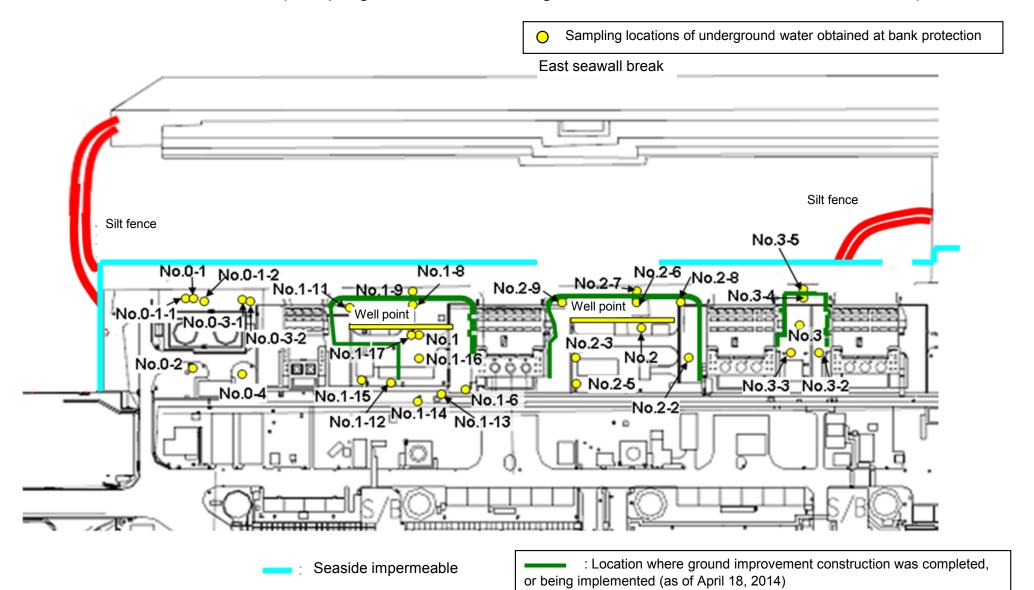
Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (Sampling Locations of Underground Water Obtained at Bank Protection)



## Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (1/2) Underground Water Obtained at Bank Protection

Unit: Bq/L (exclude chloride)

															Unit. Bq/	L (exclude chi
		Underground water observation hole No.0-1	Underground water observation hole No.0-1-2	Underground water observation hole No.0-2	Underground water observation hole No.0-3-1	Underground water observation hole No.0-3-2	Underground water observation hole No.0-4	Underground water observation hole No.1 **	Underground water observation hole No.1-6 **	Underground water observation hole No.1-8	Underground water observation hole No.1-9 (note)	Underground water observation hole No.1-11 **	Underground water observation hole No.1-12**	Underground water observation hole No.1-14**	Underground water observation hole No.1-16 **	Undergrou water observ hole No.1-1
	Date of sampling			/			/	/	1	1	Oct 2, 2014	/	1	1	/	
	Time of sampling									/	7:12 AM					
	Chloride (unit: ppm)				/			/			17					
Cs	s-134 (Approx. 2 years)				/						_					/
Cs	-137 (Approx.30 years)										-					/
	Mn-54 (Approx. 310 days)															/
The	Co-60 (Approx. 5 years)															
other y	Ru-106 (Approx. 370 days)															
		<del>                                     </del>														
	Gross β	/									21					
Н	I-3 (Approx. 12 years)	1/		/	/	/	/	/	/	/	ND(110)		/	/	/	/
Sr-	-90 (Approx. 29 years)	/	/	/			/	/	/	/	Under analysis		/	/	/	/
		Groundwater pumped up from the well point (between Unit 1 and 2)	Underground water observation hole No.2	Underground water observation hole No.2-2*	Underground water observation hole No.2-3	Underground water observation hole No.2-5 (note)	Underground water observation hole No.2-6	Underground water observation hole No.2-7	Underground water observation hole No.2-8	Groundwater pumped up from the well point (between Unit 2 and 3)	Underground water observation hole No.3	Underground water observation hole No.3-2	Underground water observation hole No.3-3	Underground water observation hole No.3-4	Underground water observation hole No.3-5	
	Date of sampling	,	Oct 1, 2014	Oct 1, 2014	Oct 1, 2014	Oct 2, 2014	Oct 2, 2014	Oct 3, 2014	Oct 1, 2014	Oct 1, 2014	Oct 1, 2014	Oct 1, 2014	Oct 1, 2014	Oct 1, 2014	Oct 1, 2014	
	Time of sampling		8:56 AM	10:46 AM	9:19 AM	8:40 AM	8:43 AM	9:38 AM	9:56 AM	10:00 AM	9:45 AM	10:43 AM	11:03 AM	10:02 AM	9:55 AM	
	Chloride (unit: ppm)		-	_	_	_	_	1,000	_	_	_	-	_	_	_	
Cs	s-134 (Approx. 2 years)		ND(0.35)	_	ND(0.36)	_	ND(0.38)	0.67	ND(0.36)	ND(0.53)	0.51	19	66	4.2	-	
Cs	-137 (Approx.30 years)		1.2	_	ND(0.56)	_	0.67	1.8	1.1	1.2	2.5	53	240	14	_	
	Mn-54 (Approx. 310 days)															
The	Co-60 (Approx. 5 years)															
other y	Ru-106 (Approx. 370 days)															]
	Gross β	1/	170	350	820	6,000	2,700	950	5,000	100,000	ND(17)	2,300	4,700	31	43	
Н	I-3 (Approx. 12 years)	1/	760	330	720	1,200	820	750	1,200	10,000 * 1	ND(110)	1,700	2,000	ND(110)	ND(110)	
Sr-	-90 (Approx. 29 years)	1/	_	_	_	_	_	_	_	_	_	_	_	_	_	1

