

## FY2012 Miyagi Prefecture Survey Results

### [Survey Results]

Radioactive iodine was not detectable at any of the locations tested.

#### Water Quality

##### Rivers

Cs-134: ND-2.8Bq/L

Cs-137: ND-3.6Bq/L

##### Lakes and headwaters

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

##### Coasts

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

#### Sediment

##### Rivers

Cs-134: ND-1,400Bq/kg (dried mud)

Cs-137: ND-2,300Bq/kg (dried mud)

##### Lakes and headwaters

Cs-134: ND-3,500Bq/kg (dried mud)

Cs-137: 9-6,200Bq/kg (dried mud)

##### Coasts

Cs-134: ND-560Bq/kg (dried mud)

Cs-137: ND-1,000Bq/kg (dried mud)

#### Surrounding Environment

##### (1) Soil

##### Rivers

Cs-134: ND -2,300Bq/kg (dry)

Cs-137: ND -3,500Bq/kg (dry)

##### Lakes and headwaters

Cs-134: 16-1,900Bq/kg (dry)

Cs-137: 27-3,100Bq/kg (dry)

##### (2) Spatial dose

##### Rivers

0.02-0.42 $\mu$ Sv/h

##### Lakes and headwaters

0.03-0.31 $\mu$ Sv/h





Table 4.2.1.1 Miyagi Pref. River (Water Quality)

River	Sampling point				Sampling date	Weather	Air temperature °C	Full depth m	Water quality										Remarks	
	No.	Water Body	Point	Municipality					General items						Radioactive material concentrations (Bq/L)					
									Water temperature	Sampling depth	Color	Odor	Transparency cm	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134		Radioactive cesium Cs-137
R i v e r s	27	Umedagawa River	Fukudabashi Bridge	Sendai-shi City	2012/06/07	Cloudy	23.0	0.8	21.4	0.0	Deep yellow green	None	19.7	42	19.7	5.3	3.3	-0.48	-0.63	-0.54
					2012/09/27	Sunny	21.3	0.5	23.4	0.0	Yellowish gray	None	47	513	6.0	3.0	-0.49	-0.61	-0.54	
					2012/11/14	Cloudy	13.0	1.0	13.4	0.0	Grayish yellow	None	20	755	20	12	-0.49	-0.70	-0.62	
					2013/02/27	Cloudy	3.8	0.3	5.0	0.0	Dark grayish yellow green	None	84	271	12	4.9	-0.41	-0.70	-0.57	
					2012/06/07	Cloudy	20.5	0.3	22.7	0.0	Deep yellowish green	Faint seaweed	51	737	6.1	2.7	-0.60	-0.85	-0.64	
					2012/09/26	Sunny	22.3	0.3	24.0	0.0	Light grayish yellow green	None	51	817	5.4	2.7	-0.51	-0.53	-0.62	
	28	Nanakitagawa River	Takasagobashi Bridge	Sendai-shi City	2012/11/25	Sunny	10.6	0.3	11.1	0.0	Greenish yellowish white	None	68	3,530	3.0	2.5	-0.50	-0.53	-0.62	
					2013/01/09	Snow	1.4	0.4	4.8	0.0	Yellowish white	None	53	3,770	9.8	3.6	-0.49	-0.63	-0.62	
					2012/06/06	Sunny	24.0	0.2	22.9	0.0	Dark grayish yellow green	Seaweed	31	1,580	14	2.8	-0.43	-0.64	-0.62	
					2012/09/25	Sunny	20.0	2.0	21.6	0.0	Light grayish yellow	None	74	1,173	6.2	2.6	-0.62	-0.75	-0.73	
					2012/11/27	Sunny	8.7	2.5	9.5	0.0	Yellowish white	None	36	2,400	22	9.2	-0.63	-0.76	-0.71	
					2013/01/23	Sunny	0.9	0.7	3.9	0.0	Yellow greenish white	None	>100	1,577	1.7	1.7	-0.63	-0.70	-0.60	
	29	Natori-gawa River	Yuriagobashi Bridge	Sendai-shi City/Natori-shi City	2012/06/06	Cloudy	20.5	0.6	19.9	0.0	Very pale yellow green	None	>100	9.7	<1	1.2	-0.44	-0.65	-0.59	
					2012/09/25	Sunny	21.0	0.4	19.3	0.0	Grayish yellow	None	>100	19.4	<1	0.6	-0.50	-0.58	-0.64	
					2012/11/27	Sunny	7.3	0.2	8.6	0.0	Greenish yellowish white	None	>100	27.8	9.5	3.4	-0.45	-0.58	-0.66	
					2013/01/23	Sunny	3.2	0.3	3.8	0.0	Yellow greenish white	None	>100	28.8	<1	0.7	-0.63	-0.70	-0.58	
					2012/06/06	Cloudy, partly rain	21.7	0.4	21.0	0.0	Dark grayish yellowish green	None	69	14.8	3.1	2.4	-0.60	-0.75	-0.64	
					2012/09/25	Rain	17.0	1.2	19.0	0.0	Grayish yellow	None	52	16.1	15	3.5	-0.55	-0.72	-0.55	
	30	Gawawa River	Yakushibashi Bridge	Natori-shi City	2012/11/27	Sunny	4.7	0.2	9.1	0.0	Yellowish white	None	>100	9.5	1.5	1.9	-0.50	-0.56	-0.59	
					2013/01/23	Sunny	5.4	0.4	4.7	0.0	Light grayish yellow green	None	>100	32.1	1.4	2.2	-0.55	-0.59	-0.70	
					2012/06/06	Cloudy	23.0	0.3	19.5	0.0	Dark grayish yellow green	None	39	53.5	12	4.4	-0.55	-0.50	-0.60	
					2012/09/25	Rain	17.0	1.0	20.0	0.0	Grayish yellow	Faint sewage	25	74.7	18	3.4	-0.54	-0.58	-0.52	
					2012/11/27	Sunny	8.4	0.5	10.7	0.0	Yellowish white	None	51	1,360	6.9	5.7	-0.59	-0.70	-0.73	
					2013/01/23	Sunny	5.4	1.8	6.8	0.0	Yellow greenish pale gray	None	43	482	5.3	9.3	-0.40	-0.69	-0.52	
	31	Masudagawa River	Koyanabashi Bridge	Natori-shi City	2012/04/29	Sunny	19.0	0.3	15.1	0.0	Grayish greenish yellow	None	45	9.6	2.9	1.2	-0.65	-0.75	-0.70	
					2012/05/07	Sunny	18.0	0.8	15.2	0.0	Grayish reddish yellow	None	10	10.7	42	21	-0.68	-0.80	-0.65	
					2012/06/04	Cloudy, partly sunny	23.2	1.0	21.8	0.0	Light grayish yellow green	None	61	17.8	<1	1.3	-0.55	-0.53	-0.59	
2012/07/17					Cloudy	28.0	0.3	25.5	0.0	Yellowish white	None	95	20.3	3.7	2.2	-0.65	-0.75	-0.66		
2012/08/20					Sunny	27.0	1.2	28.3	0.0	Grayish yellow	None	52	17.7	3.3	1.3	-0.55	-0.56	-0.59		
2012/09/06					Cloudy	24.0	0.2	25.0	0.0	Light grayish greenish yellow	None	19	15.4	14	5.3	-0.57	-0.77	0.65		
32	Sistem River	Bishamonbashi Bridge	Natori-shi City	2012/10/03	Rain	22.0	0.3	20.2	0.0	Dark grayish greenish yellow	None	19	17.9	14	5.4	-0.56	-0.87	-0.62		
				2012/10/31	Sunny	13.3	0.5	14.3	0.0	Grayish yellow	None	49	17.4	6.0	3.8	-0.54	-0.75	-0.62		
				2012/11/21	Cloudy	7.1	0.2	7.7	0.0	Yellowish white	None	50	37.8	6.7	6.1	-0.65	-0.79	-0.64		
				2012/12/13	Sunny	3.7	0.4	5.2	0.0	Yellowish white	None	>100	42.7	7.9	4.3	-0.68	-0.78	-0.82		
				2013/01/10	Sunny	0.9	0.5	2.4	0.0	Greenish yellowish pale gray	None	>100	34.0	2.8	2.3	-0.47	-0.67	-0.56		
				2013/02/07	Sunny	3.0	0.4	4.2	0.0	Dark grayish yellow green	None	40	15.3	5.0	4.1	-0.54	-0.64	-0.60		
33	Abukumagawa River	Hademwabashi Bridge	Marunomachi Town	2012/04/28	Sunny	16.7	0.7	14.0	0.0	Grayish greenish yellow	None	59	9.7	4.5	1.9	-0.56	-0.63	-0.62		
				2012/05/07	Sunny	21.5	0.6	14.9	0.0	Grayish reddish yellow	None	9	10.4	25	14	-0.60	0.72	1.1		
				2012/06/05	Sunny	24.6	0.3	21.3	0.0	Strong reddish yellow	None	68	17.8	<1	1.0	-0.48	-0.61	-0.49		
				2012/07/18	Rain	22.0	0.7	23.9	0.0	Greenish yellowish white	Faint fish and shellfish	>100	16.5	1.5	1.8	-0.57	-0.59	-0.62		
				2012/08/20	Sunny	31.0	0.2	27.8	0.0	Dark grayish yellow green	None	74.5	17.3	2.9	1.0	-0.56	-0.66	-0.70		
				2012/09/06	Cloudy	23.0	0.2	25.0	0.0	Light grayish greenish yellow	None	26	16.5	13	5.3	-0.65	-0.80	-0.68		
34	Sistem River	Marunomachi Bridge	Marunomachi Town	2012/10/03	Rain	19.5	0.6	20.0	0.0	Dark grayish greenish yellow	None	19	17.2	14	5.1	-0.44	-0.63	-0.54		
				2012/10/31	Sunny	16.0	1.0	15.3	0.0	Grayish greenish yellow	None	72	17.6	6.0	3.8	-0.45	-0.50	-0.56		
				2012/11/21	Cloudy	7.0	0.5	8.2	0.0	Yellowish white	None	35	27.2	9.6	6.8	-0.53	-0.63	-0.48		
				2012/12/13	Sunny	2.6	0.8	6.0	0.0	Yellowish pale gray	None	>100	90.3	3.7	2.6	-0.46	-0.63	-0.66		
				2013/01/10	Sunny	4.3	0.2	3.9	0.0	Yellowish pale gray	None	>100	47.3	6.4	3.3	-0.51	-0.76	-0.69		
				2013/02/07	Sunny	4.8	1.0	5.1	0.0	Dark grayish greenish yellow	None	52	25.5	3.4	3.4	-0.48	-0.67	-0.56		











Table 4.2.1.2 Miyagi Pref. River (Sediment)

