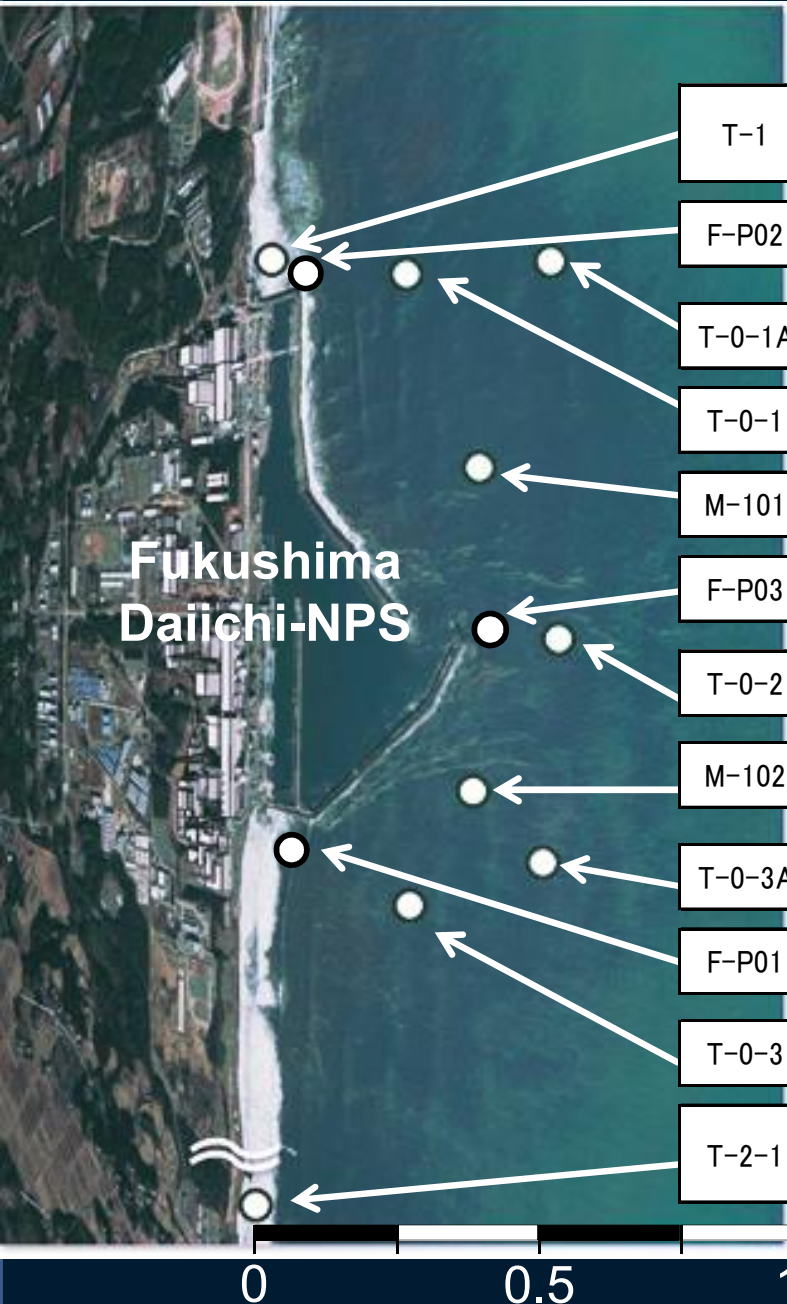


Sea Area Monitoring

January 05, 2016

Nuclear Regulation Authority (NRA), Japan

Sea area within 2km radius from the NPS



Fukushima Daiichi-NPS

Sampling point	Sampling Date	Cs-134	Cs-137	total β	H-3	Sr-90	total α	Pu-238	Pu-239+240
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Sea water radioactivity (Bq/L):
 ND: under detection limits; Numbers in parentheses: detection limits
 *1: Total β : including K-40 *2: Total β : excluding K-40

