Nuclide Analysis Results of Radioactive Materials in Seawater <Coast>

Reference

(Data summarized on March 7)

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 06, 2012 08:40 am		Mar 06, 2012 08:20 am		Mar 06, 2012 08:20 am		Mar 06, 2012 08:00 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)	0.92	0.02	ND	-	ND	-	ND	-	60
Cs-137 (about 30 years)	2.1	0.02	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. 0.63Bq/L, Cs-134: approx. 0.86Bq/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.

Nuclide Analysis Results of Radioactive Materials in Seawater <Offshore 1/3>

Reference

(Data summarized on March 7)

Place of Sampling	3 km offshore of Haramachi Ward Upper Layer		3 km offshore of Haramachi Ward Lower Layer		3 km offshore of Odaka Ward Upper Layer		3 km offshore of Odaka Ward Lower Layer		3 km offshore of Iwasawa shore Upper Layer		3 km offshore of Iwasawa shore 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 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		
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)	-	-	-	-	-	-	-	-	-	-	-	-	40
Cs-134 (about 2 years)	-	-	-	-	-	-	-	-	-	-	-	-	60
Cs-137 (about 30 years)	-	-	-	-	-	-	-	-	-	-	-	-	90

Place of Sampling	8 km offshore of Odaka Ward Upper Layer		8 km offshore of Odaka Ward Lower Layer		8 km offshore of Iwasawa shore Upper Layer		8 km offshore of Iwasawa shore 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 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)						
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)	-	-	-	-	-	-	-	-					40
Cs-134 (about 2 years)	-	-	-	-	-	-	-	-					60
Cs-137 (about 30 years)	-	-	-	-	-	-	-	-					90

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

(Not sampled in 9 locations out of 12 due to bad weather)

Nuclide Analysis Results of Radioactive Materials in Seawater <Offshore 2/3>

Reference

(Data summarized on March 7)

Place of Sampling	3 km offshore of North of Iwaki Upper Layer		3 km offshore of North of Iwaki Lower Layer		3 km offshore of Natsui river Upper Layer		3 km offshore of Natsui river Lower Layer		3 km offshore of Onahama port Upper Layer		3 km offshore of Onahama port 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 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		N/A		N/A		
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)	-	-	-	-	-	-	-	-	-	-	-	-	40
Cs-134 (about 2 years)	-	-	-	-	-	-	-	-	-	-	-	-	60
Cs-137 (about 30 years)	-	-	-	-	-	-	-	-	-	-	-	-	90

Place of Sampling	3 km offshore of Ena Upper Layer		3 km offshore of Ena Lower Layer		3 km offshore of Numanouchi Upper Layer		3 km offshore of Numanouchi Lower Layer		3 km offshore of Toyoma Upper Layer		3 km offshore of Toyoma 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	N/A		N/A		Mar 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		Mar 05, 2012 (Not sampled)		
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)	-	-	-	-	-	-	-	-	-	-	-	-	40
Cs-134 (about 2 years)	-	-	-	-	-	-	-	-	-	-	-	-	60
Cs-137 (about 30 years)	-	-	-	-	-	-	-	-	-	-	-	-	90

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

(Not sampled in 9 locations out of 12 due to bad weather)

Nuclide Analysis Results of Radioactive Materials in Seawater <Offshore 3/3>

Reference

(Data summarized on March 7)

Place of Sampling	3 km offshore of Souma City Upper Layer		3 km offshore of Souma City Lower Layer		5 km offshore of Souma City Upper Layer		5 km offshore of Souma City Lower Layer		5 km offshore of Kashima Upper Layer		5 km offshore of Kashima 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 05, 2012 06:40 am		Mar 05, 2012 06:40 am		Mar 05, 2012 06:50 am		Mar 05, 2012 06:50 am		Mar 05, 2012 07:10 am		Mar 05, 2012 07:10 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

Place of Sampling	5km Offshore of Numanouchi Upper Layer		5km Offshore of Numanouchi 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	N/A		N/A										
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)	-	-	-	-									40
Cs-134 (about 2 years)	-	-	-	-									60
Cs-137 (about 30 years)	-	-	-	-									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. 0.98Bq/L, Cs-134: approx. 0.88Bq/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.

(Not sampled in 9 locations out of 12 due to bad weather)

Result of Pu Analysis of Seawater

1. Place of Sampling：

   North Discharge Channel of Unit 5 and 6 of Fukushima Daiichi Nuclear Power Station

   Around South Discharge Channel of Fukushima Daiichi Nuclear Power Station

   Upper Layer around approx. 15km offshore of Fukushima Daiichi Nuclear Power Station

   Upper Layer around approx. 15km offshore of Fukushima Daini Nuclear Power Station

2. Analysis Institute：Japan Chemical Analysis Center

3. Result of Measurement：

(Unit：Bq/L)

