

Nuclide Analysis Results of Radioactive Materials in Seawater <Coast>

Reference

(Data summarized on January 17)

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 (approx. 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 (approx. 7 km south of 1,2u Discharge Channel) (approx. 16 km from 1F)		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	January 16, 2012 8:50 am		January 16, 2012 8:25 am		January 16, 2012 8:15 am		January 16, 2012 7:50 am	
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
I-131 (about 8 days)	ND	-	ND	-	ND	-	ND	-	40
Cs-134 (about 2 years)	2.0	0.03	1.6	0.03	ND	-	ND	-	60
Cs-137 (about 30 years)	1.8	0.02	2.4	0.03	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. 0.71Bq/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 January 17)

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		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	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)		Scaling Factor (/)
I-131 (about 8 days)	Jan 15, 2012 10:30 am	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	40
Cs-134 (about 2 years)	Jan 15, 2012 10:30 am	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	60
Cs-137 (about 30 years)	Jan 15, 2012 10:15 am	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	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						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	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)		Scaling Factor (/)
I-131 (about 8 days)	Jan 15, 2012 09:55 am	ND	-	ND	-	ND	-	ND	-	/	/	/	/	40
Cs-134 (about 2 years)	Jan 15, 2012 09:55 am	ND	-	ND	-	ND	-	ND	-	/	/	/	/	60
Cs-137 (about 30 years)	Jan 15, 2012 08:40 am	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. 0.73Bq/L, Cs-134: approx. 0.90Bq/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 < coast and offshore >

(Data summarized on January 17)

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 (approx. 330m south of 1-4u Discharge Channel)		15 km offshore of Fukushima Daiichi Upper Layer		15 km offshore of Fukushima Daini Upper Layer		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)
	Date of sampling	10-Dec-11		10-Dec-11		10-Dec-11		10-Dec-11	
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
I-131 (about 8 days)	ND	-	ND	-	ND	-	ND	-	40
Cs-134 (about 2 years)	3.5	0.06	1.7	0.03	ND	-	ND	-	60
Cs-137 (about 30 years)	4.1	0.05	2.3	0.03	ND	-	ND	-	90
H-3 (about 12 years)	ND	-	ND	-	ND	-	ND	-	60,000
all of α	ND	-	ND	-	ND	-	ND	-	-
all of β	25	-	32	-	ND	-	ND	-	-
Sr-89 (about 51 days)	1.2	0.00	2.5	0.01	ND	-	ND	-	300
Sr-90 (about 29 years)	3.9	0.13	9.6	0.32	0.063	0.00	0.016	0.00	30

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

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

* We announced the result of I-131, Cs-134 and Cs-137 on December 11 and 12, the result of all β on December 17, the result of Sr on January 16.

* "ND" means the sampled data is below measurable limit. The followings show the detection limits.

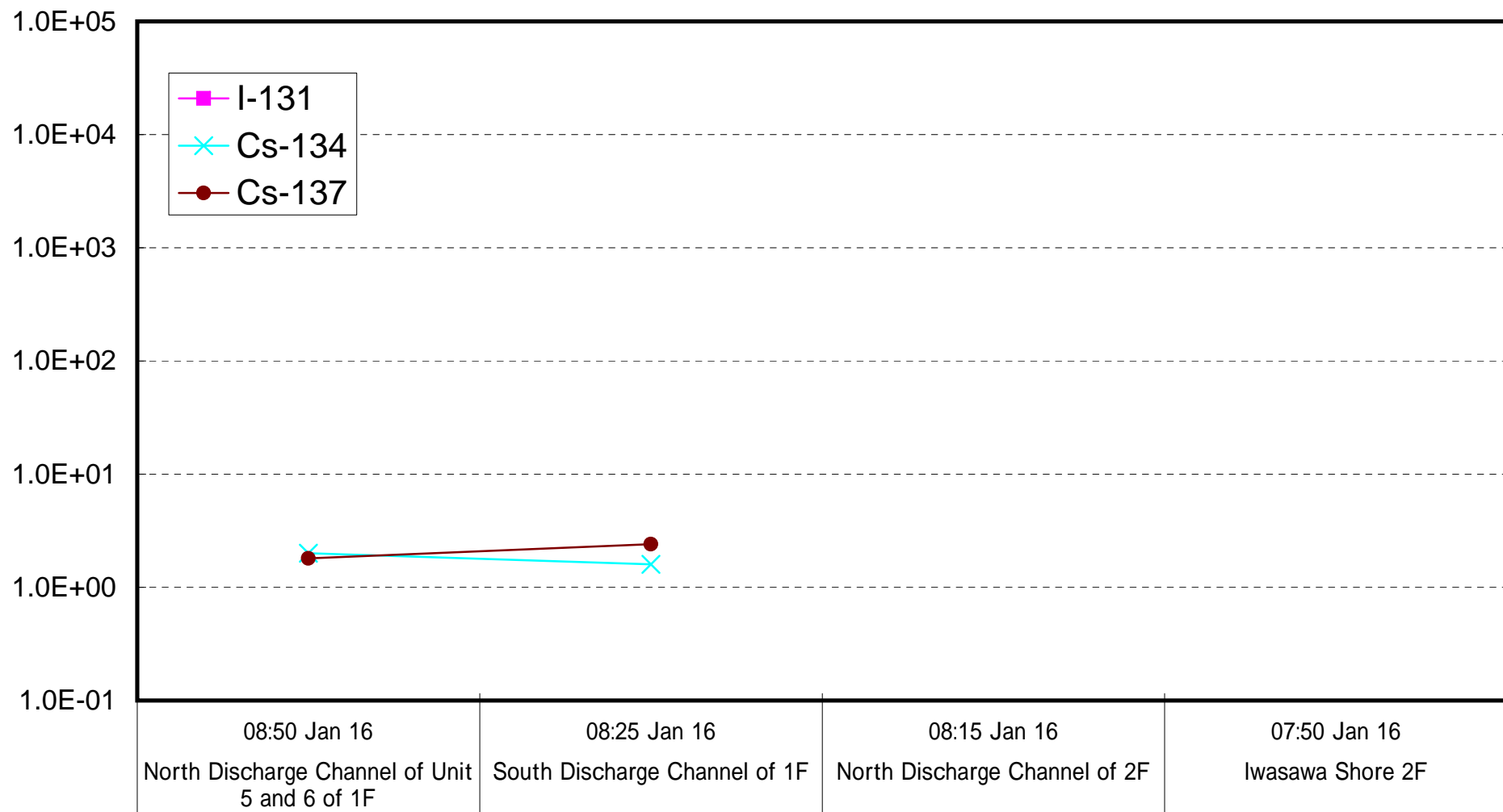
I-131: approx. 0.83Bq/L , Cs-134: approx. 0.97Bq/L , Cs-137: approx. 1.0Bq/L , H-3: approx. 110Bq/L