T-1	2015/12/14	ND(0.89)	ND(0.54)	13 ^{*1}	ND(1.6)				
	2015/10/14	ND(0.69)	ND(0.65)	13 ^{*1}	ND(1.7)	0.087	ND(1.9)		
	2015/4/8	ND(0.55)	ND(0.64)					ND(5.5×10^{-6})	ND(6.1×10^{-6})
F-P02	2015/10/13	ND(0.080)	0.14	0.08 ^{*2}	ND(0.45)	0.054		In progress	In progress
	2015/9/14	0.21	1.0	0.03 ^{*2}	ND(0.41)	0.003		ND(7×10^{-6})	ND(7×10^{-6})
T-0-1A	2015/12/14	ND(0.63)	ND(0.79)	ND(17) ^{*1}	In progress				
	2015/12/7	ND(0.80)	ND(0.69)	ND(16) ^{*1}	ND(1.9)				
T-0-1	2015/12/14	ND(0.54)	ND(0.58)	ND(17) ^{*1}	In progress				
	2015/12/7	ND(0.63)	ND(0.65)	ND(16) ^{*1}	ND(1.9)				
M-101	2015/10/5	0.018	0.085		0.44	In progress			
	2015/9/2	0.14	0.60		1.9	0.76			
F-P03	2015/10/13	0.10	0.46	0.19 ^{*2}	2.1	0.27		In progress	In progress
	2015/9/14	ND(0.051)	0.087	0.03 ^{*2}	ND(0.40)	0.002		ND(7×10^{-6})	ND(7×10^{-6})
T-0-2	2015/12/14	ND(0.45)	ND(0.45)	ND(17) ^{*1}	In progress				
	2015/12/7	ND(0.83)	ND(0.64)	ND(16) ^{*1}	ND(1.9)				
M-102	2015/10/6	0.016	0.066		0.20	In progress			
	2015/9/3	0.0054	0.022		0.077	0.00098			
T-0-3A	2015/12/14	ND(0.71)	ND(0.58)	ND(17) ^{*1}	In progress				
	2015/12/7	ND(0.83)	ND(0.69)	ND(16) ^{*1}	ND(1.9)				
F-P01	2015/10/13	ND(0.080)	0.11	0.03 ^{*2}	0.53	0.008		In progress	In progress
	2015/9/14	ND(0.053)	0.15	0.05 ^{*2}	0.55	0.031		ND(6×10^{-6})	6×10^{-6}
T-0-3	2015/12/14	ND(0.79)	ND(0.60)	ND(17) ^{*1}	In progress				
	2015/12/7	ND(0.63)	ND(0.74)	ND(16) ^{*1}	ND(1.9)				
T-2-1	2015/12/15	ND(0.71)	ND(0.75)	11 ^{*1}	ND(1.6)				
	2015/10/14	ND(0.88)	ND(0.78)	11 ^{*1}	ND(1.7)	ND(0.0093)	ND(1.9)		
	2015/4/8	ND(0.66)	ND(0.60)	8.9 ^{*1}				ND(6.9×10^{-6})	(9.7 ± 2.4) $\times 10^{-6}$

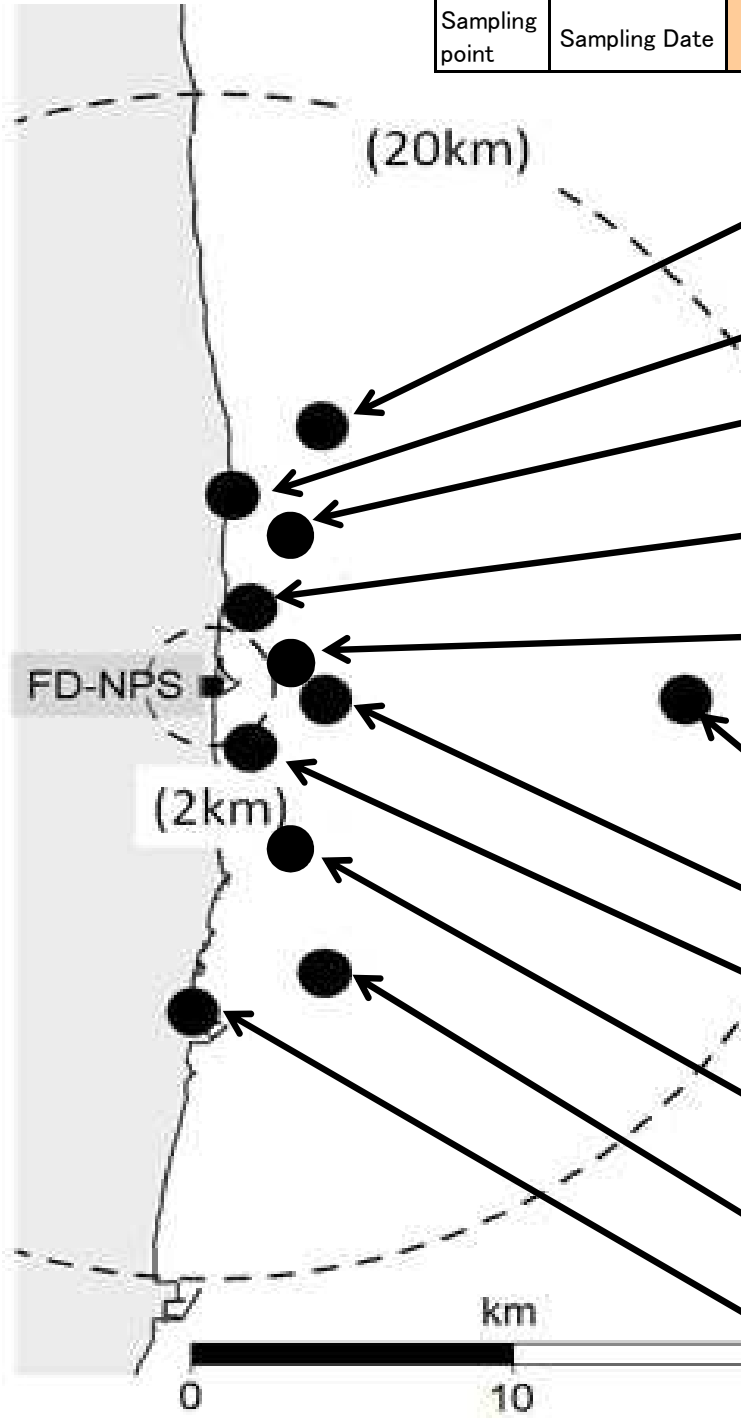
Sea area between 2-20km radius from the NPS (1)