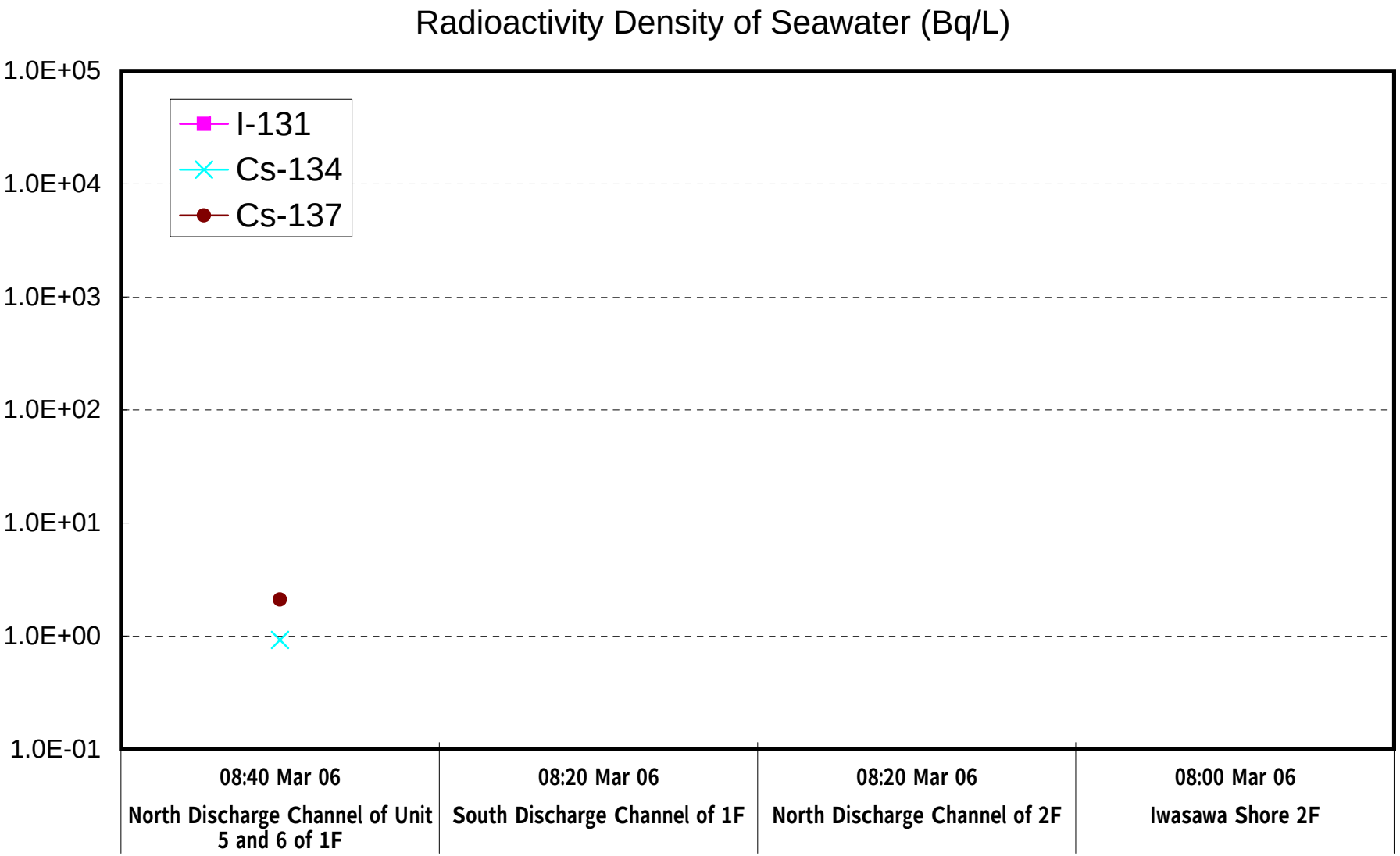
Place of Sampling	Date	Pu-238	Pu-239,Pu-240
North Discharge Channel of Unit 5 and 6 of 1F	2/13	N.D. [$<4.7\times10^{-4}$]	N.D. [$<4.9\times10^{-4}$]
Around South Discharge Channel of 1F		N.D. [$<5.3\times10^{-4}$]	N.D. [$<5.3\times10^{-4}$]
Upper Layer around approx. 15km offshore of 1F	2/15	N.D. [$<6.0\times10^{-6}$]	N.D. [$<5.4\times10^{-6}$]
Upper Layer around approx. 15km offshore of 2F		N.D. [$<5.4\times10^{-6}$]	N.D. [$<5.7\times10^{-6}$]

The value inside [ ] means detection limit.

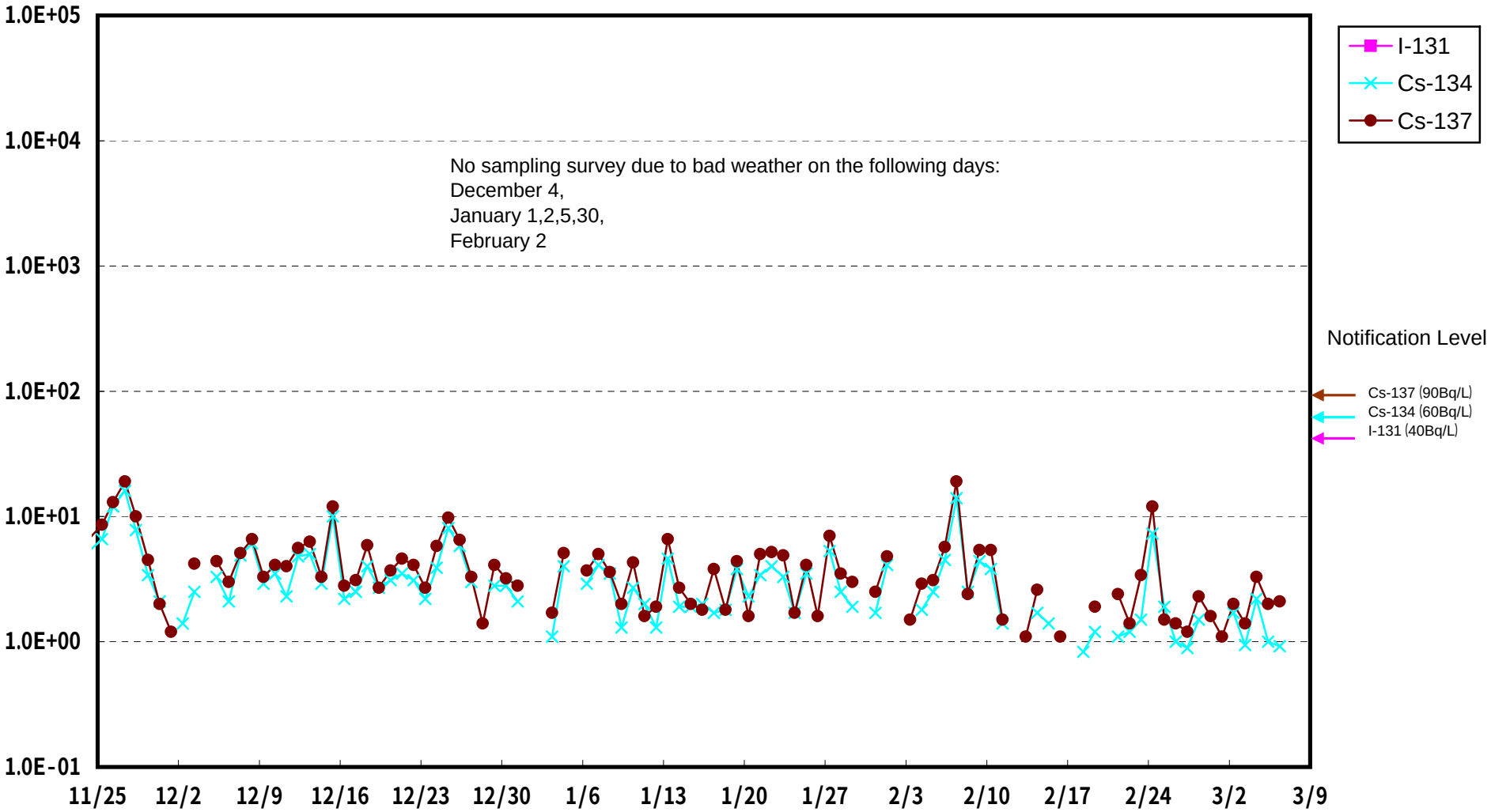
4. Evaluation:

