

### Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (1/4) Underground Water Obtained at Bank Protection

Unit: Bq/L (exclude chloride)

	Underground water observation hole No.0-1	Underground water observation hole No.0-2	Underground water observation hole No.1	Underground water observation hole No.1-2	Underground water observation hole No.1-3	Underground water observation hole No.1-5	Underground water observation hole No.1-6	Underground water observation hole No.1-9	Underground water observation hole No.1-11	Groundwater pumped up from the well point	Underground water observation hole No.2	Underground water observation hole No.2-1	Underground water observation hole No.3	Underground water observation hole No.3-4
Date of sampling			Sep 12, 2013	Sep 12, 2013										
Time of sampling			9:30 AM	9:58 AM										
Chloride (unit: ppm)			-	-										
Cs-134 (Approx. 2 years)			ND(0.46)	110										
Cs-137 (Approx.30 years)			ND(0.58)	270										
The other γ	Ru-106 (Approx. 370 days)		6.5	ND										
All β			1,000	430,000										
H-3 (Approx. 12 years)			360,000	310,000										
Sr-90 (Approx. 29 years)			-	-										

\* Data announced this time is provided in a thick-frame. The other data was announced on September 13.

\* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

\* "-" indicates that the measurement was out of range.

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (2/4)  
Underground Water Obtained at Bank Protection

Unit: Bq/L (exclude chloride)

	Underground water observation hole No.0-1	Underground water observation hole No.0-2	Underground water observation hole No.1	Underground water observation hole No.1-2	Underground water observation hole No.1-3 <sup>*1</sup>	Underground water observation hole No.1-5	Underground water observation hole No.1-6	Underground water observation hole No.1-9	Underground water observation hole No.1-11	Groundwater pumped up from the well point	Underground water observation hole No.2	Underground water observation hole No.2-1	Underground water observation hole No.3	Underground water observation hole No.3-4
Date of sampling			Sep 16, 2013	Sep 16, 2013			Sep 16, 2013		Sep 16, 2013	Sep 16, 2013				
Time of sampling			10:25 AM	10:54 AM			10:00 AM		9:35 AM	9:45 AM				
Chloride (unit: ppm)			-	-			-		-	-				
Cs-134 (Approx. 2 years)			ND(0.57)	78			31		ND(0.40)	15				
Cs-137 (Approx.30 years)			ND(0.67)	180			67		ND(0.58)	32				
The other $\gamma$	Ru-106 (Approx. 370 days)		7.6	ND			ND		ND	12				
	Mn-54 (Approx. 310 days)		ND	ND			0.76		ND	ND				
All $\beta$			940	430,000			2,100		42	450,000				
H-3 (Approx. 12 years)			Under analysis	Under analysis			Under analysis		Under analysis	Under analysis				
Sr-90 (Approx. 29 years)			-	-			Under analysis		-	-				

\*1 The sampling could not be performed due to the chemical injection of the ground improvement.

\* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

\* "-" indicates that the measurement was out of range.

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (3/4)  
Seawater

Unit: Bq/L

	1F, North side of Unit 5,6 discharge channel	1F, In front of Unit 6 water intake channel	1F, In front of shallow draft quay	1F, North side of Unit 1-4 water intake channel	1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break)	1F, Unit 1 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer)	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	1F, Unit 2 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 2 and Unit 3	1F, Unit 3 Screen (Inside the Silt Fence)
Date of Sampling	/	/	/	/	/	/	/	/	/	/	/
Time of sampling	/	/	/	/	/	/	/	/	/	/	/
Cs-134(Approx. 2 years)	/	/	/	/	/	/	/	/	/	/	/
Cs-137(Approx.30 years)	/	/	/	/	/	/	/	/	/	/	/
All β	/	/	/	/	/	/	/	/	/	/	/
H-3 (Approx. 12 years)	/	/	/	/	/	/	/	/	/	/	/
Sr-90 (Approx. 29 years)	/	/	/	/	/	/	/	/	/	/	/