Sampling point	Sampling Date	Cs-134	Cs-137	total β	H-3	Sr-90	total α	Pu-238	Pu-239+240	S	S:2m below sea level Depth(m) from sea level
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Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits

*1: Total β : including K-40 *2: Total β : excluding K-40

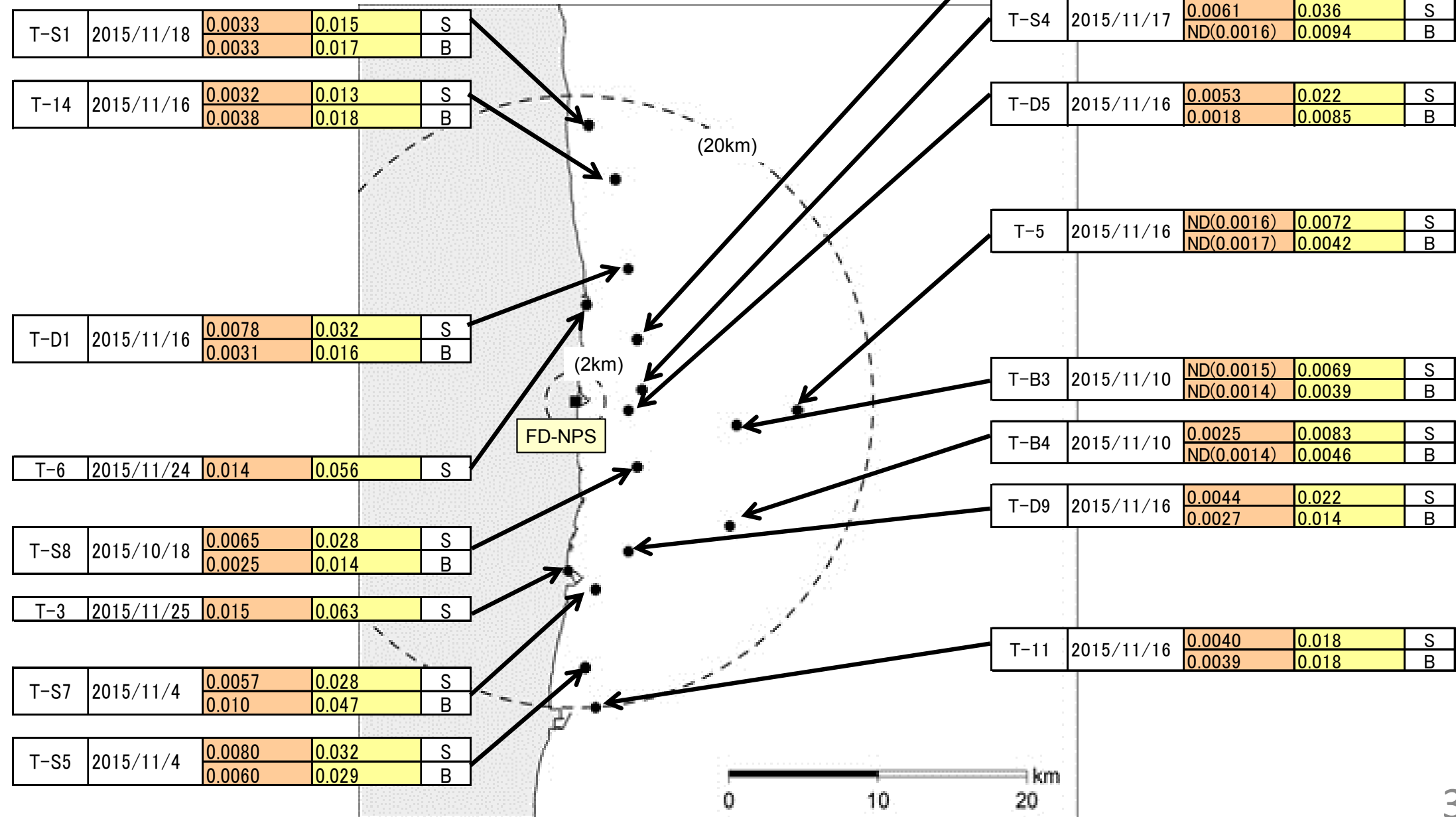


T-D1	2015/11/16	0.0078	0.032	ND(17) ^{*1}	ND(0.36)						S
	2015/11/2	0.0038	0.013	ND(17) ^{*1}	ND(0.35)	ND(0.0075)	ND(1.6)				S
	2015/4/8	0.0017	0.0048	ND(15) ^{*1}	0.49	ND(0.0099)	ND(2.0)	ND(7.0 × 10 ⁻⁶)	ND(6.8 × 10 ⁻⁶)		S
T-6	2015/11/17	0.024	0.11	18 ^{*1}	ND(0.32)						S
F-P06	2015/10/13	ND(0.087)	ND(0.070)	0.03 ^{*2}	ND(0.45)	0.010		In progress	In progress		S
	2015/9/14	ND(0.050)	0.082	0.02 ^{*2}	0.47	0.001		ND(8 × 10 ⁻⁶)	ND(8 × 10 ⁻⁶)		S
M-103	2015/10/5	0.0046	0.020		0.10	In progress					0.5m
	2015/9/2	0.0068	0.030		0.10	0.0021					0.5m
F-P04	2015/10/13	ND(0.074)	ND(0.071)	0.02 ^{*2}	ND(0.46)	0.001		In progress	In progress		S
	2015/9/14	ND(0.054)	0.052	0.02 ^{*2}	ND(0.40)	0.002		ND(7 × 10 ⁻⁶)	ND(7 × 10 ⁻⁶)		S
T-5	2015/11/16	ND(0.0016)	0.0072	ND(17) ^{*1}	ND(0.36)						S
	2015/11/2	ND(0.0014)	0.0043	ND(17) ^{*1}	ND(0.35)	ND(0.0077)	ND(1.9)				S