Pu-238, Pu-239, Pu-240 were not detected in the sample collected this time

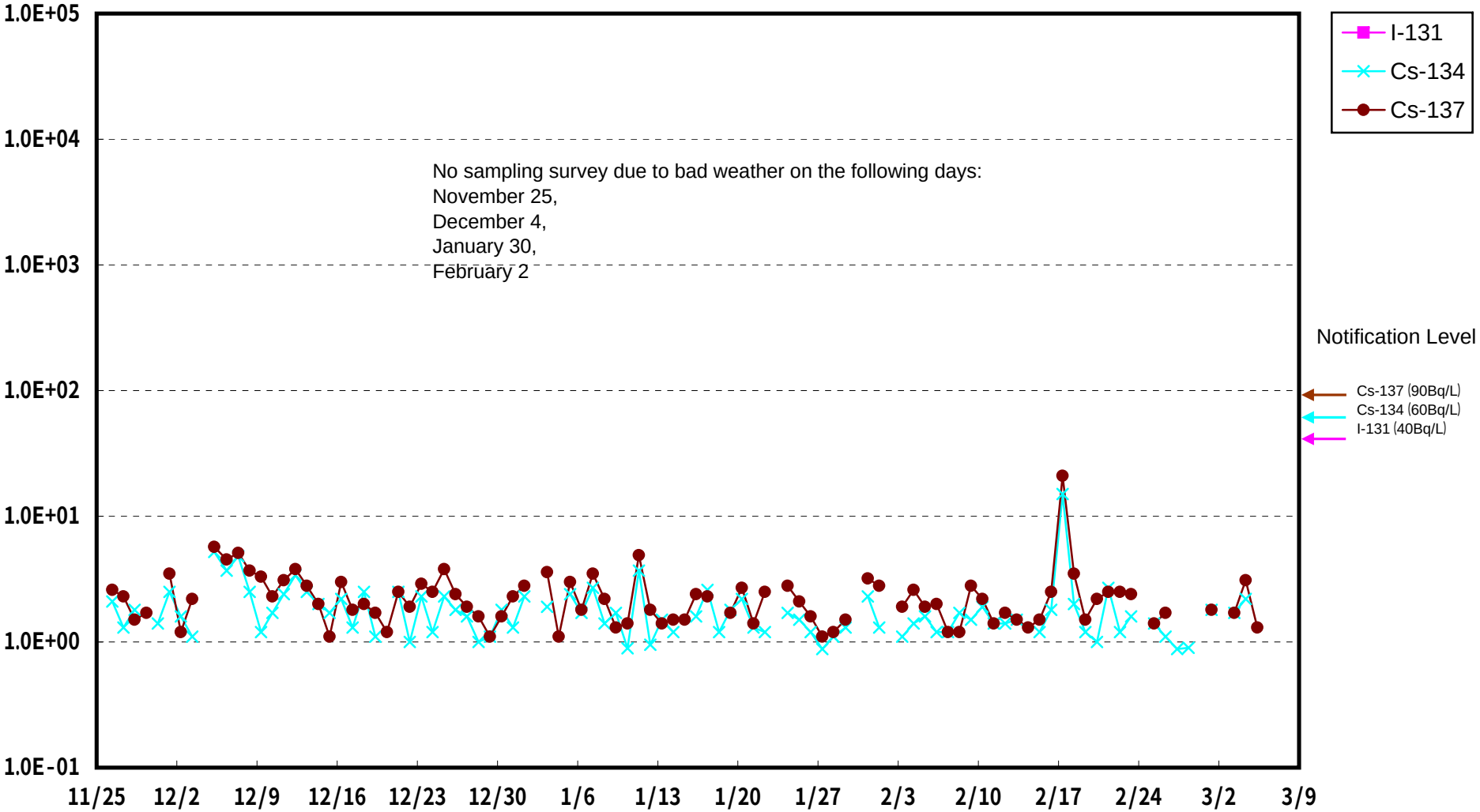
End


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
08:40 Mar 06
North Discharge Channel of Unit 5 and 6 of 1F
08:20 Mar 06
South Discharge Channel of 1F
08:20 Mar 06
North Discharge Channel of 2F
08:00 Mar 06
Iwasawa Shore 2F

