Nuclide Analysis Results of Radioactive Materials in Seawater <Coast>

Reference

(Data summarized on March 22)

Place of Sampling	North of Discharge Channel of 5-6u of 1F (approx. 30m north of 5-6u discharge channel)		Around South Discharge Channel of 1F (appox. 330m south of 1-4u Discharge Channel)		Around North Discharge Channel of 2F (Around 3,4u Discharge Channel) (approx. 10 km from 1F)		Around Iwasawa Shore of 2F (appox. 7 km south of 1,2u Discharge Channel) (appox. 16 km from 1F)		② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Mar 21, 2012 08:45 am		Mar 21, 2012 08:25 am		Mar 21, 2012 08:40 am		Mar 21, 2012 08:20 am		
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (about 8 days)	ND	-	ND	-	ND	-	ND	-	40
Cs-134 (about 2 years)	ND	-	ND	-	ND	-	ND	-	60
Cs-137 (about 30 years)	1.8	0.02	1.3	0.01	ND	-	ND	-	90

* Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm3 to Bq/L.

* Data of other nuclides are under evaluation.

* In the case that two or more kinds of nuclides exist, sum of each scaling factor to the density limit is compared with 1.

* "ND" means the sampled data is below measurable limit.
I-131: approx. 0.65Bq/L, Cs-134: approx. 0.91Bq/L, Cs-137: approx. 1.0Bq/L
Please note that these nuclides are sometimes detected even when they are below the limits, contingent on the detector or samples.

Nuclide Analysis Results of Radioactive Materials in Seawater <Offshore>

Reference

(Data summarized on March 22)

Place of Sampling	15 km offshore of Minami-Souma CityUpper Layer		15 km offshore of Minami-Souma CityLower Layer		15 km offshore of Ukedo-gawa Upper Layer		15 km offshore of Ukedo-gawa Lower Layer		15 km offshore of Fukushima Daiichi Upper Layer		15 km offshore of Fukushima Daiichi Lower Layer		② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Mar 20, 2012 (Not sampled)		Mar 20, 2012 (Not sampled)		Mar 20, 2012 (Not sampled)		Mar 20, 2012 (Not sampled)		Mar 20, 2012 09:05 am		Mar 20, 2012 09:05 am		
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (about 8 days)	-	-	-	-	-	-	-	-	ND	-	ND	-	40
Cs-134 (about 2 years)	-	-	-	-	-	-	-	-	ND	-	ND	-	60
Cs-137 (about 30 years)	-	-	-	-	-	-	-	-	ND	-	ND	-	90

Place of Sampling	15 km offshore of Fukushima Daini Upper Layer		15 km offshore of Fukushima Daini Lower Layer		15 km offshore of Iwasawa Shore Upper Layer		15 km offshore of Iwasawa Shore Lower Layer		15 km offshore of Hirono-town Upper Layer		15 km offshore of Hirono-town Lower Layer		② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Mar 20, 2012 08:40 am		Mar 20, 2012 08:40 am		Mar 20, 2012 08:00 am		Mar 20, 2012 08:00 am		Mar 20, 2012 07:25 am		Mar 20, 2012 07:25 am		
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (about 8 days)	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	40
Cs-134 (about 2 years)	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	60
Cs-137 (about 30 years)	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	90

* Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm3 to Bq/L.

* Data of other nuclides are under evaluation.

* In the case that two or more kinds of nuclides exist, sum of each scaling factor to the density limit is compared with 1.

* "ND" means the sampled data is below measurable limit.
I-131: approx. 0.72Bq/L, Cs-134: approx. 0.95Bq/L, Cs-137: approx. 1.1Bq/L
Please note that these nuclides are sometimes detected even when they are below the limits, contingent on the detector or samples.

2 out of 6 samplings were cancelled due to bad weather.

Nuclide Analysis Results of Radioactive Materials in Seawater＜offshore　remeasurement＞ Reference

（Data Aggregation：3/22）

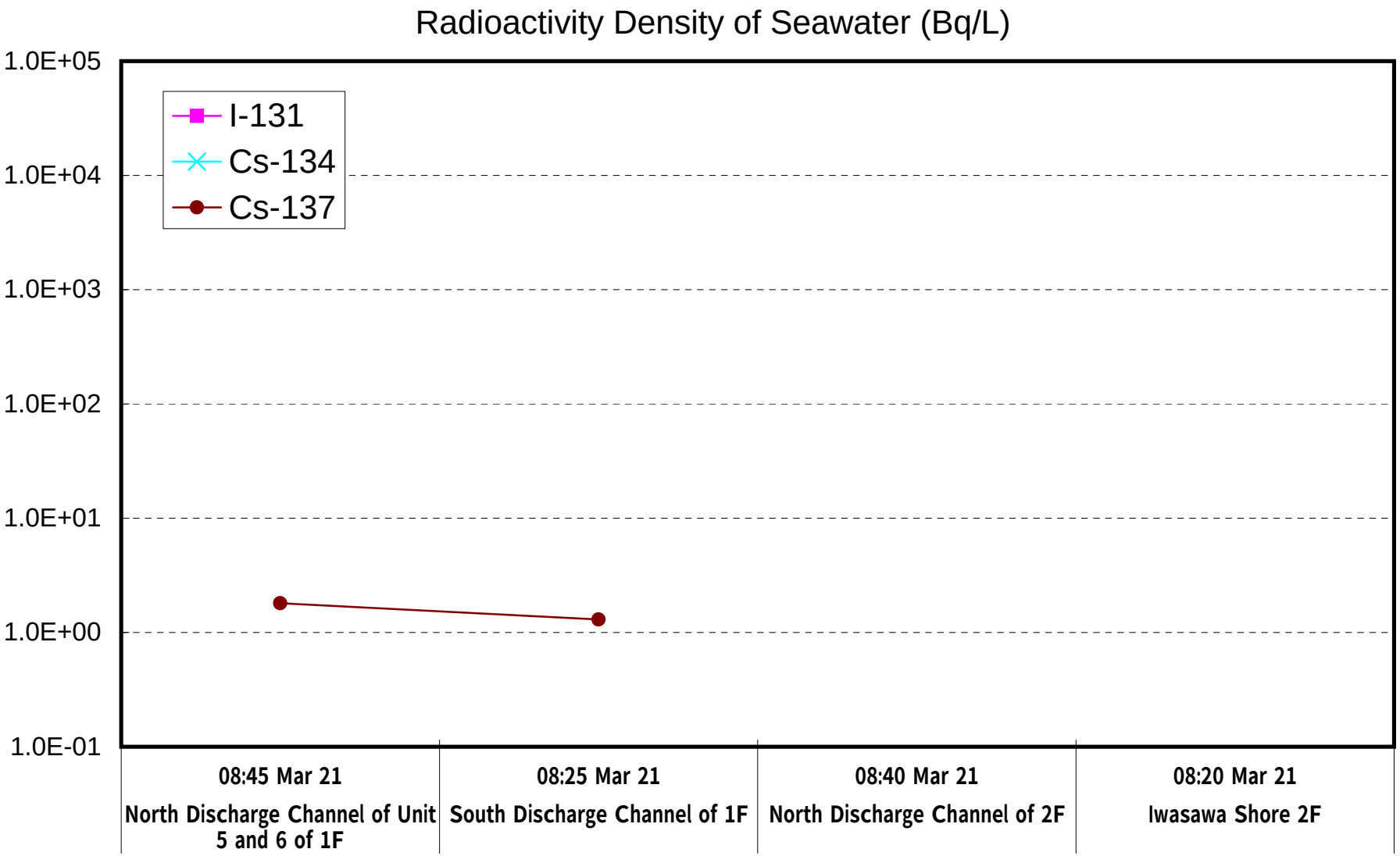
Place of Sampling	15 km offshore of Fukushima Daiichi Upper Layer		15 km offshore of Fukushima Daini Upper Layer		② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Mar 20, 2012 09:05 am		Mar 20, 2012 08:40 am		
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (about 8 days)	ND	-	ND	-	40
Cs-134 (about 2 years)	ND	-	0.30	0.01	60
Cs-137 (about 30 years)	ND	-	ND	-	90
Mn-54 (approx.310days)	ND	-	ND	-	1,000
Co-60 (approx.5yrs)	ND	-	ND	-	200
Ce-144 (約280日)	ND	-	ND	-	Jul 18, 1900

*　Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm3 to Bq/L.

