

(News Release)
The Results of Additional Radioactive Material Monitoring
of the Surface Water Bodies
(October-December Samples)

<Simultaneously released to the Fukushima Prefecture Press Club>

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In accordance with the Comprehensive Radiation Monitoring Plan determined by the Monitoring Coordination Meeting, the Ministry of the Environment (MOE) is continuing to monitor radioactive materials in water environments (surface water bodies (rivers, lakes and headwaters, and coasts), etc.).

To date, monitoring of radioactive iodine and radioactive cesium has been carried out and their results have been released from time to time. Additionally, monitoring of radiostrontium in sediment has been carried out at various locations (sampling period: October-December, 2012; locations in Miyagi Prefecture, Fukushima Prefecture, Ibaraki Prefecture, Tochigi Prefecture, Gunma Prefecture, Chiba Prefecture, etc.), and the results are released here.

The monitoring results of radioactive materials in surface water bodies carried out to date can be found at the following web page: <http://www.env.go.jp/jishin/rmp.html#monitoring>

1. Monitoring Overview

(1) Monitoring Locations

Among the survey locations in each prefecture, those locations of which readings of radioactive cesium in sediment were relatively high:

- Miyagi Prefecture: 7 locations (Rivers 3, Lakes and headwaters 2, Coasts 2)
- Fukushima Prefecture: 44 locations (Rivers 11, Lakes and headwaters 21, Coasts 12)
- Ibaraki Prefecture: 5 locations (Rivers 2, Lakes and headwaters 3)
- Tochigi Prefecture, Gunma Prefecture: 2 locations each (River 1, Lake and headwater 1)
- Chiba Prefecture: 4 locations (Rivers 2, Lakes and headwaters 2)
- Tokyo Prefecture: 1 location (Coast)

In total: 65 locations

(2) Monitoring item

Radiostrontium (Sr-90) in sediment

2. Outline of Results

Except for some locations in the evacuation order areas, the readings of radiostrontium (Sr-90) were within the range of measurements (soil samples) taken before the accident.

Sr-90 concentration detected in sediment in this additional monitoring: 1.1-93Bq/kg (dried mud)

*Readings of Sr-90 before the accident in Japan (soil sample): 0.20-14Bq/kg (dry)

(Source: FY2009 Environmental Radiation Level Monitoring Results Data)

(August FY2011 Japan Chemical Analysis Center)

(Annex for details)
(Map attached)

OMonitoring Results of Radiostrontium in Sediment of Surface Water Bodies (Rivers, Lakes and Headwaters, and Coasts)