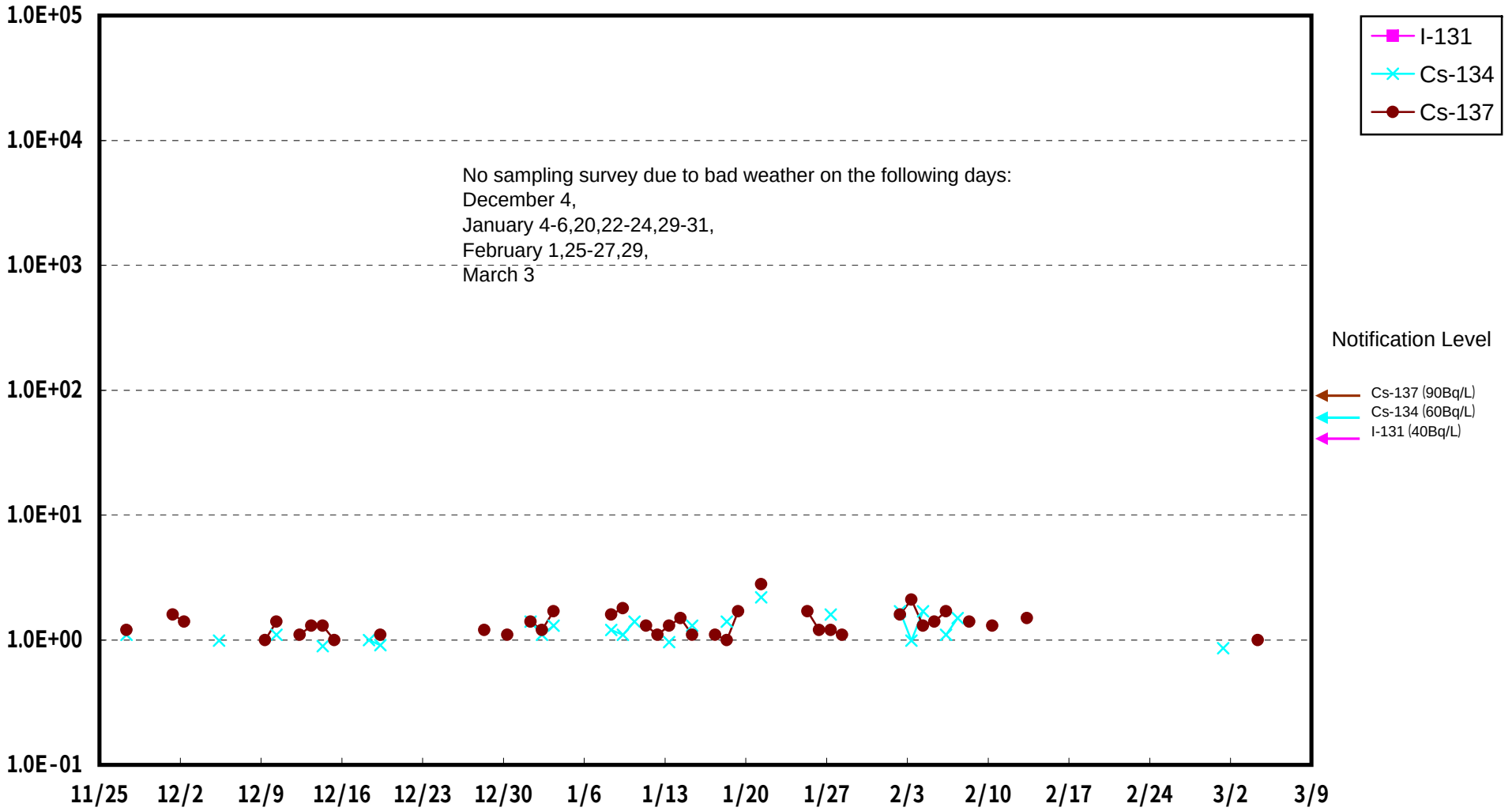
Radioactivity Density of Seawater at North of 1F5-6 Discharge Channel (Bq/L)



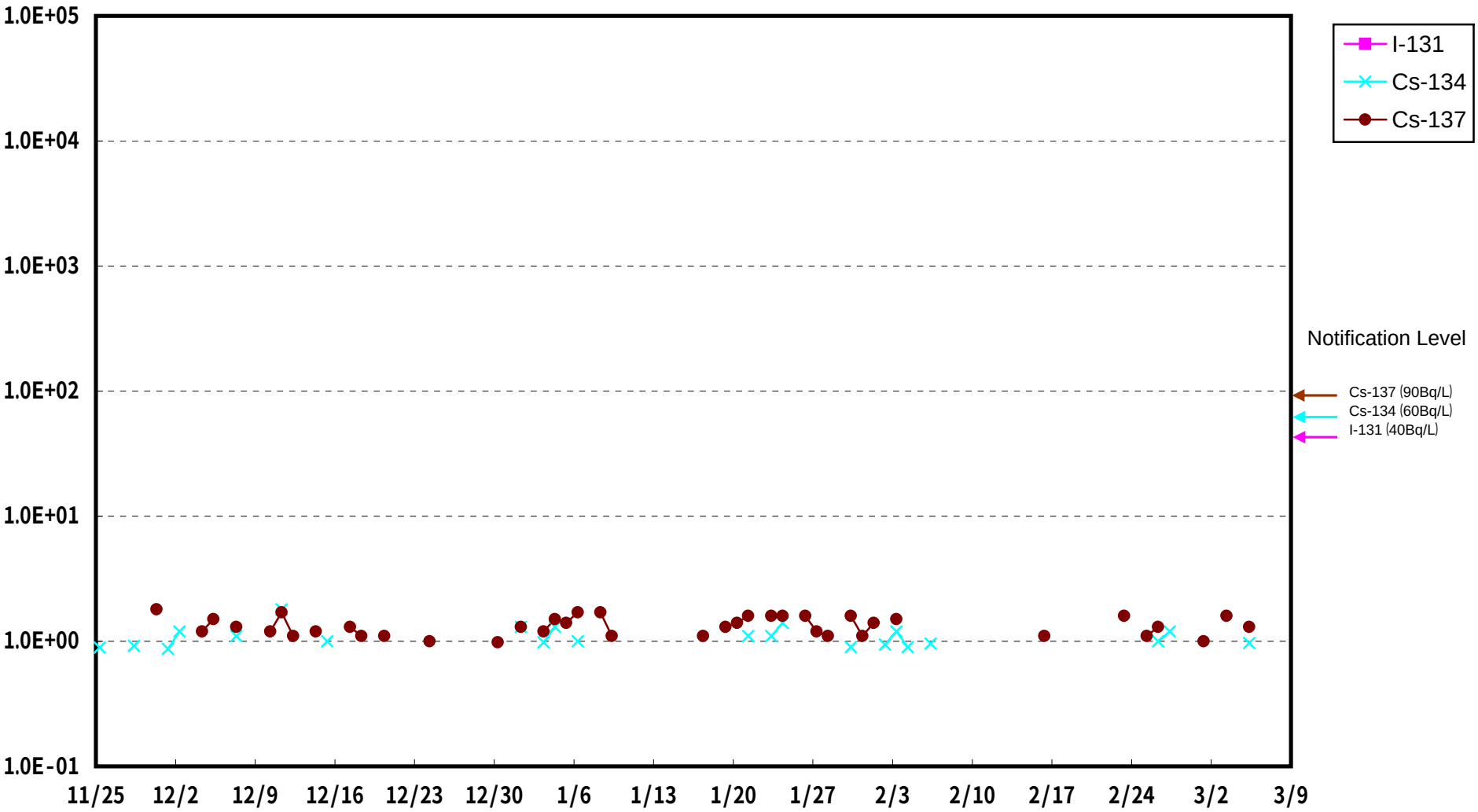
Radioactivity Density of Seawater at South Discharge Channel of 1F (Bq/L)