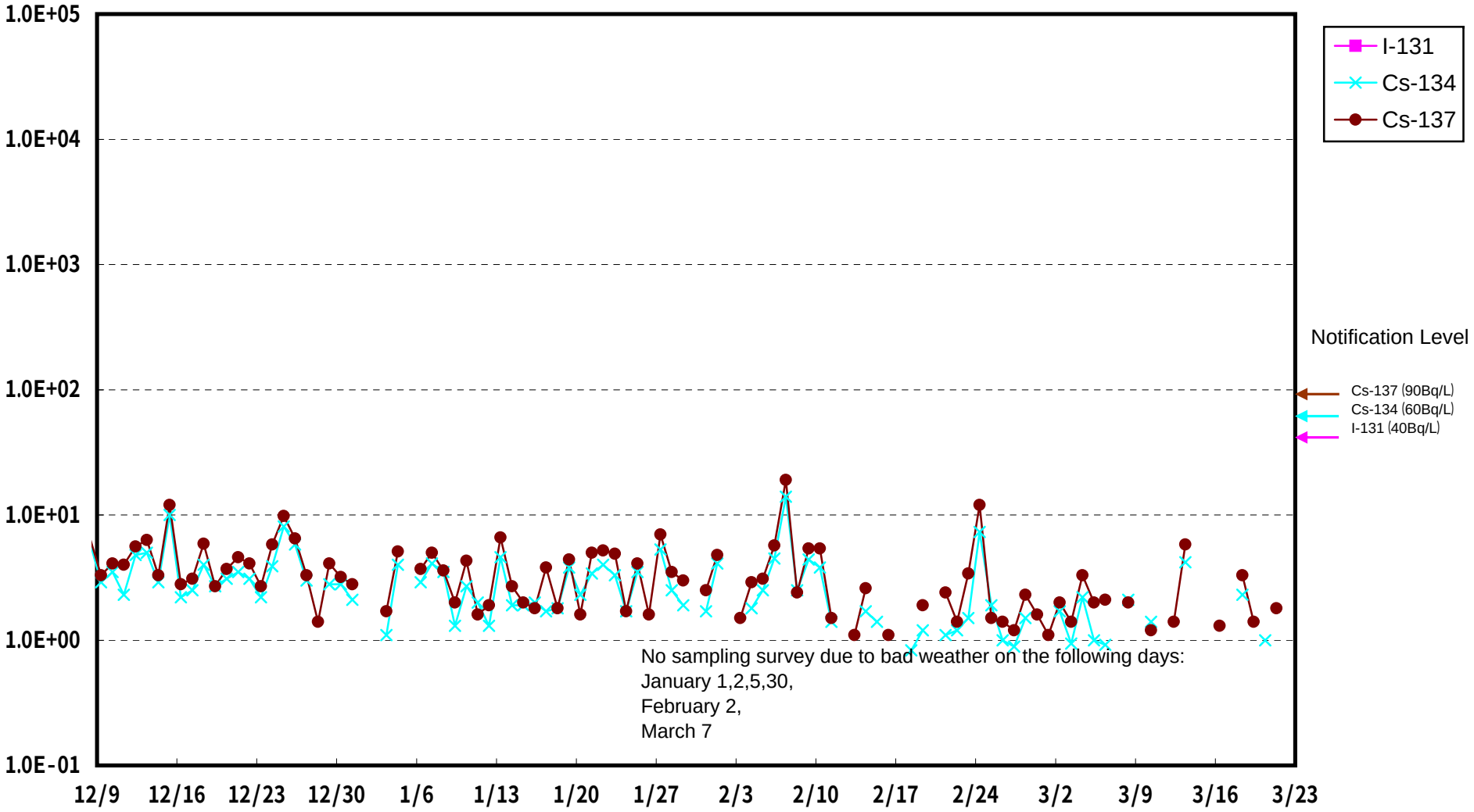
* Data of other nuclides are under evaluation.

* In the case that two or more kinds of nuclides exist, sum of each scaling factor to the density limit is compared with 1.

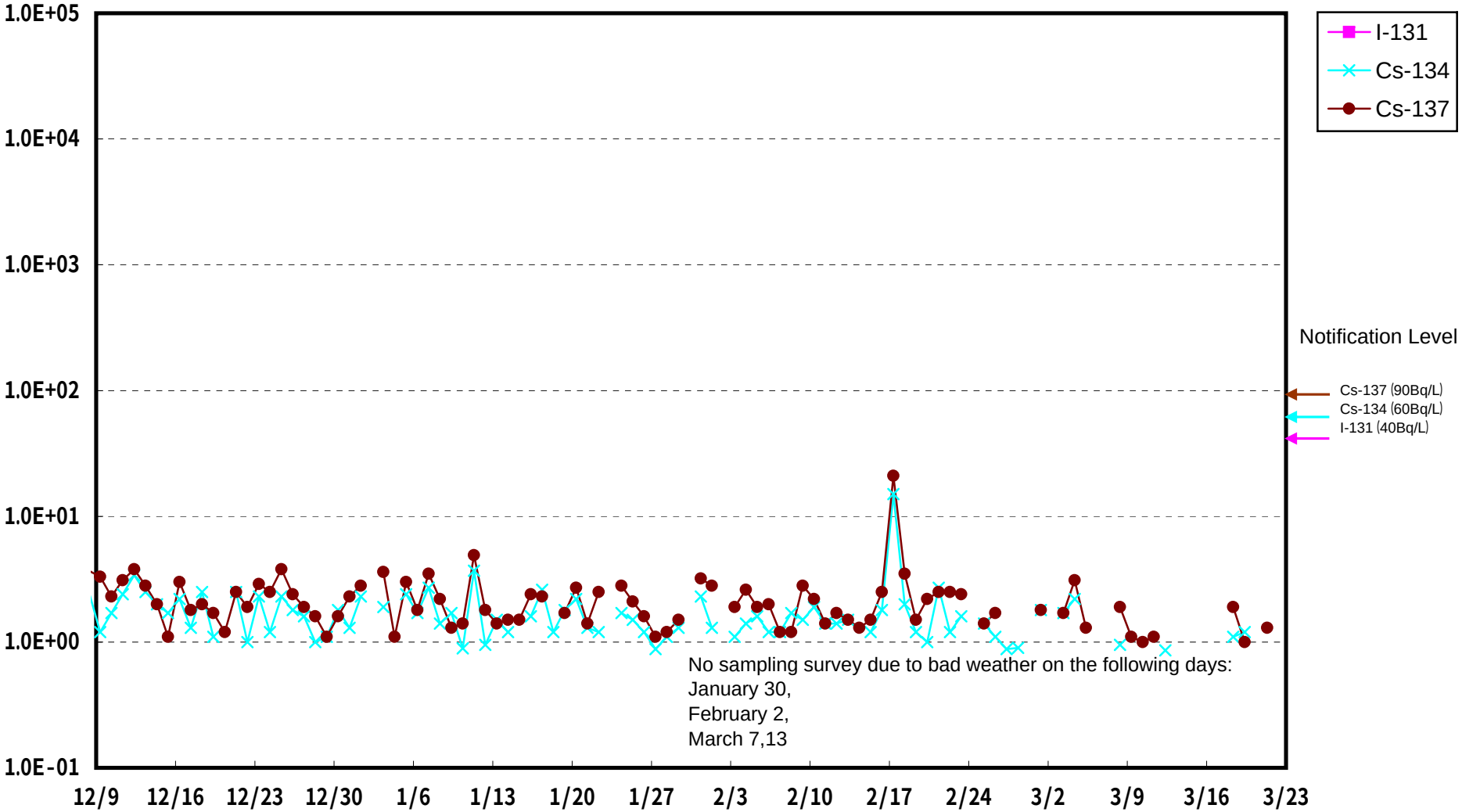
* "ND" means the sampled data is below measurable limit. I-131: approx. 0.15Bq/L, Cs-134: approx. 0.25Bq/L, Cs-137: approx. 0.30Bq/L,　Mn-54: approx. 0.11Bq/L, Co-60: approx. 0.12Bq/L, Ce-144: approx. 0.97Bq/L　Please note that these nuclides are sometimes detected even when they are below the limits, contingent on the detector or samples.