| Prefecture | Water Body/Survey Location | Municipality | Survey Results | | | | | Results of 1st survey conducted in 2012 (rereleased) | | | | | | | |
|--|----------------------------|--|------------------------|----------------------------|---------------|---|-----------|--|----------------------------------|-----------------------|---|-------------|-----------|----------------------------------|--------|
| | | | Specimen Sampling date | General items (rereleased) | | Concentration of radioactive material in sediment Bq/kg (dried mud) | | Specimen Sampling date | General items (rereleased) | | Concentration of radioactive material in sediment Bq/kg (dried mud) | | | | |
| | | | | Mud sampling depth cm | Mud content % | Property | Sr-90 | | Cs-134+Cs-137 Total (rereleased) | Mud sampling depth cm | Mud content % | Property | Sr-90 | Cs-134+Cs-137 Total (rereleased) | |
| Fukushima | Rivers | 1 Manogawa River, Majimabashi Bridge | 2012/11/12 | 5 | 90 | Sand | <0.90 | 500 | 2012/7/5 | 5 | 38 | Silt | 2.4 | 15,900 | |
| | | 2 Otagawa River, Ishiwatadobashi Bridge | 2012/11/7 | 3 | 90 | Sand | 1.1 | 8,700 | 2012/7/4 | 5 | 65 | Silt/sand | 7.4 | 61,000 | |
| | | 3 Otagawa River, Masudabashi Bridge | 2012/11/7 | 2 | 78 | Sand | 1.7 | 12,500 | 2012/8/22 | 6 | 63 | Mud | 2.2 | 29,000 | |
| | | 4 Ukedogawa River, Muroharabashi Bridge | 2012/11/15 | 5 | 94 | Sand | <0.85 | 13,400 | 2012/6/14 | 2 | 65 | Silt | 12 | 165,000 | |
| | | 5 Ukedogawa River, Ukedobashi Bridge | 2012/11/15 | 3 | 91 | Sand | <0.90 | 5,600 | 2012/6/13 | 2 | 92 | Sand/gravel | <0.76 | 12,400 | |
| | | 6 Takasegawa River, Keiobashi Bridge | 2012/10/18 | 5 | 65 | Silt | 2.4 | 17,400 | 2012/7/3 | 2 | 60 | Mud/sand | 3.7 | 15,800 | |
| | | 7 Maedagawa River, Nakahamabashi Bridge | 2012/11/15 | 3 | 84 | Sand | <0.80 | 6,800 | 2012/8/28 | 3 | 74 | Mud | 1.8 | 23,900 | |
| | | 8 Kumagawa River, Mikumabashi Bridge | 2012/11/20 | 3 | 91 | Sand | <0.79 | 3,500 | 2012/6/14 | 5 | 73 | Silt | 4.4 | 41,000 | |
| | | 9 Yantagawa River, before the confluence with Abukumagawa River | Shirakawashi City | 2012/10/9 | 3 | 72 | Sand/silt | 1.3 | 8,100 | 2012/5/2 | 3 | 83 | Sludge | <0.85 | 4,300 |
| | | 10 Abukumagawa River, Taishobashi Bridge | Dateshi City | 2012/11/13 | 5 | 76 | Sand | 1.3 | 1,280 | 2012/4/29 | 5 | 67 | Silt | 1.4 | 3,800 |