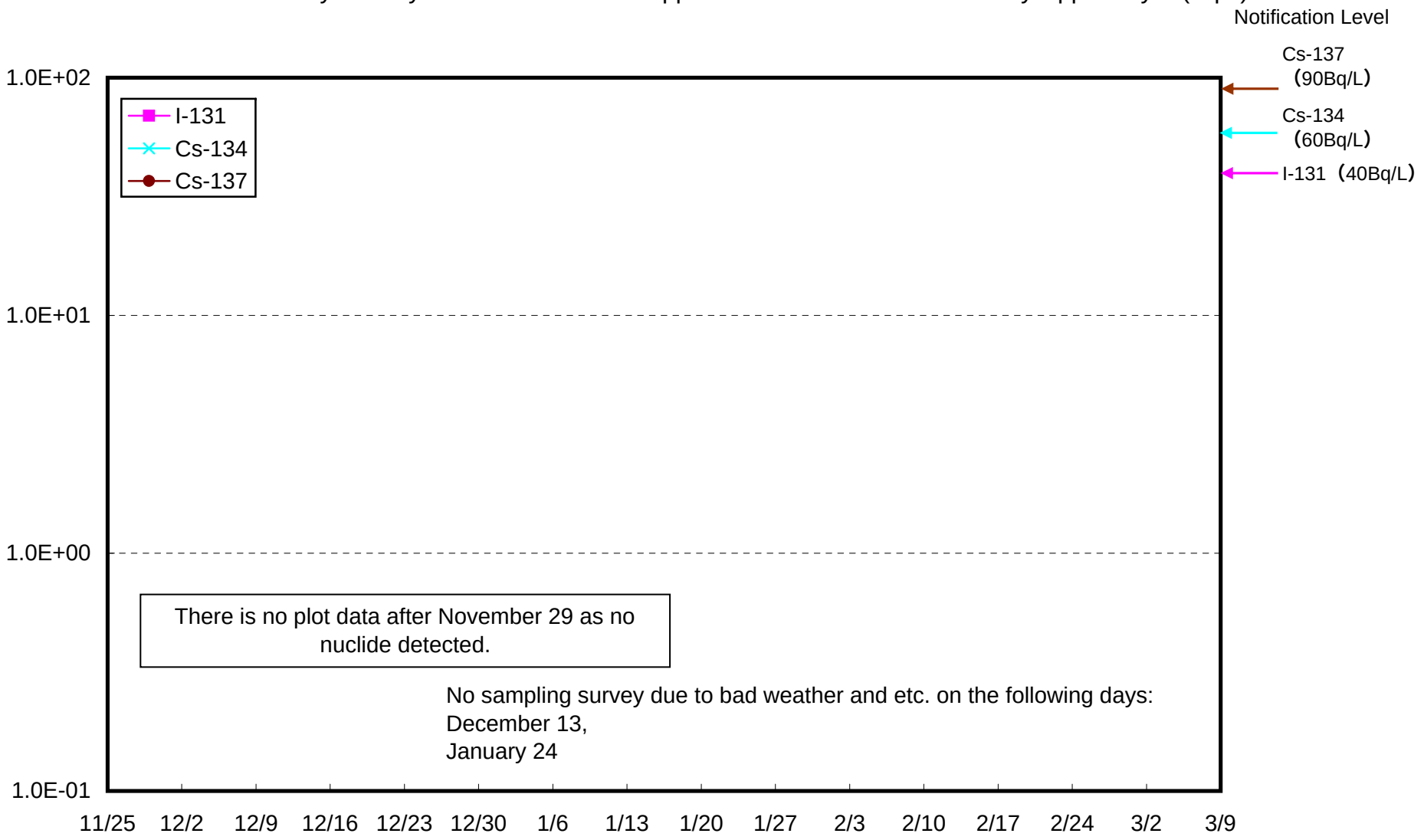
Radioactivity Density of Seawater at North Discharge Channel of 2F (Bq/L)



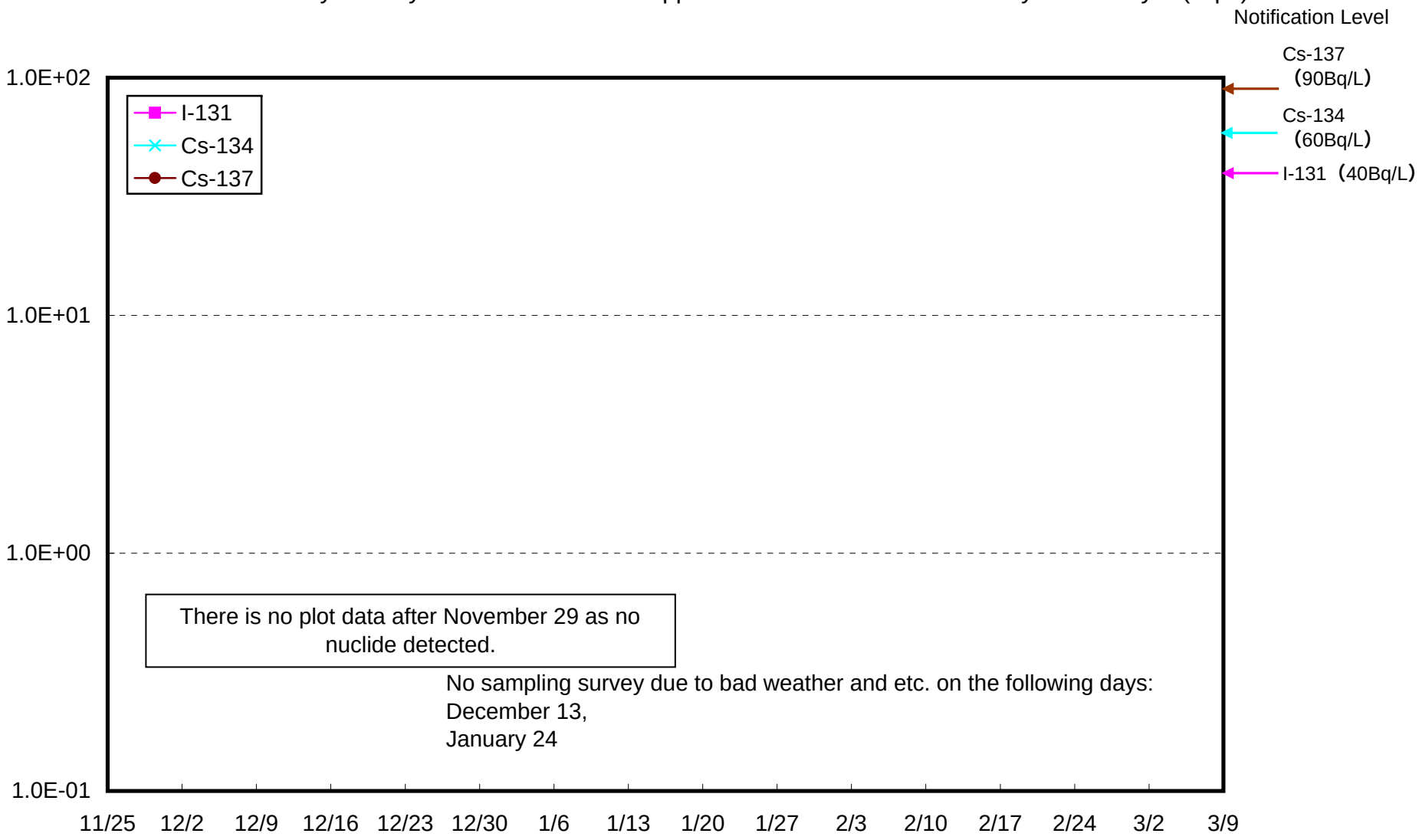
Radioactivity Density of Seawater at Iwasawa Shore 2F (Bq/L)