No.	Water Body	Point	Municipality	Sampling date	Weather	Air temperature °C	Full depth m	Sediment																			Remarks
								General Items											Radioactive material concentration (Bq/kg dried mud)								
								Mad temperature °C	Mad sampling depth cm	Color	Odor	Mechanical composition %						Mud content %	Density g/cm3	Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137					
Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay																					
34	A b u k k u m a g a w a	Marumoriashi Bridge	Marumoriashi Town	2012/04/28	Sunny	16.7	0.7	14.1	3	Dark grayish yellow red	None	36.6	27.3	12.5	11.9	6.5	5.2	0.0	87.0	2,635	Sand	-6.6	230	340			
				2012/05/07	Sunny	21.5	0.6	15.0	3	Dark grayish reddish yellow	None	8.1	34.0	8.8	29.4	14.1	5.5	0.0	92.6	2,616	Sand/gravel	-4.4	43	58			
				2012/06/05	Sunny	24.6	0.3	21.3	4	Dark grayish reddish yellow	Faint sludge	13.2	25.3	11.1	18.0	24.0	8.4	0.0	88.5	2,672	Sand	-6.0	220	340			
				2012/07/18	Rain	22.0	0.7	24.0	5	Yellowish black	None	0.0	0.5	0.5	48.4	42.0	8.6	0.0	84.3	2,722	Sand	-7.5	230	380			
				2012/08/20	Sunny	31.0	0.2	28.2	2	Dark grayish reddish yellow	None	34.0	47.7	10.8	2.6	2.6	2.2	0.0	90.9	2,636	Sand/gravel	-5.2	110	170			
				2012/09/06	Cloudy	23.0	0.2	24.4	2	Dark grayish reddish yellow	None	21.5	22.2	38.1	14.1	1.7	2.4	0.0	94.0	2,656	Sand	-4.5	65	97			
				2012/10/03	Rain	19.5	0.6	21.4	6	Dark grayish reddish yellow	Sludge	0.0	0.0	0.0	27.1	43.5	29.3	0.0	72.1	2,672	Sand/mud	-15	1,300	2,100			
				2012/10/31	Sunny	16.0	1.0	13.4	3	Dark grayish reddish yellow	None	2.3	16.5	70.6	8.8	1.5	0.3	0.0	94.6	2,643	Sand	-3.5	36	54			
				2012/11/21	Cloudy	7.0	0.5	11.2	3	Dark grayish reddish yellow	None	0.0	1.6	2.6	48.3	34.5	13.0	0.0	78.1	2,712	Sand	-11	500	860			
				2012/12/13	Sunny	2.6	0.8	5.5	3	Reddish yellowish black	None	0.0	0.4	2.1	64.1	25.1	8.4	0.0	81.7	2,693	Sand	-7.6	250	460			
				2013/01/10	Sunny	4.3	0.2	3.6	3	Dark reddish yellow	Faint sludge	0.0	9.6	16.9	38.4	26.6	8.5	0.0	85.6	2,717	Sand	-6.3	200	380			
				2013/02/07	Sunny	4.8	1.0	4.1	5	Dark grayish reddish yellow	None	0.0	2.6	8.5	39.3	40.5	9.1	0.0	81.7	2,73	Sand	-11	440	790			
				2012/05/04	Rain	17.0	1.0	14.0	2	Dark reddish yellow	None	0.0	1.3	0.0	12.0	49.2	37.6	0.0	72.6	2,599	Sand	-17	1,400	2,000			
				2012/05/28	Sunny	15.0	0.3	17.1	2	Yellow reddish gray	None	0.0	1.2	45.6	51.5	1.1	0.6	0.0	91.0	2,644	Sand	-6.3	130	200			
2012/07/18	Cloudy	27.0	0.3	25.1	5	Dark grayish reddish yellow	None	0.0	1.2	24.4	71.3	1.2	1.9	0.0	93.6	2,638	Sand	-6.0	76	140							
2012/09/06	Rain	23.0	0.2	25.4	3	Dark grayish reddish yellow	Faint seaweed	0.0	8.2	87.4	4.5	0.0	0.0	0.0	94.3	2,626	Sand	-6.2	110	170							
2012/10/30	Sunny	14.3	2.5	13.7	7	Yellow reddish pale gray	None	2.8	9.5	36.3	44.2	4.2	3.0	0.0	94.5	2,698	Sand	-4.3	29	52							
2013/01/10	Sunny	0.6	1.0	2.9	3	Dark grayish reddish yellow	None	3.5	13.9	31.8	45.1	3.2	2.5	0.0	95.1	2,636	Sand	-5.1	56	110							
2013/02/07	Cloudy	7.2	0.8	3.8	10	Dark grayish reddish yellow	None	2.0	23.8	39.8	32.9	1.4	0.2	0.0	93.5	2,651	Sand	-4.9	60	120							
2012/06/05	Sunny	22.2	1.0	14.9	3	Vary dark greenish yellow	None	11.5	25.5	0.0	20.5	31.9	10.5	0.1	93.0	2,643	Sand/gravel	-5.6	43	73							
2012/09/10	Sunny	27.2	0.8	21.8	4	Dark grayish reddish yellow	None	6.1	20.6	14.1	37.8	7.9	13.1	0.4	89.9	2,644	Sand	-4.3	46	77							
2012/11/27	Sunny	4.9	1.0	8.3	6	Dark grayish reddish yellow	None	0.7	11.8	14.5	55.2	10.7	7.1	0.0	82.4	2,642	Sand	-4.9	70	120							
2013/01/22	Rain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect mud due to snow on the ground				
2012/06/05	Sunny	25.0	1.8	20.0	15	Yellowish dark gray	Faint sludge	8.0	42.8	34.3	10.3	3.1	1.6	0.0	89.0	2,567	Sand/gravel	-6.9	240	350							
2012/09/11	Sunny	29.0	0.2	26.2	3	Dark grayish reddish yellow	None	11.3	43.2	28.2	10.3	3.4	3.7	0.0	91.2	2,634	Sand/gravel	-5.8	130	220							
2012/11/15	Cloudy	9.2	0.5	12.6	3	Dark grayish reddish yellow	None	9.0	34.7	41.2	11.4	1.5	2.2	0.0	88.4	2,668	Sand	-5.6	100	170							
2013/01/24	Sunny	4.4	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect mud due to construction				
2012/06/05	Cloudy	25.0	0.6	19.9	10	Reddish yellowish black	None	3.5	5.9	18.1	55.9	12.6	4.1	0.0	92.3	3,038	Sand	-4.3	8.7	19							
2012/09/11	Sunny	29.3	0.2	25.0	1	Grayish yellow	None	3.9	10.1	30.6	42.8	5.4	7.3	0.0	88.0	2,747	Sand	-4.0	18	29							
2012/11/15	Cloudy	9.8	1.0	10.3	3	Dark grayish reddish yellow	None	0.0	0.2	2.1	63.7	27.0	6.9	0.0	80.8	2,738	Sand	-4.7	19	35							
2013/01/24	Sunny	7.7	0.2	6.5	2	Very dark reddish yellow	None	0.0	0.1	7.1	71.4	14.8	6.6	0.0	78.3	2,703	Sand	-4.3	24	42							
2012/06/05	Sunny	26.1	0.3	21.9	3	Dark grayish reddish yellow	None	0.3	18.4	36.1	34.6	8.0	2.6	0.0	91.6	2,651	Sand	-4.5	27	41							
2012/09/10	Sunny	28.5	0.3	25.9	2	Dark grayish reddish yellow	None	9.3	34.4	39.2	12.9	1.7	2.5	0.0	93.0	2.7	Sand	-4.8	17	21							
2012/11/27	Sunny	8.3	0.2	8.0	8	Dark grayish reddish yellow	None	9.1	36.1	45.8	6.2	1.2	1.6	0.0	90.4	2,656	Sand	-4.9	11	21							
2013/01/24	Sunny	4.1	0.3	7.4	2	Vary dark yellow	Faint sludge	11.6	7.4	13.4	43.7	16.0	7.8	0.0	85.7	2,762	Sand/silt	-4.8	37	64							
2012/06/05	Cloudy	23.1	0.7	20.0	5	Yellowish dark gray	Faint sludge	0.0	0.0	6.5	86.7	4.4	2.5	0.0	90.2	2,761	Sand	-4.4	23	37							
2012/09/10	Sunny	25.0	0.2	24.2	5	Yellowish dark gray	None	0.0	0.0	6.3	82.8	7.7	3.2	0.0	90.3	2,783	Sand	-4.5	13	19							
2012/11/27	Sunny	6.7	0.3	8.0	6	Yellowish dark gray	None	2.7	2.6	6.8	79.8	7.3	0.9	0.0	90.2	2,779	Sand	-4.0	11	20							
2013/01/24	Sunny	2.0	0.3	3.9	2	Dark grayish reddish yellow	None	0.0	0.4	4.2	78.5	13.2	3.7	0.0	83.1	2,823	Sand	-4.5	23	45							
2012/05/04	Cloudy	21.3	0.3	13.0	2	Very dark reddish yellow	Faint earth	0.0	0.0	0.0	2.2	23.2	72.8	1.7	57.9	2,406	Sand/clay	-15	970	1,500							
2012/05/28	Sunny	19.3	0.2	19.4	5	Reddish dark gray	None	0.0	0.4	0.0	38.2	40.8	20.6	0.0	77.0	2,632	Sand	-7.9	210	330							
2012/07/18	Cloudy	26.0	1.5	24.0	5	Yellowish black	None	0.0	0.4	5.9	70.2	18.1	5.4	0.0	88.5	2,689	Sand	-4.6	34	54							
2012/09/06	Rain	27.0	0.4	25.7	1	Reddish yellowish dark gray	Faint seaweed	0.0	0.1	2.3	51.8	36.6	9.2	0.0	81.8	2,697	Sand	-5.5	130	210							
2012/10/30	Sunny	15.0	0.5	14.5	3	Dark grayish yellow red	Faint seaweed	5.5	36.1	45.5	10.7	1.8	0.4	0.0	92.0	2,736	Sand/gravel	-4.0	22	41							
2013/01/10	Sunny	3.3	1.0	3.5	5	Dark grayish yellow	None	5.7	21.2	16.2	38.7	14.4	3.7	0.0	85.3	2,678	Sand	-4.9	55	99							
2013/02/07	Cloudy	4.2	0.8	4.8	5	Dark grayish reddish yellow	None	6.9	23.3	40.3	13.3	13.8	2.4	0.0	88.3	2,702	Sand/gravel	-4.4	52	100							

Table 4.2.1.2 Miyagi Pref. River (Sediment)

R i v e r s	Sampling point				Sampling date	Weather	Air temperature °C	Full depth m	Sediment														Radioactive material concentration (Bq/kg dried mud)			Remarks
	No.	Water Body	Point	Municipality					General items										Mechanical composition %			Radioactive iodine I-131	Radioactive cesium			
									Mud temperature °C	Mud sampling depth cm	Color	Odor	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	Mud content %	Density g/cm <sup>3</sup>		Property	Cs-134	Cs-137	
42	A b u k u m a g a w a R i v e r	A b u k u m a g a w a R i v e r	Abukumachashi Bridge (Iwanuma)	Iwamumashi City Wataricho Town	2012/04/28	Sunny	14.0	1.2	13.2	3	Dark grayish greenish yellow	None	0.8	3.6	1.7	50.2	29.1	14.7	0.0	81.3	2.621	Sand	-6.3	170	240	
					2012/05/07	Sunny	24.5	0.8	14.0	3	Dark grayish reddish yellow	None	0.0	0.0	2.0	49.0	34.4	14.6	0.0	81.9	2.667	Sand	-6.4	160	220	
					2012/06/06	Cloudy	21.0	1.0	20.1	15	Yellow greenish gray	Faint sludge	0.0	0.2	0.0	26.1	42.8	30.8	0.0	73.3	2.617	Sand	<-11	560	850	
					2012/07/18	Cloudy	26.0	0.8	25.5	5	Dark grayish reddish yellow	None	0.0	0.7	4.3	61.2	27.5	6.3	0.0	86.8	2.697	Sand	-5.5	50	86	
					2012/08/20	Sunny	26.5	0.5	28.9	5	Dark grayish reddish yellow	None	0.0	0.0	3.7	71.0	18.7	6.7	0.0	84.5	2.666	Sand	-5.2	76	120	
					2012/09/06	Sunny	29.0	0.8	25.4	2	Dark grayish reddish yellow	None	0.0	0.0	17.0	66.2	13.4	3.4	0.0	89.8	2.685	Sand	-4.8	53	90	
					2012/10/03	Cloudy	20.5	0.4	20.1	2	Dark grayish yellow	None	0.0	0.0	4.0	55.0	27.9	13.1	0.0	83.6	2.71	Sand	-7.7	280	450	
					2012/10/30	Sunny	14.6	2.5	14.7	2	Dark grayish reddish yellow	None	2.7	2.5	21.2	56.3	9.1	8.2	0.0	86.2	2.67	Sand	-6.4	110	190	
					2012/11/21	Sunny	9.4	0.3	8.8	3	Yellowish black	None	0.0	0.2	1.0	42.4	35.2	21.2	0.0	69.0	2.706	Sand	-13	520	890	
					2012/12/13	Sunny	5.2	0.6	5.5	3	Yellowish black	None	0.0	1.7	4.4	63.4	24.4	6.1	0.0	85.1	2.804	Sand	-4.7	83	160	
					2013/01/10	Sunny	2.8	0.7	3.6	5	Dark grayish reddish yellow	None	0.0	0.0	1.2	59.7	25.4	13.8	0.0	79.8	2.727	Sand	-5.4	87	160	
					2013/02/07	Sunny	7.5	0.5	4.1	3	Dark grayish yellow green	None	0.0	0.4	2.5	61.5	18.6	16.9	0.0	81.4	2.778	Sand	-7.1	180	320	
					2012/05/04	Cloudy	24.1	0.3	13.0	2	Dark reddish yellow	None	1.1	1.4	0.4	62.7	17.1	17.4	0.0	82.7	2.641	Sand	-5.0	39	64	
					43	S y s t e m	R i v e r	Abukumagawa River Estuary (Watarichoashi Bridge)		2012/05/28	Rain	16.5	0.7	18.1	3	Yellow reddish dark gray	None	0.0	0.1	0.5	65.3	29.5	4.5	0.0	85.5	2.633
2012/07/18	Cloudy	25.0	0.6	26.0						5	Dark grayish reddish yellow	Faint fish and shellfish	3.7	12.0	39.1	29.1	11.4	4.8	0.0	91.8	2.632	Gravel/sand	-4.4	37	67	
2012/09/06	Sunny	28.0	0.7	26.0						1	Dark grayish yellow red	None	0.0	0.5	14.9	70.4	11.2	3.0	0.0	90.9	2.647	Sand	-5.2	38	64	
2012/10/30	Sunny	15.9	0.7	14.3						4	Dark grayish reddish yellow	None	2.5	5.9	37.3	35.2	13.1	6.0	0.0	88.7	2.622	Sand	-4.7	36	55	
2013/01/10	Sunny	2.3	1.0	2.1						3	Dark grayish greenish yellow	None	20.8	31.2	3.6	30.3	10.2	3.9	0.0	88.6	2.734	Gravel/sand	-4.5	67	120	
2013/02/07	Sunny	5.3	1.0	4.5						2	Dark grayish reddish yellow	None	0.0	6.9	17.0	66.8	6.4	2.8	0.0	89.8	2.678	Sand	-3.9	16	33	

Table 4.2.1.3 Miyagi Pref. River (Surrounding Environment)