Unit: Bq/L

	1F, Between the water intake channel of Unit 3 and Unit 4	1F, Unit 4 Screen (Inside the Silt Fence)	1F, Around the south discharge channel	1F, Port entrance	1F, East side in the port	1F, West side in the port	1F, North side in the port	1F, South side in the port	North side of the north breakwater	East side of the port entrance	South side of the south breakwater
Date of Sampling	/	/	/	Sep 9, 2013	Sep 9, 2013	Sep 9, 2013	Sep 9, 2013	Sep 9, 2013	Sep 11, 2013	Sep 11, 2013	Sep 11, 2013
Time of sampling	/	/	/	8:46 AM	8:54 AM	8:59 AM	9:01 AM	8:50 AM	9:16 AM	8:59 AM	9:06 AM
Cs-134(Approx. 2 years)	/	/	/	ND(1.2)	ND(2.1)	1.2	ND(1.3)	ND(0.81)	ND(0.70)	ND(0.80)	ND(0.74)
Cs-137(Approx.30 years)	/	/	/	ND(0.90)	1.3	2.8	1.1	1.1	ND(0.62)	ND(0.71)	ND(0.64)
All β	/	/	/	ND(16)	ND(16)	ND(16)	ND(16)	ND(16)	ND(17)	ND(17)	ND(17)
H-3 (Approx. 12 years)	/	/	/	2.5	2.0	14	4.1	ND(1.6)	ND(1.9)	ND(1.9)	ND(1.9)
Sr-90 (Approx. 29 years)	/	/	/	-	-	-	-	-	-	-	-

\* Data announced this time is provided in a thick-frame. The other data was announced on September 10 and 13.

\* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

\* "-" indicates that the measurement was out of range.

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (4/4)  
Seawater

Unit: Bq/L

	1F, North side of Unit 5,6 discharge channel	1F, In front of Unit 6 water intake channel	1F, In front of shallow draft quay	1F, North side of Unit 1-4 water intake channel	1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break)	1F, Unit 1 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer)	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	1F, Unit 2 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 2 and Unit 3	1F, Unit 3 Screen (Inside the Silt Fence)
Date of Sampling	Sep 16, 2013	Sep 16, 2013	Sep 16, 2013		Sep 16, 2013	Sep 16, 2013			Sep 16, 2013	Sep 16, 2013	Sep 16, 2013
Time of sampling	5:55 AM	5:40 AM	5:51 AM		6:25 AM	6:00 AM			6:04 AM	6:07 AM	6:10 AM
Cs-134(Approx. 2 years)	ND(1.3)	ND(2.4)	ND(2.5)		6.9	21			26	14	190
Cs-137(Approx.30 years)	2.3	ND(2.7)	3.7		16	44			48	31	440
All $\beta$	ND(15)	ND(19)	24		130	230			350	76	600
H-3 (Approx. 12 years)	Under analysis	Under analysis	Under analysis		Under analysis	Under analysis			Under analysis	Under analysis	Under analysis
Sr-90 (Approx. 29 years)	Under analysis	Under analysis	Under analysis		Under analysis	Under analysis			Under analysis	Under analysis	Under analysis

Unit: Bq/L

	1F, Between the water intake channel of Unit 3 and Unit 4	1F, Unit 4 Screen (Inside the Silt Fence)	1F, Around the south discharge channel	1F, Port entrance	1F, East side in the port	1F, West side in the port	1F, North side in the port	1F, South side in the port	North side of the north breakwater	East side of the port entrance	South side of the south breakwater
Date of Sampling	Sep 16, 2013	Sep 16, 2013	Sep 16, 2013								
Time of sampling	6:15 AM	6:13 AM	5:20 AM								
Cs-134(Approx. 2 years)	28	62	ND(1.3)								
Cs-137(Approx.30 years)	50	140	ND(1.8)								
All $\beta$	130	200	ND(19)								
H-3 (Approx. 12 years)	Under analysis	Under analysis	Under analysis								
Sr-90 (Approx. 29 years)	Under analysis	Under analysis	Under analysis								

\* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

\* "-" indicates that the measurement was out of range.