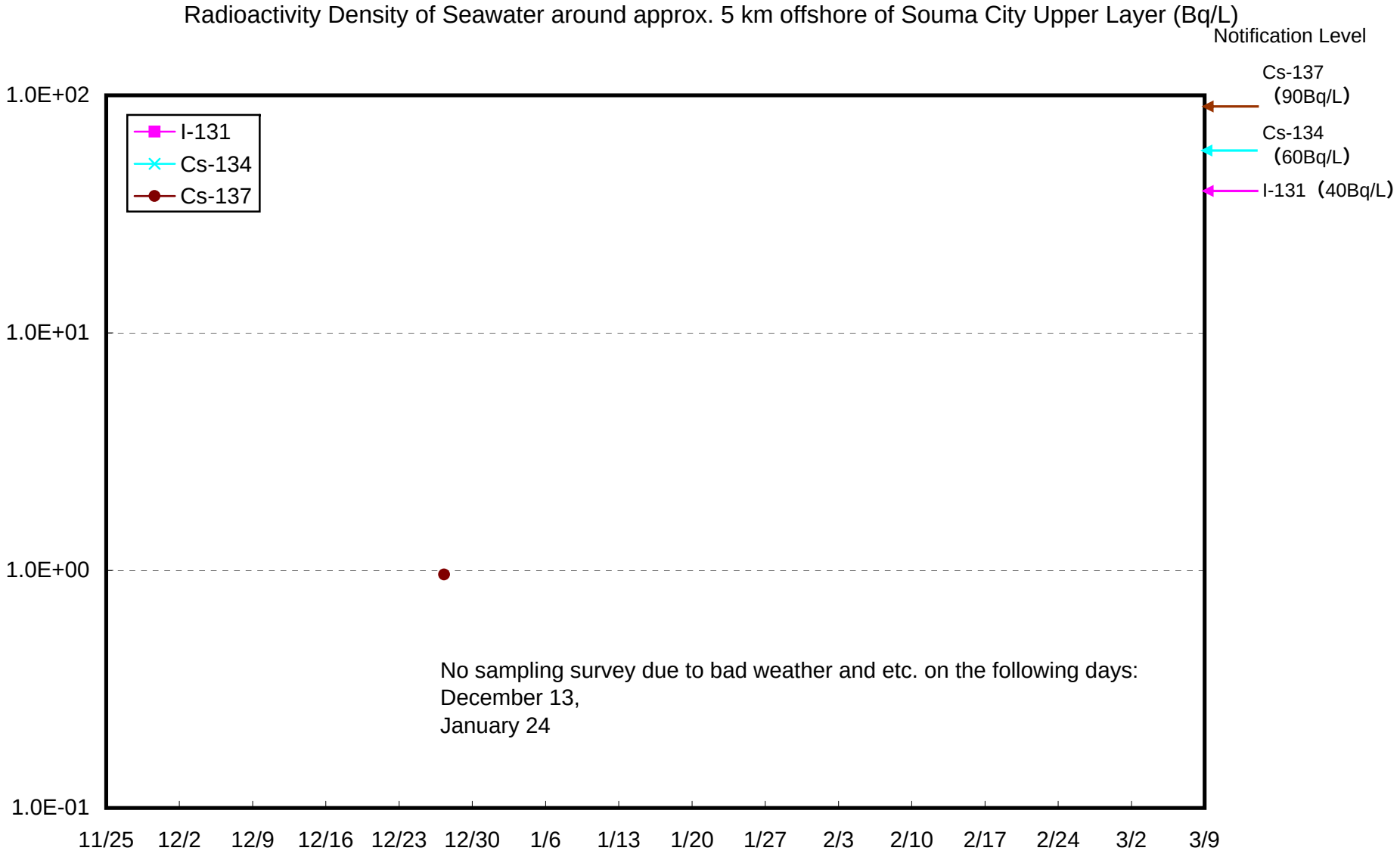


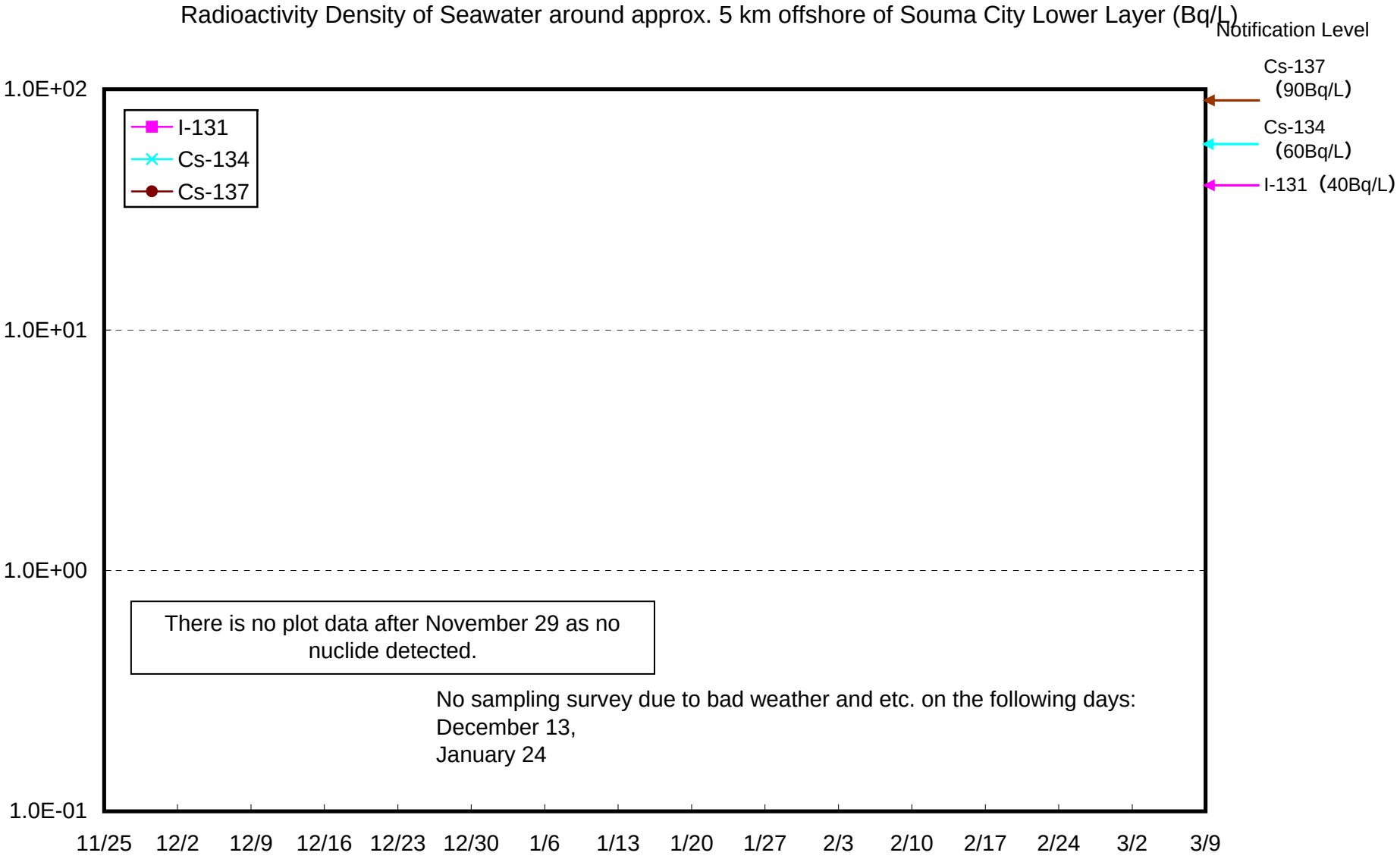
Radioactivity Density of Seawater around approx. 3 km offshore of Soma City Upper Layer (Bq/L)