	2015/4/9	ND(0.0014)	0.0021	ND(17) ^{*1}	ND(0.32)	ND(0.011)	ND(1.6)	ND(5.7 × 10 ⁻⁶)	ND(5.6 × 10 ⁻⁶)		S
T-D5	2015/11/16	0.0053	0.022	ND(17) ^{*1}	ND(0.36)						S
	2015/11/2	0.0044	0.021	ND(17) ^{*1}	ND(0.35)	ND(0.0086)	ND(1.6)				S
	2015/4/8	ND(0.0016)	0.0062	ND(15) ^{*1}	0.70	ND(0.011)	ND(2.0)	ND(6.3 × 10 ⁻⁶)	ND(6.0 × 10 ⁻⁶)		S
M-104	2015/10/6	0.0041	0.016		0.080	In progress					0.5m
	2015/9/3	0.0062	0.030		0.14	0.0012					0.5m
F-P05	2015/10/13	ND(0.075)	ND(0.069)	0.03 ^{*2}	ND(0.44)	0.001		In progress	In progress		S
	2015/9/14	0.067	0.31	0.03 ^{*2}	ND(0.39)	0.009		ND(5 × 10 ⁻⁶)	ND(5 × 10 ⁻⁶)		S
T-D9	2015/11/16	0.0044	0.022	ND(17) ^{*1}	ND(0.36)						S
	2015/11/2	0.0051	0.020	ND(17) ^{*1}	ND(0.35)	ND(0.0074)	ND(1.9)				S
	2015/4/9	ND(0.0017)	0.0043	ND(17) ^{*1}	ND(0.32)	ND(0.0092)	ND(1.6)	ND(6.7 × 10 ⁻⁶)	ND(6.5 × 10 ⁻⁶)		S
T-3	2015/11/17	0.018	0.079	ND(16) ^{*1}	ND(0.32)						S

Sea area between 2-20km radius from the NPS (2)

Sampling point	Sampling Date	Cs-134	Cs-137	S/B	S:2m below sea level B:2-3m above sea bottom
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Sea water radioactivity (Bq/L):
 ND: under detection limits; Numbers in parentheses: detection limits