<sup>\*</sup> Data announced this time is provided in a thick-frame. The other data was announced on October 2, 3, and 4.

(Note) As of No. 1-9, 2-5, and 3-5,  $\gamma$  was not measured because they are samlpled by sampler. Gross  $\beta$  were measured after filtation for references.

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses, except "the other  $\gamma$ "

<sup>\* &</sup>quot;-" indicates that the measurement was out of range.

 $<sup>^{\</sup>star}$  The results are for a reference, since the water was highly turbid. (Gross  $\beta$  were measured after filtration.)

<sup>\*1</sup> The highest measurement value (compared to the previous values provided in the handouts published in 'Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection')

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

Unit: Bq/L (exclude chloride)

		Underground water observation hole No.0-1	Underground water observation hole No.0-1-2	Underground water observation hole No.0-2	Underground water observation hole No.0-3-1	Underground water observation hole No.0-3-2	Underground water observation hole No.0-4	Underground water observation hole No.1	Underground water observation hole No.1-6	Underground water observation hole No.1-8**	Underground water observation hole No.1-9	Underground water observation hole No.1-11	Underground water observation hole No.1-12	Underground water observation hole No.1-14	Underground water observation hole No.1-16**	Underground water observation hole No.1-17
	Date of sampling	Oct 5, 2014	41,917	Oct 5, 2014	Oct 5, 2014		Oct 5, 2014				Oct 5, 2014			1		
	Time of sampling	11:47 AM	11:06 AM	10:33 AM	10:50 AM		9:55 AM				7:08 AM					
	Chloride (unit: ppm)	-	_	_	-		_				22					
Cs	-134 (Approx. 2 years)	17	ND(0.41)	ND(0.34)	ND(0.39)		_				_					
Cs	-137 (Approx.30 years)	64	ND(0.47)	ND(0.48)	ND(0.48)		_				_					
	Mn-54 (Approx. 310 days)															
The	Co-60 (Approx. 5 years)															
other y																
	Gross β	220	ND(18)	ND(18)	ND(18)		ND(18)				19					
Н	-3 (Approx. 12 years)	Under analysis	Under analysis	Under analysis	Under analysis	/	Under analysis				Under analysis					
Sr-	90 (Approx. 29 years)	-	_	_	_		_				_		/			
		Groundwater	1		1		I		I	Groundwater	I	1	1	1	1	1
		pumped up from the well point (between Unit 1 and 2)	Underground water observation hole No.2	Underground water observation hole No.2-2*	Underground water observation hole No.2-3	Underground water observation hole No.2-5	Underground water observation hole No.2-6	Underground water observation hole No.2-7	Underground water observation hole No.2-8	pumped up from the well point (between Unit 2 and 3)	Underground water observation hole No.3	Underground water observation hole No.3-2	Underground water observation hole No.3-3	Underground water observation hole No.3-4	Underground water observation hole No.3-5	
	Date of sampling	the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation	water observation	water observation	
	Date of sampling Time of sampling	the well point (between Unit 1	water observation hole No.2	water observation hole No.2-2*	water observation hole No.2-3	water observation	water observation	water observation hole No.2-7	water observation hole No.2-8	pumped up from the well point (between Unit 2 and 3)	water observation	water observation	water observation	water observation	water observation	,
		the well point (between Unit 1	water observation hole No.2 Oct 5, 2014	water observation hole No.2-2* Oct 5, 2014	water observation hole No.2-3 Oct 5, 2014	water observation	water observation	water observation hole No.2-7 Oct 5, 2014	water observation hole No.2-8 Oct 5, 2014	pumped up from the well point (between Unit 2 and 3) Oct 5, 2014	water observation	water observation	water observation	water observation	water observation	
-	Time of sampling	the well point (between Unit 1	water observation hole No.2 Oct 5, 2014 8:42 AM	water observation hole No.2-2* Oct 5, 2014 10:42 AM	water observation hole No.2-3 Oct 5, 2014 9:13 AM	water observation	water observation	water observation hole No.2-7 Oct 5, 2014 9:32 AM	water observation hole No.2-8 Oct 5, 2014 9:49 AM	pumped up from the well point (between Unit 2 and 3) Oct 5, 2014 9:05 AM	water observation	water observation	water observation	water observation	water observation	