<Reference> The Highest Dose Until the Previous Measurement (Groundwater Obtained at Bank Protection)

Unit: Bq/L

	Groundwater observation hole No.0-1	Groundwater observation hole No.0-2	Groundwater observation hole No.1	Groundwater observation hole No.1-1	Groundwater observation hole No.1-2	Groundwater observation hole No.1-3	Groundwater observation hole No.1-4	Groundwater observation hole No.1-5	Groundwater observation hole No.1-8	Groundwater observation hole No.1-9	Groundwater observation hole No.1-11	Groundwater pumped up from the well point (notch tank)	
Cs-134 (Approx. 2 years)	1.7 [ 9/15]	ND	13 [ 8/29]	1.9 [ 7/8]	11,000 [ 7/9]	10 [ 9/2]	1.5 [ 7/8]	310 [ 8/5]	30 [ 9/2]	170 [ 9/3]	ND	1.5 [ 8/19]	
Cs-137 (Approx.30 years)	4.4 [ 9/15]	0.93 [ 9/15]	31 [ 8/29]	3.6 [ 7/8]	22,000 [ 7/9]	24 [ 9/2]	3.6 [ 7/8]	650 [ 8/5]	63 [ 9/2]	380 [ 9/3]	0.48 [ 9/13]	3.4 [ 8/19]	
The other γ	Ru-106 (Approx. 370 days)	ND	ND	26 [ 5/24]	7.9 [ 7/8]	160 [ 8/15]	17 [ 7/22] [ 8/8]	3.1 [ 8/8]	ND	ND	ND	ND	25 [ 9/2]
	Mn-54 (Approx. 310 days)	ND	ND	ND	1.0 [ 7/5]	62 [ 7/5]	ND	ND	ND	0.52 [ 8/26]	ND	ND	
	Co-60 (Approx. 5 years)	ND	ND	0.50 [ 7/19]	ND	3.1 [ 7/8]	ND	ND	ND	ND	ND	ND	
	Sb-125 (Approx. 3 years)	ND	ND	1.7 [ 7/11]	ND	250 [ 7/15]	1.4 [ 7/12] [ 8/26]	ND	12 [ 8/8]	ND	ND	ND	ND
All β	300 [ 8/22]	[ 1/19] [ 9/15]	1,900 [ 5/24]	4,400 [ 7/8]	900,000 [ 7/5] [ 7/9]	160,000 [ 8/12] [ 8/15]	380 [ 8/19]	56,000 [ 8/5]	1,200 [ 8/26]	600 [ 9/8]	43 [ 9/13]	360,000 [ 9/2]	
H-3 (Approx. 12 years)	45,000 [ 8/29]	ND	500,000 [ 5/24] [ 6/7]	630,000 [ 7/8]	400,000 [ 8/22]	290,000 [ 7/12]	98,000 [ 7/11]	72,000 [ 8/15]	1200 [ 9/9]	670 [ 9/3]	85000 [ 9/13]	460,000 [ 8/19]	
Sr-90(Approx. 29 years)	Under analysis	Under analysis	1,200 [ 6/7]	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	-	

Unit: Bq/L

	Groundwater observation hole No.2	Groundwater observation hole No.2-1	Groundwater observation hole No.3	Groundwater observation hole No.3-1	Groundwater observation hole No.3-4
Cs-134 (Approx. 2 years)	0.50 [ 7/9]	0.66 [ 9/1]	3.5 [ 7/25]	1.2 [ 7/25] [ 8/8]	0.52 [ 9/12]
Cs-137 (Approx.30 years)	1.2 [ 7/11] [ 8/1]	1.1 [ 8/29] [ 9/1]	5.9 [ 8/8]	2.6 [ 8/1]	1.3 [ 9/12]
The other γ	Ru-106 (Approx. 370 days)	ND	ND	ND	ND
	Mn-54 (Approx. 310 days)	ND	ND	ND	ND
	Co-60 (Approx. 5 years)	ND	ND	ND	ND
	Sb-125 (Approx. 3 years)	ND	ND	1.1 [ 9/5]	ND
All β	1,700 [ 7/8]	380 [ 7/29]	1,400 [ 7/11]	180 [ 8/1]	ND
H-3 (Approx. 12 years)	850 [ 6/26]	440 [ 8/26]	3,200 [ 2012/12/12]	460 [ 8/1]	ND
Sr-90(Approx. 29 years)	54 [ 5/31]	Under analysis	8.3 [ 2012/12/12]	Under analysis	Under analysis

\* "ND" indicates that the measurement result is below the detection limit.

\* Date of sampling is provided in parentheses.