Radioactivity Density of Seawater (Bq/L)
1.0E+05
1.0E+04
1.0E+03
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
08:45 Mar 21
North Discharge Channel of Unit 5 and 6 of 1F
08:25 Mar 21
South Discharge Channel of 1F
08:40 Mar 21
North Discharge Channel of 2F
08:20 Mar 21
Iwasawa Shore 2F

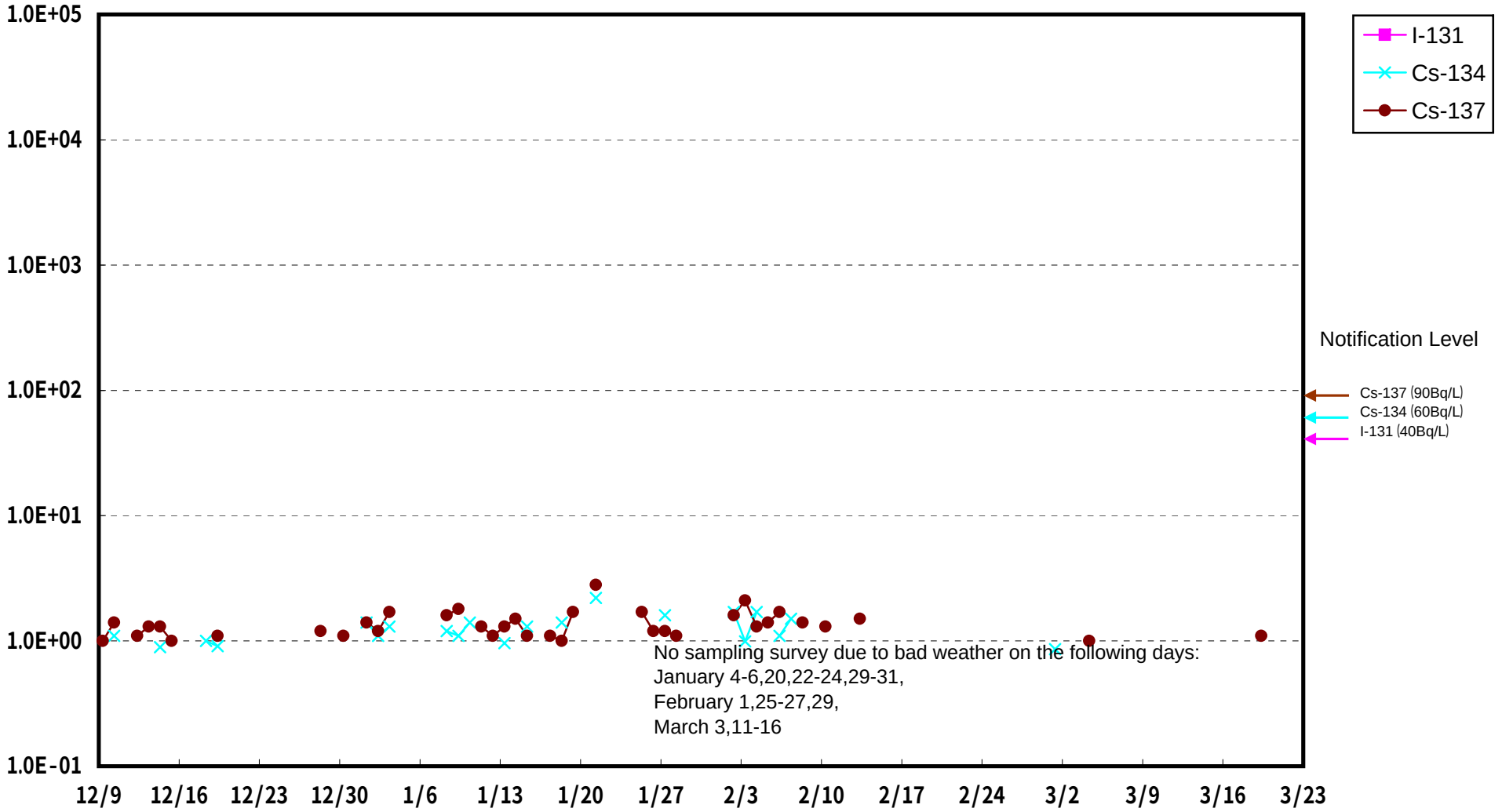
Radioactivity Density of Seawater at North of 1F5-6 Discharge Channel (Bq/L)



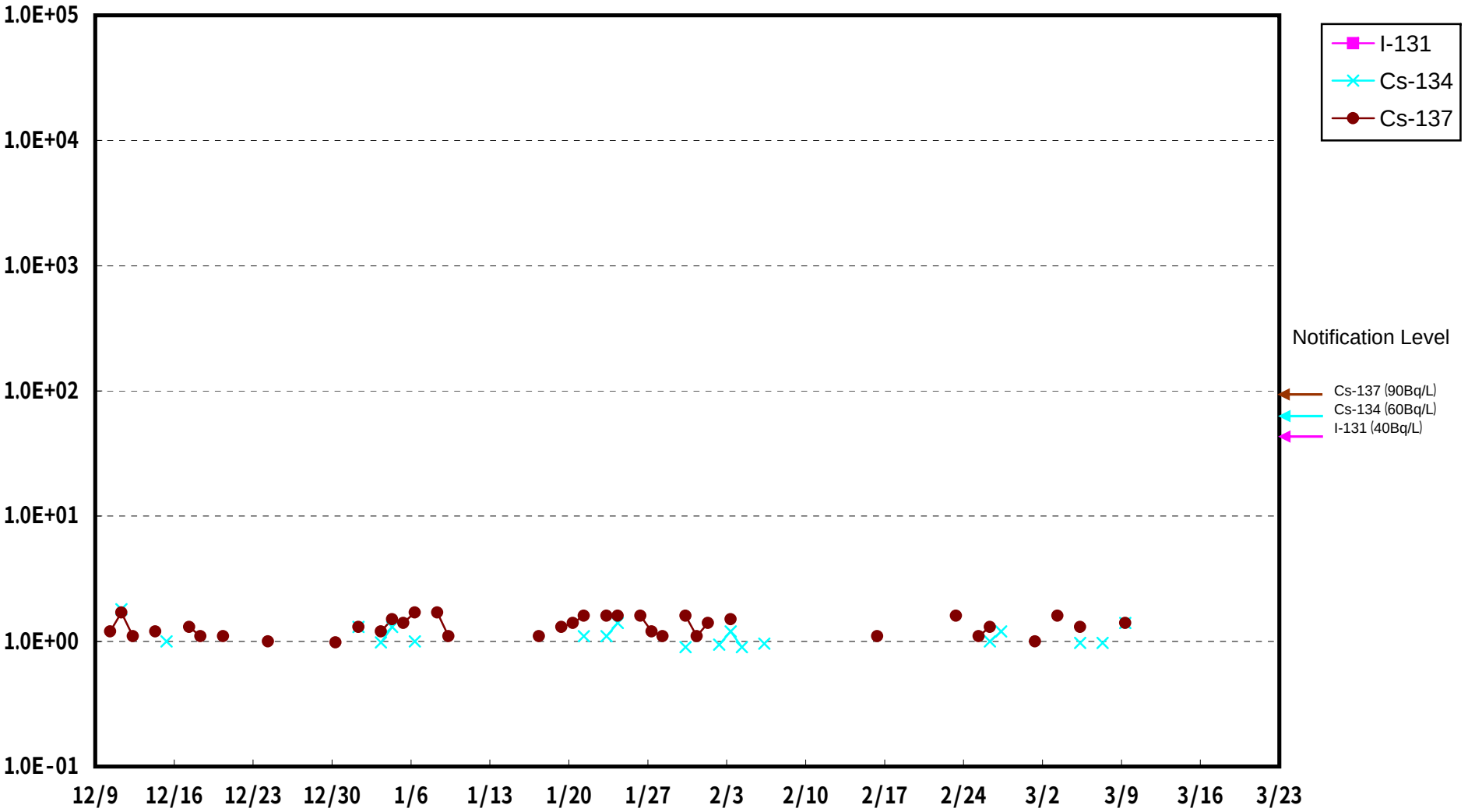
Radioactivity Density of Seawater at South Discharge Channel of 1F (Bq/L)