Cs	Time of sampling Chloride (unit: ppm)	the well point (between Unit 1	water observation hole No.2  Oct 5, 2014  8:42 AM  —	water observation hole No.2-2* Oct 5, 2014 10:42 AM	water observation hole No.2-3 Oct 5, 2014 9:13 AM	water observation	water observation	water observation hole No.2-7 Oct 5, 2014 9:32 AM 850	water observation hole No.2-8  Oct 5, 2014  9:49 AM  —	pumped up from the well point (between Unit 2 and 3) Oct 5, 2014 9:05 AM	water observation	water observation	water observation	water observation	water observation	
Cs	Time of sampling Chloride (unit: ppm) -134 (Approx. 2 years)	the well point (between Unit 1	water observation hole No.2  Oct 5, 2014  8:42 AM  -  ND(0.42)	water observation hole No.2-2*  Oct 5, 2014  10:42 AM  -  7.4	water observation hole No.2-3  Oct 5, 2014  9:13 AM  -  ND(0.43)	water observation	water observation	water observation hole No.2-7  Oct 5, 2014  9:32 AM  850  ND(0.40)	water observation hole No.2-8  Oct 5, 2014  9:49 AM  -  ND(0.39)	pumped up from the well point (between Unit 2 and 3) Oct 5, 2014 9:05 AM — ND(0.97)	water observation	water observation	water observation	water observation	water observation	
Cs Cs	Time of sampling Chloride (unit: ppm) -134 (Approx. 2 years) -137 (Approx.30 years)	the well point (between Unit 1	water observation hole No.2  Oct 5, 2014  8:42 AM  -  ND(0.42)	water observation hole No.2-2*  Oct 5, 2014  10:42 AM  -  7.4	water observation hole No.2-3  Oct 5, 2014  9:13 AM  -  ND(0.43)	water observation	water observation	water observation hole No.2-7  Oct 5, 2014  9:32 AM  850  ND(0.40)	water observation hole No.2-8  Oct 5, 2014  9:49 AM  -  ND(0.39)	pumped up from the well point (between Unit 2 and 3) Oct 5, 2014 9:05 AM — ND(0.97)	water observation	water observation	water observation	water observation	water observation	
Cs	Time of sampling Chloride (unit: ppm) -134 (Approx. 2 years) -137 (Approx.30 years) Mn-54 (Approx. 310 days)	the well point (between Unit 1	water observation hole No.2  Oct 5, 2014  8:42 AM  -  ND(0.42)	water observation hole No.2-2*  Oct 5, 2014  10:42 AM  -  7.4	water observation hole No.2-3  Oct 5, 2014  9:13 AM  -  ND(0.43)	water observation	water observation	water observation hole No.2-7  Oct 5, 2014  9:32 AM  850  ND(0.40)	water observation hole No.2-8  Oct 5, 2014  9:49 AM  -  ND(0.39)	pumped up from the well point (between Unit 2 and 3) Oct 5, 2014 9:05 AM — ND(0.97)	water observation	water observation	water observation	water observation	water observation	
Cs Cs	Time of sampling Chloride (unit: ppm) -134 (Approx. 2 years) -137 (Approx.30 years) Mn-54 (Approx. 310 days)	the well point (between Unit 1	water observation hole No.2  Oct 5, 2014  8:42 AM  -  ND(0.42)	water observation hole No.2-2*  Oct 5, 2014  10:42 AM  -  7.4	water observation hole No.2-3  Oct 5, 2014  9:13 AM  -  ND(0.43)	water observation	water observation	water observation hole No.2-7  Oct 5, 2014  9:32 AM  850  ND(0.40)	water observation hole No.2-8  Oct 5, 2014  9:49 AM  -  ND(0.39)	pumped up from the well point (between Unit 2 and 3) Oct 5, 2014 9:05 AM — ND(0.97)	water observation	water observation	water observation	water observation	water observation	
Cs Cs	Time of sampling Chloride (unit: ppm) -134 (Approx. 2 years) -137 (Approx.30 years) Mn-54 (Approx. 310 days)	the well point (between Unit 1	water observation hole No.2  Oct 5, 2014  8:42 AM  -  ND(0.42)	water observation hole No.2-2*  Oct 5, 2014  10:42 AM  -  7.4	water observation hole No.2-3  Oct 5, 2014  9:13 AM  -  ND(0.43)	water observation	water observation	water observation hole No.2-7  Oct 5, 2014  9:32 AM  850  ND(0.40)	water observation hole No.2-8  Oct 5, 2014  9:49 AM  -  ND(0.39)	pumped up from the well point (between Unit 2 and 3) Oct 5, 2014 9:05 AM — ND(0.97)	water observation	water observation	water observation	water observation	water observation	
Cs Cs The other y	Time of sampling Chloride (unit: ppm) -134 (Approx. 2 years) -137 (Approx.30 years) Mn-54 (Approx. 310 days) Co-60 (Approx. 5 years)	the well point (between Unit 1	water observation hole No.2  Oct 5, 2014  8:42 AM  -  ND(0.42)  0.62	water observation hole No.2-2*  Oct 5, 2014  10:42 AM  -  7.4  20	water observation hole No.2-3  Oct 5, 2014  9:13 AM  -  ND(0.43)  ND(0.47)	water observation	water observation	water observation hole No.2-7 Oct 5, 2014 9:32 AM 850 ND(0.40) 2.0	water observation hole No.2-8  Oct 5, 2014  9:49 AM  -  ND(0.39)  ND(0.49)	pumped up from the well point (between Unit 2 and 3) Oct 5, 2014 9:05 AM - ND(0.97) ND(1.1)	water observation	water observation	water observation	water observation	water observation	