| | | 11 Kyuyukawa River, Awanomiyabashi Bridge | Yugawamura Village | 2012/11/1 | 3 | 88 | Sand | <1.1 | 207 | 2012/5/29 | 20 | 66 | Sand | <1.1 | 2,010 |
| | Lakes | 1 Matsugabo Dam (Utawako Lake) | Somashi City | 2012/10/15 | 10 | 42 | Silt | 10 | 59,000 | 2012/8/6 | 5 | 46 | Silt | 2.3 | 4,900 |
| | | 2 Ainosawa (farm pond) | Iitatemura Village | 2012/10/24 | 2 | 48 | Silt | 13 | 103,000 | 2012/7/26 | 3 | 61 | Sludge | 8.3 | 59,000 |
| | | 3 Ganbe Dam Reservoir | | 2012/10/16 | 10 | 52 | Silt | 14 | 123,000 | - | - | - | - | - | |
| | | 4 Tanokura Dam Reservoir | | 2012/10/17 | 10 | 41 | Silt | 13 | 35,000 | 2012/8/8 | 5 | 81 | Sand | 4.2 | 12,400 |
| | | 5 Yokokawa Dam Reservoir | Minamisomashi City | 2012/10/17 | 5 | 40 | Silt | 24 | 125,000 | 2012/8/8 | 5 | 73 | Mud/sand | 3.3 | 25,900 |
| | | 6 Ryugasaku (farm pond) | | 2012/11/20 | 4 | 56 | Silt | 3.1 | 17,400 | 2012/8/28 | 3 | 38 | Sand/silt | 7.8 | 47,000 |
| | | 7 Koakuto (farm pond) | Namiemachi Town | 2012/11/21 | 3 | 64 | Sand/silt | 5.3 | 32,000 | 2012/7/5 | 2 | 50 | Mud/sand | 7 | 56,000 |
| | | 8 Yosouchi (farm pond) | Iitatemura Village | 2012/11/21 | 5 | 76 | Sand | 11 | 44,000 | 2012/7/26 | 3 | 73 | Sand | 17 | 70,000 |
| | | 9 Ogaki Dam | Namiemachi Town | 2012/10/18 | 5 | 81 | Sand | 7.9 | 51,000 | 2012/8/28 | 3 | 90 | Sand | 2.4 | 13,600 |
| | | 10 Heigoiri (farm pond) | Iitatemura Village | 2012/10/24 | 2 | 27 | Mud | 13 | 56,000 | - | - | - | - | - | |
| | | 11 Joroku (farm pond) | Namiemachi Town | 2012/10/23 | 1 | 72 | Sand | 20 | 40,000 | 2012/7/4 | 2 | 46 | Mud | 37 | 96,000 |
| | | 12 Furumichigawa Power Plant Dam | Tamurashi City | 2012/10/17 | 10 | 37 | Silt | 2.8 | 11,000 | - | - | - | - | - | |
| | | 13 Sawairi No.1 (farm pond) | Futabamachi Town | 2012/10/18 | 2 | 46 | Mud | 93 | 780,000 | - | - | - | - | - | |
| | | 14 Suzunai No.4 (farm pond) | Okumamachi Town | 2012/10/25 | 3 | 62 | Silt | 7.1 | 91,000 | - | - | - | - | - | |
| | | 15 Sakashita Dam | | 2012/11/20 | 5 | 42 | Silt | 4.1 | 20,700 | 2012/8/29 | 5 | 66 | Silt | 3.2 | 17,600 |
| | | 16 Yonomori (farm pond) | Tomiokamachi Town | 2012/11/14 | 3 | 62 | Sand | 5.5 | 47,000 | 2012/7/4 | 3 | 58 | Silt | 6.8 | 62,000 |
| | | 17 Takikawa Dam | Kawauchimura Village | 2012/11/14 | 3 | 82 | Sand | 3.1 | 8,600 | 2012/7/25 | 3 | 62 | Sand | 3.5 | 28,000 |
| | | 18 Shimoshigeoka (farm pond) | Narahamachi Town | 2012/11/20 | 3 | 59 | Silt | 2.1 | 27,000 | 2012/9/4 | 1 | 32 | Mud | 4.5 | 77,000 |