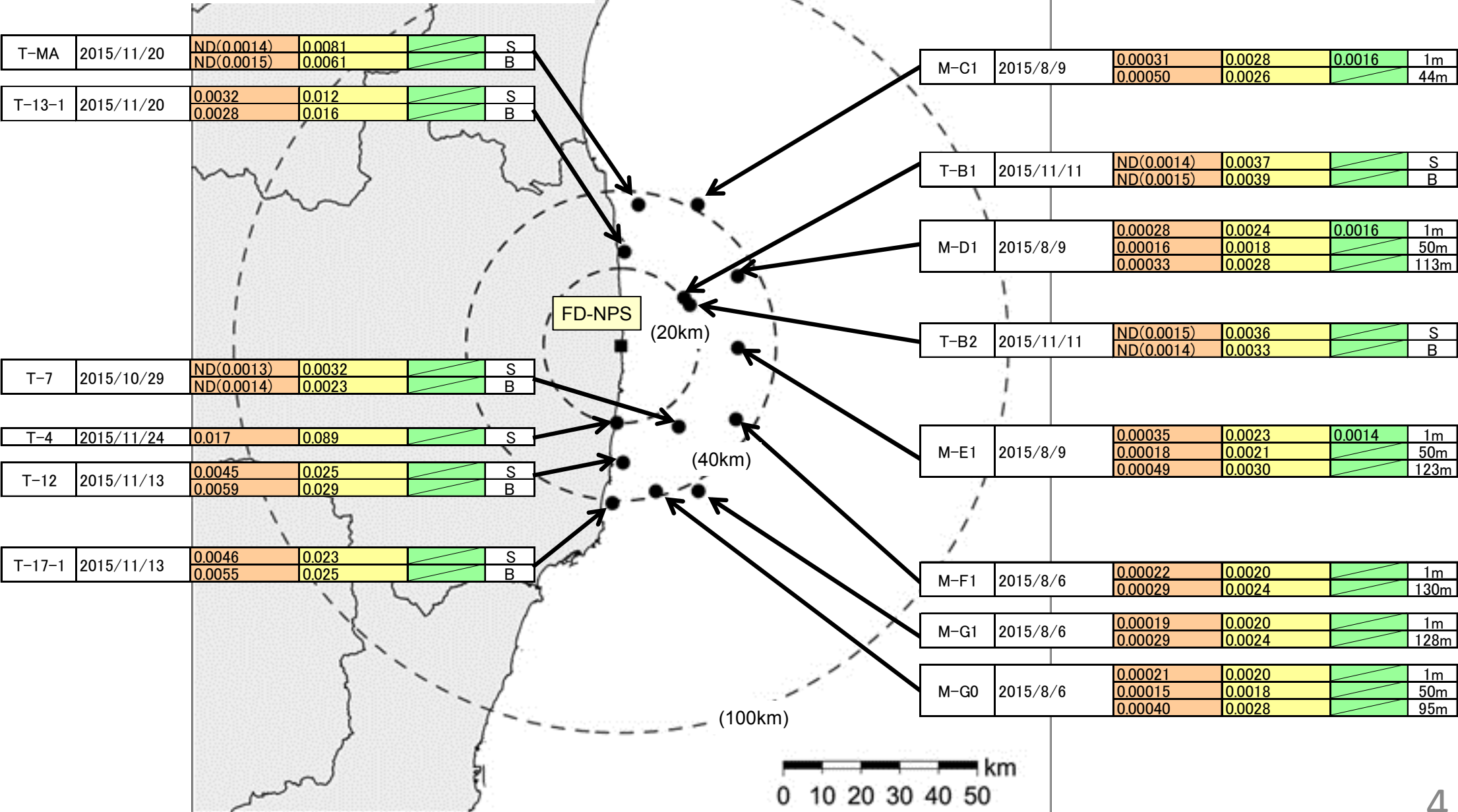


Sea area between 20-100km radius from the NPS(1)

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/B
					S:2m below sea level B:2-3m above sea bottom
					Depth(m) from sea level

Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits



Sea area between 20-100km radius from the NPS(2)

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	S/B	S:2m below sea level B:2-3m above sea bottom
							Depth(m) from sea level	

Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits

*Total β: excluding K-40

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
M-C3	2015/10/31	In progress	In progress	0.028	In progress	In progress	1m
		0.00031	0.0026	0.025	0.079	0.0014	1m
	2015/8/8	0.00016	0.0024				50m
		0.00018	0.0020				122m

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
T-22	2015/11/20	0.0020	0.0091				S
		0.0016	0.0090				B

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
M-D3	2015/10/31	In progress	In progress	0.028	In progress	In progress	1m
		0.00021	0.0022	0.030	0.093	ND(0.00053)	1m
	2015/8/8	0.00021	0.0021				100m
		ND(0.00016)	0.0018				207m

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
M-F3	2015/11/4	In progress	In progress	0.028	In progress	In progress	1m
		0.00018	0.0021	0.025	0.093	0.0014	1m
	2015/8/6	0.00018	0.0018				100m
		0.00021	0.0019				219m

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
T-18	2015/10/29	ND(0.0013)	0.0045				S
		ND(0.0015)	0.0069				B

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
T-20	2015/11/13	0.0030	0.014				S
		0.0018	0.014				B

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
T-M10	2015/10/29	ND(0.0015)	0.0023				S
		ND(0.0013)	0.0023				B

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
M-E3	2015/11/4	In progress	In progress	0.027	In progress	In progress	1m
		0.00020	0.0021	0.028	0.065	ND(0.00055)	1m
	2015/8/8	ND(0.00017)	0.0019				100m
		0.00015	0.0017				213m