No.	Water Body	Point	Municipality	Sampling date	Weather	Air temperature °C	Surrounding Environment (Soil and Air Dose)													Remarks		
							Left bank						Right bank									
							Soil			Air dose μSv/h			Soil			Air dose μSv/h						
							General items			Concentration of radioactive material Bq/kg (dry)			General items			Concentration of radioactive material Bq/kg (dry)						
							Color	Odor	Property	Radioactive iodine I-131	Cs-134	Cs-137	Color	Odor	Property	Radioactive iodine I-131	Cs-134	Cs-137				
1	Shishiorigawa River	Kinzanbashi Bridge	Kesennumashi City	2012/06/19	Cloudy	20.0	Very dark reddish yellow	None	Loamy	<7.5	210	330	0.11	Dark yellow red	Faint earth	Loamy	<7.4	180	290	0.11		
				2012/09/06	Cloudy	29.5	Dark greenish yellow	Earth	Clayish	<5.7	110	190	0.13	Dark reddish yellow	Earth	Clayish	<7.8	300	490	0.11		
				2012/11/27	Sunny, then snow	3.5	Very dark yellow	Grass	Loamy/skeletal	<5.7	120	220	0.12	Dark reddish yellow	Earth	Loamy/skeletal	<8.9	380	650	0.11		
				2013/01/29	Sunny	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		2		Namatobashi Bridge	2012/06/19	Cloudy	23.0	Very dark yellow red	Faint earth	Loamy	<6.0	210	340	0.09	Dark reddish yellow	None	Loamy	<5.8	110	180	0.09	
					2012/09/06	Sunny	31.0	Dark reddish yellow	Earth	Clayish	<5.1	27	42	0.08	Very dark reddish yellow	Earth	Clayish	<5.3	90	120	0.07	
					2012/11/27	Sunny	5.5	Dark yellow red	Earth	Loamy/skeletal/clayish	<4.9	29	47	0.07	Dark reddish yellow	Earth	Loamy/skeletal	<5.4	70	130	0.09	
					2013/01/29	Sunny	6.2	Dark reddish yellow	Earth	Skeletal	<5.4	68	110	0.08	Dark reddish yellow	Faint earth	Skeletal	<4.3	30	67	0.09	
		3		Tateyamahashi Bridge	2012/06/19	Rain	19.2	Very dark yellow red	Faint earth	Loamy	<12	380	580	0.12	Very dark reddish yellow	Faint earth	Loamy	<8.3	210	320	0.13	
					2012/09/06	Cloudy	30.5	Dark reddish yellow	Earth	Loamy	<11	370	580	0.13	Dark reddish yellow	Earth	Loamy	<8.3	230	350	0.12	
					2012/11/27	Snow	2.3	Very dark reddish yellow	Earth	Loamy/skeletal	<8.7	300	510	0.11	Very dark reddish yellow	Earth	Loamy	<8.6	160	270	0.12	
					2013/01/08	Sunny	2.3	Very dark reddish yellow	Earth	Loamy	<7.4	85	150	0.11	Very dark reddish yellow	Earth	Loamy	<13	670	1,200	0.10	
4	Okawa River	Kamiyamahashi Bridge	2012/06/19	Rain	18.2	Dark reddish yellow	Faint earth	Loamy	<7.8	310	510	0.09	Very dark reddish yellow	Faint earth	Loamy	<7.2	130	200	0.09			
			2012/09/06	Cloudy	33.0	Dark greenish yellow	Earth	Loamy	<11	530	850	0.08	Dark greenish yellow	Earth	Loamy	<6.2	160	260	0.11			
			2012/11/27	Snow	2.6	Very dark reddish yellow	Earth	Loamy/sandy	<6.7	170	280	0.08	Very dark reddish yellow	Earth	Sandy	<5.8	70	120	0.08			
			2013/01/08	Sunny	1.2	Dark reddish yellow	Earth	Loamy	<4.4	7.9	13	0.11	Very dark reddish yellow	Earth	Loamy	<9.6	380	700	0.11			
5	Okawa River Estuary	2012/06/19	Rain	17.9	Dark yellow red	Faint earth	Loamy	<4.4	29	50	0.08	Very dark yellow red	Faint earth	Clayish	<4.7	62	91	0.07				
		2012/09/05	Sunny	29.5	Dark yellow	Earth	Loamy	<7.3	320	550	0.07	Dark reddish yellow	Earth	Loamy	<3.6	18	23	0.05				
		2012/11/27	Snow	2.6	Very dark reddish yellow	Faint earth	Sandy/skeletal	<3.8	14	21	0.06	Dark reddish yellow	Earth	Loamy/clayish	<5.2	90	150	0.08				
		2013/01/08	Cloudy	1.2	Very dark reddish yellow	Earth	Loamy/skeletal	<6.0	91	170	0.07	Very dark reddish yellow	Earth	Loamy	<4.2	31	57	0.07				
6	Omosegawa River	Ozakibashi Bridge	2012/06/19	Rain	18.8	Dark yellowish red	Faint earth	Loamy	<4.4	15	29	0.06	Dark yellow red	Faint earth	Clayish	<3.9	17	32	0.06			
			2012/09/06	Cloudy, then rain	30.5	Dark reddish yellow	Earth	Loamy	<5.0	46	73	0.05	Dark reddish yellow	Earth	Loamy	<6.2	120	200	0.03			
			2012/11/27	Sunny, then snow	5.2	Dark reddish yellow	Faint earth	Loamy/clayish	<5.8	30	56	0.06	Very dark reddish yellow	Earth	Loamy	<6.8	120	210	0.07			
			2013/01/29	Sunny	4.9	Dark reddish yellow	Faint earth	Loamy	<5.8	160	310	0.07	Dark reddish yellow	Earth	Sandy	<4.7	21	53	0.05			
7	Arimaga River	Unadabashi Bridge	2012/06/19	Rain	19.0	Dark yellowish red	Faint earth	Loamy	<18	1,300	2,000	0.25	Very dark yellow red	Faint earth	Loamy	<11	510	810	0.21			
			2012/09/19	Cloudy	27.5	Pale reddish yellow	None	Sandy	<8.4	280	460	0.22	Very dark reddish yellow	Earth	Loamy/skeletal	<14	1,000	1,600	0.20			
			2012/11/29	Cloudy	2.9	Dark yellow red	Faint earth	Sandy	<12	1,000	1,800	0.22	Dark reddish yellow	Faint earth	Loamy/sandy	<8.3	280	480	0.18			
			2013/01/29	Cloudy	2.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
8	Kinryugawa River	Obatabashi Bridge	2012/06/20	Cloudy	19.8	Dark yellow	Faint earth	Clayish	<14	740	1,100	0.23	Dark reddish yellow	Faint earth	Clayish	<9.2	400	620	0.20			
			2012/09/20	Cloudy	29.3	Dull reddish yellow	Grass	Loamy/skeletal	<13	760	1,200	0.24	Dark reddish yellow	Earth	Sandy/loamy	<11	620	1,000	0.22			
			2012/11/29	Cloudy	4.9	Dark reddish yellow	Earth	Loamy	<13	780	1,300	0.26	Dull reddish yellow	Faint earth	Sandy	<8.9	360	610	0.24			
			2013/01/29	Cloudy	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
9	Kitakami-gawa River	Tomeohashi Bridge (Tome)	2012/06/19	Rain	23.0	Very dark yellow red	Earth	Loamy/clayish	<8.5	280	460	0.08	Very dark yellow red	Earth	Loamy	<6.7	110	190	0.07			
			2012/09/20	Cloudy	28.8	Soft reddish yellow	None	Loamy	<8.8	200	350	0.11	Soft reddish yellow	Faint earth	Sandy	<7.2	110	200	0.10			
			2012/11/28	Cloudy	8.4	Very dark yellow red	Earth	Loamy	<8.4	160	280	0.09	Dark reddish yellow	Earth	Loamy	<9.3	240	420	0.09			
			2013/01/30	Sunny	3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16 (Left bank) Unable to collect samples due to snow on the ground		
10	Sanhasama-gawa River	Domanbashi Bridge (Kurikoma Dam)	2012/06/20	Sunny	25.0	Deep yellow red	Earth	Sandy	<4.4	57	85	0.06	Very dark yellow red	Earth	Sandy	<4.9	17	27	0.07			
			2012/09/19	Cloudy	26.1	Very dark yellow red	None	Sandy	<3.0	-4.5	7.3	0.18	Very dark yellow red	None	Sandy	<3.5	15	26	0.12			
			2012/11/26	Cloudy, then light rain	7.1	Dark yellow red	Earth	Loamy	<11	400	680	0.15	Dark reddish yellow	Earth	Loamy	<5.9	120	210	0.17			
			2013/01/29	Snow	-1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
11	Nihacama-gawa River	Kajiyabashi Bridge	2012/06/20	Cloudy	21.0	Very dark yellow red	Earth	Loamy	<11	310	470	0.16	Very dark yellow red	Earth	Loamy	<11	580	890	0.15			
			2012/09/19	Cloudy	28.7	Dark reddish yellow	Earth	Loamy	<11	450	730	0.20	Deep reddish yellow	Earth	Loamy	<9.0	480	790	0.20			
			2012/11/26	Cloudy	7.6	Dark yellow red	Earth	Loamy	<8.5	190	380	0.20	Very dark reddish yellow	Faint earth	Loamy/sandy	<8.4	340	590	0.19			
			2013/01/29	Sunny	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
12	Hasamaga-gawa River	Hanayama Dam, inflow area	2012/06/19	Rain	19.5	Very dark yellow red	Earth	Loamy	<7.0	290	450	0.18	Very dark reddish yellow	Faint earth	Sandy	<7.3	120	170	0.12			
			2012/09/19	Cloudy	27.5	Reddish yellowish dark gray	Faint grass	Sandy	<6.5	150	260	0.10	Yellow reddish black	Earth	Sandy/loamy	<8.8	370	600	0.20			
			2012/11/28	Cloudy	7.5	Very dark yellow red	Earth	Loamy	<9.9	550	910	0.18	Dark yellow red	Faint earth	Loamy/sandy	<6.9	160	290	0.13			
2013/01/29	Snow	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground				

### Table 4.2.1.3 Miyagi Pref. River (Surrounding Environment)

Sampling point				Surrounding Environment (Soil and Air Dose)																Remarks				
				Sampling date	Weather	Air temperature °C	Left bank								Right bank									
							Soil			Concentration of radioactive material Bq/kg (dry)					Air dose μSv/h	Soil			Concentration of radioactive material Bq/kg (dry)					
							Color	Odor	Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137		Color	Odor		Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137						
No.	Water Body	Point	Municipality	Color	Odor	Property	Radioactive iodine I-131	Cs-134	Cs-137	Air dose μSv/h	Color	Odor	Property	Radioactive iodine I-131	Cs-134	Cs-137	Air dose μSv/h							
13	Hasamagawa River	Wakayanagi	Kuriharashi City	2012/06/19	Rain	19.0	Very dark purplish red	Earth	Loamy	-8.6	240	350	0.10	Dark yellow red	None	Sandy	-4.2	55	96	0.12				
				2012/09/20	Cloudy	28.0	Dark reddish yellow	Faint earth	Loamy	-12	490	830	0.12	Dark reddish yellow	Earth	Sandy	-7.9	240	410	0.10				
				2012/11/26	Rain	6.1	Very dark reddish yellow	Earth	Loamy	-12	320	550	0.12	Dark reddish yellow	None	Sandy	-7.6	160	280	0.10				
14	Yamayeshidabashi Bridge	Tomeshi City	2013/01/30	Sunny	-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
			2012/06/21	Sunny	24.0	Very dark reddish yellow	Earth	Loamy	-4.3	19	29	0.06	Very dark yellow red	Earth	Loamy	-5.2	17	28	0.07					
			2012/09/20	Cloudy	29.0	Deep reddish yellow	None	Loamy/skeletal	-3.6	-5.8	-4.5	0.07	Dull reddish yellow	Faint earth	Loamy	-7.0	140	220	0.08					
			2012/11/28	Sunny	4.6	Very dark yellow red	Earth	Loamy	-4.5	67	110	0.07	Very dark reddish yellow	Earth	Loamy	-5.2	41	70	0.08					
			2013/01/30	Sunny	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
15	Faigawa River	Todorokibashi Bridge (Todoroki)	Okazaki City	2012/06/20	Cloudy	21.0	Dark yellow red	Faint earth	Loamy	-6.5	120	200	0.09	Dark reddish yellow	Faint earth	Loamy	-4.0	44	65	0.11				
				2012/09/20	Cloudy	24.2	Dark reddish yellow	Faint earth	Loamy/sandy	-7.6	140	230	0.09	Very dark reddish yellow	Earth	Loamy/skeletal	-14	660	1100	0.10				
				2012/11/28	Sunny	3.8	Very dark reddish yellow	Earth	Loamy	-7.6	110	210	0.07	Very dark yellow red	Earth	Loamy	-13	510	900	0.08				
				2013/02/01	Sunny	-0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
				2012/06/20	Cloudy	21.0	Dark yellow	Faint earth	Sandy	-4.8	39	63	0.07	Very dark reddish yellow	Faint earth	Loamy	-8.7	280	420	0.11				
16	Shimizukomon Weir	Okazaki City	2012/09/18	Sunny	28.7	Soft reddish yellow	Grass	Loamy/skeletal	-5.9	110	180	0.08	Dull reddish yellow	Grass	Loamy/skeletal	-8.6	270	440	0.11					
			2012/11/29	Cloudy	8.0	Very dark yellow red	Earth	Loamy	-12	360	660	0.09	Very dark reddish yellow	Earth	Loamy	-6.6	170	290	0.10					
			2013/01/31	Sunny	6.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
			2012/06/21	Cloudy	22.3	Very dark yellow red	Faint earth	Loamy	-9.8	300	500	0.10	Very dark yellow red	Faint earth	Clayish	-7.8	150	240	0.08					
			2012/09/18	Sunny	26.5	Dark reddish yellow	Earth	Loamy	-12	460	760	0.10	Very dark reddish yellow	Earth	Loamy	-7.5	170	290	0.08					
17	In Furukawa District, Otsuki City	Shinborisaihon, entrance	Misatomachi Town	2012/11/29	Cloudy	5.5	Very dark reddish yellow	Earth	Loamy	-7.9	190	360	0.10	Very dark reddish yellow	Earth	Loamy	-7.4	130	230	0.07				
				2013/01/31	Sunny	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
				2012/06/20	Sunny	25.2	Very dark yellow red	Faint earth	Loamy	-15	590	910	0.09	Very dark reddish yellow	Earth	Sandy	-6.1	150	220	0.08				
				2012/09/20	Cloudy	28.2	Very dark reddish yellow	Earth	Loamy	-19	1,500	2,400	0.08	Very dark reddish yellow	Faint earth	Loamy	-6.4	98	180	0.08				
				2012/11/29	Cloudy	8.6	Very dark reddish yellow	Faint earth	Loamy	-13	410	710	0.10	Very dark reddish yellow	Earth	Loamy/sandy	-8.3	140	250	0.08				
18	Dekigawa River	Kogotabashi Bridge	Misatomachi Town	2013/01/31	Sunny	6.9	Very dark reddish yellow	Earth	Loamy	-12	380	690	0.11	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground			
				2012/06/21	Sunny	23.2	Very dark yellow red	Faint earth	Loamy	-7.2	130	180	0.07	Dark yellow red	Faint earth	Loamy	-5.2	40	59	0.07				
				2012/09/20	Cloudy	27.1	Dark reddish yellow	Earth	Loamy/sandy	-6.0	84	120	0.07	Very dark reddish yellow	Earth	Loamy	-8.8	72	120	0.08				
				2012/11/28	Cloudy	6.5	Very dark reddish yellow	Earth	Loamy	-6.2	97	150	0.07	Very dark reddish yellow	Faint earth	Loamy	-5.9	27	52	0.07				
				2013/01/30	Cloudy	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
19	Eaigawa River	Okawabashi Bridge (Tanda)	Wakayacho Town/Ishinomaki City	2012/06/21	Sunny	22.6	Dark reddish yellow	Faint earth	Loamy	-5.7	100	170	0.08	Dark reddish yellow	Faint earth	Loamy	-6.9	80	120	0.08				
				2012/09/20	Cloudy	27.9	Dark reddish yellow	Earth	Loamy/skeletal	-5.7	62	110	0.08	Dark reddish yellow	Grass	Loamy	-6.4	84	140	0.07				
				2012/11/28	Cloudy	8.9	Very dark yellow red	Earth	Loamy	-5.4	76	130	0.12	Dark reddish yellow	Earth	Loamy	-8.4	230	430	0.08				
				2013/01/08	Sunny	7.0	Very dark reddish yellow	Faint earth	Loamy	-5.0	92	150	0.07	Dark yellow red	Faint earth	Loamy	-6.3	94	170	0.08				
				2012/06/21	Cloudy	22.3	Dull reddish yellow	Faint earth	Loamy	-6.9	180	290	0.08	Dark reddish yellow	Faint earth	Loamy	-8.8	210	330	0.09				
20	Kyukitakamigawa River	Kadonowaki	Ishinomaki City	2012/09/20	Cloudy	28.1	Very dark reddish yellow	Earth	Loamy	-5.0	33	66	0.08	Dull reddish yellow	Faint earth	Sandy/loamy	-9.9	180	290	0.09				
				2012/11/28	Cloudy	13.2	Very dark reddish yellow	Earth	Sandy	-6.0	99	160	0.06	Very dark reddish yellow	Earth	Loamy	-4.8	27	46	0.08				
				2013/01/29	Sunny	4.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
				2012/06/21	Sunny	23.1	Very dark reddish yellow	Faint earth	Loamy	-7.8	190	300	0.07	Dark yellow red	Faint earth	Loamy	-7.5	200	310	0.07				
				2012/09/21	Rain	23.0	Dark yellow red	Earth	Loamy	-5.7	65	99	0.07	Dark reddish yellow	Grass	Sandy/loamy	-6.9	160	260	0.08				
21	Narusagawa River	Onobashi Bridge (Ono)	Higashimatsushiro City	2012/11/14	Cloudy	13.0	Very dark yellow red	Earth	Loamy	-5.5	64	110	0.11	Very dark yellow red	Earth	Loamy	-8.1	110	200	0.11				
				2013/01/09	Snow	-1.5	Very dark reddish yellow	Earth	Loamy	-6.2	110	200	0.08	Very dark reddish yellow	Earth	Loamy	-9.1	270	490	0.07				
				2012/06/21	Cloudy	26.6	Very dark reddish yellow	Faint earth	Loamy	-7.2	190	300	0.08	Dark yellow red	Faint earth	Loamy	-6.3	150	230	0.07				
				2012/09/21	Rain	23.0	Very dark reddish yellow	Faint grass	Loamy/sandy	-5.1	59	95	0.08	Dark reddish yellow	Faint earth	Loamy	-8.5	300	480	0.08				
				2012/11/14	Cloudy	14.0	Very dark yellow red	Earth	Loamy	-8.4	280	510	0.06	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to construction			
22	Sumashigawa River	Tagajozeki Weir	Tagajoshi City	2013/01/09	Snow	-1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to construction			
				2012/06/21	Cloudy	23.0	Dark yellow red	Faint earth	Loamy	-7.8	190	300	0.07	Dark yellow red	Faint earth	Loamy	-7.5	200	310	0.07				
				2012/09/21	Rain	23.0	Dark yellow red	Earth	Loamy	-5.7	65	99	0.07	Dark reddish yellow	Grass	Sandy/loamy	-6.9	160	260	0.08				
				2012/11/14	Cloudy	13.0	Very dark yellow red	Earth	Loamy	-5.5	64	110	0.11	Very dark yellow red	Earth	Loamy	-8.1	110	200	0.11				
				2013/01/09	Snow	-1.5	Very dark reddish yellow	Earth	Loamy	-6.2	110	200	0.08	Very dark reddish yellow	Earth	Loamy	-9.1	270	490	0.07				
23	Nezubutsubashi Bridge	Tagajoshi City	2012/06/21	Cloudy	26.6	Very dark reddish yellow	Faint earth	Loamy	-7.2	190	300	0.08	Dark yellow red	Faint earth	Loamy	-6.3	150	230	0.07					
			2012/09/21	Rain	23.0	Very dark reddish yellow	Faint grass	Loamy/sandy	-5.1	59	95	0.08	Dark reddish yellow	Faint earth	Loamy	-8.5	300	480	0.08					
			2012/11/14	Cloudy	14.0	Very dark yellow red	Earth	Loamy	-8.4	280	510	0.06	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to construction				
			2013/01/09	Snow	-1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to construction				
			2012/06/21	Cloudy	23.0	Dark yellow	Faint earth	Sandy	-8.0	150	220	0.08	Very dark reddish yellow	Faint earth	Loamy	-6.5	54	87	0.07					
24	Teizan-uno Canal (H/Sumagawa River)	Teizanbashi Bridge	Shichigahama City/Town/Tagajoshi City	2012/09/21	Light rain	21.6	Very dark yellow	Faint sand	Sandy/loamy	-8.5	280	440	0.08	Very dark reddish yellow	Earth	Loamy	-7.5	85	120	0.06				
				2012/11/14	Cloudy	13.5	Dark reddish yellow	Faint earth	Sandy	-5.8	43	68	0.08	Very dark reddish yellow	Faint earth	Sandy	-4.5	56	94	0.07				
				2013/01/09	Snow	-2.0	Dark reddish yellow	Earth	Sandy	-6.1	89	150	0.07	Very dark reddish yellow	Earth	Loamy	-9.2	250	420	0.10				