| | | 19 Kido Dam | | 2012/10/19 | 5 | 40 | Silt | 7.6 | 8,700 | 2012/8/23 | 5 | 42 | Silt | 4.3 | 7,400 |
| | | 20 Hokkawa Dam | Nishigomura Village | 2012/10/18 | 5 | 44 | Silt | 2.1 | 13,300 | 2012/8/9 | 10 | 43 | Silt | 2.3 | 5,100 |
| | 21 Oguninuma Lake | Kitashiobaramura Village | 2012/10/24 | 2 | 22 | Silt | 5.4 | 10,200 | - | - | - | - | - | | |
| | Coasts | 1 Neighboring sea area of Soso, approx. 2,000 m offshore of Tsurushiama Fishing Port | | 2012/11/22 | 5 | 87 | Sand | <1.0 | 30 | 2012/7/24 | 5 | 77 | Sand | <1.2 | 320 |
| 2 Matsukawaura sea area, around center of Fishing Right Area-1 | | | 2012/11/27 | 5 | 83 | Sand | <1.1 | 123 | 2012/7/25 | 10 | 80 | Sand | <0.88 | 300 | |
| 3 Neighboring sea area of Soso, approx. 2,000 m offshore of Manogawa River | | | 2012/11/26 | 5 | 82 | Sand | <0.94 | 131 | 2012/7/26 | 3 | 82 | Sand | <1.0 | 106 | |
| 4 Neighboring sea area of Haramachi City, approx. 1,000 m offshore of Nadagawa River | | | 2012/11/29 | 3 | 73 | Sand | <0.83 | 268 | 2012/7/27 | 5 | 84 | Sand | <1.1 | 290 | |
| 5 Neighboring sea area of Haramachi City, approx. 1,000 m offshore of Otawaga River | | | 2012/11/20 | 3 | 89 | Sand | <0.87 | 48 | - | - | - | - | - | | |
| 6 Neighboring sea area of Soso District, approx. 1,000 m offshore of Odagawa River | | | 2012/11/28 | 5 | 83 | Sand | <0.90 | 127 | - | - | - | - | - | | |
| 7 Neighboring sea area of Narahamachi Town, approx. 1,000 m offshore of Kidogawa River | | | 2012/11/30 | 5 | 79 | Sand | <0.92 | 380 | - | - | - | - | - | | |
| 8 Approx. 1,000 m offshore of Asamigawa River estuary | | | 2012/11/30 | 5 | 85 | Sand | <0.92 | 360 | 2012/7/7 | 5 | 84 | Sand | <0.98 | 570 | |
| 9 Approx. 1,000 m offshore of Ohisagawa River estuary | | | 2012/11/30 | 5 | 89 | Sand | <1.1 | 213 | 2012/7/7 | 5 | 87 | Sand | <1.1 | 153 | |
| 10 Neighboring sea area of Iwakishi City, approx. 1,500 m offshore of Natsugawa River | | | 2012/11/19 | 5 | 88 | Sand | <0.99 | 74 | 2012/7/7 | 5 | 86 | Sand | <0.98 | 156 | |
| 11 Onahama Port Approx. 400 m north of Nishibouhatei No.2 | | | 2012/11/19 | 5 | 64 | Silt | <1.4 | 730 | 2012/7/8 | 10 | 68 | Sludge | <1.3 | 590 | |
| 12 Joban coastal sea area, approx. 1,000 m offshore of Bindagawa River | | | 2012/11/19 | 3 | 83 | Sand | <0.96 | 167 | 2012/7/8 | 5 | 78 | Sand | <1.1 | 280 | |