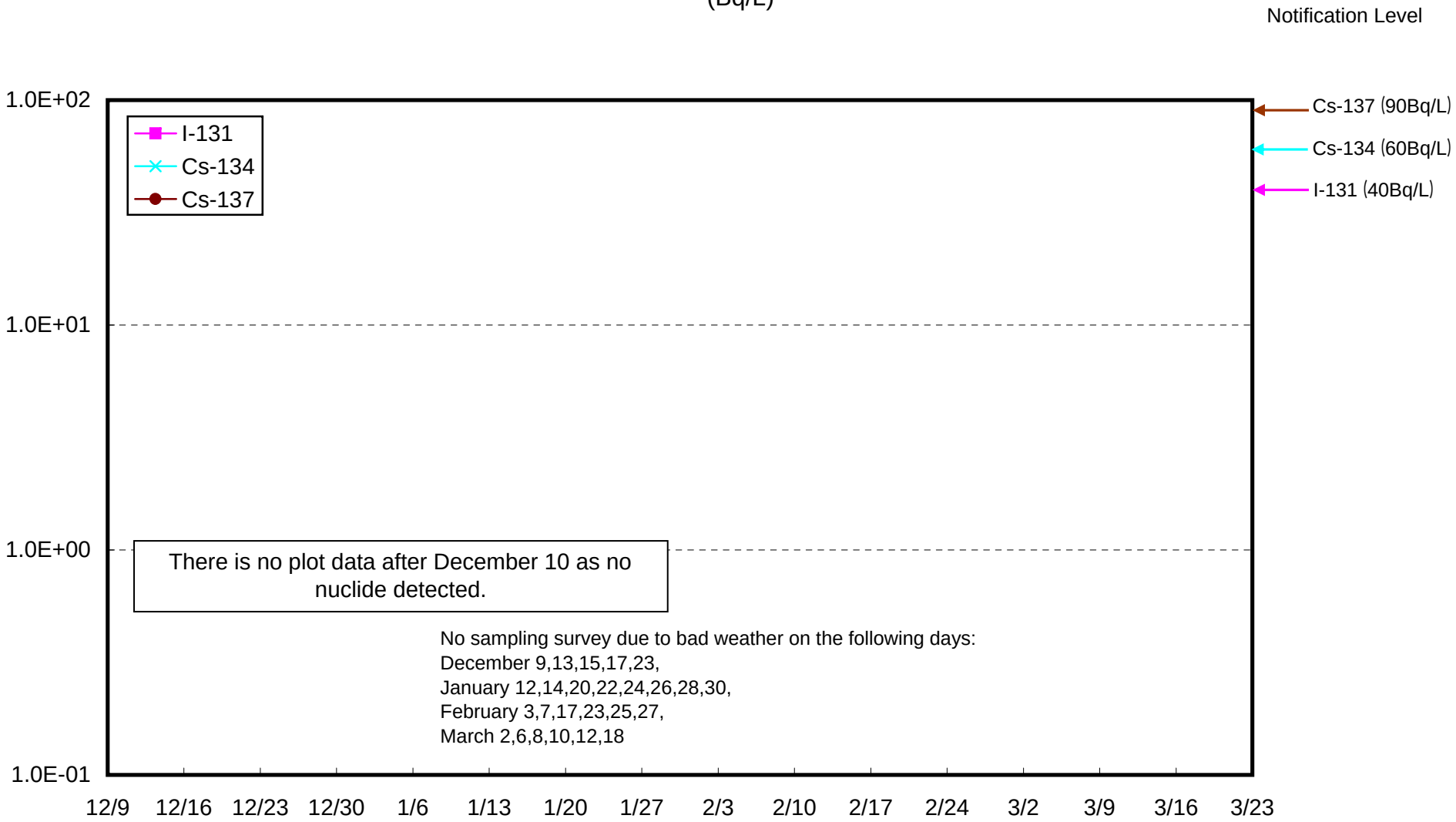
Radioactivity Density of Seawater at North Discharge Channel of 2F (Bq/L)



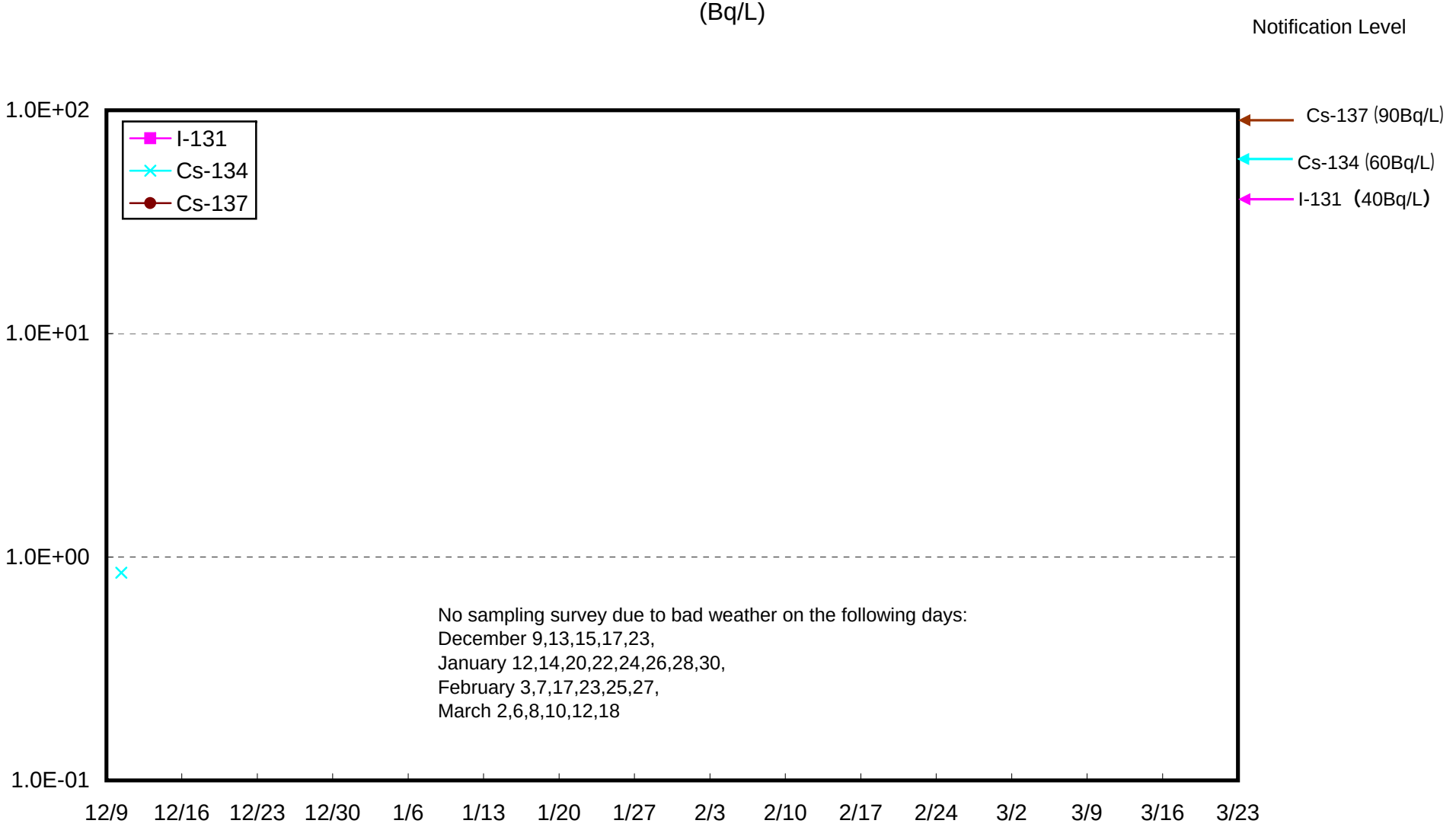
Radioactivity Density of Seawater at Iwasawa Shore 2F (Bq/L)



