

FY2018 Tokyo Metropolis Survey Results

[Outline of results]

(1) Water

Rivers

Radioactive cesium (Cs-134, Cs-137): Not detectable at any location

Coastal areas

Radioactive cesium (Cs-134, Cs-137): Not detectable at any location

(2) Sediments

Rivers

Cs-134: ND - 16 Bq/kg (dry)

Cs-137: 9.7 - 140 Bq/kg (dry)

Coastal areas

Cs-134: ND - 26 Bq/kg (dry)

Cs-137: 61 - 210 Bq/kg (dry)

(3) Surrounding Environment

(a) Soil

Rivers

Cs-134: 26 - 74 Bq/kg (dry)

Cs-137: 310 - 870 Bq/kg (dry)

(b) Ambient dose rate

Rivers

0.04 - 0.09 μ Sv/h

Tokyo River (Water) 1/1

Location					Water													
No.	Water area	Location	Municipality	Sampling Date	Weather	Air temperature (°C)	Water depth (m)	General items							Activity concentration(Bq/L)		Remarks	
								Water temperature (°C)	Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium		Radioactive cesium
										Cs-134	Cs-137							
R i v e r s	50	Arakawa River Lower Reaches	Kasai Bridge	Koto City/Edogawa City	2018/5/7	Cloudy	20.6	1.7	20.3	0.0	Dark grayish greenish yellow	None	56	2,230	7	5.4	<0.77	<0.74
					2018/8/17	Sunny	28.7	1.7	26.8	0.0	Grayish greenish yellow	Faint sewage	24	801	23	15	<0.52	<0.60
					2018/11/20	Cloudy	12.3	0.7	16.7	0.0	Grayish yellow green	Faint sewage	35	2,870	18	9.6	<0.80	<0.75
					2019/1/16	Sunny	8.4	2.1	9.5	0.0	Dark grayish greenish yellow	Faint sewage	>100	2,320	3	1.0	<0.83	<0.84
	51	Sumida River	Ryogoku Bridge	Chuo City	2018/5/7	Cloudy	22.3	2.2	21.3	0.0	Greenish yellowish dark gray	None	70	815	4	3.3	<0.77	<0.61
					2018/8/17	Sunny	30.0	2.2	27.3	0.0	Dark grayish yellow green	Faint sewage	51	739	5	2.2	<0.66	<0.60
					2018/11/20	Sunny	15.0	2.0	18.9	0.0	Dark grayish yellow green	Faint sewage	63	3,340	5	2.9	<0.69	<0.63
					2019/1/16	Sunny	10.0	3.1	11.3	0.0	Greenish yellowish dark gray	Faint sewage	>100	2,530	2	0.8	<0.49	<0.55

Tokyo River (Sediment) 1/1

R i v e r s	Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment															Remarks					
	No.	Water area		Location					Municipality	Sediment temperature (°C)	Sample length (cm)	Color	Odor	General items									Sediment content (%)		Density (g/cm ³)	Property	Activity concentration [Bq/kg(dry)]		
														Grain size distribution(%)													Radioactive cesium		
														Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	Cs-134					Cs-137	Total	
50	Arakawa River System	Arakawa River Lower Reaches		Kasai Bridge	Koto City/Edogawa City	2018/5/7	Cloudy	20.6	1.7	19.5	7	Olive black	Faint sewage	0.0	0.0	0.1	0.5	0.8	3.7	62.6	32.2	36.3	2.583	Silt	<15	16	130	146	
						2018/8/17	Sunny	28.7	1.7	25.0	5	Olive black	Faint hydrogen sulfide	0.0	1.8	4.7	2.1	6.2	7.5	40.5	37.2	35.2	2.558	Silt	<15	140	140		
						2018/11/20	Cloudy	12.3	0.7	17.0	10	Olive black	Faint sewage	0.0	8.5	1.9	1.8	3.8	5.3	48.8	30.0	36.0	2.650	Silt	<15	120	120		
						2019/1/16	Sunny	8.4	2.1	10.0	5	Olive black	Faint sewage	0.0	8.7	1.0	1.2	2.0	2.9	48.7	35.6	41.3	2.635	Silt	<10	100	100		
						2018/5/7	Cloudy	22.3	2.2	20.2	6	Black	Medium hydrogen sulfide	0.0	1.9	0.4	1.4	4.5	23.4	50.2	18.3	38.0	2.594	Silt/sand	<13	91	91		
51	Sumida River			Ryogoku Bridge	Chuo City	2018/8/17	Sunny	30.0	2.2	27.0	3	Black	Faint sewage	0.0	2.2	3.8	2.6	38.9	33.6	9.4	9.5	64.7	2.676	Sand/silt	<6.5	25	25		
						2018/11/20	Sunny	15.0	2.0	18.0	4	Black	Faint sewage	0.0	13.9	13.1	7.5	35.0	20.8	4.9	4.8	75.4	2.760	Sand/silt	<4.7	9.7	9.7		
						2019/1/16	Sunny	10.0	3.1	10.5	3	Black	Faint hydrogen sulfide	0.0	2.4	4.0	3.3	26.8	42.1	13.0	8.3	65.5	2.704	Sand/silt	<7.3	24	24		