Monitoring Results of Radiostrontium in Sediment of Surface Water Bodies (Rivers, Lakes and Headwaters, and Coasts)

| Prefecture | Water Body/Survey Location | | Municipality | Survey Results | | | | | Results of 1st survey conducted in 2012 (rereleased) | | | | | | |
|------------|----------------------------|--|--------------------------------|------------------------|----------------------------|---------------|-----------|---|--|------------------------|----------------------------|---------------|----------|---|----------------------------------|
| | | | | Specimen Sampling date | General items (rereleased) | | | Concentration of radioactive material in sediment Bq/kg (dried mud) | | Specimen Sampling date | General items (rereleased) | | | Concentration of radioactive material in sediment Bq/kg (dried mud) | |
| | | | | | Mud sampling depth cm | Mud content % | Property | Sr-90 | Cs-134+Cs-137 Total (rereleased) | | Mud sampling depth cm | Mud content % | Property | Sr-90 | Cs-134+Cs-137 Total (rereleased) |
| Miyagi | Rivers | 1 Masudagawa River, Bishamonbashi Bridge | Natori City | 2012/11/27 | 5 | 55 | Silt | <1.3 | 2,020 | 2012/9/25 | 5 | 55 | Silt | <1.2 | 3,700 |
| | | 2 Abukumagawa River, Marumori-bashi Bridge | Marumori-machi Town | 2012/10/3 | 6 | 72 | Sand/mud | <0.99 | 3,400 | - | - | - | - | - | - |
| | | 3 Abukumagawa River, Abukumaohashi Bridge (Iwanuma) | Iwanumashi City/Wataricho Town | 2012/11/21 | 3 | 69 | Sand | <0.92 | 1,410 | 2012/6/6 | 15 | 73 | Sand | <0.84 | 1,410 |
| | Lakes | 1 Amanuma Lake, exit | Sendaishi City | 2012/11/28 | 2 | 41 | Silt | 2.1 | 9,700 | - | - | - | - | - | - |
| | | 2 Shichikashuku Dam/Dam site | Shichikashukumachi Town | 2012/11/29 | 7 | 50 | Mud | <1.7 | 1,890 | 2012/6/29 | 10 | 51 | Silt | 1.7 | 3,000 |
| | Coasts | 1 Neighboring sea area of Sendai Port (A), Naiko Inner Port, 4-Nai | | 2012/12/19 | 10 | 41 | Silt | <1.9 | 1,500 | - | - | - | - | - | - |
| | | 2 Offshore of Abukumagawa River estuary | | 2012/12/20 | 3 | 82 | Sand | <0.80 | 128 | - | - | - | - | - | - |
| Ibaraki | Rivers | 1 Bizengawa River, Bizengawabashi Bridge | Tsuchiurashi City | 2012/12/11 | 5 | 75 | Sand | <1.1 | 2,800 | 2012/5/30 | 5 | 72 | Sludge | 1.8 | 4,800 |
| | | 2 Seimeigawa River, Katsubashi Bridge | Amimachi Town | 2012/12/10 | 2 | 52 | Silt | <1.4 | 4,100 | - | - | - | - | - | |
| | Lakes | 1 Kasumigaura Lake, offshore of Kakeuma | | 2012/12/5 | 10 | 84 | Sand | <0.93 | 252 | 2012/6/27 | 10 | 80 | Sand | <1.1 | 610 |
| | | 2 Kasumigaura Lake, center of the lake | | 2012/12/5 | 10 | 28 | Silt | <2.9 | 630 | 2012/6/27 | 10 | 33 | Silt | <2.7 | 178 |
| | | 3 Ushikunuma Lake, center of Ushikunuma Lake | | 2012/12/6 | 5 | 32 | Silt | 7.0 | 1,210 | 2012/9/13 | 10 | 38 | Mud | <2.0 | 1,170 |
| Tochigi | Rivers | 1 Itanagawa River, tributary | Nikkoshi City | 2012/12/12 | 3 | 89 | Sand | <0.73 | 86 | 2012/8/17 | 3 | 90 | Sand | <0.78 | 146 |
| | Lakes | 1 Ikari Dam Reservoir, center of the lake | | 2012/12/5 | 15 | 50 | Silt | 1.6 | 2,500 | 2012/8/31 | 10 | 54 | Silt | <1.5 | 4,100 |
| Gunma | Rivers | 1 Kogurogawa River, Kayanobashi Bridge | Kiryushi City | 2012/12/12 | 3 | 80 | Sand | <0.73 | 187 | 2012/8/8 | 10 | 88 | Sand | <0.86 | 198 |
| | Lakes | 1 Fujiwarako Lake (Fujiwara Dam), center of the lake | Minakamimachi Town | 2012/11/6 | 5 | 53 | Silt | 2.2 | 1,880 | 2012/9/12 | 5 | 57 | Silt | 1.9 | 2,900 |
| Chiba | Rivers | 1 Ohorigawa River, Kitakashiwabashi Bridge | Kashiwashi City | 2012/11/5 | 3 | 73 | Sand/silt | <1.1 | 3,000 | 2012/5/22 | 3 | 67 | Sludge | <0.93 | 12,000 |
| | | 2 Otsugawa River, Kaminumabashi Bridge | | 2012/11/5 | 2 | 48 | Clay | <1.8 | 380 | 2012/5/22 | 3 | 45 | Sludge | <1.7 | 20,200 |
| | Lakes | 1 Teganuma Lake, Nedoshita | Kashiwashi City/Abikoshi City | 2012/12/17 | 7 | 38 | Mud | <2.0 | 7,600 | 2012/9/11 | 10 | 38 | Mud | 4.4 | 7,600 |
| | | 2 Teganuma Lake, Teganuma Chuo | | 2012/12/17 | 3 | 31 | Mud | <2.5 | 1,580 | 2012/9/11 | 15 | 37 | Mud | <2.1 | 1,540 |
| Tokyo | Coasts | 1 St-8 Offshore of Arakawa River/Kyuedogawa River estuaries | | 2012/10/18 | 10 | 60 | Silt | <1.1 | 420 | 2012/5/31 | 10 | 54 | Sludge | <1.5 | 490 |