all of α : approx. 3.2Bq/L , all of β : approx. 21Bq/L , Sr-89: approx. 0.03Bq/L

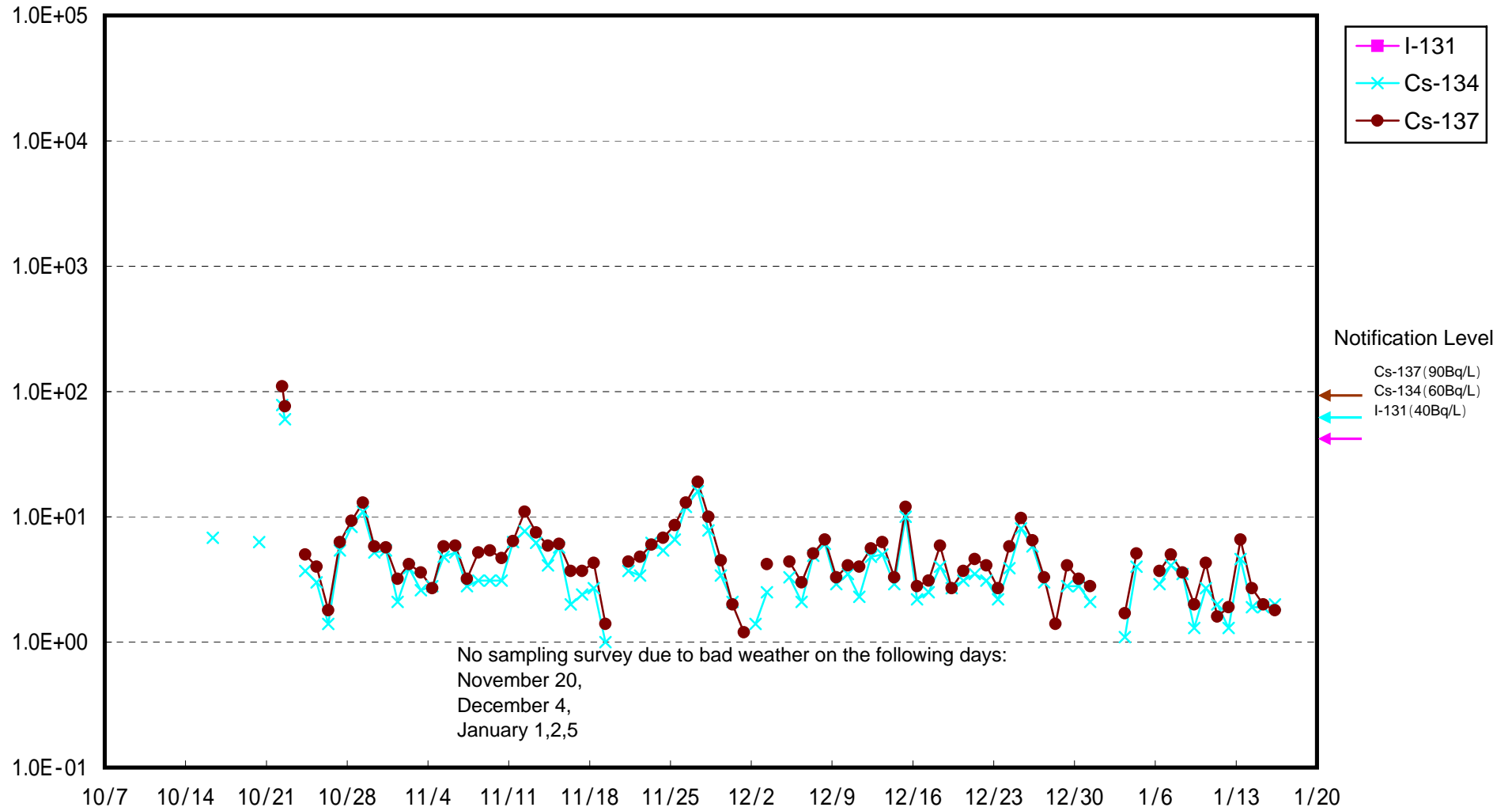
Please note that these nuclides are sometimes detected even when they are below the limits, contingent on the detector or samples.

* Japan Chemical Analysis Center analyzed Sr-89 and Sr-90.

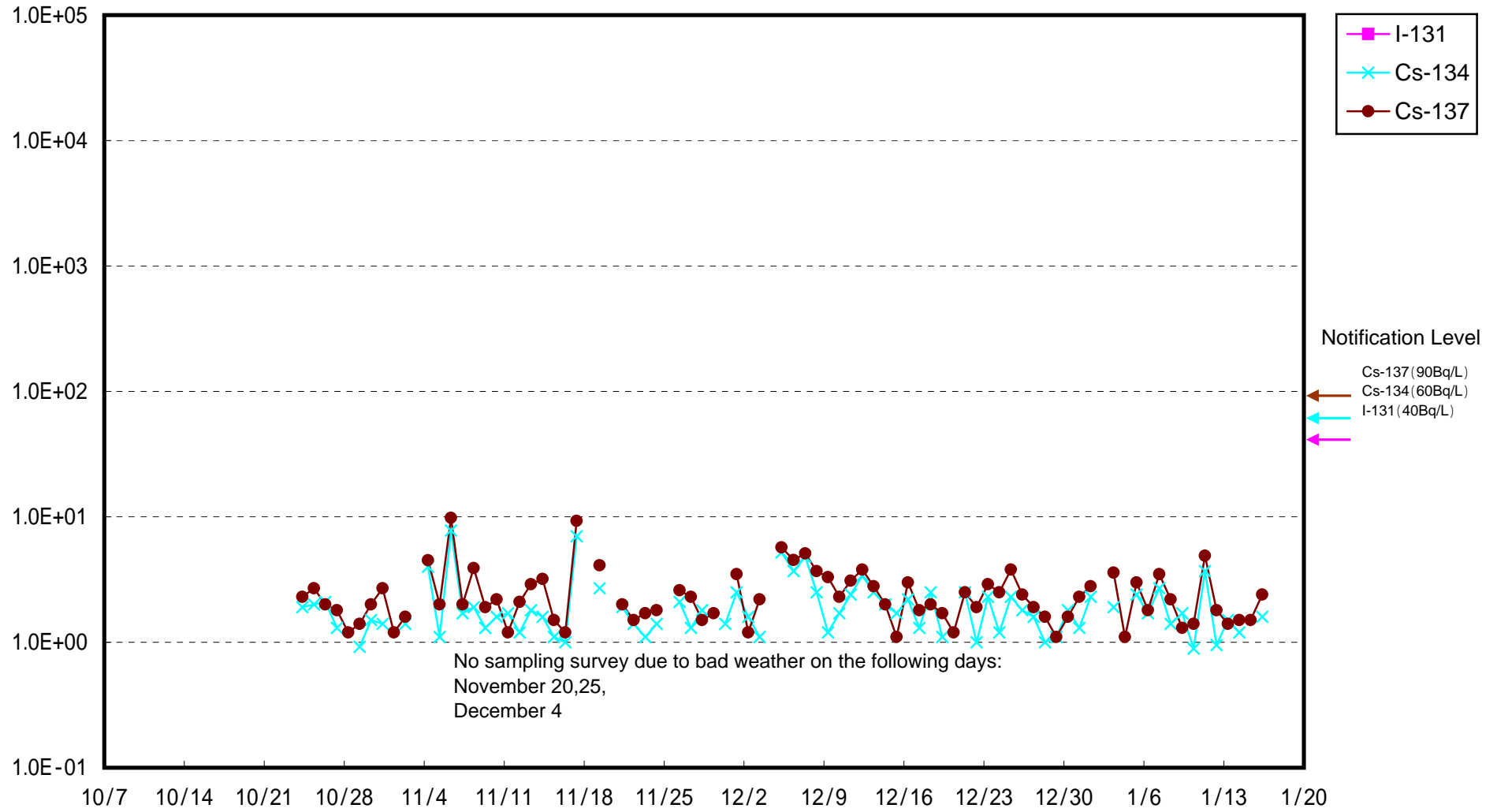
Radioactivity Density of Seawater (Bq/L)