Tokyo River (Surrounding Environment) 1/1

R i v e r s	Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)														Remarks			
	No.	Water area	Location	Municipality				Left bank						Right bank						Air Dose (μSv/h)					
								Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor	Property	Activity concentration [Bq/kg(dry)]							
											Radioactive cesium							Radioactive cesium							
			Cs-134	Cs-137	Total				Cs-134	Cs-137	Total														
50	Arakawa River System	Arakawa River Lower Reaches	Kasai Bridge	Koto City/Edogawa City	2018/5/7	Cloudy	20.6	Dark brown	Faint earth	Loamy	74	770	844	0.06	Grayish yellowish brown	Faint earth	Loamy	38	370	408	0.08				
					2018/8/17	Sunny	28.7	Grayish yellowish brown	Faint earth	Loamy	61	670	731	0.07	Grayish yellowish brown	Faint earth	Loamy	28	320	348	0.09				
					2018/11/20	Cloudy	12.3	Blackish brown	Faint earth	Loamy	51	580	631	0.06	Dark brown	Faint earth	Loamy	26	310	336	0.08				
					2019/1/16	Sunny	8.4	Grayish yellowish brown	Faint earth	Loamy	68	870	938	0.07	Grayish yellowish brown	Faint earth	Loamy	34	360	394	0.07				
51	Sumida River	Ryogoku Bridge	Chuo City	2018/5/7	Cloudy	22.3	-	-	-	-	-	-	-	0.06	-	-	-	-	-	-	0.06	Soil not exposed			
				2018/8/17	Sunny	30.0	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	-	0.04	Soil not exposed	
				2018/11/20	Sunny	15.0	-	-	-	-	-	-	-	-	-	-	0.07	-	-	-	-	-	-	0.05	Soil not exposed
				2019/1/16	Sunny	10.0	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	-	-	0.04	Soil not exposed