Table 4.2.1.3 Miyagi Pref. River (Surrounding Environment)

No.	Sampling point				Sampling date	Weather	Air temperature °C	Surrounding Environment (Soil and Air Dose)												Remarks			
	Water Body	Point	Municipality	Left bank						Right bank													
				Soil				Air dose μSv/h			Soil			Air dose μSv/h									
				General items				Concentration of radioactive material Bq/kg (dry)		Radioactive iodine I-131	Radioactive cesium		General items		Concentration of radioactive material Bq/kg (dry)		Radioactive iodine I-131	Radioactive cesium					
Color	Odor	Property	Radioactive iodine I-131	Cs-134	Cs-137	Color	Odor	Property	Radioactive iodine I-131		Cs-134	Cs-137											
25	Nanakigawa River	Nanakitabashi Bridge	Sendai City	2012/06/07	Sunny	23.5	Very dark yellow red	Earth	Loamy	<9.1	230	330	0.08	Dark yellow red	Earth	Loamy	<7.7	130	200	0.07			
				2012/09/26	Sunny	30.0	Very dark reddish yellow	Faint earth	Loamy	<7.6	170	260	0.07	Dark reddish yellow	Faint earth	Loamy/skeletal	<7.8	210	350	0.07			
				2012/11/25	Sunny	7.0	Dark yellow red	Earth	Loamy	<5.5	82	140	0.07	Very dark reddish yellow	Earth	Loamy	<6.9	140	270	0.07			
		2013/02/27		Cloudy	5.1	Very dark reddish yellow	Earth	Loamy	<4.4	11	22	0.04	Very dark reddish yellow	Earth	Loamy	<9.5	280	570	0.06				
		2012/06/07		Sunny	23.0	Dark yellow red	Faint earth	Loamy	<9.1	330	490	0.07	Dark yellow red	Earth	Loamy	<8.3	220	370	0.08				
		2012/09/27		Cloudy	21.4	Very dark reddish yellow	Earth	Loamy/sandy	<8.1	280	280	0.07	Very dark reddish yellow	Grass	Loamy	<7.2	120	220	0.07				
	26	Nanakigawa River	Fukudabashi Bridge	Sendai City	2012/11/25	Sunny	11.0	Very dark reddish yellow	Earth	Loamy	<6.8	160	280	0.08	Very dark reddish yellow	Earth	Loamy	<7.9	160	270	0.09		
					2013/02/27	Cloudy	2.6	Very dark reddish yellow	Earth	Loamy	<1.1	270	560	0.07	Very dark reddish yellow	Earth	Loamy	<7.0	97	190	0.07		
					2012/06/07	Cloudy	23.0	Very dark yellow red	Earth	Loamy	<7.2	180	270	0.08	Dark yellow red	Faint earth	Loamy/sandy	<8.4	230	350	0.11		
					2012/09/27	Sunny	21.3	Very dark reddish yellow	Faint earth	Loamy	<6.4	130	200	0.07	Dark reddish yellow	Faint earth	Sandy/loamy	<4.4	<5.8	11	0.09		
					2012/11/14	Cloudy	13.0	Very dark yellow red	Earth	Loamy	<6.6	100	190	0.02	Very dark yellow red	Earth	Loamy	<6.4	120	210	0.05		
					2013/02/27	Cloudy	3.8	Very dark reddish yellow	Earth	Loamy/sandy	<4.2	35	69	0.10	-	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to construction
27	Umedogawa River	Fukudabashi Bridge	Sendai City	2012/06/07	Cloudy	20.5	Dark yellow red	Earth	Loamy	<7.3	200	320	0.07	Dark yellow red	Faint earth	Loamy/sandy	<8.3	180	280	0.10			
				2012/09/26	Sunny	22.3	Very dark reddish yellow	Grass	Loamy/sandy	<7.6	180	310	0.07	Very dark yellow red	Faint earth	Loamy/sandy	<9.1	350	550	0.11			
				2012/11/25	Sunny	10.6	Very dark reddish yellow	None	Loamy	<9.7	390	680	0.10	Dark reddish yellow	None	Loamy	<5.3	50	86	0.07			
				2013/01/09	Snow	1.4	Very dark reddish yellow	Earth	Loamy	<6.7	140	250	0.09	-	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground	
				2012/06/06	Cloudy	20.5	Dark yellow red	Earth	Loamy	<1.1	470	710	0.13	Very dark yellow red	Earth	Loamy	<6.9	170	270	0.09			
28	Nanakigawa River	Takasogobashi Bridge	Sendai City	2012/09/26	Sunny	22.3	Very dark reddish yellow	Grass	Loamy/sandy	<7.6	180	310	0.07	Very dark yellow red	Faint earth	Loamy/sandy	<9.1	350	550	0.11			
				2012/11/25	Sunny	10.6	Very dark reddish yellow	None	Loamy	<9.7	390	680	0.10	Dark reddish yellow	None	Loamy	<5.3	50	86	0.07			
				2012/06/07	Cloudy	20.5	Dark yellow red	Earth	Loamy	<7.3	200	320	0.07	Dark yellow red	Faint earth	Loamy/sandy	<8.3	180	280	0.10			
				2012/09/26	Sunny	22.3	Very dark reddish yellow	Grass	Loamy/sandy	<7.6	180	310	0.07	Very dark yellow red	Faint earth	Loamy/sandy	<9.1	350	550	0.11			
				2012/11/25	Sunny	10.6	Very dark reddish yellow	None	Loamy	<9.7	390	680	0.10	Dark reddish yellow	None	Loamy	<5.3	50	86	0.07			
				2013/01/09	Snow	1.4	Very dark reddish yellow	Earth	Loamy	<6.7	140	250	0.09	-	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground	
	29	Natoriogawa River	Yuriagehashi Bridge	Sendai City/Natori City	2012/06/06	Sunny	24.0	Dark yellow red	Earth	Loamy/sandy	<5.5	24	33	0.05	Dark yellow red	Earth	Loamy/sandy	<6.9	130	190	0.10		
					2012/09/25	Sunny	20.0	Very dark greenish yellow	Earth	Sandy	<7.4	200	320	0.06	Very dark reddish yellow	Earth	Loamy	<6.8	110	190	0.06		
					2012/11/27	Sunny	8.7	Very dark reddish yellow	Earth	Loamy	<6.1	120	200	0.11	Dull reddish yellow	Earth	Loamy	<8.2	230	400	0.08		
					2013/01/23	Sunny	0.9	Dark reddish yellow	Earth	Loamy	<4.7	27	60	0.06	-	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground
	30	Natoriogawa River	Yakushibashi Bridge	Natori City	2012/06/06	Cloudy	20.5	Dark yellow red	Earth	Loamy	<1.1	470	710	0.13	Very dark yellow red	Earth	Loamy	<6.9	170	270	0.09		
2012/09/25					Sunny	21.0	Very dark reddish yellow	Earth	Loamy	<1.1	550	910	0.06	Very dark yellow red	Earth	Loamy	<6.2	130	210	0.06			
2012/11/27					Sunny	7.3	Very dark reddish yellow	Earth	Loamy	<5.6	75	150	0.23	Very dark reddish yellow	Earth	Loamy	<8.9	300	520	0.22			
2013/01/23					Sunny	3.2	Very dark yellow red	Earth	Loamy/sandy	<5.9	110	190	0.09	-	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground	
2012/06/06					Cloudy, partly rain	21.7	Dark yellow red	Faint earth	Loamy/clayish	<1.7	760	1,200	0.14	Dark yellow red	Faint earth	Loamy/clayish	<2.9	2,300	3,400	0.19			
2012/09/25					Rain	17.0	Very dark yellow red	Earth	Loamy	<8.5	270	440	0.11	Very dark yellow red	Earth	Loamy	<7.4	180	270	0.10			
2012/11/27					Sunny	4.7	Very dark reddish yellow	Earth	Loamy	<7.8	180	300	0.17	Very dark reddish yellow	Earth	Loamy	<9.0	340	600	0.18			
2013/01/23					Sunny	5.4	Dark grayish reddish yellow	Grass	Loamy	<1.5	470	890	0.13	-	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground	
2012/06/06					Cloudy	23.0	Dark yellow green	Faint earth	Loamy/sandy	<5.8	120	190	0.11	Very dark yellow green	Faint earth	Loamy/sandy	<9.2	380	590	0.10			
2012/09/25					Rain	17.0	Dark reddish yellow	Earth	Loamy	<7.7	270	450	0.11	Dark reddish yellow	Earth	Loamy/skeletal	<7.8	260	460	0.07			
31	Masudogawa River	Koyamabashi Bridge	Natori City	2012/11/27	Sunny	8.4	Very dark reddish yellow	Faint earth	Loamy	<5.4	65	99	0.08	Very dark reddish yellow	Faint earth	Loamy	<1.0	500	840	0.12			
				2013/01/23	Sunny	5.4	Very dark reddish yellow	Grass	Loamy	<9.7	260	510	0.10	-	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground	
				2012/06/06	Cloudy, partly sunny	19.9	Very dark yellow red	Earth	Loamy	<2.0	2,100	3,300	0.37	Dark yellow red	Earth	Loamy	<9.8	580	890	0.35			
				2012/05/07	Sunny	18.0	Very dark yellowish red	Earth	Loamy	<1.8	1,600	2,500	0.36	Dark yellowish red	Faint earth	Loamy	<1.4	930	1,400	0.37			
				2012/06/04	Cloudy, partly sunny	23.2	Strong yellow	Earth	Sandy	<6.9	240	380	0.28	Strong yellow	Earth	Loamy	<9.9	550	920	0.39			
				2012/07/17	Cloudy	28.0	Very dark yellow	Earth	Skeletal/sandy	<1.3	1,100	1,700	0.29	Very dark yellow red	Earth	Loamy	<1.3	690	1,100	0.32			
				2012/08/20	Sunny	27.0	Dark grayish reddish yellow	Earth	Sandy	<8.5	310	560	0.26	Dark grayish reddish yellow	Faint grass	Sandy	<1.3	840	1,400	0.30			
				2012/09/06	Cloudy	24.0	Very dark yellow	Faint earth	Sandy	<1.3	880	1,500	0.34	Dark reddish yellow	Earth	Loamy	<1.4	710	1,300	0.32			
				2012/10/03	Rain	22.0	Very dark reddish yellow	Earth	Loamy	<1.3	1,100	2,000	0.30	Dark reddish yellow	Earth	Loamy	<6.9	180	300	0.30			
32	Abukumagawa River	Hadeniwahashi Bridge	Marunomachi Town	2012/10/31	Sunny	13.3	Very dark yellow red	Earth	Loamy	<1.2	790	1,400	0.31	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground		
				2012/11/21	Cloudy	7.1	Very dark reddish yellow	Earth	Loamy	<1.2	660	1,200	0.24	-	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground	
				2012/12/13	Sunny	3.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground
				2013/01/10	Sunny	0.9	Dark reddish yellow	None	Sandy	<1.1	410	550	0.30	Dark reddish yellow	Earth	Loamy	<8.6	370	570	0.42			
				2013/02/07	Sunny	3.0	Dark grayish reddish yellow	None	Sandy	<9.7	410	560	0.36	Dark reddish yellow	Earth	Loamy	<1.2	500	740	0.36			
				2012/06/06	Cloudy, partly sunny	19.9	Very dark yellow red	Earth	Loamy	<2.0	2,100	3,300	0.37	Dark yellow red	Earth	Loamy	<9.8	580	890	0.35			
				2012/05/07	Sunny	18.0	Very dark yellowish red	Earth	Loamy	<1.8	1,600	2,500	0.36	Dark yellowish red	Faint earth	Loamy	<1.4	930	1,400	0.37			
				2012/06/04	Cloudy, partly sunny	23.2	Strong yellow	Earth	Sandy	<6.9	240	380	0.28	Strong yellow	Earth	Loamy	<9.9	550	920	0.39			