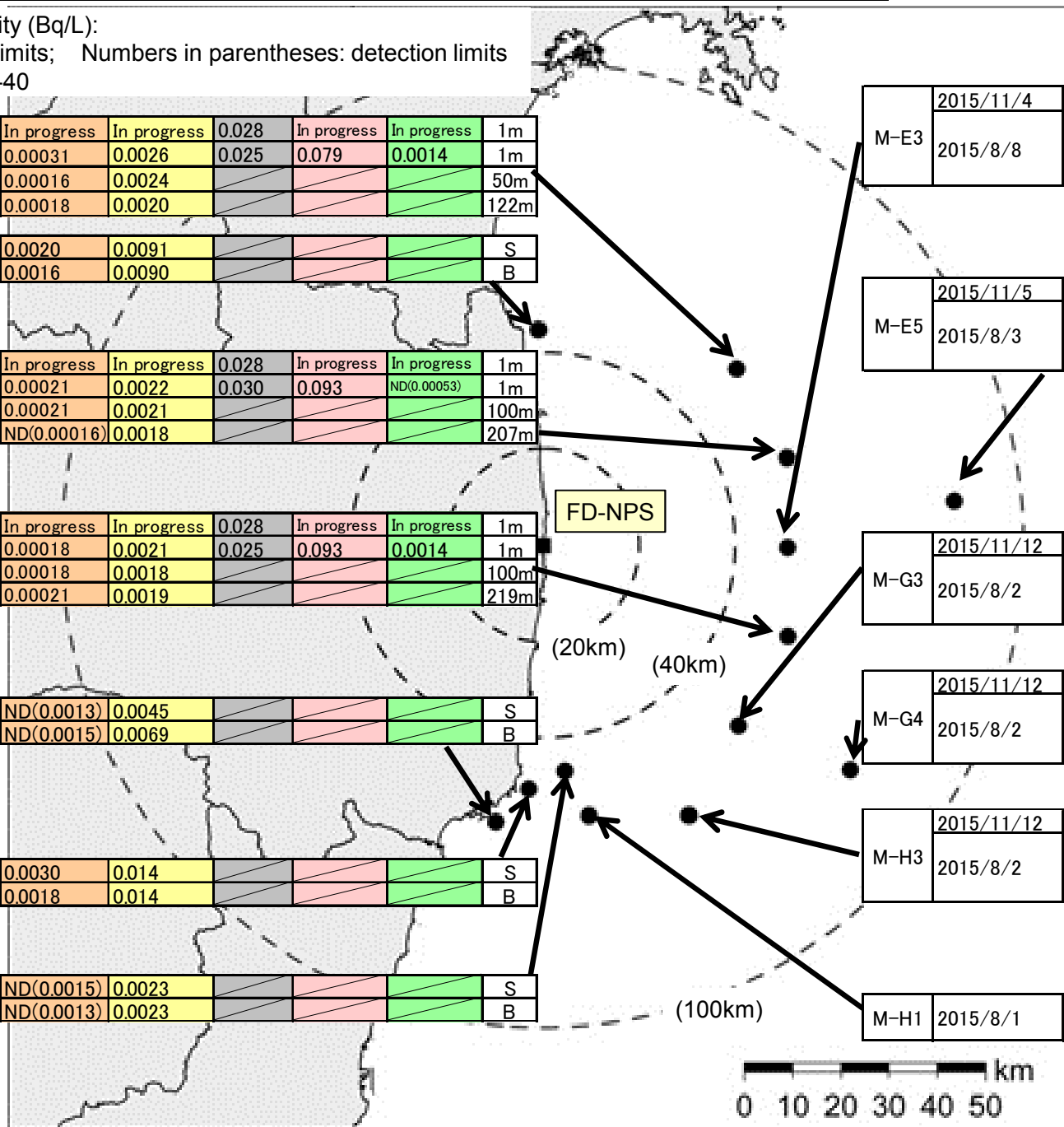
Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
M-E5	2015/11/5	In progress	In progress	0.035	In progress	In progress	1m
		0.00031	0.0023	0.028	0.076	0.0010	1m
	2015/8/3	0.00029	0.0023				100m
		ND(0.000086)	0.00065				511m

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
M-G3	2015/11/12	In progress	In progress	0.032	In progress	In progress	1m
		0.00021	0.0022	0.030	0.085	0.0012	1m
	2015/8/2	0.00015	0.0020				100m
		0.00016	0.0019				199m

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
M-G4	2015/11/12	In progress	In progress	0.030	In progress	In progress	1m
		0.00038	0.0027	0.028	0.086	0.0014	1m
	2015/8/2	0.00039	0.0026				100m
		ND(0.000069)	0.00057				633m

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
M-H3	2015/11/12	In progress	In progress	0.030	In progress	In progress	1m
		0.00023	0.0023	0.030	0.068	0.0011	1m
	2015/8/2	ND(0.00017)	0.0018				100m
		0.00014	0.0019				218m

Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	Depth(m)
M-H1	2015/8/1	0.0012	0.0058				1m
		0.00035	0.0029				122m