Tokyo Coastal (Water) 1/1

Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water								Remarks		
No.	Water area		General items					Activity concentration (Bq/L)										
			Water temperature (°C)					Sampling depth (m)	Color	Odor	Secchi disk depth (m)	Salinity (‰)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium			
		Cs-134	Cs-137															
C o a s t a l a r e a s	65	Approx. 1 km offshore of Kyu-Edogawa River Estuary	Offshore of Kyu-Edogawa River Estuary	Surface layer	2018/5/28	Cloudy	22.0	5.4	21.6	0.5	Dark grayish greenish yellow	None	1.7	16.3	3	2.1	<0.72	<0.96
				Deep layer					20.3	4.4	-	None		26.7	4	2.4	<0.70	<0.75
				Surface layer	2018/6/22	Cloudy	23.2	5.4	21.1	0.5	Dark grayish yellow green	None	2.5	23.2	4	2.0	<0.82	<0.54
				Deep layer					20.2	4.4	-	None		28.3	4	1.5	<0.82	<0.54
				Surface layer	2018/7/10	Sunny	29.0	5.0	27.2	0.5	Grayish greenish yellow	None	1.0	10.8	5	2.5	<0.56	<0.66
				Deep layer					25.7	4.0	-	None		25.4	3	1.9	<0.52	<0.75
				Surface layer	2018/8/21	Sunny	29.2	5.5	28.0	0.5	Reddish yellowish black	None	1.7	23.2	3	2.2	<0.57	<0.75
				Deep layer					26.6	4.5	-	None		28.4	3	1.7	<0.75	<0.88
				Surface layer	2018/9/19	Sunny	24.0	5.6	25.0	0.5	Grayish yellow	None	1.3	13.6	7	3.3	<0.61	<0.66
				Deep layer					25.2	4.6	-	None		23.7	4	2.6	<0.75	<0.54
				Surface layer	2018/11/26	Sunny	17.0	5.7	17.4	0.5	Dark grayish yellow green	None	2.5	28.5	3	1.9	<0.74	<0.55
				Deep layer					17.6	4.7	-	None		30.1	4	2.4	<0.87	<0.70
	Surface layer	2019/2/19	Cloudy	8.6	6.1	9.5	0.5	Dark grayish yellow green	None	2.1	30.6	6	3.5	<0.75	<0.75			
	Deep layer					9.7	5.1	-	None		31.5	5	3.4	<0.68	<0.69			
	66	St-8	Offshore of Arakawa River/ Kyu-Edogawa River Estuaries	Surface layer	2018/5/28	Cloudy	22.5	5.0	22.1	0.5	Grayish greenish yellow	None	1.5	11.5	5	3.4	<0.80	<0.80
				Deep layer					19.8	4.0	-	None		27.6	4	2.3	<0.68	<0.75
				Surface layer	2018/6/22	Cloudy	23.7	5.1	21.5	0.5	Grayish yellow green	None	1.5	13.1	5	3.5	<0.88	<0.84
				Deep layer					19.3	4.1	-	None		30.3	5	2.6	<0.67	<0.84
				Surface layer	2018/7/10	Sunny	28.9	4.5	27.0	0.5	Grayish greenish yellow	None	1.8	10.6	8	4.6	<0.60	<0.71
				Deep layer					26.5	3.5	-	None		24.8	8	3.2	<0.56	<0.66
				Surface layer	2018/8/21	Sunny	29.0	5.3	28.2	0.5	Grayish yellow green	None	1.5	13.6	5	4.2	<0.69	<0.75
				Deep layer					26.4	4.3	-	None		28.1	5	1.9	<0.70	<0.84
				Surface layer	2018/9/19	Sunny	23.5	5.4	24.7	0.5	Grayish yellow green	None	1.3	10.4	6	4.1	<0.87	<0.54
				Deep layer					25.2	4.4	-	None		25.3	3	2.0	<0.65	<0.66
Surface layer				2018/11/26	Cloudy	17.0	5.3	17.6	0.5	Dark grayish yellow green	None	1.8	28.7	6	3.6	<0.67	<0.84	
Deep layer								17.6	4.3	-	None		29.0	18	10	<0.90	<0.70	
Surface layer	2019/2/19	Cloudy	8.5	5.6	9.2	0.5	Dark grayish yellow green	None	1.8	29.4	8	4.4	<0.84	<0.66				
Deep layer					9.6	4.6	-	None		30.9	14	5.8	<0.77	<0.55				
67	Southwestern area of Toyosu Wharf	Offshore of Sumida River Estuary	Surface layer	2018/5/23	Rain	19.8	10.8	21.3	0.5	Reddish yellowish black	None	1.0	21.8	3	2.3	<0.76	<0.88	
			Deep layer					17.9	9.8	-	None		30.2	1	0.8	<0.61	<0.84	
			Surface layer	2018/8/21	Sunny	30.0	10.7	27.5	0.5	Dark grayish yellow	None	1.4	21.3	2	1.3	<0.78	<0.80	
			Deep layer					24.6	9.7	-	None		30.2	2	1.0	<0.58	<0.69	
			Surface layer	2018/11/26	Cloudy	17.0	11.0	17.3	0.5	Dark grayish yellow green	None	3.5	27.7	3	1.6	<0.85	<0.69	
			Deep layer					18.0	10.0	-	None		30.0	3	2.4	<0.67	<0.66	
			Surface layer	2019/2/4	Sunny	17.3	10.8	11.1	0.5	Dark grayish yellow	None	2.2	29.5	6	2.3	<0.48	<0.80	
			Deep layer					10.8	9.8	-	None		31.2	6	2.3	<0.55	<0.63	