Table 4.2.1.3 Miyagi Pref. River (Surrounding Environment)

Sampling point				Sampling date	Weather	Air temperature °C	Surrounding Environment (Soil and Air Dose)															Remarks	
No.	Water Body	Point	Municipality				Left bank							Right bank									
							Soil			Concentration of radioactive material Bq/kg (dry)				Air dose μSv/h	Soil			Concentration of radioactive material Bq/kg (dry)					
							Color	Odor	Property	Radioactive iodine I-131	Cs-134	Cs-137	Color		Odor	Property	Radioactive iodine I-131	Cs-134	Cs-137				
34	Abukumagawa River	Manumorihashi Bridge	Marumori-machi Town	2012/04/28	Sunny	16.7	Yellow greenish dark gray	None	Sandy	<6.7	200	320	0.21	Very dark reddish yellow	Faint earth	Sandy	<4.8	51	97	0.12			
				2012/05/07	Sunny	21.5	Very dark yellow red	Faint earth	Loamy	<4.8	9.6	23	0.15	Dark reddish yellow	Faint earth	Loamy	<7.8	200	300	0.14			
				2012/06/05	Sunny	24.6	Dark reddish yellow	Earth	Loamy	<4.5	57	88	0.17	Dull yellow	Earth	Sandy	<4.8	90	130	0.12			
				2012/07/18	Rain	22.0	Dark yellow red	Earth	Loamy	<6.7	230	370	0.15	Dark reddish yellow	Earth	Loamy	<9.0	510	850	0.20			
				2012/08/20	Sunny	31.0	Dark reddish yellow	Faint grass	Sandy	<8.0	280	470	0.19	Very dark reddish yellow	Earth	Sandy	<6.0	140	250	0.13			
				2012/09/06	Cloudy	23.0	Dark reddish yellow	Faint earth	Sandy	<9.5	520	890	0.16	Dark reddish yellow	Faint earth	Sandy	<6.6	180	310	0.15			
				2012/10/03	Rain	19.5	Dark yellow green	Earth	Loamy	<4.0	20	44	0.15	Dark reddish yellow	Earth	Loamy	<6.3	93	160	0.18			
				2012/10/31	Sunny	16.0	Very dark yellow red	Earth	Loamy	<4.2	41	74	0.19	Very dark yellow red	Earth	Loamy	<5.2	110	190	0.09			
				2012/11/21	Cloudy	7.0	Dull reddish yellow	Earth	Loamy	<11	610	1,100	0.18	Dark reddish yellow	Faint earth	Loamy	<8.3	380	660	0.17			
				2012/12/13	Sunny	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
		2013/01/10	Sunny	4.3	Dark reddish yellow	Faint earth	Sandy	<6.9	170	260	0.22	Dark reddish yellow	Faint earth	Sandy/skeletal	<6.0	130	180	0.12					
		2013/02/07	Sunny	4.8	Dark yellow red	None	Sandy	<8.0	240	340	0.21	Dark yellow red	None	Sandy/skeletal	<5.6	85	120	0.13					
		2012/05/04	Rain	17.0	Yellow reddish dark gray	Faint earth	Loamy	<9.7	380	560	0.33	Yellowish dark gray	Faint earth	Loamy	<14	1,100	1,600	0.35					
		2012/05/28	Sunny	15.0	Very dark reddish yellow	Earth	Loamy	<18	1,600	2,500	0.42	Very dark reddish yellow	Earth	Loamy	<26	1,500	2,400	0.37					
		2012/07/18	Cloudy	27.0	Very dark reddish yellow	Earth	Loamy	<16	1,100	1,900	0.36	Dark yellow red	Earth	Sandy	<26	1,200	2,000	0.36					
		2012/09/06	Rain	23.0	Very dark reddish yellow	None	Loamy	<15	970	1,600	0.35	Very dark reddish yellow	None	Sandy	<18	1,600	2,700	0.34					
		2012/10/30	Sunny	14.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
		2013/01/10	Sunny	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
		2013/02/07	Cloudy	7.2	Very dark reddish yellow	Faint earth	Loamy	<16	810	1,200	0.38	Very dark reddish yellow	Faint earth	Loamy	<15	1,100	1,600	0.32					
		36	Shiroishiwa River	Before the confluence with Kawagatsawa River (Samaishibashi Bridge)	Shiroishi City	2012/06/05	Sunny	22.2	Very dark yellow red	Earth	Loamy/sandy	<9.5	540	860	0.22	Very dark yellow red	Faint earth	Loamy	<13	790	1,200	0.28	
						2012/09/10	Sunny	27.2	Very dark yellow red	None	Loamy	<13	880	1,500	0.23	Dark yellow red	None	Skeletal/loamy	<11	420	680	0.21	
2012/11/27	Sunny					4.9	Very dark yellow red	Earth	Loamy	<9.5	500	860	0.22	Dark yellow red	Earth	Loamy	<9.7	460	760	0.20			
2013/01/22	Rain					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
2012/06/05	Sunny					25.0	Very dark greenish yellow	Earth	Loamy	<9.0	390	570	0.17	Dull yellow green	Earth	Loamy	<9.6	400	610	0.18			
37	Saiikawa River	Esubobashi Bridge	Shiroishi City	2012/09/11	Sunny	29.0	Dark reddish yellow	Faint grass	Loamy	<15	1,100	1,700	0.21	Dark reddish yellow	Faint grass	Loamy/skeletal	<9.8	460	730	0.16			
				2012/11/15	Cloudy	9.2	Very dark reddish yellow	Earth	Loamy	<6.3	110	200	0.17	Very dark reddish yellow	Earth	Loamy	<7.3	180	300	0.12			
				2013/01/24	Sunny	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Left bank/Unable to collect samples due to snow on the ground	
				2012/06/05	Cloudy	25.0	Very dark reddish yellow	Earth	Loamy	<9.2	410	630	0.17	Very dark greenish yellow	Earth	Loamy	<8.2	370	580	0.15			
38	Matsukawa River	Miyohashi Bridge	Zaomachi Town	2012/09/11	Sunny	29.3	Very dark reddish yellow	Faint grass	Loamy	<7.7	270	430	0.11	Very dark reddish yellow	Faint grass	Loamy	<9.4	340	530	0.15			
				2012/11/15	Cloudy	9.8	Very dark yellow	Earth	Loamy	<7.4	170	300	0.09	Very dark yellow red	Earth	Loamy	<7.9	260	440	0.10			
				2013/01/24	Sunny	7.7	Very dark reddish yellow	Earth	Loamy	<5.7	120	230	0.10	-	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground	
39	Azakawa River	Niragamihashi Bridge	Muntamachi Town/Opawaramachi Town	2012/06/05	Sunny	26.1	Very dark yellow red	Earth	Loamy	<14	740	1,200	0.17	Dark yellow red	Earth	Loamy	<17	880	1,300	0.18			
				2012/09/10	Sunny	28.5	Very dark reddish yellow	None	Sandy/skeletal	<11	460	740	0.15	Dark yellow red	None	Loamy/skeletal	<9.3	460	740	0.16			
				2012/11/27	Sunny	8.3	Very dark reddish yellow	Earth	Loamy	<8.5	180	340	0.16	Very dark reddish yellow	Earth	Loamy	<8.8	300	530	0.16			
				2013/01/24	Sunny	4.1	Dark grayish reddish yellow	Grass and earth	Loamy	<7.5	180	340	0.15	-	-	-	-	-	-	-	-	-	(Right bank) Unable to collect samples due to snow on the ground
40	Shiroishiwa River	Sharahatabashi Bridge	Shibatamachi Town	2012/06/05	Cloudy	23.1	Very dark yellowish red	Earth	Loamy	<9.5	230	340	0.13	Very dark yellow red	Earth	Loamy	<11	380	570	0.17			
				2012/09/10	Sunny	25.0	Very dark reddish yellow	Faint grass	Loamy	<13	420	740	0.12	Dull reddish yellow	None	Loamy	<7.2	250	410	0.15			
				2012/11/27	Sunny	6.7	Very dark reddish yellow	Earth	Loamy	<8.3	270	470	0.14	Very dark reddish yellow	Earth	Loamy	<4.8	89	180	0.16			
				2013/01/24	Sunny	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
41	Abukumagawa River	Tsukinokobashi Bridge	Kakudashi City/Shibatamachi Town	2012/05/04	Cloudy	21.3	Yellowish dark gray	Faint earth	Loamy	<14	810	1,200	0.16	Yellow reddish dark gray	Faint earth	Loamy	<10	290	450	0.18			
				2012/05/28	Sunny	19.3	Very dark yellow red	Earth	Loamy	<18	1,300	2,100	0.26	Very dark yellow red	Faint earth	Loamy	<7.1	150	210	0.18			
				2012/07/18	Cloudy	26.0	Very dark yellow red	Earth	Loamy	<16	910	1,500	0.17	Very dark reddish yellow	Earth	Loamy	<11	480	770	0.18			
				2012/09/06	Rain	27.0	Very dark reddish yellow	None	Loamy	<14	790	1,300	0.20	Very dark reddish yellow	Earth	Loamy/skeletal	<8.4	320	540	0.21			
				2012/10/30	Sunny	15.0	Very dark reddish yellow	Earth	Loamy	<6.1	100	190	0.10	Very dark yellow red	Earth	Loamy	<5.6	170	310	0.22			
				2013/01/10	Sunny	3.3	Very dark yellow	Earth	Loamy/sandy	<11	440	840	0.16	Very dark yellow red	Earth	Loamy/skeletal	<9.5	290	540	0.16			
2013/02/07	Cloudy	4.2	Very dark yellow	Earth	Loamy	<6.5	110	190	0.17	Very dark reddish yellow	Faint earth	Loamy	<6.4	84	120	0.19							

Table 4.2.1.3 Miyagi Pref. River (Surrounding Environment)

Sampling point				Sampling date	Weather	Air temperature °C	Surrounding Environment (Soil and Air Dose)														Remarks					
No.	Water Body	Point	Municipality				Left bank							Right bank												
							Soil			Air dose μSv/h				Soil			Air dose μSv/h									
							General items			Concentration of radioactive material Bq/kg (dry)				General items			Concentration of radioactive material Bq/kg (dry)									
Color	Odor	Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137		Color	Odor	Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137		Air dose μSv/h														
42	Abukumagawa River	Abukumagawa Bridge (Iwanuma)	Iwanumashi City/Wataricho Town	2012/04/28	Sunny	14.0	Very dark yellow red	Earth	Loamy		<14	680	1,000	0.34	Dark yellow red		Earth	Loamy		<8.3	250	360	0.22			
				2012/05/07	Sunny	24.5	Very dark yellow red	Earth	Loamy		<8.2	300	480	0.34	Very dark yellowish red	Faint earth	Loamy		<12	480	740		480	740	0.24	
				2012/06/06	Cloudy	21.0	Very dark yellow	Earth	Loamy		<12	620	1,000	0.31	Very dark yellow	Earth	Loamy		<12	500	800		500	800	0.20	
				2012/07/18	Cloudy	26.0	Dull reddish yellow	Earth	Loamy		<13	910	1,500	0.28	Dark reddish yellow	Earth	Loamy		<12	498	800		498	800	0.19	
				2012/08/20	Sunny	26.5	Very dark reddish yellow	Faint grass	Loamy		<13	730	1,200	0.33	Very dark reddish yellow	Faint grass	Loamy		<9.4	400	670		400	670	0.21	
				2012/09/06	Sunny	29.0	Dark yellow	None	Loamy/sandy		<11	590	970	0.27	Very dark reddish yellow	Earth	Loamy		<7.9	300	510		300	510	0.20	
				2012/10/03	Cloudy	20.5	Dark grayish yellow red	Earth	Sandy		<9.3	420	740	0.20	Very dark yellow red	Earth	Loamy		<12	590	980		590	980	0.18	
				2012/10/30	Sunny	14.6	Yellowish dark gray	Earth	Loamy		<6.6	200	380	0.12	Very dark yellow red	Earth	Loamy		<11	420	730		420	730	0.18	
				2012/11/21	Sunny	9.4	Very dark reddish yellow	Earth	Loamy		<7.3	220	410	0.14	Very dark reddish yellow	Earth	Loamy		<6.2	140	280		140	280	0.14	
				2012/12/13	Sunny	5.2	Very dark yellow	Earth	Loamy/skeletal		<23	1,900	3,500	0.22	Very dark yellow	Earth	Loamy		<9.8	390	720		390	720	0.16	
				2013/01/10	Sunny	2.8	Very dark yellow red	Faint earth	Sandy		<15	1,200	1,800	0.33	Dull yellow red	Green grass	Sandy/skeletal		<6.6	120	190		120	190	0.21	
				2013/02/07	Sunny	7.5	Very dark yellow	None	Clayish		<13	1,400	2,000	0.31	Dark yellow red	None	Loamy		<5.8	160	240		160	240	0.20	
				2012/05/04	Cloudy	24.1	Yellow reddish dark gray	Faint earth	Loamy		<17	1,500	2,200	0.22	Reddish dark gray	Faint earth	Loamy		<7.2	230	350		230	350	0.17	
				2012/05/28	Rain	16.5	Very dark reddish yellow	Earth	Loamy		<9.1	330	540	0.25	Very dark reddish yellow	Earth	Loamy/sandy		<12	460	710		460	710	0.14	
				2012/07/18	Cloudy	25.0	Dull reddish yellow	Earth	Sandy		<11	520	850	0.20	Dull reddish yellow	Earth	Loamy		<15	1,100	1,800		1,100	1,800	0.13	
				2012/09/06	Sunny	28.0	Very dark reddish yellow	None	Sandy		<14	700	1,200	0.15	Very dark yellow red	Earth	Loamy		<12	600	980		600	980	0.15	
				2012/10/30	Sunny	15.9	Very dark reddish yellow	Earth	Loamy		<8.0	240	440	0.14	Very dark reddish yellow	Earth	Loamy		<5.6	77	130		77	130	0.15	
2013/01/10	Sunny	2.3	-	-	-		-	-	-	0.15	Very dark yellow	Earth	Loamy/skeletal		<8.9	250	430		250	430	0.16	(Left bank) Unable to collect samples due to construction				
2013/02/07	Sunny	5.3	Dark reddish yellow	Faint earth	Sandy		<12	640	950	0.18	Dark reddish yellow	Faint earth	Loamy		<9.4	380	570		380	570	0.15					