<Reference> The Highest Dose Until the Previous Measurement\* (Seawater)

Unit: Bq/L

	1F, North side of Unit 5,6 discharge channel	1F, In front of Unit 6 water intake channel	1F, In front of shallow draft quay	1F, North side of Unit 1-4 water intake channel	1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break)	1F, Unit 1 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer)	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	1F, Unit 2 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 2 and Unit 3 (surface layer)	1F, Between the water intake channel of Unit 2 and Unit 3 (lower layer)	1F, Unit 3 Screen (Inside the Silt Fence)
Cs-134(Approx. 2 years)	1.8 [ 6/21 ]	2.4 [ 8/19 ]	5.3 [ 8/5 ]	54 [ 9/10 ]	16 [ 8/12 ]	24 [ 8/12 ] [ 8/19 ]	39 [ 9/10 ]	13 [ 8/29 ]	26 [ 8/19 ]	21 [ 8/12 ]	3.5 [ 8/20 ]	350 [ 7/15 ]
Cs-137(Approx.30 years)	3.3 [ 6/26 ]	4.7 [ 8/19 ]	8.6 [ 8/5 ]	110 [ 9/10 ]	33 [ 8/12 ]	51 [ 8/12 ]	80 [ 9/10 ]	25 [ 8/29 ]	52 [ 8/19 ]	38 [ 9/9 ]	9.8 [ 8/20 ]	770 [ 7/15 ]
All β	ND	46 [ 8/19 ]	40 [ 7/3 ]	1,100 [ 8/15 ]	320 [ 8/12 ]	700 [ 8/12 ]	740 [ 8/15 ]	450 [ 7/16 ]	520 [ 9/9 ]	450 [ 9/9 ]	85 [ 8/20 ]	1,000 [ 7/15 ]
H-3 (Approx. 12 years)	8.6 [ 6/26 ]	24 [ 8/19 ]	340 [ 6/26 ]	4,700 [ 8/15 ]	460 [ 7/15 ]	2,500 [ 8/12 ]	2,600 [ 8/15 ]	1,600 [ 9/1 ]	1,500 [ 9/9 ]	720 [ 8/12 ]	-	410 [ 9/2 ]
Sr-90 (Approx. 29 years)	5.8 [ 6/26 ]	-	7.4 [ 6/26 ]	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	-	Under analysis

Unit: Bq/L

	1F, Between the water intake channel of Unit 3 and Unit 4 (surface layer)	1F, Between the water intake channel of Unit 3 and Unit 4 (lower layer)	1F, Unit 4 Screen (Inside the Silt Fence)	1F, Around the south discharge channel	1F, Port entrance	1F, East side in the port	1F, West side in the port	1F, North side in the port	1F, South side in the port	North side of the north breakwater	East side of the port entrance	South side of the south breakwater
Cs-134(Approx. 2 years)	22 [ 8/12 ]	4.8 [ 8/20 ]	46 [ 7/8 ]	ND	1.6 [ 8/19 ]	2.9 [ 8/19 ]	2.6 [ 8/19 ]	ND	2.1 [ 8/19 ]	ND	ND	ND
Cs-137(Approx.30 years)	45 [ 8/12 ]	7.7 [ 8/20 ]	93 [ 7/8 ]	3.0 [ 7/15 ]	4.7 [ 8/19 ]	6.6 [ 8/19 ]	6.5 [ 8/19 ]	4.7 [ 8/19 ]	4.6 [ 8/19 ]	ND	ND	ND
All β	390 [ 8/12 ]	57 [ 8/20 ]	310 [ 8/12 ]	ND	69 [ 8/19 ]	74 [ 8/19 ]	60 [ 7/4 ]	69 [ 8/19 ]	79 [ 8/19 ]	ND	ND	ND
H-3 (Approx. 12 years)	650 [ 8/12 ]	-	400 [ 8/12 ]	ND	68 [ 8/19 ]	67 [ 8/19 ]	59 [ 8/19 ]	52 [ 8/19 ]	60 [ 8/19 ]	4.7 [ 8/14 ]	ND	ND
Sr-90 (Approx. 29 years)	Under analysis	-	Under analysis	0.36 [ 6/26 ]	3.5 [ 6/20 ]	Under analysis	Under analysis	-	-	-	-	-

\* The highest result announced in "Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection" or the other handouts is provided.

As for "1F, North side of Unit 1-4 water intake channel", the data is obtained since January 14, 2013. For the other locations, the data is obtained since June 14.

\* "ND" indicates that the measurement result is below the detection limit.

\* Date of sampling is provided in parentheses.

\* "-" indicates that the measurement was out of range.