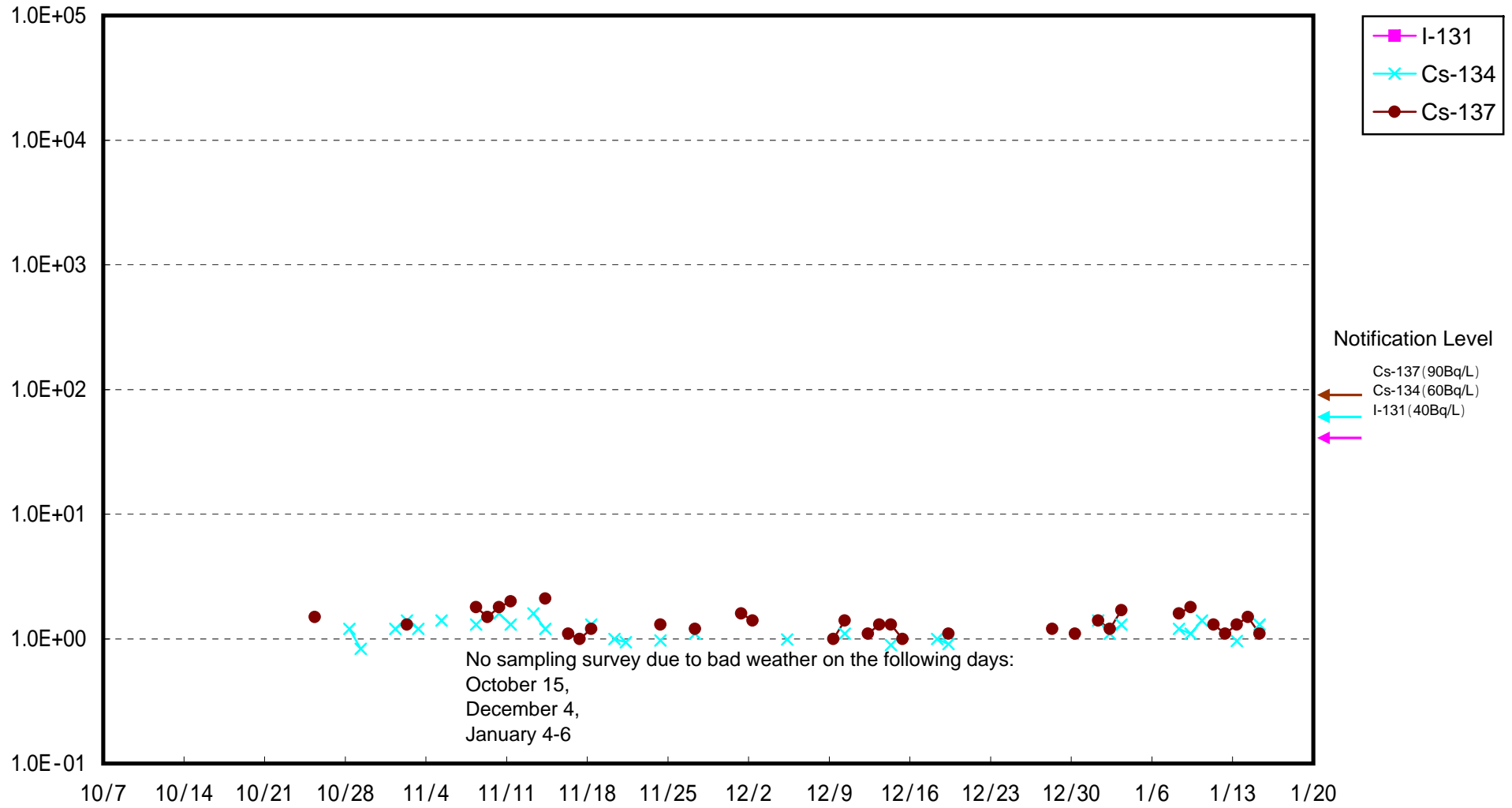
Radioactivity Density of Seawater at North of 1F5-6 Discharge Channel (Bq/L)