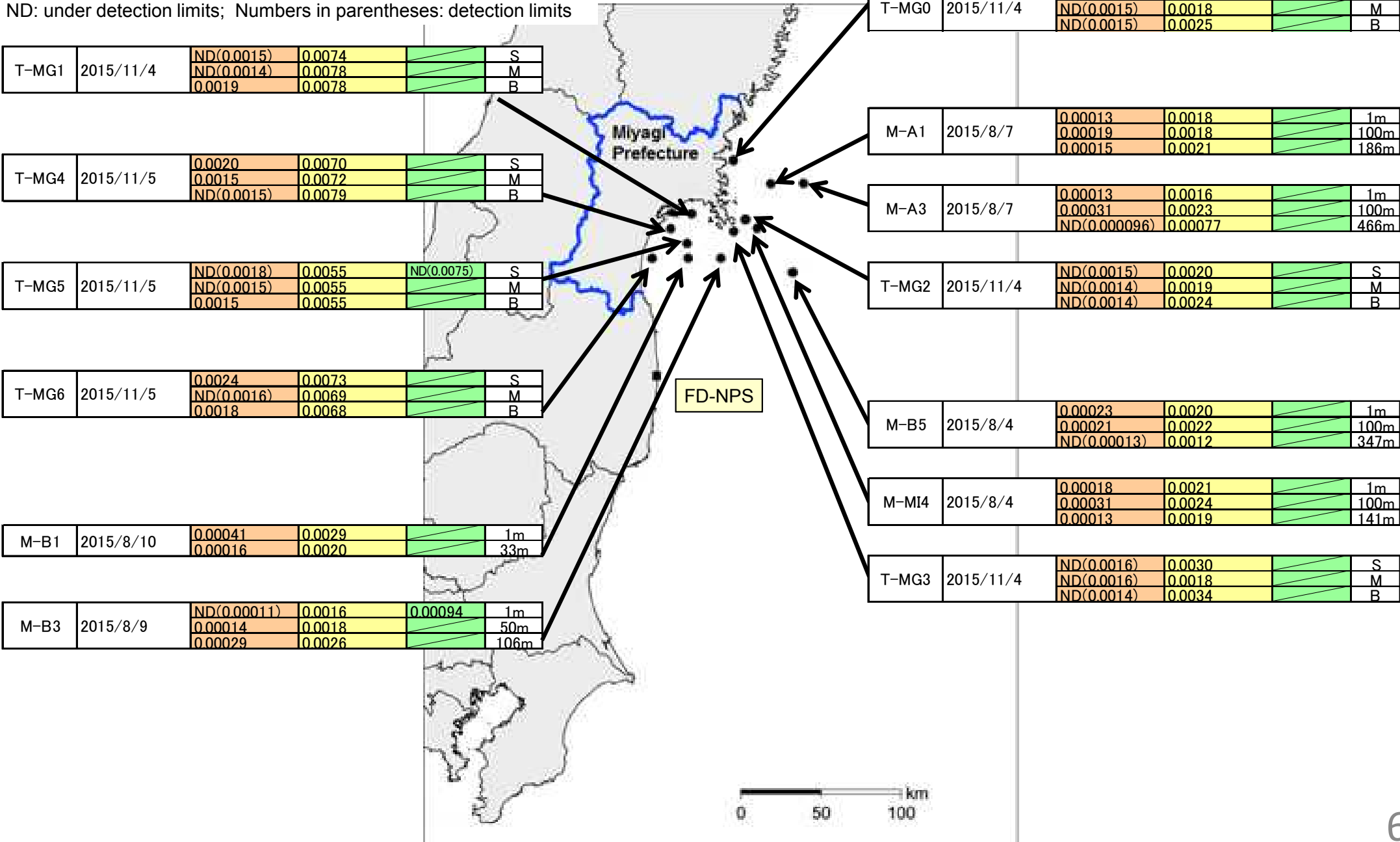


Sea area along and off the coast of Miyagi Prefecture

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/M/B
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S:2m below sea level
M:between 2m below sea level and 2-3m above sea bottom
B:2-3m above sea bottom

Sea water radioactivity (Bq/L):
ND: under detection limits; Numbers in parentheses: detection limits