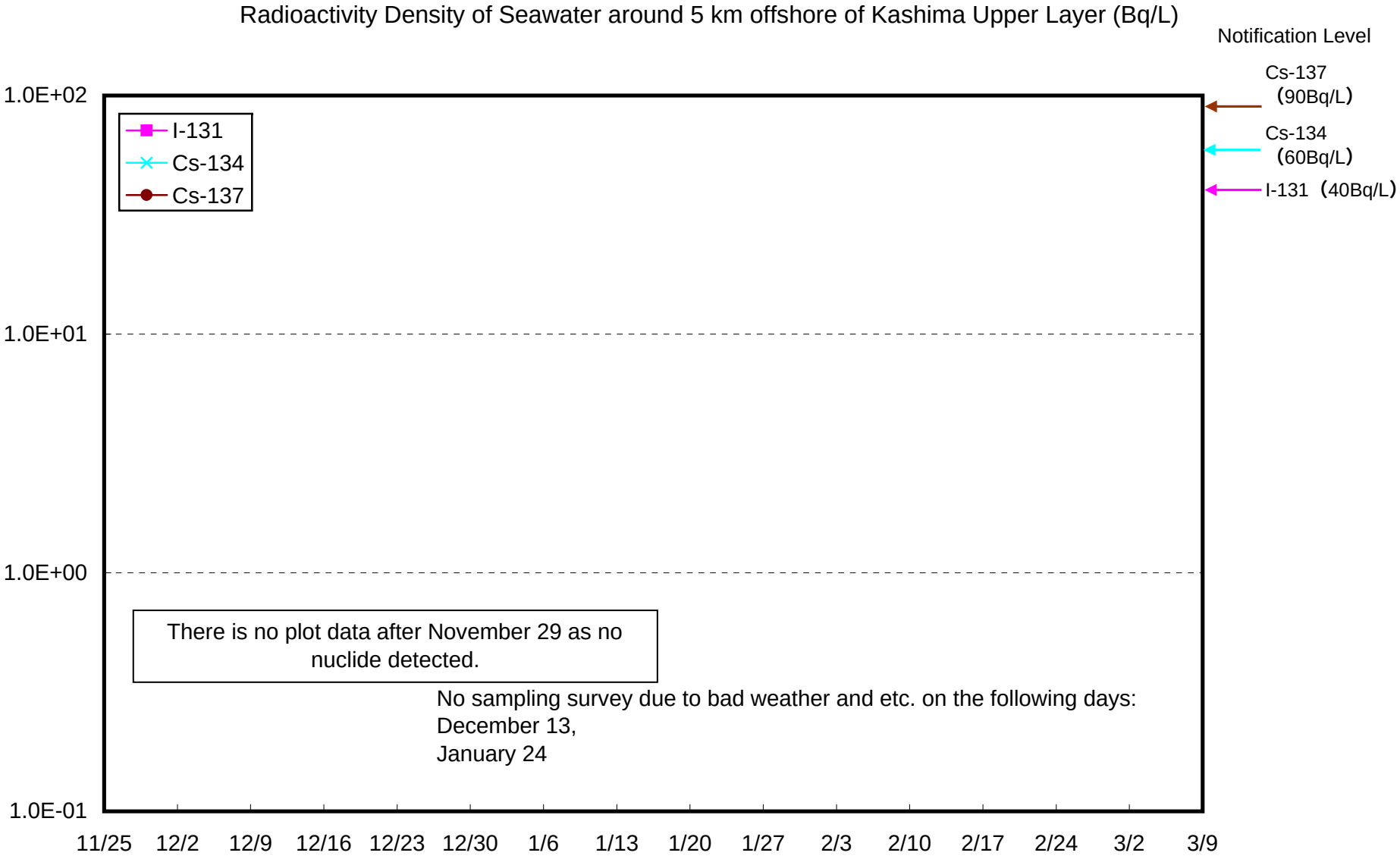


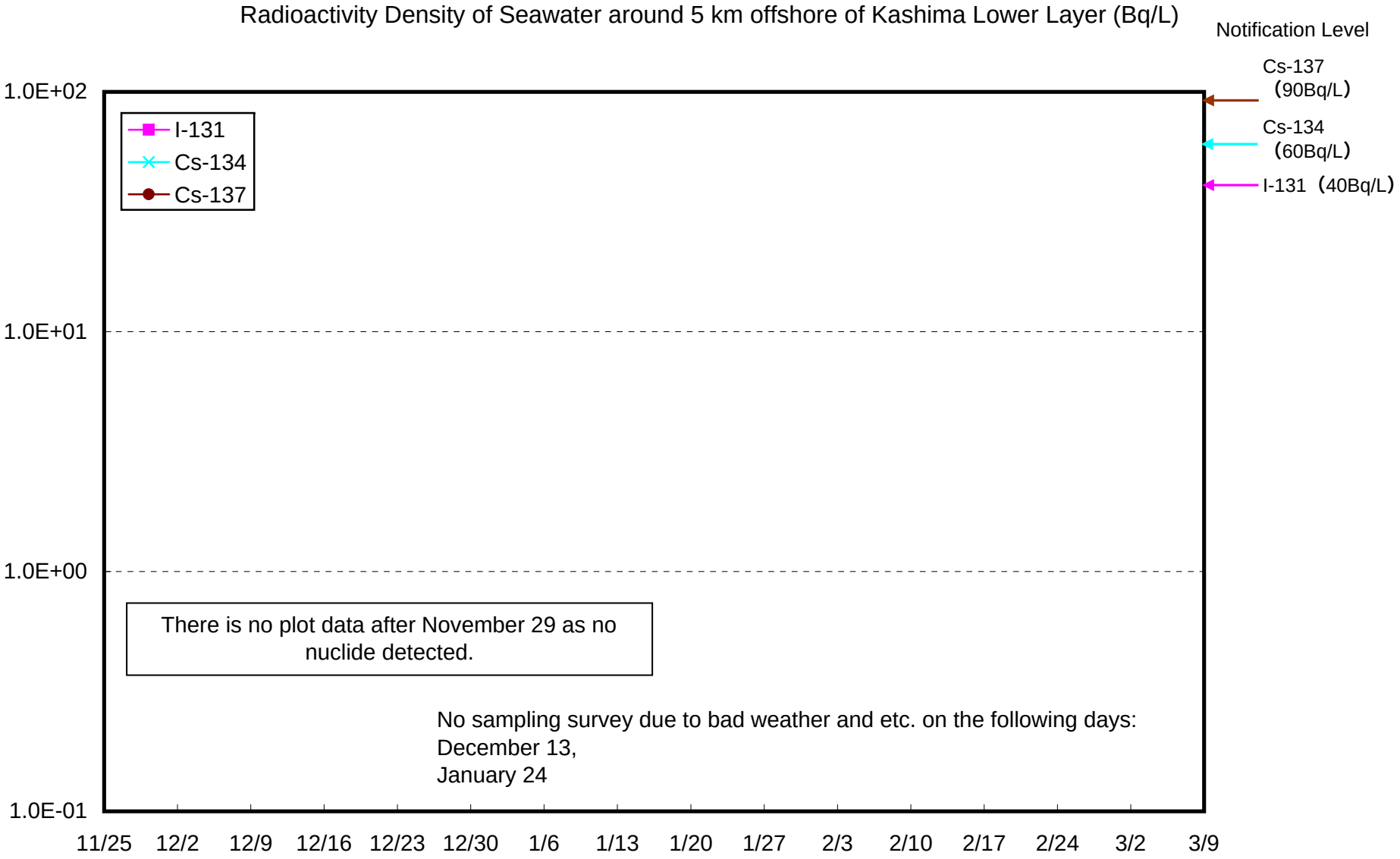
Radioactivity Density of Seawater around approx. 3 km offshore of Soma City Lower Layer (Bq/L)




Radioactivity Density of Seawater around approx. 5 km offshore of Souma City Upper Layer (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
No sampling survey due to bad weather and etc. on the following days:
December 13,
January 24
11/25
12/2
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


Radioactivity Density of Seawater around approx. 5 km offshore of Souma City Lower Layer (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 November 29 as no nuclide detected.
No sampling survey due to bad weather and etc. on the following days:
December 13,
January 24
11/25
12/2
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


Radioactivity Density of Seawater around 5 km offshore of Kashima Upper Layer (Bq/L)
Notification Level
Cs-137 (90Bq/L)
Cs-134 (60Bq/L)
I-131 (40Bq/L)
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
There is no plot data after November 29 as no nuclide detected.
No sampling survey due to bad weather and etc. on the following days:
December 13,
January 24
11/25
12/2
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


Radioactivity Density of Seawater around 5 km offshore of Kashima Lower Layer (Bq/L)
Notification Level
Cs-137 (90Bq/L)
Cs-134 (60Bq/L)
I-131 (40Bq/L)
1.0E+02
1.0E+01
1.0E+00
1.0E-01
I-131
Cs-134
Cs-137
There is no plot data after November 29 as no nuclide detected.
No sampling survey due to bad weather and etc. on the following days:
December 13,
January 24
11/25
12/2
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