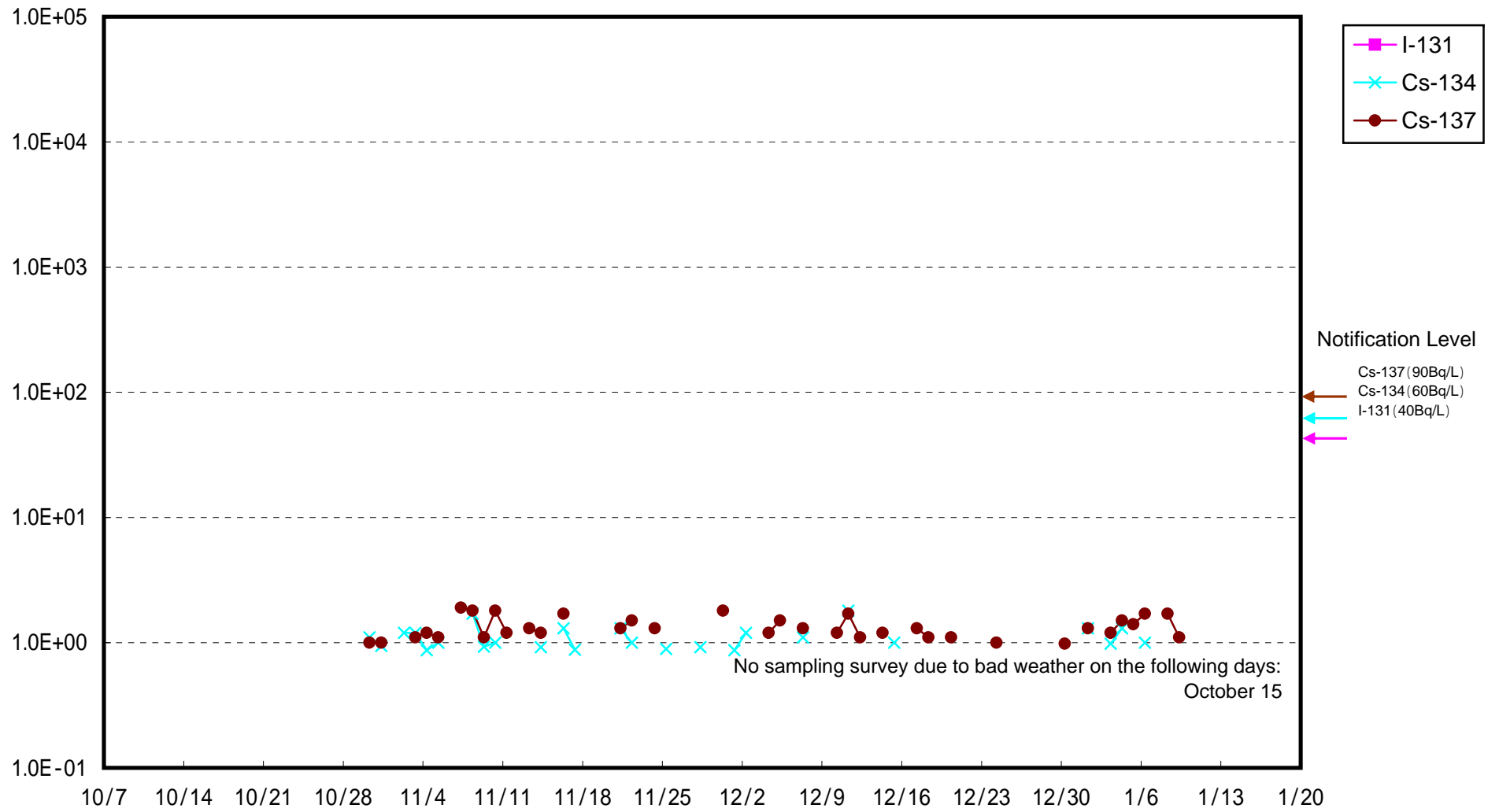
Radioactivity Density of Seawater at South Discharge Channel of 1F (Bq/L)



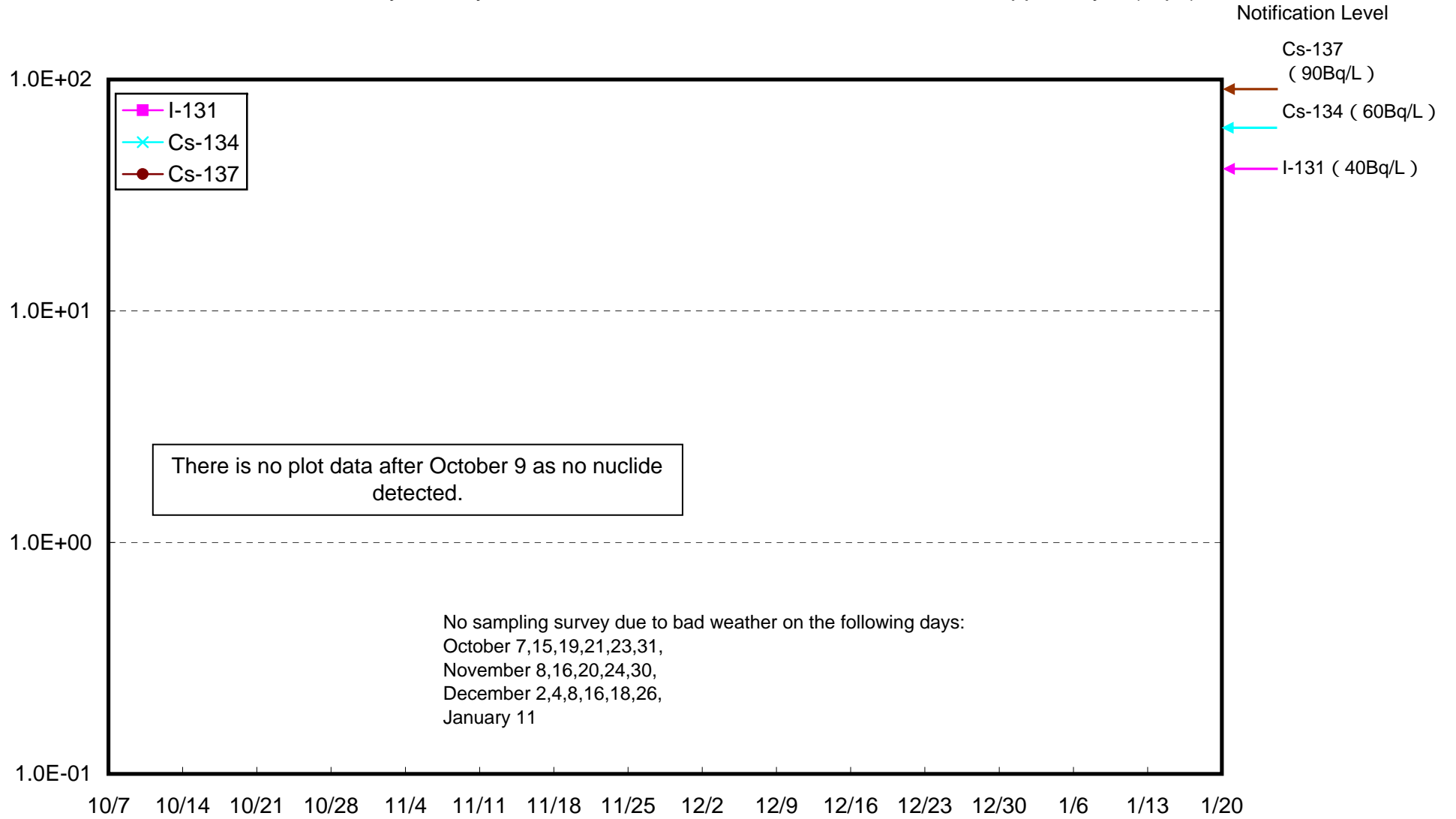
Radioactivity Density of Seawater at North Discharge Channel of 2F (Bq/L)



