecta	Plecoptera	Plecoptera	<i>Kamimuria uenoi</i>	Kamimuria uenoi Kohno							
				Arthropod	Insecta	Plecoptera	Plecoptera	<i>Neoperla sp.</i>	<u>Neoperla geniculata</u>							
				Arthropoda	Insecta	Plecoptera	Plecoptera	<i>Oyamia sp.</i>	<u>Oyamia sp.</u>							
				Arthropod	Insecta	Odonata	Odonata	<i>Macromia amphigena amphigena</i>	Macromia amphigena	104	0.021	110	170	—	Larva	—
				Arthropod	Insecta	Odonata	Odonata	<i>Calopteryx atrata</i>	Calopteryx atrata							
				Arthropoda	Insecta	Odonata	Calopterygidae	<i>Calopteryx sp.</i>	Calopteryx							
				Arthropod	Insecta	Odonata	Odonata	<i>Davidius nanus</i>	<u>Davidius nanus</u>							
				Arthropod	Insecta	Odonata	Odonata	<i>Davidius sp.</i>	Davidius							
				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>Sinogomphus flavolimbatus</i>	Sinogomphus flavolimbatus							
				Arthropod	Insecta	Odonata	Odonata	<i>Planaeschna milnei</i>	Planaeschna milnei							
				Arthropod	Insecta	Trichoptera	Trichoptera	<i>Stenopsyche marmorata</i>	<u>Stenopsyche marmorata</u>	134	0.031	370	610	—	Larva	—
				Arthropod	Insecta	Trichoptera	Trichoptera	<i>Stenopsyche sauteri</i>	Parastenopsyche sauteri							
				Arthropod	Malacostraca	Decapoda	Decapoda	<i>Eriocheir japonica</i>	Japanese mitten crab	8	0.14	150	270	—	Adult	—
				Vertebrata	Osteichthyes	Cypriniformes	Cypriniformes	<i>Cyprinus carpio</i>	Common carp	3	0.74	100	170	—	Mature fish/Immature fish	—
				Vertebrata	Osteichthyes	Cypriniformes	Cypriniformes	<i>Pseudogobio esocinus</i>	Pseudogobio esocinus	8	0.063	88	150	—	Mature fish/Immature fish	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon sp.</i>	Tribolodon	20	0.24	180	310	—	Immature fish	—
				Vertebrata	Osteichthyes	Cypriniformes	Cypriniformes	<i>Zacco platypus</i>	Zacco platypus	62	0.42	160	290	—	Mature fish	—
Vertebrata	Osteichthyes	Perciformes	Perciformes	<i>Rhinogobius sp.</i>	Rhinogobius	19	0.084	380	660	—	Mature fish	—				
—	—	—	—	—	CPOM (litter)	—	0.68	210	370	—	—	—				

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