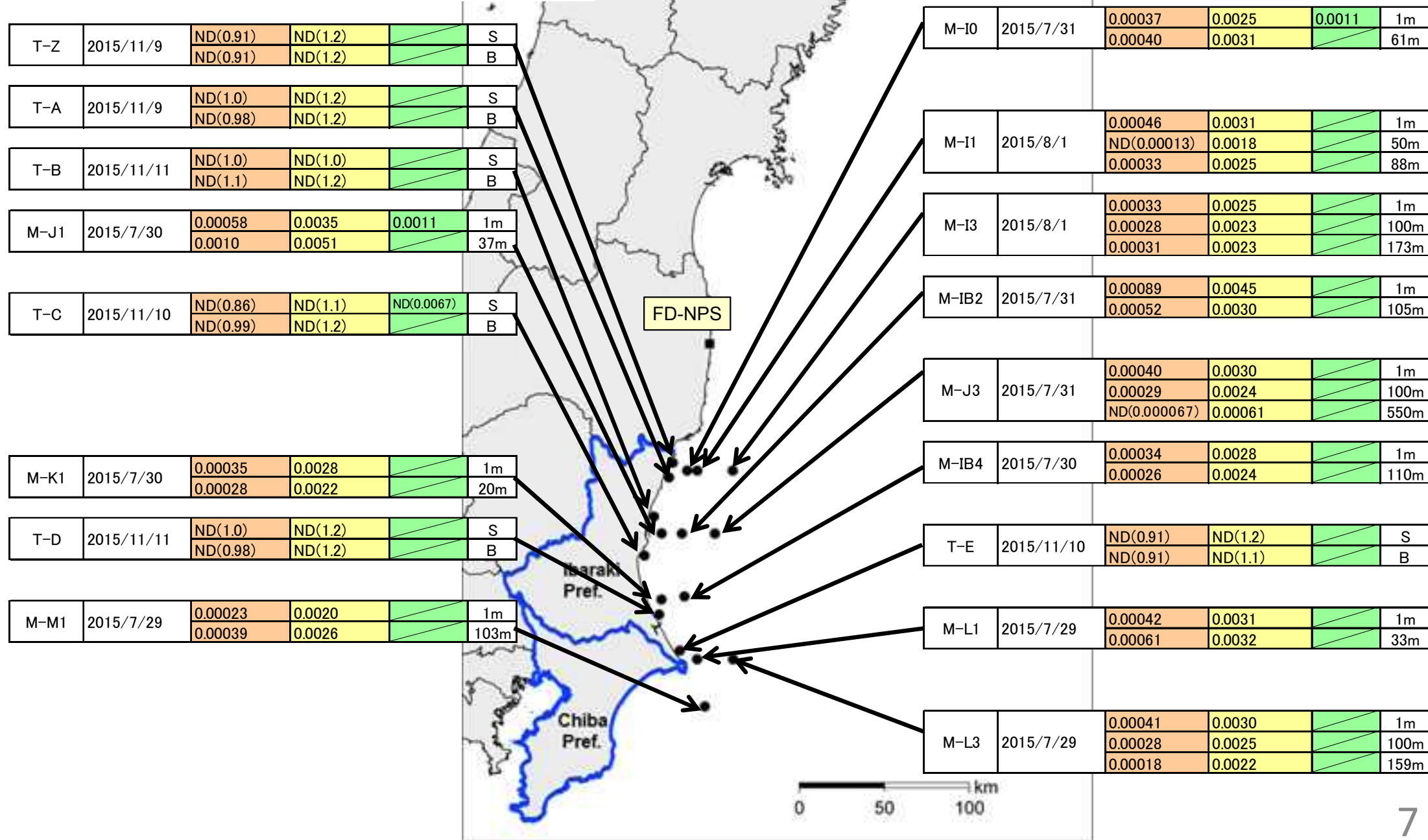


Sea area along and off the coast of Ibaraki Pref. and Chiba Pref.

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/B	S:2m below sea level	B:2-3m above sea bottom
					Depth(m) from sea level		

Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits



Open sea off the coast of Eastern Japan

Sampling point	Sampling Date	Cs-134	Cs-137	Depth(m) from sea level
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Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits

M-10	2015/5/26	ND(0.00082)	0.0024	1m
		ND(0.00075)	0.0031	101m
		ND(0.00068)	0.0018	201m
		ND(0.00078)	0.0017	301m
		ND(0.00078)	0.00089	500m

M-11	2015/5/26	ND(0.00069)	0.0030	1m
		ND(0.00063)	0.0029	101m
		ND(0.00062)	0.0024	201m
		ND(0.00070)	0.0018	301m
		ND(0.00068)	0.0015	502m

M-14	2015/5/27	ND(0.00064)	0.0028	1m
		ND(0.00054)	0.0018	102m
		ND(0.00060)	0.0015	200m
		ND(0.00053)	0.0011	303m
		ND(0.00060)	0.00086	502m

M-15	2015/5/27	ND(0.00068)	0.0026	1m
		ND(0.00061)	0.0022	100m
		ND(0.00061)	0.0016	201m
		ND(0.00062)	0.0016	300m
		ND(0.00059)	0.00073	501m

M-19	2015/5/29	ND(0.00058)	0.0026	1m
		ND(0.00057)	0.0022	102m
		ND(0.00056)	0.0015	201m
		ND(0.00055)	0.0016	300m
		ND(0.00056)	0.00071	502m

M-21	2015/5/31	ND(0.00057)	0.0016	1m
		ND(0.00061)	0.0023	102m
		0.00061	0.0039	200m
		ND(0.00052)	0.0023	300m
		ND(0.00062)	0.00087	500m

M-20	2015/5/31	ND(0.00065)	0.0017	1m
		0.00065	0.0031	100m
		ND(0.00068)	0.0031	200m
		ND(0.00059)	0.0018	305m
		ND(0.00061)	0.0013	499m

M-26	2015/5/28	ND(0.00060)	0.0024	1m
		ND(0.00056)	0.0029	100m
		ND(0.00066)	0.0034	202m
		ND(0.00066)	0.0040	301m
		ND(0.00061)	0.0027	500m

M-25	2015/6/1	ND(0.00073)	0.0015	1m
		ND(0.00077)	0.0031	100m
		ND(0.00069)	0.0030	201m
		0.00081	0.0056	301m
		0.00067	0.0024	500m

M-27	2015/5/28	ND(0.00060)	0.0026	1m
		ND(0.00060)	0.0030	100m
		0.00082	0.0042	200m
		0.0011	0.0049	301m
		ND(0.00065)	0.0034	501m