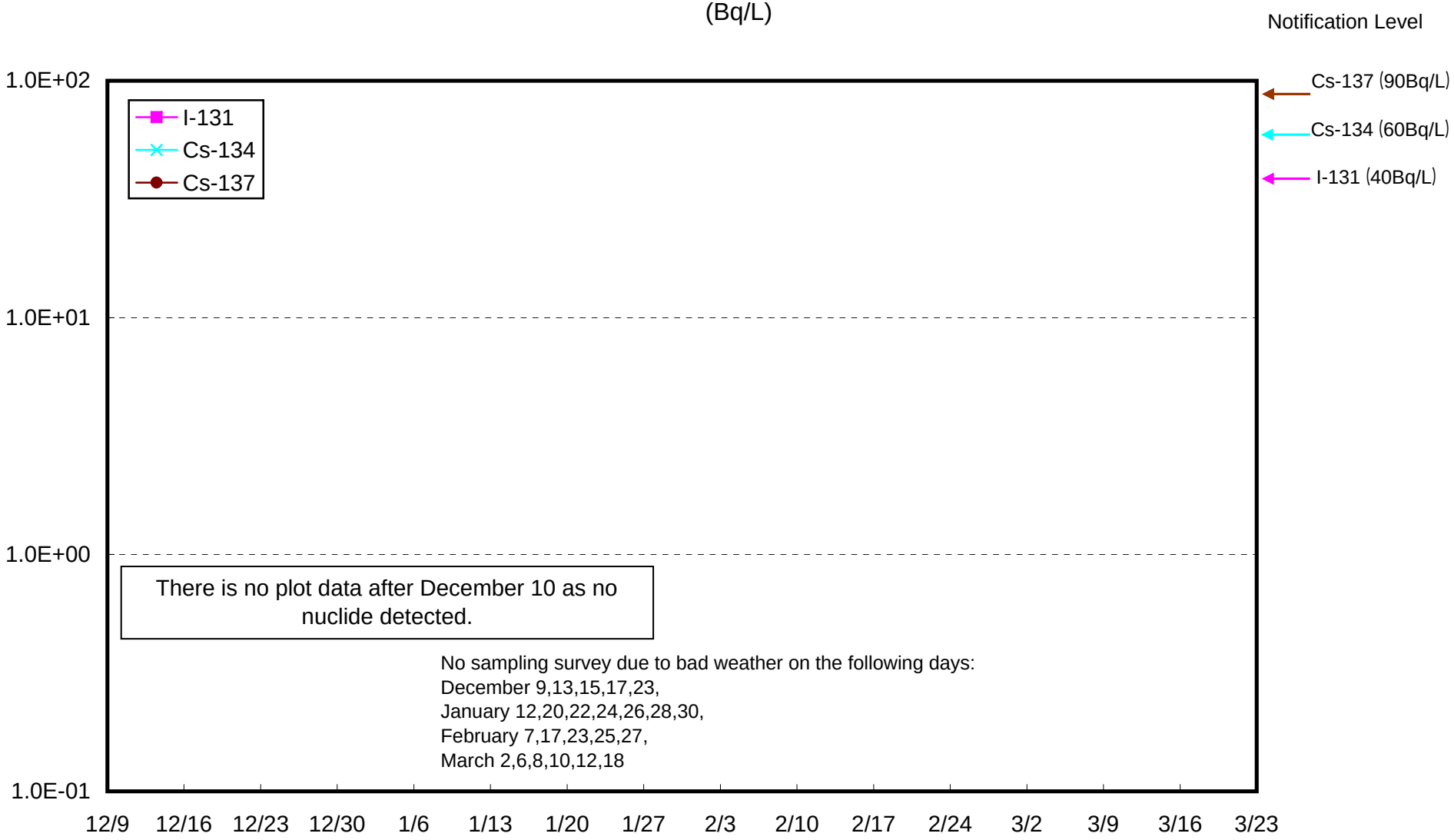
Radioactivity Density of Seawater (upper layer) around approx. 15 km offshore of Fukushima Daiichi NPS
(Bq/L)