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



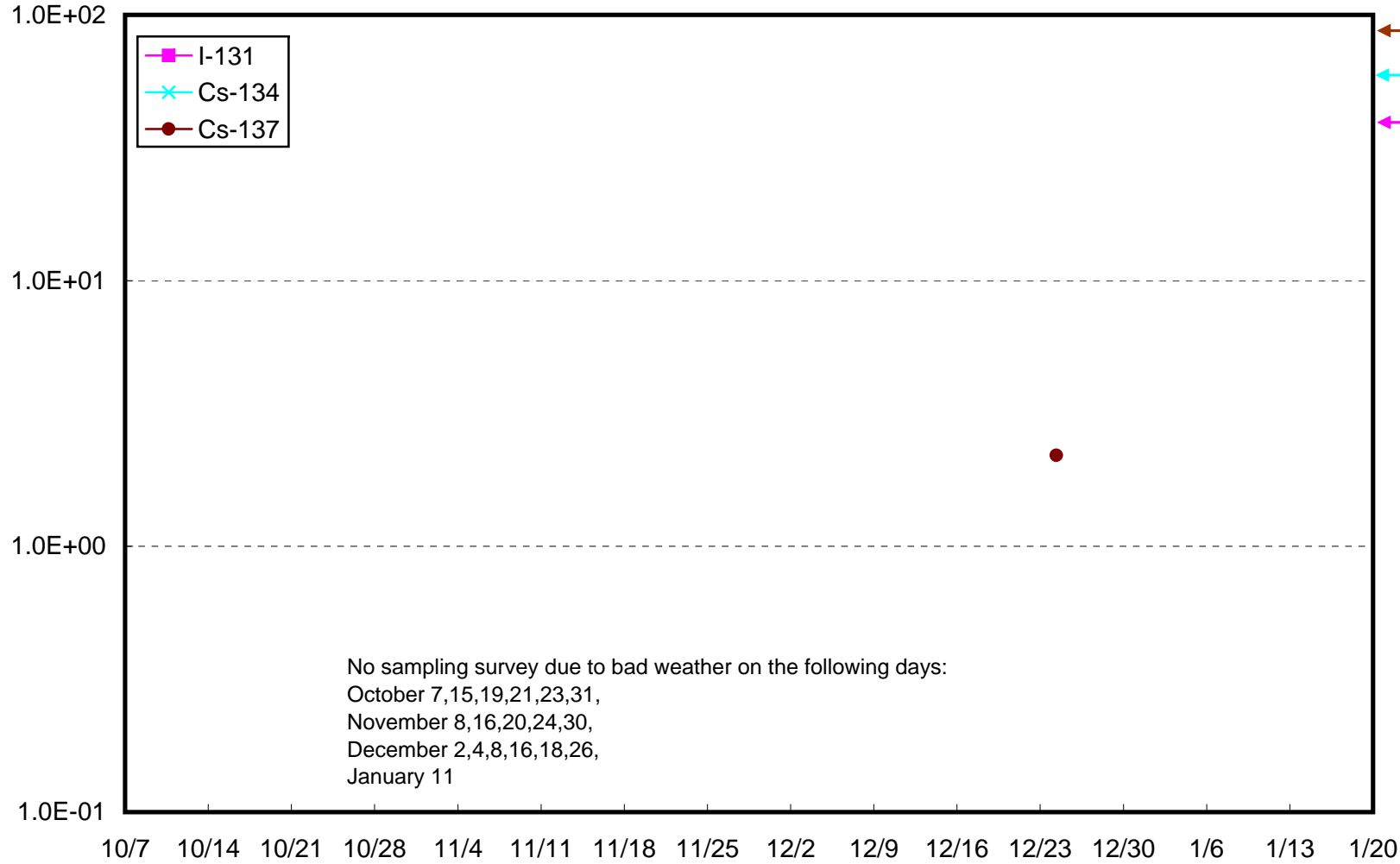
Radioactivity Density of Seawater 3km Offshore of Haramachi Ward Upper Layer (Bq/L)



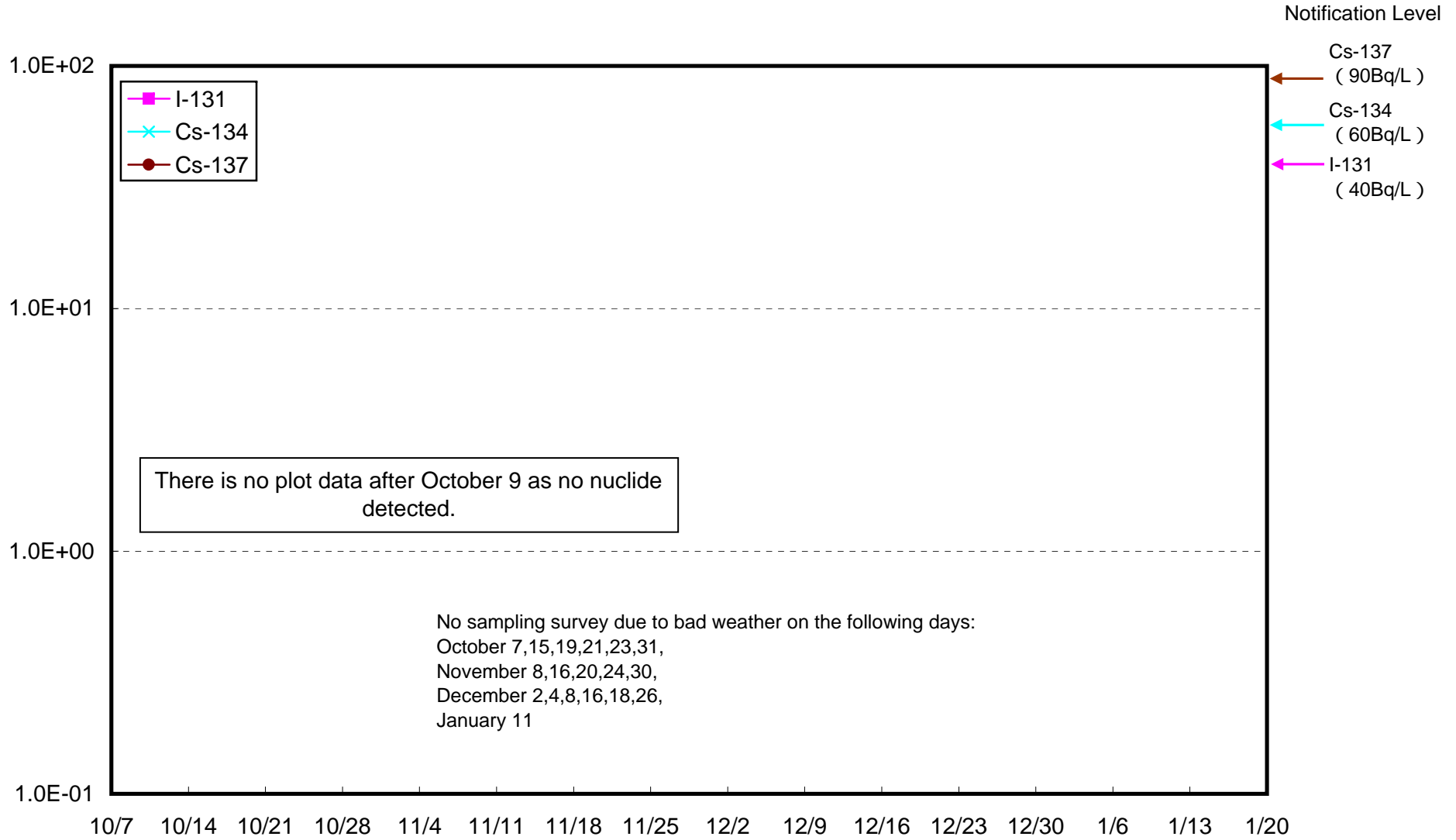
Radioactivity Density of Seawater 3km Offshore of Haramachi Ward Lower Layer (Bq/L)