Tokyo Coastal (Sediment) 1/1

C o a s t a l a r e a s	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment																Remarks	
	No.	Water area						General items										Sediment content (%)		Density (g/cm ³)	Property	Activity concentration [Bq/kg(dry)]			
								Sediment temperature (°C)	Sample length (cm)	Color	Odor	Grain size distribution(%)										Radioactive cesium			
												Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	Cs-134	Cs-137	Total			
65	Approx. 1 km offshore of Kyu-Edogawa River Estuary	Offshore of Kyu-Edogawa River Estuary	2018/5/28	Cloudy	22.0	5.4	19.1	6	Black	None	0.0	0.0	0.0	0.0	0.2	8.7	64.3	26.8	46.4	2.613	Silt	20	180	200	
			2018/6/22	Cloudy	23.2	5.4	18.8	9	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.0	0.4	11.0	57.9	30.8	41.0	2.620	Silt	18	130	148	
			2018/7/10	Sunny	29.0	5.0	24.0	7	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.1	0.5	5.8	63.5	30.1	38.1	2.577	Silt	26	170	196	
			2018/8/21	Sunny	29.2	5.5	24.8	7	Blackish brown	Faint hydrogen sulfide	0.0	0.0	0.0	0.1	0.6	11.9	62.1	25.2	43.4	2.642	Silt	<16	140	140	
			2018/9/19	Sunny	24.0	5.6	25.5	8	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.1	0.2	13.3	64.5	21.9	43.5	2.587	Silt	20	170	190	
			2018/11/26	Sunny	17.0	5.7	19.0	4	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.0	0.3	9.1	61.6	29.0	39.1	2.646	Silt	22	210	232	
			2019/2/19	Cloudy	8.6	6.1	9.3	9	Olive black	None	0.0	0.0	0.0	0.0	0.6	16.3	57.6	25.5	43.6	2.634	Silt	<13	130	130	
			2018/5/28	Cloudy	22.5	5.0	19.1	6	Olive black	None	0.0	0.0	0.0	0.1	0.1	1.3	61.6	36.9	45.1	2.631	Silt	<15	110	110	
			2018/6/22	Cloudy	23.7	5.1	18.8	9	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.0	0.0	1.2	60.8	38.1	42.0	2.632	Silt	<15	110	110	
			2018/7/10	Sunny	28.9	4.5	24.5	8	Olive black	Faint sewage	0.0	0.0	0.0	0.0	0.1	1.6	63.2	35.1	47.0	2.610	Silt	<8.8	97	97	
2018/8/21	Sunny	29.0	5.3	25.0	8	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.0	0.1	1.3	68.1	30.6	42.3	2.648	Silt	<15	93	93				
2018/9/19	Sunny	23.5	5.4	25.8	8	Olive black	Faint sewage	0.0	0.0	0.0	0.1	0.0	1.1	62.8	36.0	42.5	2.623	Silt	<13	91	91				
2018/11/26	Cloudy	17.0	5.3	18.7	5	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	0.1	0.1	0.6	60.6	38.7	41.1	2.662	Silt	<15	96	96				
2019/2/19	Cloudy	8.5	5.6	9.6	8	Olive black	None	0.0	0.0	0.0	0.0	0.1	0.8	53.6	45.5	39.3	2.631	Silt	<16	110	110				
2018/5/23	Rain	19.8	10.8	16.0	10	Black	Medium hydrogen sulfide	0.0	0.0	0.0	0.0	0.1	1.2	49.8	48.9	23.8	2.618	Silt	<29	120	120				
2018/8/21	Sunny	30.0	10.7	23.0	10	Black	Medium hydrogen sulfide	0.0	0.0	0.0	0.0	0.0	1.0	52.6	46.4	22.5	2.659	Silt	<26	72	72				
2018/11/26	Cloudy	17.0	11.0	18.2	10	Olive black	Medium hydrogen sulfide	0.0	0.0	0.0	0.0	0.1	0.5	41.3	58.1	20.2	2.675	Silt	<37	61	61				
2019/2/4	Sunny	17.3	10.8	10.5	10	Black	Medium hydrogen sulfide	0.0	0.0	0.0	0.0	0.1	0.8	41.0	58.2	23.3	2.646	Silt	<21	67	67				