Table 4.2.2.1 Miyagi Pref. Lake and Headwater (Water Quality)

		Sampling point				Sampling date	Weather	Air temperature C	Full depth m	Water quality											Remarks
No.	Water Body	Point	Municipality	Surface layer	General items								Radioactive material concentrations (Bq/L)								
				bottom layer	Water temperature C					Sampling depth m	Color	Odor	Secchi disk depth m	Electrical conductivity mS/m	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134	Cs-137		
44	Kurikoma Dam	Dam site	Kuriharashi City	Surface layer	2012/06/20	Cloudy	23.0	16.1	16.8	0.5	Greenish yellowish white	None	2.0	11.1	<1	0.9	<-0.44	<-0.61	<-0.70		
				Bottom layer				14.7	15.1	-	-	None		8.4	200	140	<-0.62	<-0.75	<-0.76		
				Surface layer	2012/09/24	Rain	17.8	12.0	21.2	0.5	Greenish yellowish white	None	0.7	18.3	<1	1.1	<-0.51	<-0.53	<-0.59		
				Bottom layer				19.8	11.0	-	-	None		18.5	11	6.5	<-0.46	<-0.65	<-0.57		
				Surface layer	2012/11/26	Cloudy	4.2	12.0	7.9	0.5	Grayish reddish yellow	None	1.7	14.9	3.6	8.0	<-0.56	<-0.61	<-0.53		
				Bottom layer				7.6	11.0	-	-	None		15.4	12	13	<-0.42	<-0.56	<-0.57		
				Surface layer	2013/01/29	Snow	-1.0	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to freezing		
45	Hamayama Dam	Dam site	Kuriharashi City	Surface layer	2012/06/19	Rain	25.0	25.8	19.1	0.5	Yellowish white	None	1.5	7.7	<1	0.7	<-0.49	<-0.61	<-0.63		
				Bottom layer				12.2	24.8	-	-	None		4.3	190	830	<-0.50	<-0.53	<-0.56		
				Surface layer	2012/09/25	Rain	15.1	19.1	20.1	0.5	Light grayish yellow	None	0.9	10.4	<1	1.3	<-0.57	<-0.66	<-0.68		
				Bottom layer				8.4	18.1	-	-	None		5.7	88	290	<-0.71	<-0.92	<-0.70		
				Surface layer	2012/11/27	Snow	1.1	20.6	7.2	0.5	Grayish reddish yellow	None	0.1	10.6	15	45	<-0.51	<-0.53	<-0.70		
				Bottom layer				7.2	19.6	-	-	None		10.8	34	49	<-0.70	<-0.73	<-0.68		
				Surface layer	2013/01/29	Sunny	1.2	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to freezing			
46	Narugo Dam	Dam site	Osakishi City	Surface layer	2012/06/27	Sunny	26.0	54.2	18.8	0.5	Greenish yellowish white	None	2.0	13.2	1.4	1.4	<-0.46	<-0.61	<-0.52		
				Bottom layer				7.7	53.2	-	-	None		20.4	130	91	<-0.61	<-0.66	<-0.62		
				Surface layer	2012/09/25	Cloudy	19.2	38.4	22.0	0.5	Greenish yellowish white	None	1.1	15.9	2.0	1.4	<-0.57	<-0.80	<-0.60		
				Bottom layer				21.5	37.4	-	-	None		16.0	3.7	2.4	<-0.42	<-0.53	<-0.64		
				Surface layer	2012/11/28	Cloudy	3.0	30.4	8.9	0.5	Grayish yellowish green	None	1.6	11.3	3.4	4.1	<-0.42	<-0.53	<-0.50		
				Bottom layer				8.3	29.4	-	-	None		10.8	19	21	<-0.51	<-0.59	<-0.49		
				Surface layer	2013/01/22	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to freezing			
47	Izumana Lake	Lake exit	Tomeshi City	Surface layer	2012/06/26	Sunny	23.0	0.7	22.6	0.0	Yellowish white	Putrescence	0.5	14.5	17	7.5	<-0.51	<-0.68	<-0.59		
				Bottom layer				-	-	-	-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water		
				Surface layer	2012/09/26	Sunny	20.4	0.6	21.1	0.0	Light grayish yellow green	None	0.6	17.1	5.5	4.6	<-0.49	<-0.61	<-0.57		
				Bottom layer				-	-	-	-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water		
				Surface layer	2012/11/28	Cloudy	2.2	0.8	4.6	0.0	Dark grayish greenish yellow	None	0.1	18.9	38	40	<-0.65	<-0.78	<-0.64		
				Bottom layer				-	-	-	-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water		
				Surface layer	2013/01/30	Sunny	2.2	0.9	2.1	0.0	Grayish yellow green	None	0.6	26.7	22	20	<-0.57	<-0.75	<-0.73		
48	Nagayama Lake	Lake exit	Tomeshi City	Surface layer	2012/06/26	Sunny	26.0	1.1	25.4	0.0	Greenish yellowish white	None	1.1	16.9	<1	1.2	<-0.62	<-0.73	<-0.66		
				Bottom layer				-	-	-	-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water		
				Surface layer	2012/09/26	Sunny	21.7	0.7	23.0	0.0	Light grayish yellow	None	0.7	17.2	1.1	1.1	<-0.48	<-0.72	<-0.56		
				Bottom layer				-	-	-	-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water		
				Surface layer	2012/11/28	Sunny	2.8	1.1	6.1	0.0	Grayish yellow green	None	1.1	20.4	1.5	1.6	<-0.45	<-0.56	<-0.49		
				Bottom layer				-	-	-	-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water		
				Surface layer	2013/01/30	Sunny	0.7	-	-	-	-	-	-	-	-	-	Unable to collect samples due to freezing				
49	Shukunoswatameike Pond	Pond exit	Kuriharashi City	Surface layer	2012/06/27	Sunny	27.0	1.0	25.9	0.0	Yellowish white	None	1.0	10.1	3.7	1.5	<-0.55	<-0.53	<-0.62		
				Bottom layer				-	-	-	-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water		
				Surface layer	2012/11/29	Cloudy	3.4	0.8	4.8	0.0	Grayish yellow green	None	0.5	18.6	18	14	<-0.47	<-0.72	<-0.68		
				Bottom layer				-	-	-	-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water		
50	Futatsui Dam	Dam site	Kamimachi Town	Surface layer	2012/07/03	Cloudy	24.8	0.5	21.7	0.0	Grayish yellowish green	None	0.5	5.6	<1	0.7	<-0.49	<-0.75	<-0.85		
				Bottom layer				-	-	-	-	-	-	-	-	-	-	-	Collected only from the surface layer due to shallow water		
				Surface layer	2012/09/27	Cloudy	18.7	13.2	19.4	0.5	Greenish yellowish white	None	2.2	9.8	1.5	1.0	<-0.48	<-0.47	<-0.62		
				Bottom layer				7.8	12.2	-	-	None		15.4	2.9	2.6	<-0.59	<-0.75	<-0.51		
				Surface layer	2012/11/26	Cloudy	10.9	24.0	8.1	0.5	Light grayish yellow green	None	2.6	9.3	<1	1.0	<-0.52	<-0.64	<-0.60		
				Bottom layer				6.0	23.0	-	-	None		10.4	1.0	1.9	<-0.48	<-0.67	<-0.52		
				Surface layer	2013/01/31	Sunny	0.8	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to freezing			









Table 4.2.2.2 Miyagi Pref. Lake and Headwater (Sediment)

Lake and headwater	Sampling point				Sampling date	Weather	Air temperature °C	Full depth m	Sediment																Remarks
	No.	Water Body	Point	Municipality					General items											Radioactive material concentration (Bq/kg dried mud)					
									Mud temperature °C	Mud sampling depth cm	Color	Odor	Mechanical composition %							Mud content %	Density g/cm <sup>3</sup>	Property	Radioactive iodine I-131	Radioactive cesium Cs-134	
58	Amanuma Lake	Lake exit	Sendai-shi City	2012/06/28	Sunny	22.0	1.0	20.2	3	Reddish yellowish black	Faint sewage	1.6	20.3	71.6	6.5	0.0	0.0	0.0	94.5	2.63	Gravel/sand	-8.5	420	660	
				2012/10/04	Sunny	23.0	0.3	19.7	6	Greenish yellowish dark gray	Sludge	9.8	8.9	13.6	51.8	12.5	3.3	0.0	90.1	2.674	Sand	-11	740	1,200	
				2012/11/28	Sunny	9.3	0.5	6.5	2	Dark grayish greenish yellow	Faint sludge	0.0	4.5	0.0	0.0	27.1	68.3	0.1	41.1	2.378	Silt	-69	3,500	6,200	
				2013/01/21	Cloudy	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	59	RiNAVATER Saisawa Dam	Dam site	Kawasakimachi Town	2012/07/04	Sunny	28.5	26.1	12.9	10	Dark grayish yellow green	Mud	0.0	0.0	0.0	0.5	18.6	71.5	9.4	45.7	2.442	Mud	-16	430	660
					2012/09/11	Sunny	30.2	16.7	23.5	5	Dark grayish yellow	Sludge	0.0	0.0	0.0	1.1	19.0	76.2	3.7	49.6	2.548	Mud	-8.1	44	82
					2012/11/28	Cloudy	7.5	9.1	10.0	9	Dark grayish greenish yellow	Faint mud	0.0	0.0	0.0	2.0	32.1	60.8	5.1	51.5	2.575	Mud	-8.4	74	130
					2013/01/23	Sunny	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	60	Saisawa Dam	Dam site	Natori-shi City	2012/06/29	Cloudy, then sunny	25.0	1.2	23.1	7	Very dark reddish yellow	Faint mud	4.2	28.5	20.5	19.2	18.8	8.8	0.0	74.5	2.659	Sand	-6.4	110	160
					2012/10/12	Sunny	21.0	1.0	20.0	2	Dark grayish yellow red	None	13.7	33.8	0.5	15.3	22.1	14.6	0.0	70.2	2.686	Silt	-5.3	82	140
					2012/11/29	Cloudy	9.4	0.6	12.0	5	Dark grayish reddish yellow	None	8.8	15.4	10.9	31.9	24.4	8.6	0.0	69.7	2.714	Sand	-8.0	170	290
					2013/01/23	Sunny	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	RiNAVATER Saisawa Dam	Murata Dam	Dam site	Muratamachi Town	2012/07/04	Sunny	24.0	0.4	22.6	3	Soft reddish yellow	None	22.2	23.4	2.0	14.7	16.3	21.0	0.3	87.0	2.607	Mud/sand	<3.1	<4.3	9
					2012/11/26	Sunny	8.5	0.4	8.9	2	Yellowish dark gray	None	18.7	34.4	19.0	13.5	9.1	5.5	0.0	79.2	2.661	Sand/gravel	-4.3	42	73
62	RiNAVATER Saisawa Dam	Kawarago Dam	Dam site	Shiroishi-shi City	2012/07/05	Cloudy	23.2	0.8	22.3	1	Reddish yellowish dark gray	None	1.7	40.4	27.3	15.3	7.0	8.3	0.0	90.0	2.618	Gravel/sand	-6.9	260	400
					2012/09/11	Sunny	26.0	0.3	23.5	3	Dark grayish reddish yellow	Moss	9.6	15.9	0.0	13.2	29.3	31.0	1.2	74.7	2.691	Mud/sand	-5.6	110	170
					2012/11/28	Sunny	3.3	0.7	4.4	10	Dark grayish yellow	Faint sludge	0.0	0.7	0.5	15.1	39.7	43.8	0.2	36.2	2.312	Mud	-33	2,100	3,600
					2013/01/24	Sunny	-0.6	0.2	2.7	8	Dark grayish reddish yellow	None	3.2	21.0	1.7	29.7	24.2	20.0	0.2	68.0	2.728	Sand	-7.6	170	290
63	RiNAVATER Saisawa Dam	Shichikashuku Dam	Dam site	Shichikashukumachi Town	2012/06/29	Cloudy	25.0	15.0	15.4	10	Dark grayish yellow	Earth	0.0	0.3	2.3	9.9	42.0	45.4	0.0	51.0	2.396	Silt	-19	1,200	1,800
					2012/09/12	Sunny	28.1	25.7	7.5	13	Dark grayish yellow	None	0.0	0.0	0.0	1.9	20.4	66.6	11.2	50.3	2.567	Mud	-12	320	520
					2012/11/29	Cloudy	7.5	21.0	8.3	7	Dark grayish greenish yellow	None	0.0	0.0	0.0	1.3	21.1	65.7	11.9	49.8	2.597	Mud	-19	690	1,200
					2013/01/24	Sunny	3.9	20.2	2.1	10	Dark grayish yellow	Faint sludge	0.0	0.0	0.0	0.4	17.0	73.9	8.7	46.3	2.604	Silt	-17	570	1,100
64	Bagyunuma Lake	Lake exit	Shiroishi-shi City	2012/06/29	Cloudy	26.0	0.7	24.5	5	Dark grayish yellow red	None	19.2	23.6	12.7	15.3	13.2	15.1	0.9	78.3	2.588	Gravel/sand	-11	510	800	
				2012/09/12	Sunny	27.5	0.3	29.9	2	Dark grayish yellow	Sludge	21.6	21.5	0.8	23.6	17.3	14.9	0.4	77.6	2.614	Sand	-12	740	1,200	
				2012/11/29	Cloudy	8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect mud due to construction
				2013/01/24	Sunny	-2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect mud due to freezing

Table 4.2.2.3 Miyagi Pref. Lake and Headwater (Surrounding Environment)

