

●Results of Radioactive Material Monitoring of Aquatic Organisms (Location G in Lake Hayama)

<Location G in Lake Hayama: Samples collected>

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

<Location G in Lake Hayama: 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)	Secchi disk depth (m)
G-1	37.732050°	140.812717°	2014/6/30	12:09	12:30	22.4	19.1	Ooze	7.5Y4/2	Plant	6.2	2.3
G-2	37.726733°	140.822333°		—	—	11:01	—	9.8	Ooze	7.5Y5/1	Plant	—
G-3	37.730167°	140.830667°	2014/7/1	10:10	10:35	21.7	17.5	Ooze with gravel	7.5Y4/2	Plant	6.8	2.4
G-4	37.738200°	140.803450°		—	—	12:10	—	16.2	Sand/sediment	7.5Y5/2	Plant	—
G-5	37.734117°	140.808833°	2014/6/30	11:32	11:54	22.6	16.7	Ooze	7.5Y5/3	Plant	7.5	2.2

<Location G in Lake Hayama: General survey items/Analysis of radioactive materials Water >

Items Locations	Latitude and longitude of the location		Survey date and time		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)
	Latitude	Longitude	Date	Time												
G-1 (Surface layer)	37.732050°	140.812717°	2014/6/30	12:09	7.4	1.0	4.5	9.2	6.1	0.04	2.1	2	1.7	0.023	0.059	—
G-1 (Deep layer)	37.726733°	140.822333°		—	—	7.4	0.7	4.9	9.4	6.2	0.04	1.9	4	3.0	0.041	0.11
G-3 (Surface layer)	37.730167°	140.830667°	2014/6/30	10:10	7.5	0.8	4.7	9.7	6.3	0.04	2.6	2	1.8	0.018	0.044	—
G-3 (Deep layer)	37.730167°	140.830667°		—	—	7.4	0.8	5.3	8.4	6.8	0.04	2.6	2	2.1	0.025	0.069
G-5 (Surface layer)	37.734117°	140.808833°	2014/6/30	11:32	8.2	1.1	5.1	9.1	6.7	0.04	2.8	2	1.9	0.023	0.062	—
G-5 (Deep layer)	37.734117°	140.808833°		—	—	7.6	0.7	5.0	9.4	6.2	0.04	2.1	3	3.0	0.045	0.12

<Location G in Lake Hayama: 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} (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)	
	Latitude	Longitude	Date	Time							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)
G-1	37.732050°	140.812717°	2014/6/30	12:30	6.6	85	82.0	27.4	98.4	2.266	0.0	0.4	0.2	7.8	38.3	53.3	0.0035	2	4,800	13,000	—
G-2	37.726733°	140.822333°		—	11:01	6.8	20	76.9	16.5	47.9	2.545	0.0	0.1	0.4	0.8	37.1	61.6	0.0011	2	5,800	16,000
G-3	37.730167°	140.830667°	2014/7/1	10:35	6.9	21	50.6	7.1	20.8	2.663	10.1	12.0	18.5	14.0	19.3	26.1	0.12	19	1,400	4,000	—
G-4	37.738200°	140.803450°		—	12:10	7.1	80	29.7	3.6	5.5	2.729	4.3	14.5	62.4	14.1	2.3	2.4	0.48	19	1,000	2,900
G-5	37.734117°	140.808833°	2014/6/30	11:54	6.7	42	77.7	26.1	110	2.357	0.0	0.1	0.6	4.6	47.6	47.1	0.0064	2	6,500	18,000	—

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

<Location G in Lake Hayama: Analysis 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	—				
G-1	In the lake	37.732050°	140.812717°	2014/6/30	Algae/plant	—	—	—	Plankton (singular plankter)	insiderable numl	0.011	—	—	—	30	74	—	
G-2		37.726733°	140.822333°	2014/7/16	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	<i>Carassius auratus langsdorffii</i>	2	2.5	Mature fish (9-year-old)	Some (details unknown)	Viscera removed	90	260	1.0
G-3		37.730167°	140.830667°		2014/7/17	Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	2	1.4	Mature fish (2-year-old)	Empty stomach	Viscera removed	280	790
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	1	0.72	Mature fish	Empty stomach	Viscera removed	300	860	—
					Arthropod	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	<i>Macromia amphigena</i>	42	0.017	Larva (dragonfly)	—	—	21	59	—
				Arthropod	Insecta	Odonata	Cordulegastriidae	<i>Anotogaster sieboldii</i>	<i>Anotogaster sieboldii</i>									
				Arthropod	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	<i>Albardae</i>									
				Arthropod	Insecta	Odonata	Aeshmidae	<i>Anax parthenope julius</i>	<i>Anax parthenope</i>									
				Mollusca	Gastropoda	Sorboconcha	Pleuroceridae	<i>Semisulcospira libertina</i>	<i>Semisulcospira libertina</i>	25	0.032	Imago	—	—	Molluscan body	29	82	—
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	3	2.2	Mature fish (3-year-old)	Aquatic insects, crustaceans, fish	Viscera removed	320	880	2.0	
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius flumineus</i>	<i>Rhinogobius flumineus</i>	18	0.032	Mature fish	—	—	—	61	160	—
				Coarse particulate organic matters (CPOMs)	—	—	—	—	Fallen leaves	insiderable numl	0.37	—	—	—	—	170	470	—
				Algae/plant	—	—	—	—	River bottom materials (incl. algae)	insiderable numl	0.016	—	—	—	—	150	400	—
				Arthropod	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	<i>Protohermes grandis</i>	26	0.018	Larva	—	—	—	15	48	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	4	0.052	Mature fish (1.2-year-old)	Empty stomach	Viscera removed	53	150	—	
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	10	0.14	Immature fish (1-year-old)	Terrestrial insect, annelid	Viscera removed	49	130	—	

*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 organisms 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.