Notification Level

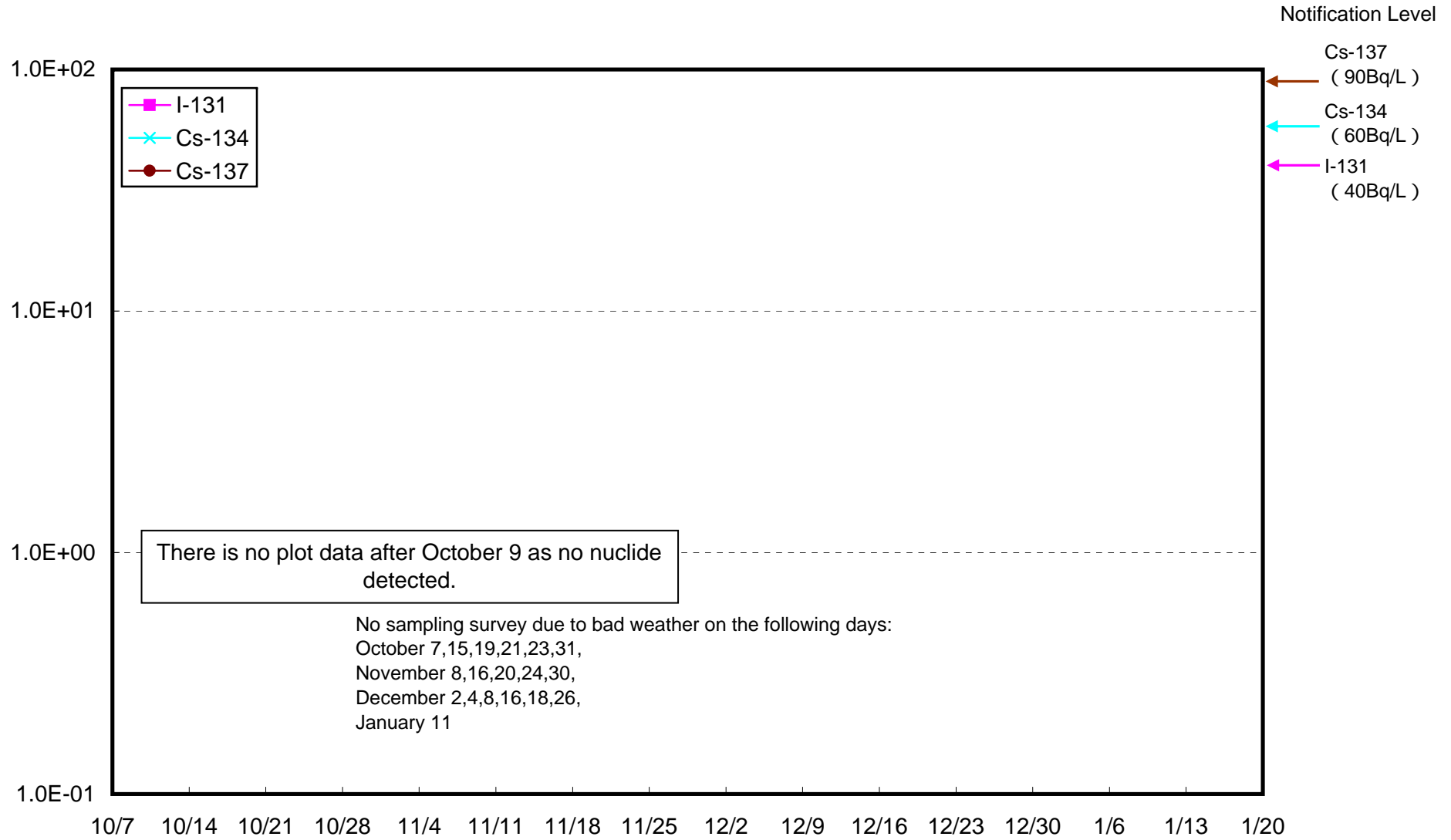
- Cs-137 (90Bq/L)
- Cs-134 (60Bq/L)
- I-131 (40Bq/L)



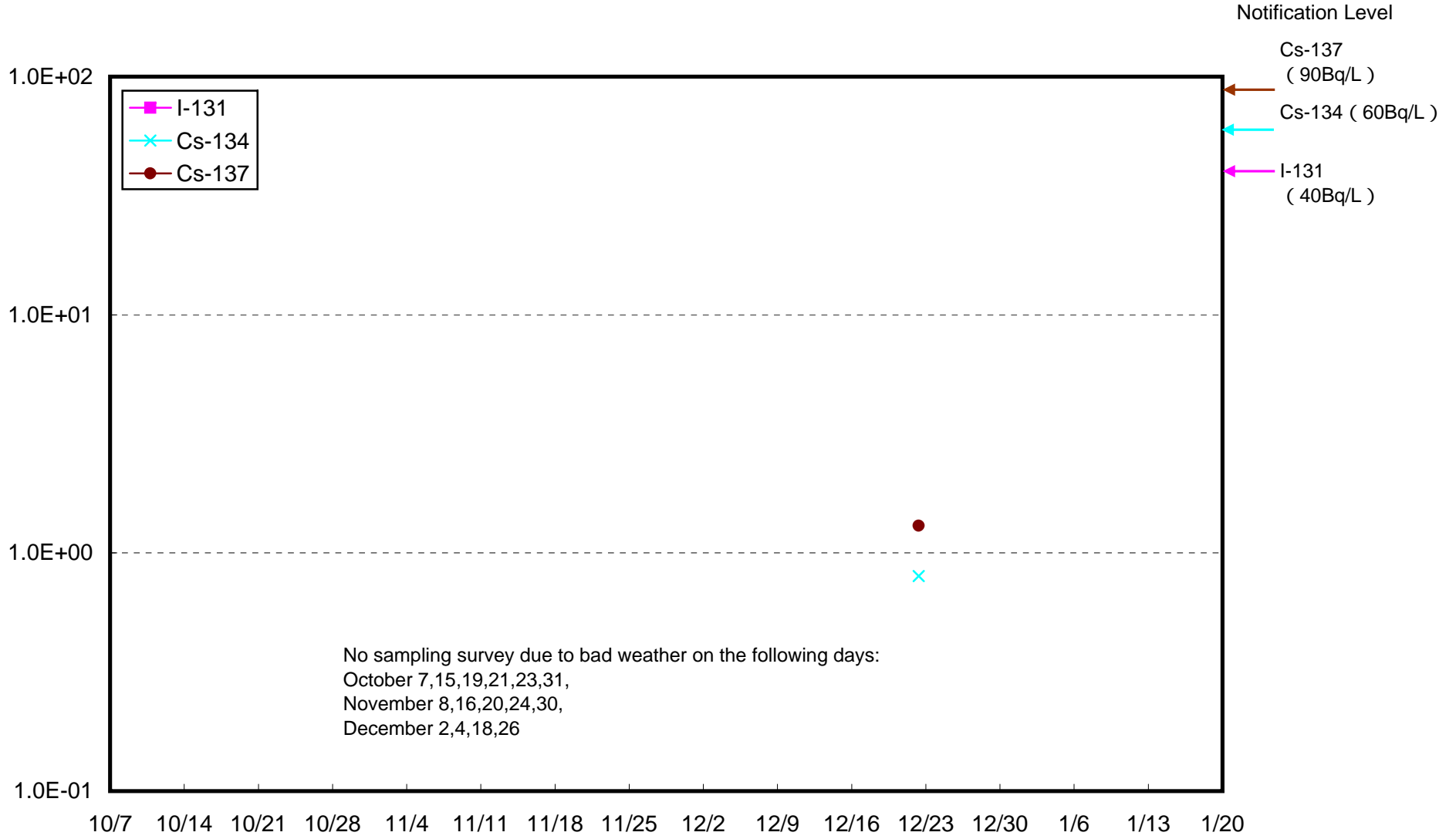
Radioactivity Density of Seawater 3km Offshore of Odaka Ward Upper Layer (Bq/L)