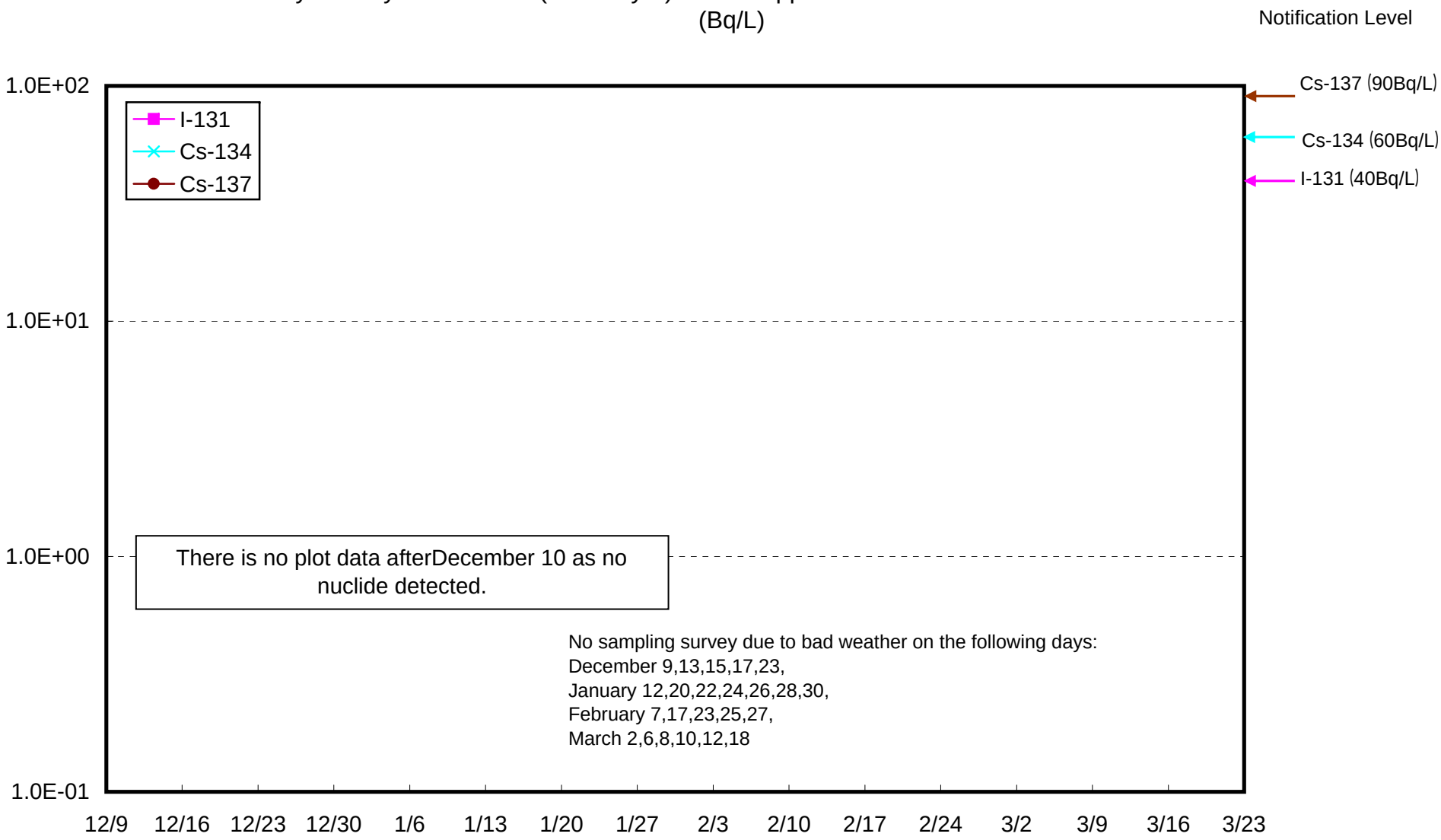
Radioactivity Density of Seawater (lower layer) around approx. 15 km offshore of Fukushima Daiichi NPS
(Bq/L)



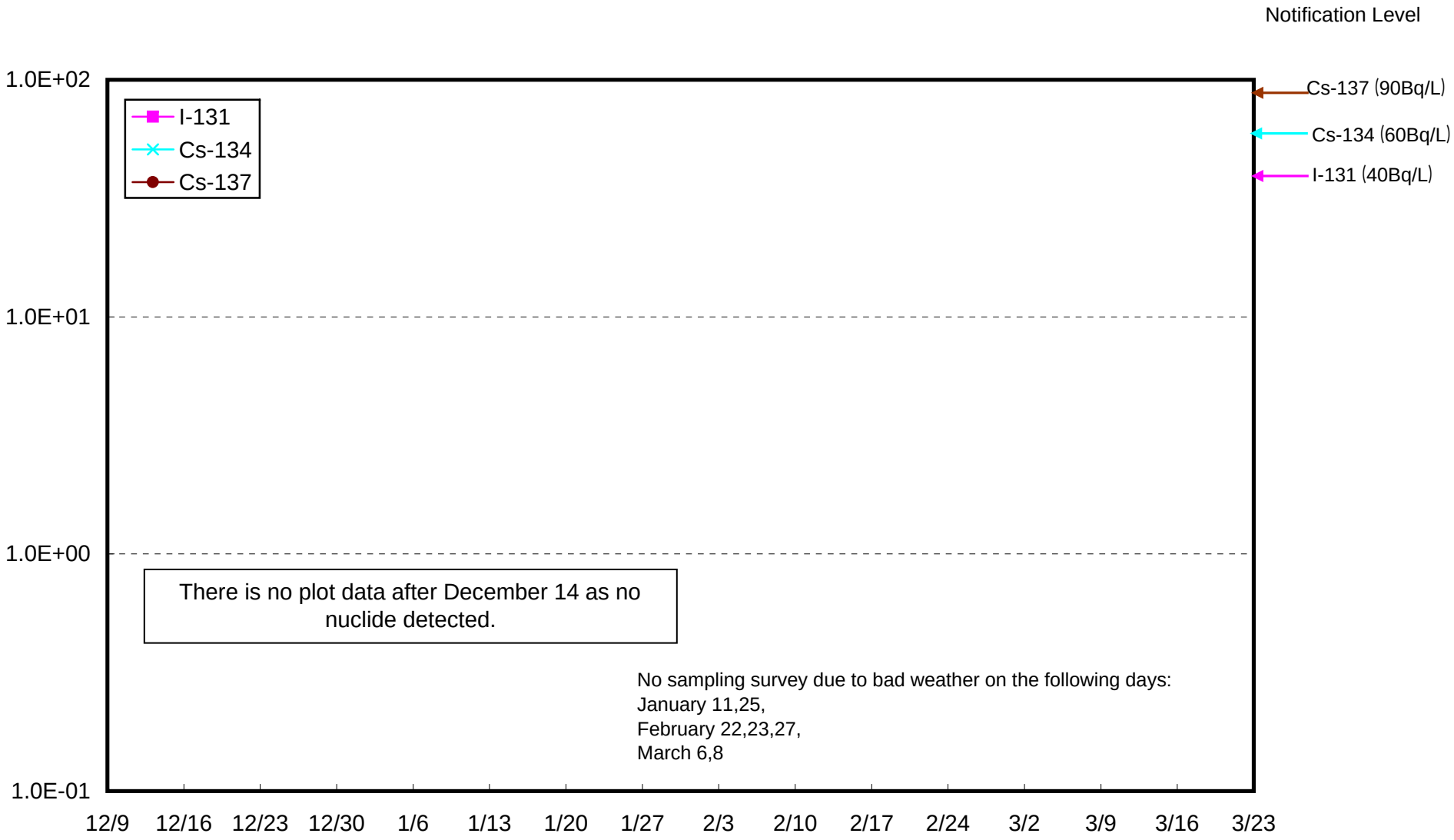
Radioactivity Density of Seawater (upper layer) around approx. 15 km offshore of Fukushima Daini NPS
(Bq/L)