Sampling point				Sampling date	Weather	Air temperature ℃	Surrounding Environment (Soil and Air Dose)									
No.	Water Body	Point	Municipality				Soil			Concentration of radioactive material (Bq/kg (dry))			Air dose μSv/h	Remarks		
							General items	Radioactive iodine		Radioactive cesium						
		Color	Odor	Property	I-131	Cs-134	Cs-137									
Lake and headwater	Kitakami River System	Kurikoma Dam	Dam site	Kuriharashi City	2012/06/20	Cloudy	23.0	Very dark yellowish red	Leaf mold	Loamy	<15	480	760	0.17		
					2012/09/24	Rain	17.8	Very dark yellow green	Earth	Loamy	<26	1,900	3,100	0.22		
					2012/11/26	Cloudy	4.2	Very dark reddish yellow	Earth	Loamy	<16	680	1,100	0.19		
					2013/01/29	Snow	-1.0	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
		Hanyama Dam	Dam site		2012/06/19	Rain	25.0	Very dark yellow red	Earth	Loamy	<21	1,700	2,700	0.16		
					2012/09/25	Rain	15.1	Dark yellow red	Faint grass	Loamy	<13	610	1,000	0.17		
					2012/11/27	Snow	1.1	Very dark yellow red	Earth	Loamy	<11	560	970	0.16		
					2013/01/29	Sunny	1.2	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
		Nanago Dam	Dam site		Ooakishi City	2012/06/27	Sunny	26.0	Very dark reddish yellow	Earth	Loamy/clayish	<5.3	110	180	0.09	
						2012/09/25	Cloudy	19.2	Very dark reddish yellow	Faint earth	Loamy/skeletal	<12	490	790	0.11	
						2012/11/28	Cloudy	3.0	Very dark yellow red	Faint earth	Loamy	<6.6	79	160	0.10	
						2013/01/22	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
	Izumi Lake	Lake exit	Tomeshi City	2012/06/26		Sunny	23.0	Very dark reddish yellow	Faint mold	Loamy	<6.8	160	250	0.06		
				2012/09/26		Sunny	20.4	Deep yellow red	Faint earth	Loamy	<3.8	31	49	0.06		
				2012/11/28		Cloudy	2.2	Very dark yellow red	Faint earth	Loamy	<5.8	75	130	0.06		
				2013/01/30		Sunny	2.2	Very dark yellow red	Earth	Loamy	<6.0	79	150	0.05		
				2012/06/26		Sunny	26.0	Very dark reddish yellow	None	Loamy	<9.1	100	150	0.06		
				2012/09/26		Sunny	21.7	Very dark reddish yellow	None	Loamy/skeletal	<8.1	200	330	0.08		
	Naguma Lake	Lake exit	2012/11/28	Sunny		2.8	Very dark reddish yellow	Earth	Loamy	<6.0	46	93	0.06			
			2013/01/30	Sunny		0.7	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
			2012/06/27	Sunny	27.0	Very dark reddish yellow	Earth	Loamy	<6.4	92	150	0.06				
	Shuunoukawatake Pond	Pond exit	Kuriharashi City	2012/11/29	Cloudy	3.4	Deep yellow red	Faint earth	Loamy	<7.6	100	190	0.09			
				2012/07/03	Cloudy	24.8	Very dark reddish yellow	Earth	Loamy/sandy	<3.7	16	27	0.07			
	Nanasegawa River System	Futatsushi Dam		Dam site	Kaminimachi Town	2012/09/27	Cloudy	18.7	Very dark reddish yellow	Faint earth	Loamy	<9.2	200	360	0.07	
2012/11/26						Cloudy	10.9	Very dark yellow	Earth	Sandy	<7.7	130	250	0.07		
2013/01/31						Sunny	0.8	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
2012/07/03						Cloudy	25.5	Very dark yellow	Faint earth	Loamy/sandy	<6.9	38	68	0.07		
Urashizawa Dam		Dam site		2012/10/04		Cloudy	21.8	Very dark yellow	Grass	Loamy	<6.4	130	230	0.06		
				2012/11/26		Cloudy	8.9	Very dark reddish yellow	Earth	Loamy	<6.4	120	230	0.07		
				2013/01/16		-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
				2012/06/28		Sunny	28.8	Dull reddish yellow	Grass	Loamy	<4.8	90	130	0.07		
Minamikawa Dam		Dam site		2012/10/11		Rain	17.0	Very dark reddish yellow	Faint earth	Loamy	<7.2	84	130	0.07		
				2012/11/26		Cloudy	9.2	Very dark reddish yellow	Earth	Loamy	<6.1	92	160	0.07		
			2013/01/22	Snow		0.2	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground		
			2012/06/28	Sunny		30.2	Dark yellow green	Grass	Clayish	<6.5	70	110	0.08			
Miyatoko Dam	Dam site	2012/11/26	Rain	11.0	Dark reddish yellow	None	Clayish	<8.6	72	120	0.07					
		2012/06/28	Sunny	24.8	Dull yellow red	Grass	Sandy	<7.6	110	180	0.09					
Sumaogawa River System	Sonosaki Dam	Rifucho Town	2012/11/27	Cloudy	5.9	Dark reddish yellow	Earth	Loamy	<9.7	150	260	0.08				
			2012/06/27	Sunny	25.5	Very dark reddish yellow	Earth	Clayish	<9.8	79	110	0.05				
Nanakitagawa River System	Nanakita Dam		2012/10/10	Cloudy	18.0	Very dark yellow red	Faint earth	Sandy	<6.5	47	82	0.06				
			2012/11/27	Sunny	4.6	Dull reddish yellow	Earth	Loamy	<5.9	58	120	0.07				
			2013/01/22	Snow	0.5	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
			2012/06/28	Sunny	20.0	Very dark reddish yellow	Faint earth	Loamy	<13	110	200	0.08				
Manuzawatake Pond	Pond exit		2012/11/28	Sunny	6.3	Dark reddish yellow	Earth	Clayish	<5.6	16	31	0.08				
			2012/06/27	Sunny	24.0	Dark yellow red	Grass	Loamy	<6.9	110	150	0.03				
Natoigawa River System	Okura Dam		2012/10/11	Cloudy	16.2	Very dark reddish yellow	Faint earth	Loamy	<9.7	190	280	0.05				
			2012/11/29	Rain	7.8	Very dark yellow red	Earth	Loamy	<5.8	66	130	0.04				
			2013/01/23	Sunny	-2.1	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
			2012/06/28	Sunny	22.0	Dark reddish yellow	Earth	Loamy	<5.2	53	94	0.07				
Anamuma Lake	Lake exit	2012/10/04	Sunny	23.0	Very dark reddish yellow	Grass	Sandy	<5.8	130	220	0.10					
		2012/11/28	Sunny	9.3	Very dark reddish yellow	Earth	Sandy	<5.4	110	180	0.11					
		2013/01/21	Cloudy	4.2	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground				

Table 4.2.2.3 Miyagi Pref. Lake and Headwater (Surrounding Environment)

L a k e s  a n d  h e a d w a t e r s	Sampling point				Sampling date	Weather	Air temperature ℃	Surrounding Environment (Soil and Air Dose)									
	No.	Water Body	Point					Municipality	Soil							Air dose μSv/h	Remarks
									General items			Concentration of radioactive material (Bq/kg (dry))					
									Color	Odor	Property	Radioactive iodine I-131	Radioactive cesium Cs-134 Cs-137				
59	Natori-gawa River System	Kamafusa Dam	Dam site	Kawasakimachi Town	2012/07/04	Sunny	28.5	Very dark reddish yellow	Earth	Loamy		<7.2	110	180	0.06		
					2012/09/11	Sunny	30.2	Very dark reddish yellow	Faint grass	Loamy		<8.7	190	310	0.06		
		2012/11/28	Cloudy	7.5	Very dark yellow red	Earth	Loamy		<6.1	83	160	0.06					
		2013/01/23	Sunny	1.4	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground			
60	Natori-gawa River System	Tanumizu Dam	Dam site	Natori-shi City	2012/06/29	Cloudy, then sunny	25.0	Very dark yellow red	Grass	Loamy		<9.5	320	500	0.09		
					2012/10/12	Sunny	21.0	Very dark yellow red	Faint earth	Loamy		<6.3	120	190	0.11		
		2012/11/29	Cloudy	9.4	Yellow reddish black	Earth	Loamy		<6.1	160	300	0.11					
		2013/01/23	Sunny	3.3	Dark reddish yellow	Faint earth	Loamy		<11	360	690	0.09					
61	Abukumagawa River System	Murata Dam	Dam site	Munamachi Town	2012/07/04	Sunny	24.0	Very dark yellow	Earth	Loamy		<13	380	570	0.10		
					2012/11/26	Sunny	8.5	Very dark yellow red	Earth	Loamy		<11	280	500	0.08		
		2012/07/05	Cloudy	23.2	Soil reddish yellow	Earth	Loamy/skeletal		<6.0	91	150	0.14					
		2012/09/11	Sunny	26.0	Very dark reddish yellow	None	Loamy		<11	510	830	0.13					
62	Abukumagawa River System	Kawarago Dam	Dam site	Shiroishi-shi City	2012/11/28	Sunny	3.3	Very dark reddish yellow	Earth	Loamy		<6.5	170	290	0.11		
					2013/01/24	Sunny	-0.6	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
		2012/06/29	Cloudy	25.0	Very dark yellow red	Earth	Loamy		<11	410	610	0.27					
		2012/09/12	Sunny	28.1	Dark reddish yellow	Faint grass	Loamy		<15	1,200	1,900	0.23					
63	Abukumagawa River System	Shichikashuku Dam	Dam site	Shichikashukumachi Town	2012/11/29	Cloudy	7.5	Very dark yellow red	Earth	Loamy		<6.6	170	300	0.24		
					2013/01/24	Sunny	3.9	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
		2012/06/29	Cloudy	26.0	Very dark reddish yellow	Earth	Loamy		<6.5	200	300	0.25					
		2012/09/12	Sunny	27.5	Dark reddish yellow	Faint grass	Sandy		<11	540	890	0.26					
64	Bagyunuma Lake	Lake exit	Shiroishi-shi City	2012/11/29	Cloudy	8.0	Very dark reddish yellow	Earth	Loamy		<18	1,500	2,600	0.31			
				2013/01/24	Sunny	-2.6	Dark reddish yellow	Earth	Loamy		<12	660	1,200	0.24			

Table 4.2.3.1 Miyagi Pref. Coastal Area (Water Quality)

Sampling point				Sampling date	Weather	Air temperature °C	Full depth m	Water quality											Remarks
No.	Water Body		Surface layer/bottom layer					General items					Radioactive material concentrations (Bq/L)						
				Sampling depth m	Color	Odor	Secchi disk depth m	Salinity ‰	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134	Cs-137						
65	Kesennumawan Bay (B)	Offshore of Hachigasaki	Surface layer	2012/12/14	Cloudy	10.1	16.3	0.5	Very dark yellow green	None	6.0	37.3	4.4	1.0	-0.67	-0.85	-0.76		
			Bottom layer					15.3	-	None		37.7	3.9	0.6	-0.44	-0.53	-0.63		
			Surface layer	2013/01/08	Cloudy	0.8	10.0	0.5	Greenish dark gray	None	7.4	31.2	4.1	1.0	-0.63	-0.72	-0.75		
			Bottom layer					9.0	-	None		31.7	4.9	0.8	-0.69	-0.80	-0.62		
			Surface layer	2013/02/13	Sunny	5.7	13.9	0.5	Dark yellow green	None	6.1	34.3	2.8	1.1	-0.51	-0.69	-0.56		
			Bottom layer					12.9	-	None		34.8	5.2	0.8	-0.48	-0.56	-0.54		
			Surface layer	2013/03/05	Sunny	1.0	10.0	0.5	Dark bluish green	None	4.2	35.3	4.8	1.0	-0.52	-0.74	-0.65		
			Bottom layer					9.0	-	None		35.6	5.3	1.3	-0.54	-0.76	-0.65		
66	Kesennumawan Bay (C)	Offshore of Oshimaki	Surface layer	2012/12/14	Cloudy	9.7	41.0	0.5	Dark bluish green	None	8.0	37.3	3.1	1.4	-0.63	-0.80	-0.64		
			Bottom layer					40.0	-	None		37.5	3.5	1.5	-0.45	-0.61	-0.54		
			Surface layer	2013/01/08	Cloudy	1.1	21.0	0.5	Dull green	None	6.5	31.9	4.5	0.9	-0.46	-0.56	-0.55		
			Bottom layer					20.0	-	None		34.4	3.8	1.0	-0.51	-0.63	-0.61		
			Surface layer	2013/02/13	Sunny	4.9	40.3	0.5	Dark yellowish green	None	6.4	34.6	4.7	0.8	-0.49	-0.66	-0.53		
			Bottom layer					39.8	-	None		34.7	10	3.2	-0.55	-0.64	-0.57		
			Surface layer	2013/03/05	Sunny	2.0	40.2	0.5	Dark bluish green	None	6.7	35.1	1.7	1.5	-0.46	-0.60	-0.62		
			Bottom layer					39.2	-	None		35.6	5.0	0.8	-0.44	-0.61	-0.54		
67	Offshore of Tsuyagawa River Estuary		Surface layer	2012/12/15	Rain	8.4	11.8	0.5	Dark yellow green	None	4.0	35.8	3.7	1.3	-0.70	-0.70	-0.70		
			Bottom layer					10.8	-	None		37.7	4.5	1.1	-0.47	-0.69	-0.57		
			Surface layer	2013/02/27	Cloudy	0.0	12.8	0.5	Dull bluish green	None	7.1	35.0	7.8	1.5	-0.48	-0.56	-0.64		
			Bottom layer					11.8	-	None		35.4	5.6	1.1	-0.48	-0.77	-0.57		
68	All other neighboring sea areas	Oppawan Bay (Jyusanhamu Beach)	Surface layer	2012/12/18	Clardy, then sunny	6.8	19.5	0.5	Light grayish yellowish green	None	4.7	32.0	4.5	2.2	-0.57	-0.70	-0.73		
			Bottom layer					18.5	-	None		37.8	5.7	2.7	-0.41	-0.67	-0.50		
			Surface layer	2013/01/09	Cloudy	0.5	19.0	0.5	Greenish pale gray	None	5.1	30.9	4.5	1.1	-0.60	-0.56	-0.57		
			Bottom layer					18.0	-	None		32.8	4.8	0.8	-0.46	-0.56	-0.64		
			Surface layer	2013/02/05	Sunny	5.0	18.5	0.5	Dark yellowish green	None	5.4	35.3	4.0	1.1	-0.67	-0.75	-0.73		
			Bottom layer					17.5	-	None		39.0	3.3	0.7	-0.64	-0.75	-0.68		
			Surface layer	2013/03/05	Sunny	5.2	19.0	0.5	Dull bluish green	None	9.5	28.0	5.2	1.3	-0.46	-0.58	-0.50		
			Bottom layer					18.0	-	None		29.7	5.6	1.2	-0.52	-0.65	-0.59		
69	Neighboring sea area of Ishinomaki (C)	Mangokura Lake, M-6 (center)	Surface layer	2012/12/14	Sunny	8.1	3.5	0.5	Dark yellow green	None	3.5	36.7	4.5	2.0	-0.57	-0.63	-0.62		
			Bottom layer					2.5	-	None		36.8	11	5.2	-0.51	-0.59	-0.53		
			Surface layer	2013/01/09	Cloudy	3.5	3.7	0.5	Dark green	None	3.5	33.7	3.5	0.9	-0.60	-0.72	-0.68		
			Bottom layer					2.7	-	None		33.5	9.6	2.8	-0.58	-0.85	-0.70		
			Surface layer	2013/02/06	Snow	1.6	3.4	0.5	Dark yellowish green	None	1.6	38.3	5.9	2.4	-0.47	-0.65	-0.56		
			Bottom layer					2.4	-	None		38.0	6.9	3.1	-0.57	-0.65	-0.60		
			Surface layer	2013/03/07	Sunny	6.2	3.9	0.5	Deep green	None	2.5	35.3	10	2.4	-0.57	-0.75	-0.60		
			Bottom layer					2.9	-	None		35.6	7.1	2.5	-0.60	-0.70	-0.58		
70	Neighboring sea area of Ishinomaki (B)	Offshore of Kitakami-gawa River Estuary	Surface layer	2012/11/09	Cloudy	13.6	7.7	0.5	Grayish yellow	None	0.5	19.8	17	16	-0.61	-0.68	-0.53		
			Bottom layer					6.7	-	None		34.5	31	24	-0.45	-0.69	-0.62		
			Surface layer	2012/12/17	Sunny	3.7	7.8	0.5	Light grayish yellow	None	1.3	24.6	8.5	5.5	-0.62	-0.64	-0.62		
			Bottom layer					6.8	-	None		36.1	5.2	1.9	-0.66	-0.83	-0.62		
			Surface layer	2013/01/08	Cloudy	0.8	8.2	0.5	Very dark green	None	5.2	27.1	4.5	1.1	-0.64	-0.66	-0.62		
			Bottom layer					7.2	-	None		33.5	4.8	0.9	-0.66	-0.80	-0.64		
			Surface layer	2013/02/06	Snow	-0.9	8.4	0.5	Dark green	None	2.1	20.3	3.3	2.0	-0.53	-0.70	-0.73		
			Bottom layer					7.4	-	None		38.3	5.2	1.4	-0.50	-0.56	-0.52		
71	Neighboring sea area of Ishinomaki (C)	Offshore of Naruse	Surface layer	2012/11/09	Cloudy	13.8	14.6	0.5	Dark yellow green	None	2.5	30.1	5.2	3.0	-0.54	-0.72	-0.60		
			Bottom layer					13.6	-	None		34.6	4.9	2.5	-0.51	-0.60	-0.52		
			Surface layer	2012/12/17	Sunny	6.2	14.5	0.5	Light grayish yellow	None	2.8	28.5	10	5.6	-0.48	-0.53	-0.62		
			Bottom layer					13.5	-	None		37.1	9.2	4.4	-0.55	-0.66	-0.72		
			Surface layer	2013/01/08	Cloudy	1.5	14.9	0.5	Very dark green	None	4.8	30.9	5.0	1.2	-0.49	-0.48	-0.56		
			Bottom layer					13.9	-	None		33.7	6.0	1.8	-0.53	-0.72	-0.53		
			Surface layer	2013/02/06	Cloudy	-0.5	14.8	0.5	Dark green	None	3.5	36.3	5.8	1.5	-0.65	-0.78	-0.64		
			Bottom layer					13.8	-	None		38.7	6.0	1.4	-0.48	-0.66	-0.63		