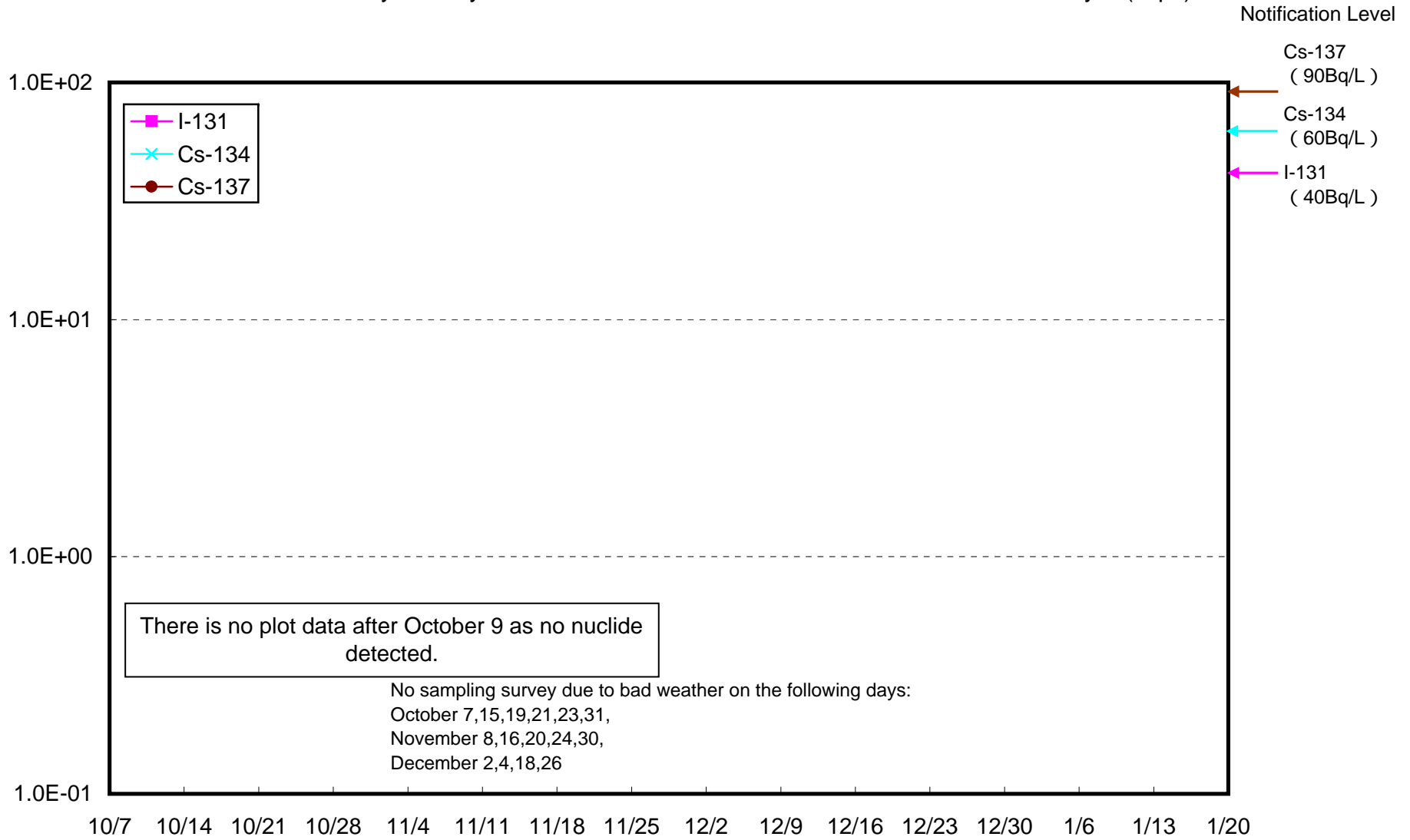
Radioactivity Density of Seawater 3km Offshore of Odaka Ward Lower Layer (Bq/L)



Radioactivity Density of Seawater 3km Offshore of Iwasawa Shore Upper Layer (Bq/L)