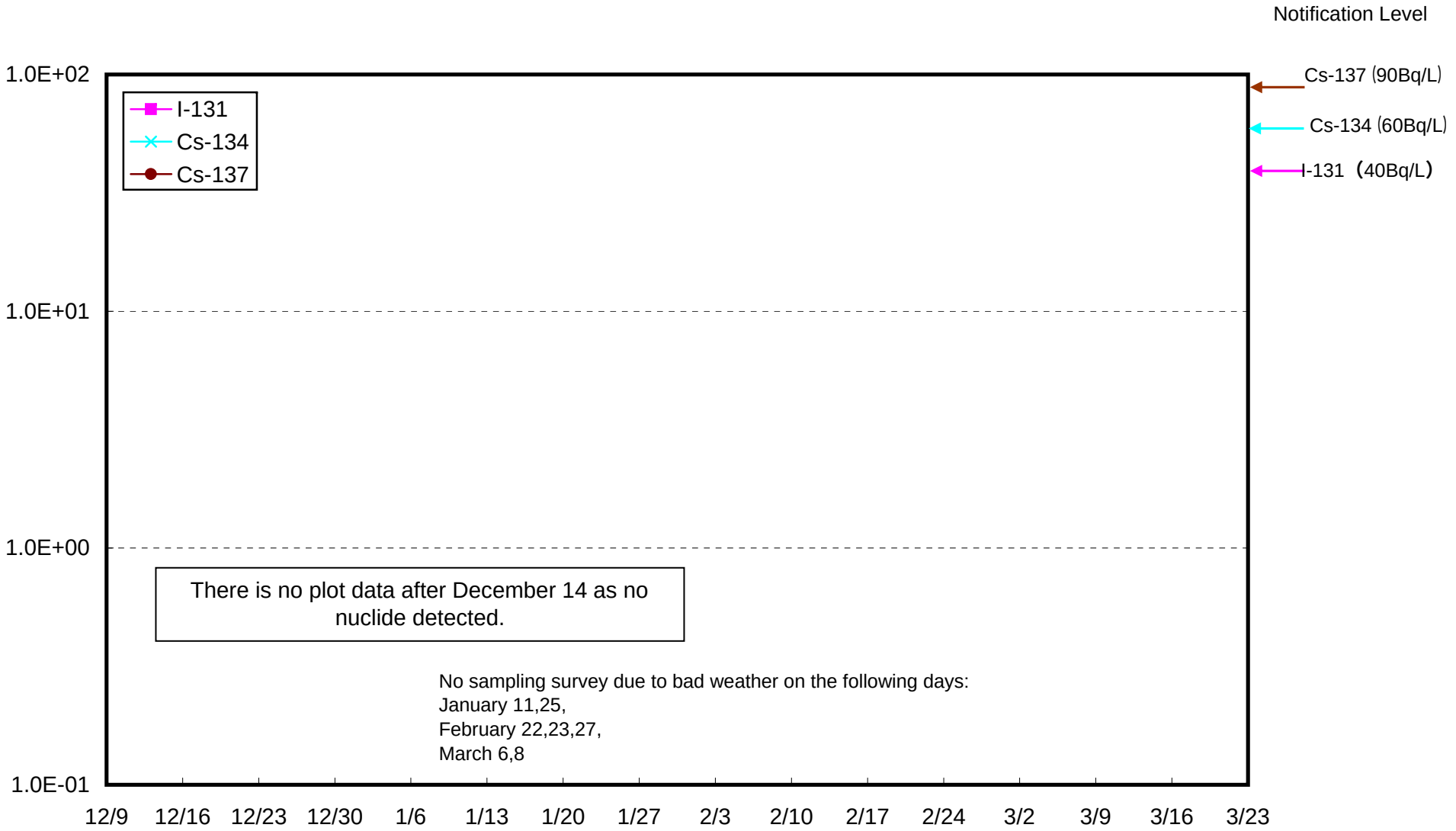
Radioactivity Density of Seawater (lower layer) around approx. 15 km offshore of Fukushima Daini NPS
(Bq/L)

