

OResults of Radioactive Material Monitoring of Aquatic Organisms (Location L off Soma City)

<Location L off Soma City: Samples collected>

Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
L-1	-	o	-	-	o	-
L-2	o	o	o	o	o	o
L-3	o	o	o	-	o	-

<Location L off Soma City: Site measurement item>

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)		
L-1	37.8210°	140.9610°	2016/6/3	-	09:40	-	17.6	Sand with silt	5Y3/2	None	-	-		
L-2	37.8155°	140.9763°		08:17	09:13	16.1	17.6	Fine sand	5Y5/1	None	2.0	1.5		
L-3	37.8217°	140.9765°		08:38	09:24	16.8	20.8	Sand with silt	5Y3/2	None	2.0	>2.0		

<Location L off Soma City: General survey items/Analysis of radioactive materials Water>

Locations	Latitude and longitude of the location		Survey date and time		pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)	Electric 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 (water)												
L-2	37.8155°	140.9763°	2016/6/3	08:17	8.0	1.3	4.0	7.6	4580	30.08	1.7	10	6.1	0.012	0.057	0.0013
L-3	37.8217°	140.9765°		08:38	8.0	1.0	3.4	8.2	4710	30.25	1.7	6	3.7	0.0090	0.049	-

<Location L off Soma City: General survey items/Analysis of radioactive materials Sediment>

Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _{NHLE} (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 (sediment)							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)			
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L-1	37.8210°	140.9610°	2016/6/3	09:40	7.8	204	35.7	3.3	6.6	2.714	3.4	11.0	33.0	23.9	14.6	14.1	0.23	9.5	23	170	-
L-2	37.8155°	140.9763°		09:13	7.9	226	24.7	1.3	0.9	2.737	1.4	5.9	86.0	5.4	0.6	0.7	0.45	9.5	N.D.(0.63)	3.1	N.D.(0.12)
L-3	37.8217°	140.9765°		09:24	7.8	212	27.3	2.0	2.2	2.701	0.0	0.2	14.5	76.6	4.6	4.1	0.18	2.0	9.9	49	-

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

<Location L off Soma City: 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 (Bq/kg-wet)	
		Latitude	Longitude										Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137		
L-1	Matsukawaura	37.8210°	140.9610°	2016/6/21	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.0073	-	-	-	6.6	N.D.(5.2)	6.6	-	
				2016/6/3	Algae/plant	Monocotyledoneae	Najadales	Zosteraceae	<i>Zostera marina</i>	Eel grass	-	1.2	-	-	-	-	1.91	0.31	1.6	-
L-2	Matsukawaura	37.8155°	140.9763°	2016/6/21	Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Hemigrapsus sp.</i>	Hemigrapsus	140	0.31	Imago	-	-	-	3.84	0.74	3.1	-
Mollusca					Bivalvia	Ostreoida	Ostreidae	<i>Crassostrea gigas</i>	Oyster	36	0.75	Imago	-	-	-	Molluscos part	1.72	0.32	1.4	-
Mollusca					Bivalvia	Veneroida	Veneridae	<i>Ruditapes philippinarum</i>	Japanese littleneck	94	0.44	Imago	-	-	-	Molluscos part	3.56	0.66	2.9	-
Vertebrata					Osteichthyes	Perciformes	Mugilidae	<i>Mugil cephalus</i>	Flathead mullet	443	1.8	Immature fish	-	-	-	-	27.4	4.4	23	0.029
L-3	Matsukawaura	37.8217°	140.9765°	2016/6/21	Vertebrata	Osteichthyes	Tetraodontiformes	Tetraodontidae	<i>Takifugu niphobles</i>	Takifugu niphobles	3	0.028	Immature fish	-	-	-	1.8	N.D.(1.9)	1.8	-

*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.