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses, except "the other  $\gamma$ "

(Note) As of No. 1-9, 2-5, and 3-5,  $\gamma$  was not measured because they are samlpled by sampler. Gross  $\beta$  were measured after filtation for references.

<sup>\* &</sup>quot;-" indicates that the measurement was out of range.

 $<sup>^{\</sup>star}$  The results are for a reference, since the water was highly turbid. (Gross  $\beta$  were measured after filtration.)

		Groundwater observation hole No.0-1 Groundwater observation hole No.0-1-1		Groundwater observation hole No.0-1-2		Groundwater observation hole No.0-2		Groundwater observation hole No.0-3-1		Groundwater observation hole No.0-3-2		Groundwater observation hole No.0-4		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.1-6			
C	s-134 (Approx. 2 years)	29	<5/25>	ND		0.61	<3/2>	0.61	[10/13]	0.64	<4/6>	1.3	<9/25>	0.70	<6/29>	13	[8/29]	1.9	[7/8]	11,000	[7/9]	10	[9/2]	1.5	[7/8]	310	[8/5]	12,000	<8/12> <9/22> <9/29>
С	s-137 (Approx.30 years)	78	<5/25>	ND		1.5	<3/2>	2.2	<1/12>	1.1	<4/6>	5.1	<9/25>	1.6	<6/29>	31	[8/29]	3.6	[7/8]	22,000	[7/9]	24	[9/2]	3.6	[7/8]	650	[8/5]	36,000	<9/29>
	Ru-106 (Approx. 370 days)	ND		ND		ND		ND		ND		ND		ND		26	[5/24]	7.9	[7/8]	160	[8/15]	17	[7/22] [8/8]	3.1	[8/8]	ND		ND	
The	Mn-54 (Approx. 310 days)	ND		ND		ND		ND		ND		0.64	<2/20>	ND		ND		1.0	[7/5]	62	[7/5]	ND		ND		ND		320	<2/13> <2/17>
other y	Co-60 (Approx. 5 years)	ND		ND		ND		ND		ND		ND		ND		0.50	[7/19]	ND		3.1	[7/8]	ND		ND		ND		830	<2/20> <9/29>
	Sb-125 (Approx. 3 years)	ND		ND		ND		ND		ND		ND		ND		1.7	[7/11]	ND		250	[7/15]	1.4	[7/12] [8/26]	ND		12	[8/8]	34	<5/19>
	Gross β	300	[8/29] <5/18>	21	[12/7]	24	<6/22>	87	[10/13]	ND		67	[12/11]	44	<6/22>	1,900	[5/24]	4,400	[7/8]	9,300,000	[7/8]	160,000	(8/12) (8/15)	380	[8/19]	56,000	[8/5]	1,400,000	<8/12>
	H-3 (Approx. 12 years)	45,000	[8/29]	18,000	[12/7]	74,000	[12/15] <1/19>	6,800	<2/16>	ND		76,000	<2/6>	56,000	<2/23>	500,000	[5/24] [6/7]	630,000	[7/8]	430,000	[9/16]	290,000	[7/12]	98,000	[7/11]	72,000	[8/15]	*2 110,000	<2/6>
;	Gr-90(Approx. 29 years)	140	[8/8]	7.9	[12/7]	2.6	[11/10]	0.73	[9/2]	1.5	[11/20]	2.3	[12/6]	ND(0.83)	[10/27]	1,300	[8/22]	2,300	[6/28]	5,000,000	[7/5]	130,000	[8/8]	200	[7/8]	5,100	[8/22]	1,100,000	<8/4>