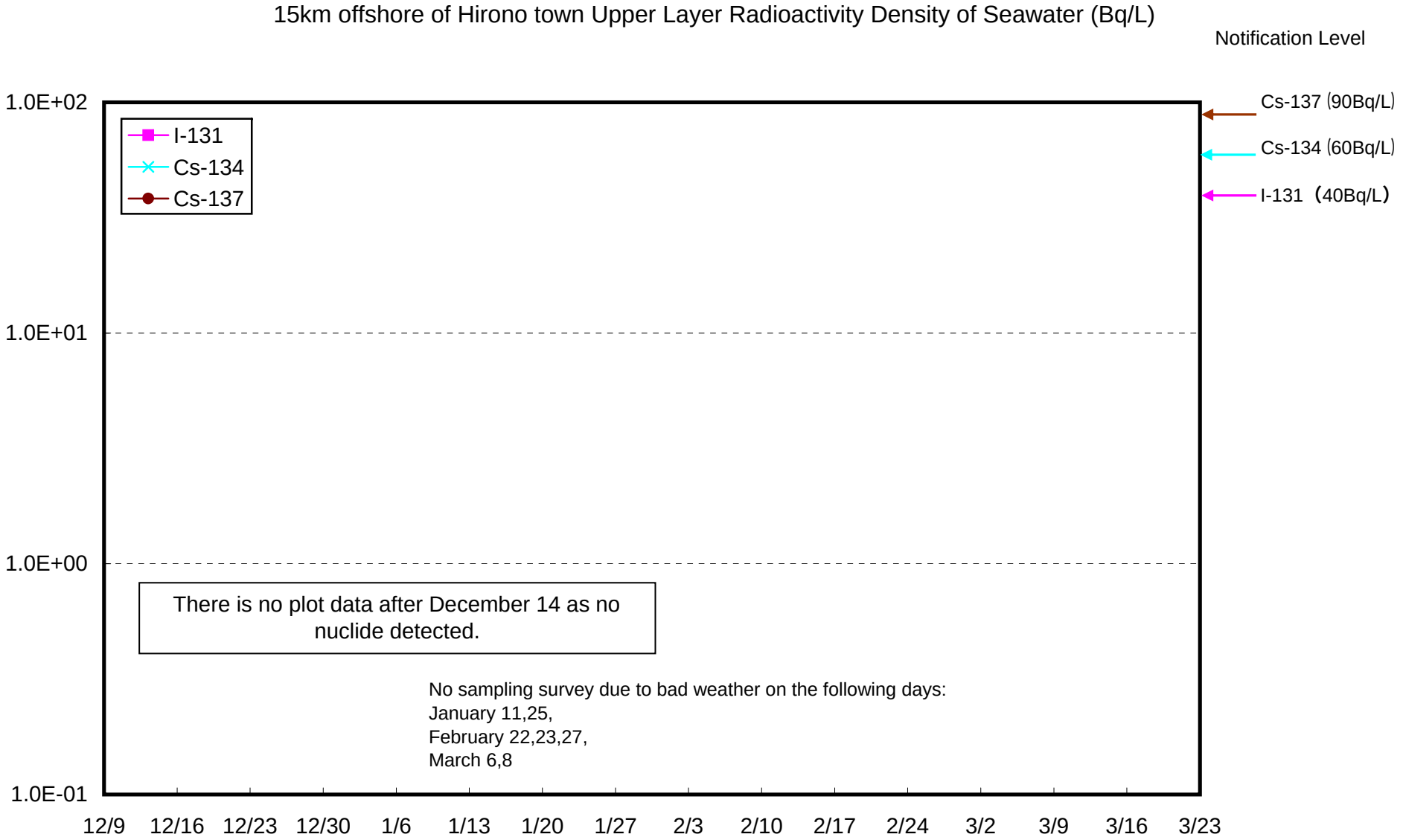


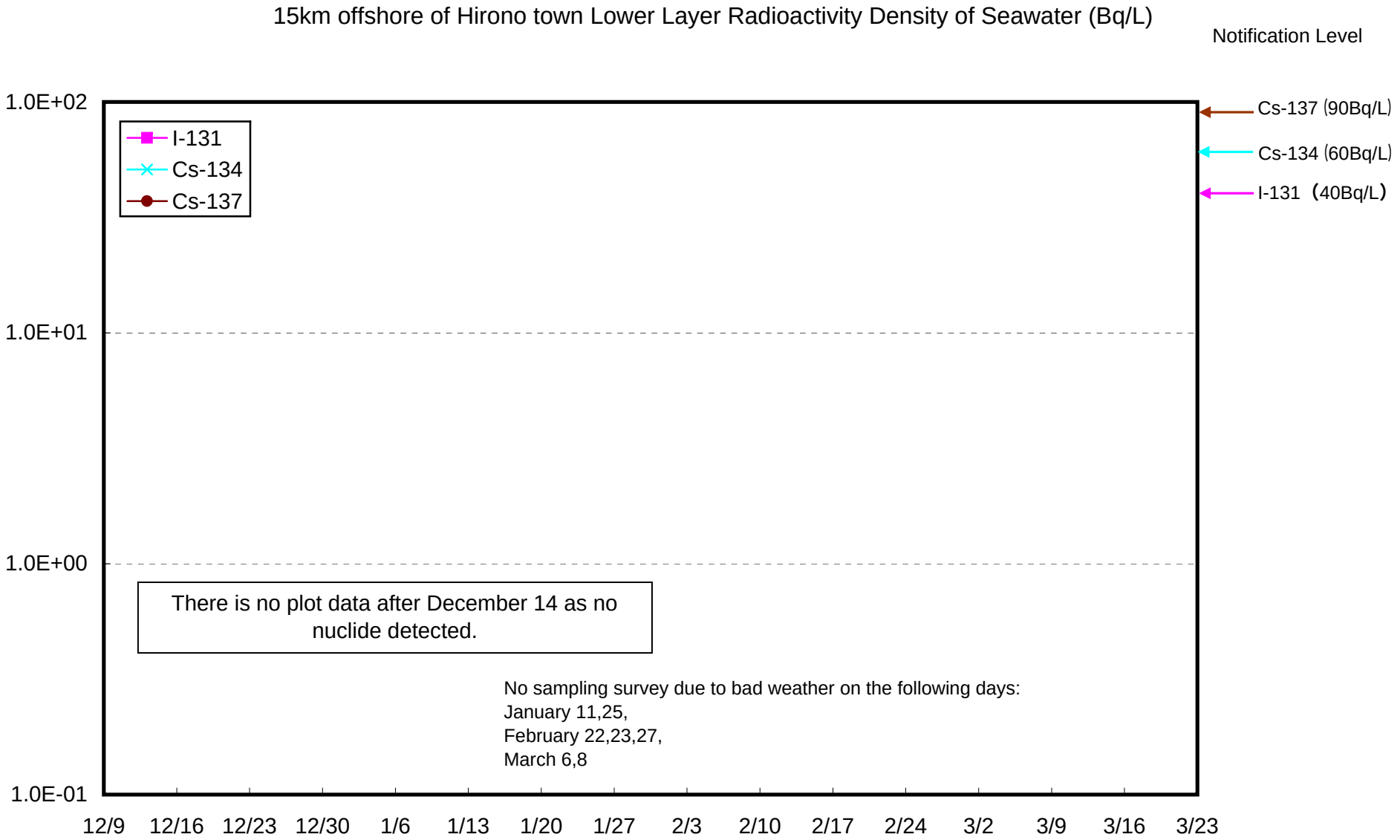
Radioactivity Density of Seawater 15km Offshore of Iwasawa Shore Upper Layer (Bq/L)



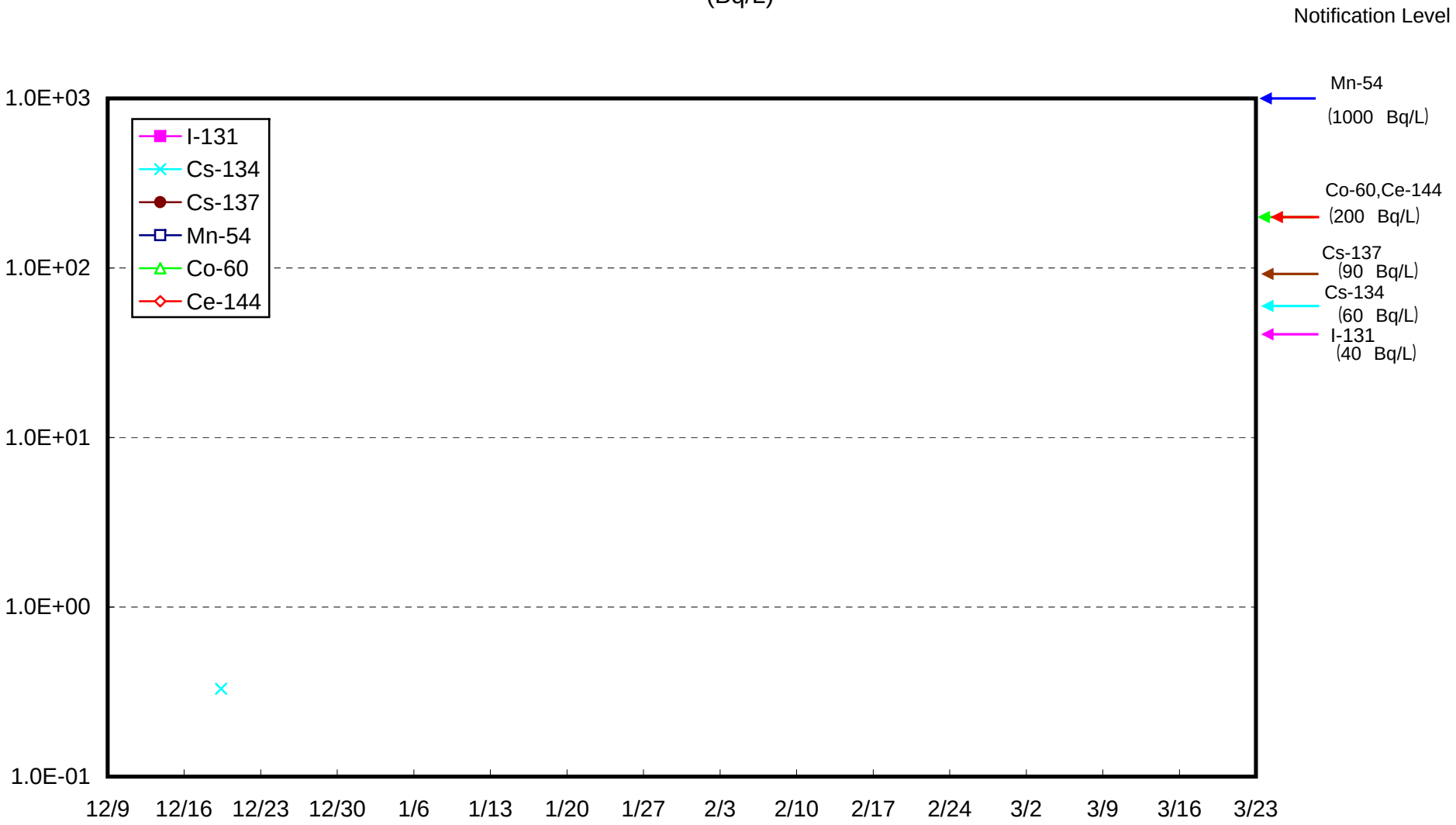
Radioactivity Density of Seawater 15km Offshore of Iwasawa Shore Lower Layer (Bq/L)




15km offshore of Hirono town Upper Layer Radioactivity Density of Seawater (Bq/L)
Notification Level
Cs-137 (90Bq/L)
Cs-134 (60Bq/L)
I-131 (40Bq/L)
I-131
Cs-134
Cs-137
1.0E+02
1.0E+01
1.0E+00
1.0E-01
There is no plot data after December 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
January 11,25,
February 22,23,27,
March 6,8
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24
3/2
3/9
3/16
3/23


15km offshore of Hirono town Lower Layer Radioactivity Density of Seawater (Bq/L)
Notification Level
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
Cs-137 (90Bq/L)
Cs-134 (60Bq/L)
I-131 (40Bq/L)
There is no plot data after December 14 as no nuclide detected.
No sampling survey due to bad weather on the following days:
January 11,25,
February 22,23,27,
March 6,8
12/9
12/16
12/23
12/30
1/6
1/13
1/20
1/27
2/3
2/10
2/17
2/24
3/2
3/9
3/16
3/23

Radioactivity Density of Seawater 15km offshore of Fukushima Daiichi NPS Upper Layer Re-examination
(Bq/L)



Radioactivity Density of Seawater 15km offshore of Fukushima Daini NPS Upper Layer Re-examination
(Bq/L)