C  
o  
a  
s  
t  
a  
l  
  
s  
e  
a  
  
a  
r  
e  
a  
s

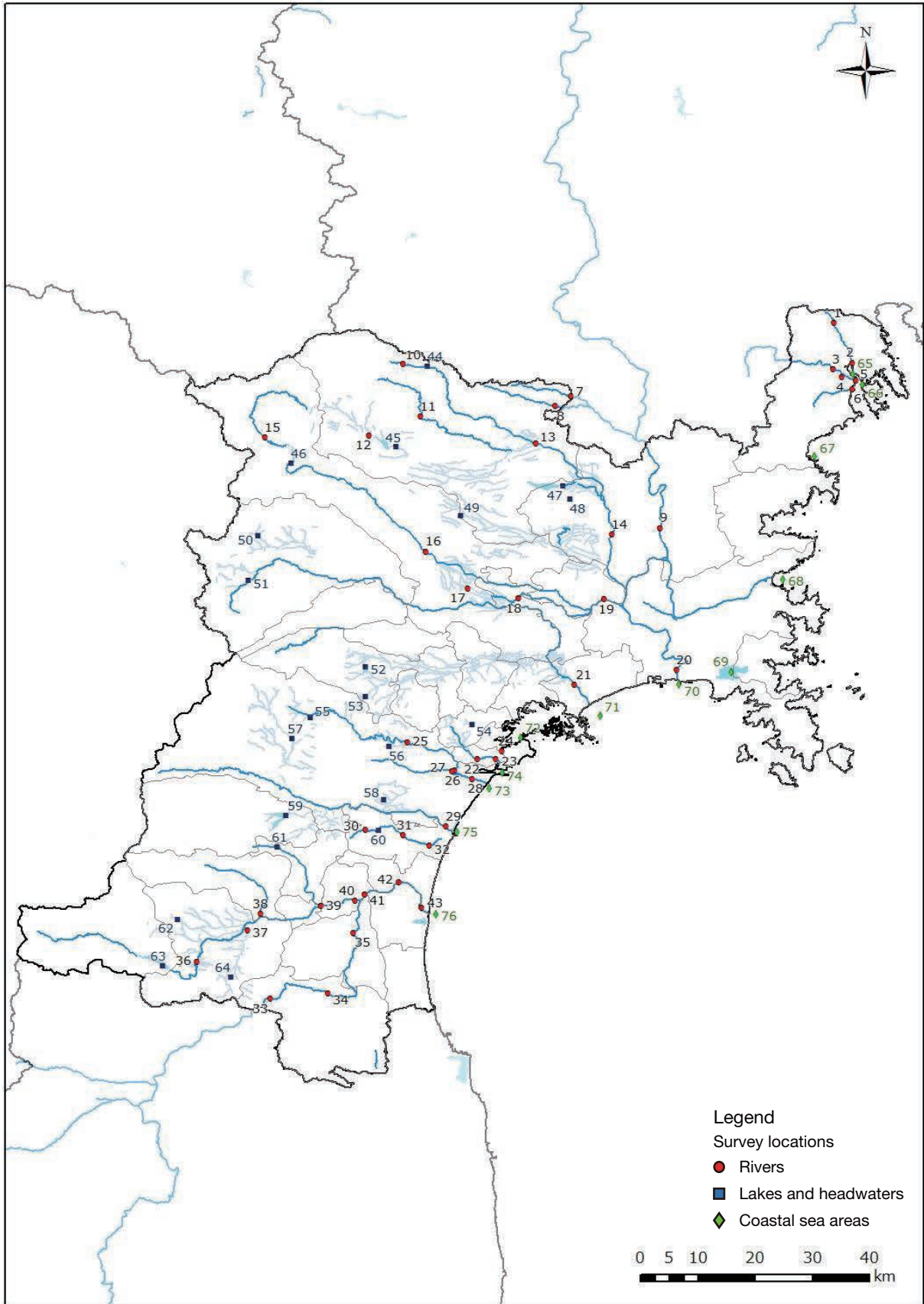
Table 4.2.3.1 Miyagi Pref. Coastal Area (Water Quality)

Sampling point				Sampling date	Weather	Air temperature °C	Full depth m	Water quality										Remarks
No.	Water Body		Surface layer/bottom layer					General items					Radioactive material concentrations (Bq/L)					
								Sampling depth m	Color	Odor	Secchi disk depth m	Salinity ‰	SS mg/L	Turbidity	Radioactive iodine I-131	Radioactive cesium Cs-134	Cs-137	
72	Matsushima Bay (B)	Nishihama Beach	Surface layer	2012/11/14	Sunny	11.4	12.4	0.5	Deep green	None	3.0	30.9	6.7	3.3	-0.57	-0.78	-0.71	
			11.4					-	None	31.1		5.2	27	-0.49	-0.71	-0.52		
			Surface layer	2012/12/19	Cloudy, then sunny	-1.5	12.0	0.5	Grayish yellow	None	1.9	36.5	9.6	4.2	-0.54	-0.66	-0.53	
			11.6					-	None	36.5		11	4.6	-0.46	-0.63	-0.56		
			Surface layer	2013/01/08	Snow	0.0	10.0	0.5	Deep green	None	8.0	32.8	5.4	1.7	-0.56	-0.68	-0.55	
			9.0					-	None	32.9		6.0	1.9	-0.48	-0.66	-0.66		
	Surface layer	2013/02/07	Cloudy	1.3	13.3	0.5	Dark yellowish green	None	1.8	37.2	6.1	2.8	-0.48	-0.63	-0.54			
	12.5					-	None	37.8		14	6.2	-0.53	-0.64	-0.55				
	73	Neighboring sea area of Sendai Port (A)	Naiko Inner Port, 4-Nai	Surface layer	2012/11/02	Cloudy	11.4	19.5	0.5	Dark yellowish green	None	4.2	33.0	5.5	2.1	-0.42	-0.67	-0.56
				18.5					-	None	33.2		26	15	-0.55	-0.68	-0.57	
				Surface layer	2012/12/19	Cloudy	3.0	18.5	0.5	Grayish yellow	None	2.5	36.2	6.2	2.3	-0.70	-0.66	-0.67
				17.5					-	None	36.9		8.8	4.1	-0.48	-0.63	-0.54	
Surface layer				2013/01/08	Snow	-1.0	19.0	0.5	Deep bluish green	None	5.0	32.7	5.3	1.3	-0.47	-0.68	-0.70	
18.0								-	None	33.6		61	17	-0.57	-0.68	-0.53		
Surface layer		2013/02/07	Cloudy	3.5	18.0	0.5	Dark yellow green	None	2.8	38.5	5.5	1.9	-0.48	-0.61	-0.50			
17.0						-	None	39.0		18	9.8	-0.62	-0.64	-0.59				
74		Neighboring sea area of Sendai Port (B)	Gamo-3	Surface layer	2012/11/14	Sunny	11.1	11.3	0.5	Dark grayish green	None	2.0	30.4	4.3	2.0	-0.53	-0.64	-0.51
				10.5					-	None	31.8		3.9	2.1	-0.63	-0.66	-0.76	
				Surface layer	2012/12/19	Cloudy, then sunny	3.7	15.5	0.5	Grayish yellow	None	1.5	37.2	11	5.2	-0.59	-0.80	-0.64
				14.5					-	None	37.6		11	6.8	-0.56	-0.64	-0.51	
	Surface layer			2013/01/08	Snow	-1.0	13.5	0.5	Deep green	None	5.0	31.5	5.1	4.8	-0.51	-0.56	-0.55	
	12.5							-	None	32.9		6.5	2.1	-0.53	-0.66	-0.54		
	Surface layer	2013/02/07	Cloudy	2.3	17.4	0.5	Dark yellow green	None	2.4	37.5	6.4	2.5	-0.44	-0.61	-0.54			
	16.4					-	None	38.3		5.5	1.0	-0.51	-0.72	-0.59				
	75	All other neighboring sea areas	Ido-5	Surface layer	2012/11/15	Sunny	12.0	4.7	0.5	Dull yellowish green	None	4.7	29.0	6.0	2.8	-0.47	-0.58	-0.54
				3.7					-	None	32.1		5.0	3.3	-0.63	-0.75	-0.76	
				Surface layer	2012/12/20	Sunny	6.2	4.9	0.5	Light grayish yellow green	None	1.7	37.3	10	3.7	-0.53	-0.70	-0.57
				3.8					-	None	37.4		10	4.6	-0.52	-0.50	-0.60	
Surface layer				2013/01/09	Cloudy	-1.2	9.5	0.5	Dark bluish green	None	5.0	31.5	4.4	1.2	-0.50	-0.61	-0.58	
8.5								-	None	33.4		5.5	1.4	-0.46	-0.53	-0.64		
Surface layer		2013/02/22	Sunny	1.1	4.0	0.5	Yellow greenish dark gray	None	2.8	33.3	6.6	2.0	-0.56	-0.68	-0.70			
3.0						-	None	35.0		12	6.7	-0.59	-0.59	-0.63				
76		Offshore of Abukumagawa River Estuary		Surface layer	2012/11/15	Sunny	12.1	9.5	0.5	Deep bluish green	None	5.0	12.1	3.6	2.3	-0.60	-0.61	-0.53
				8.5					-	None	32.0		5.4	2.4	-0.50	-0.69	-0.62	
				Surface layer	2012/12/20	Sunny	1.8	9.3	0.5	Light grayish yellow green	None	1.9	29.4	5.9	2.2	-0.44	-0.65	-0.62
				8.3					-	None	37.6		9.3	2.3	-0.60	-0.53	-0.63	
	Surface layer			2013/01/09	Snow	-0.4	4.2	0.5	Dark blue green	None	4.2	19.7	3.9	1.7	-0.48	-0.64	-0.57	
	3.2							-	None	33.8		9.6	1.8	-0.60	-0.68	-0.60		
	Surface layer	2013/01/30	Sunny	1.4	9.5	0.5	Dark green	None	3.3	23.4	5.5	1.8	-0.49	-0.68	-0.66			
	8.5					-	None	35.1		8.4	2.2	-0.46	-0.60	-0.57				
	Surface layer	2013/02/22	Sunny	3.3	9.3	0.5	Dull yellow green	None	5.9	26.6	7.6	1.8	-0.63	-0.56	-0.66			
	8.3					-	None	35.3		9.9	1.8	-0.52	-0.72	-0.62				
	Surface layer	2013/03/12	Sunny	2.7	9.0	0.5	Dark bluish green	None	5.3	20.4	4.5	2.1	-0.45	-0.63	-0.56			
	8.0					-	None	31.8		6.3	1.1	-0.49	-0.70	-0.63				

C  
o  
a  
s  
t  
a  
l  
s  
e  
a  
a  
r  
e  
a







Survey Locations (Miyagi Prefecture)