				•						•		•		•		•		•		•		•		•		•			Unit: Bq/L

		Groundwater observation hole No.1-8		Groundwater observation hole No.1-9	Groundwater observation hole No.1-10	Groundwater observation hole No.1-11		Groundwater observation hole No.1-12		Groundwater observation hole No.1-13		Groundwater observation hole No.1-14		Groundwater observation hole No.1-15		Groundwater observation hole No.1-16		Groundwater observation hole No.1-17		Groundwater pumped up from the well point (between Unit 1 and 2)		Groundwater observation hole No.2		Groundwater observation hole No.2-1		Groundwater observation hol No.2-2	
(	s-134 (Approx. 2 years)	47	[11/25]	170 [9/3]	-	1.1 <1/1	3>	74	[10/21]	37,000	<2/13>	88 *2	<2/27>	ND		30	<7/28>	1.4	<7/7>	110	[9/23]	0.88	<2/26>	0.66	[9/1]	15	<2/12>
C	s-137 (Approx.30 years)	110	[11/25]	380 [9/3]	-	3.4 <4/2	8>	170	[10/21]	93,000	<2/13>	230 *2	<2/27>	0.88	<7/10>	86	<7/28>	3.0	<9/29>	250	[9/23]	2.5	<2/26>	1.1	[8/29] [9/1]	38	<2/12>
	Ru-106 (Approx. 370 days)	ND		ND	-	ND		5.4	[10/28]	ND		ND		ND		9.2	[10/28]	5.5	<4/21> <5/1>	25	[9/2]	ND		ND		ND	
The	Mn-54 (Approx. 310 days)	12	<2/3>	ND	-	ND		ND		ND		2.1	<9/8>	ND		11	<8/25>	ND		8.5	<4/28>	ND		ND		ND	
other \	Co-60 (Approx. 5 years)	1.3	<2/3>	ND	-	ND		0.51	[10/24]	ND		0.44	<5/29>	ND		0.9	[11/7]	0.61	[11/25]	0.61	<6/9>	ND		ND		ND	
	Sb-125 (Approx. 3 years)	ND		ND	-	ND		61	[10/21]	ND		ND		ND		24	<6/16>	2.1	[11/25]	ND		ND		ND		ND	
	Gross β	59,000	<2/3>	2,100*2 [11/17]	78 <sup>*2</sup> <1/27>	2,300 [12/2	26)	1,100	<5/5>	260,000	<2/12> <2/13>	28,000	<9/22>	110	<7/10>	3,100,000	<1/20> <1/30> <2/3>	910,000	<9/29>	1,900,000	[9/23]	1,700	[7/8]	380	[7/29]	600	<4/16>
	H-3 (Approx. 12 years)	33,000	<6/2>	860 *2 [11/14]	270,000 *2 <1/27>	85,000 [9/1	3) 4	440,000	[10/31]	88,000	<2/12>	23,000	<2/13>	74,000	<7/10>	43,000	[9/26]	32,000	<1/20>	460,000	[8/19]	1,000	<2/23>	440	[8/26]	660	<1/8>
	Gr-90(Approx. 29 years)	35,000	<2/17>	300 [10/3]	_	170 <8/4	<b> &gt;</b>	290	[10/21]	160,000	<2/12>	13,000	<8/4>	Under	analysis	2,700,000	<2/13>	170,000	<8/4>	-		54	[5/31]	5.9	[7/25]	320	[12/25]

		Groundwater observation hole No.2-3		Groundwater observation hole No.2-5		Groundwater observation hole No.2-6		Groundwater observation hole No.2-7		Groundwater observation hole No.2-8		Groundwater observation hole No.2-9		Groundwater pumped up from the well point (between Unit 2 and 3)		Groundwater observation hole No.3		Groundwater observation hole No.3-1		Groundwater observation hole No.3-2		Groundwater observation hole No.3-3		Groundwater observation hole No.3-4		Groundwater observation ho No.3-5	
С	Cs-134 (Approx. 2 years)		<2/26>	41	<5/7>	17	<3/11>	3.5	<2/23>	1.3	<7/20>	ND		2.2	<9/7>	3.5	[7/25]	1.2	[7/25] [8/8]	23	<8/27>	180	<7/2>	5.1	<7/23>	100	<7/30>
C	s-137 (Approx.30 years)	5.5	<2/26>	110	<5/7>	50	<3/11>	9.0	<2/23>	3.4	<7/20>	0.58*2	<2/11>	5.7	<9/7>	5.9	[8/8]	2.6	[8/1]	68	<9/3>	500	<7/2>	16	<8/27>	310	<7/30>
	Ru-106 (Approx. 370 days)	ND		ND		ND		ND		ND		6.5 <sup>* 2</sup>	<2/11>	ND		ND		ND		ND		ND		ND		-	
The	Mn-54 (Approx. 310 days)	0.29	[12/6]	0.95	<6/4>	ND		ND		ND		ND		ND		ND		ND		ND		ND		0.54	[10/30]	-	
other y	Co-60 (Approx. 5 years)	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	
	Sb-125 (Approx. 3 years)	ND		74	<5/7>	ND		ND		ND		ND		ND		1.6	<1/1>	ND		ND		ND		ND		-	
	Gross β	1,500	[12/6] <1/8>	150,000	<2/12>	3,200	[12/5]	1,300	<6/20>	5,800	<7/23>	1,700	<2/7>	240,000	[12/12]	1,400	[7/11]	180	[8/1]	3,100	<8/20> <8/28>	8,900	<7/2>	46	<8/13>	510	<7/16>
ı	H-3 (Approx. 12 years)	1,700	[12/6]	7,900	<4/9>	1,900	<8/10>	1,100	<1/19>	1,700	<4/6> <8/6> <8/13>	*2 13,000	<2/7> <2/11>	9,700	<10/2>	3,200	[Dec. 12, 2012]	460	[8/1]	3,700	<7/9>	8,000	<5/7>	170	[9/18]	170	<1/8>
S	r-90(Approx. 29 years)	1,200	[12/6]	34,000	<5/7>	Under	analysis	ND(1.4)	[11/21]	3,900	<3/30>	1,200*2	<2/11>	-		8.3	(Dec. 12, 2012)	4.4	[7/23]	2,000	<4/18>	3,600	<4/30>	ND		200	<5/28>

Since some samples are still under analysis, the highest dose of the Strontium-90 is among those previously announced.
 Analysis result of pumped water.

<sup>\*2</sup> The results are for a reference, since the water was highly turbid. (γ and Gross β were measured after filtration.)

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit.

\* Date of sampling is provided in parentheses. (): 2013, < >: 2014

\* "\*" is provided next to the name of the holes where the sampling could not be performed due to the chemical injection of ground improvement.

<sup>(</sup>Note) As of No. 1-9, 2-5, and 3-5, since September 17,  $\gamma$  was not measured because they are samlpled by sampler. Gross  $\beta$  were measured after filtation for references.