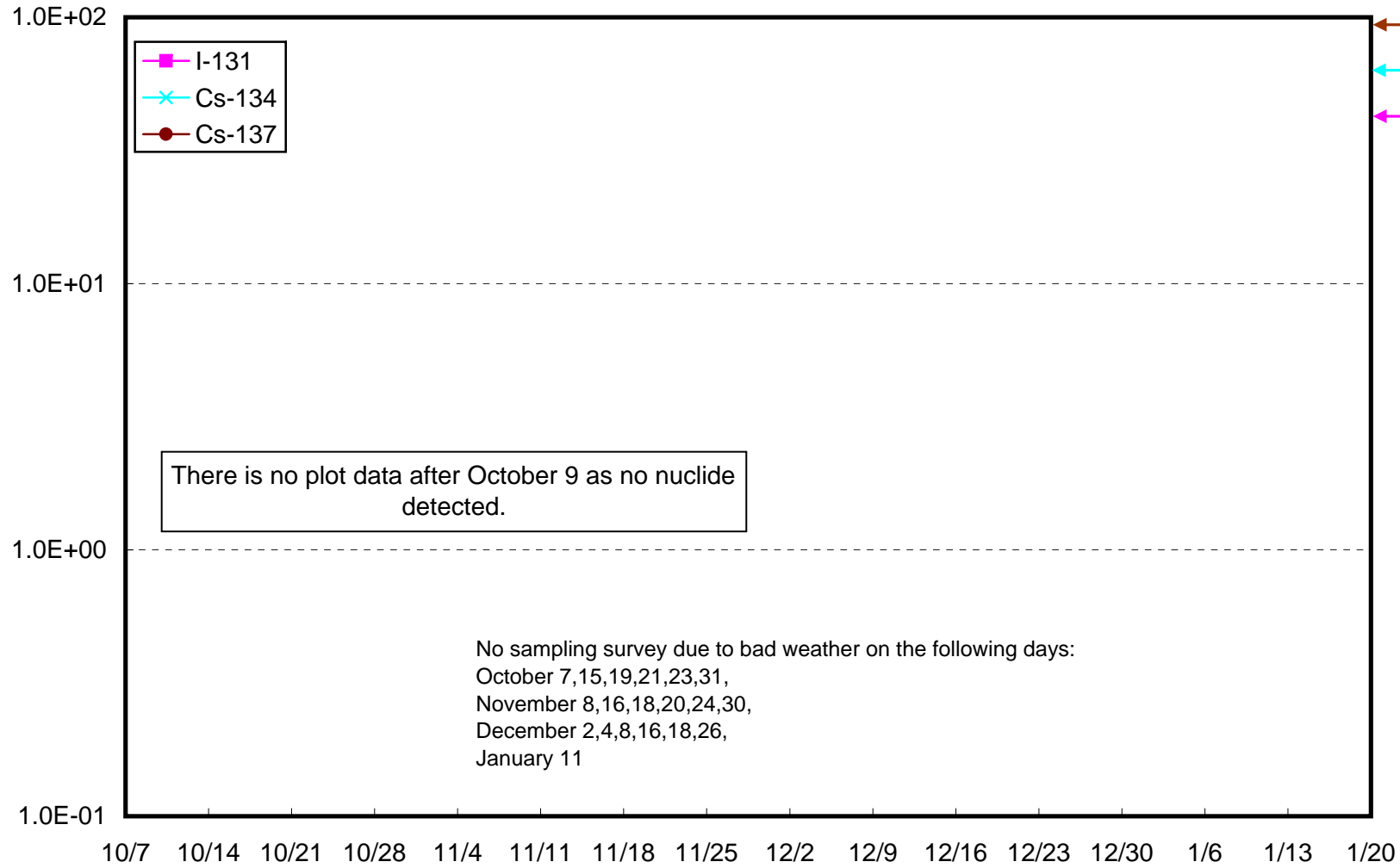


Radioactivity Density of Seawater 3km Offshore of Iwasawa Shore Lower Layer (Bq/L)

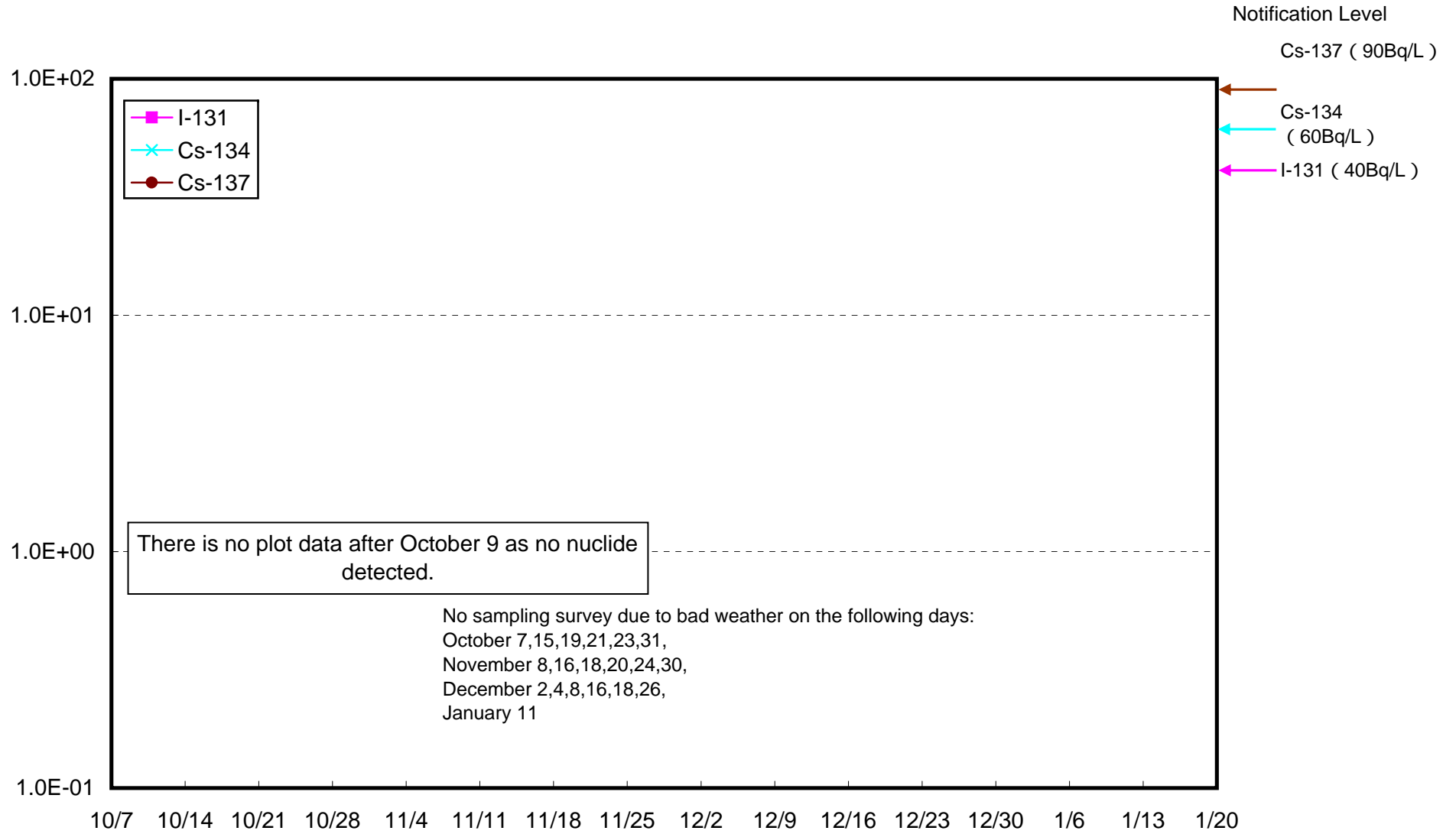


Radioactivity Density of Seawater 8km Offshore of Odaka Ward Upper Layer (Bq/L)

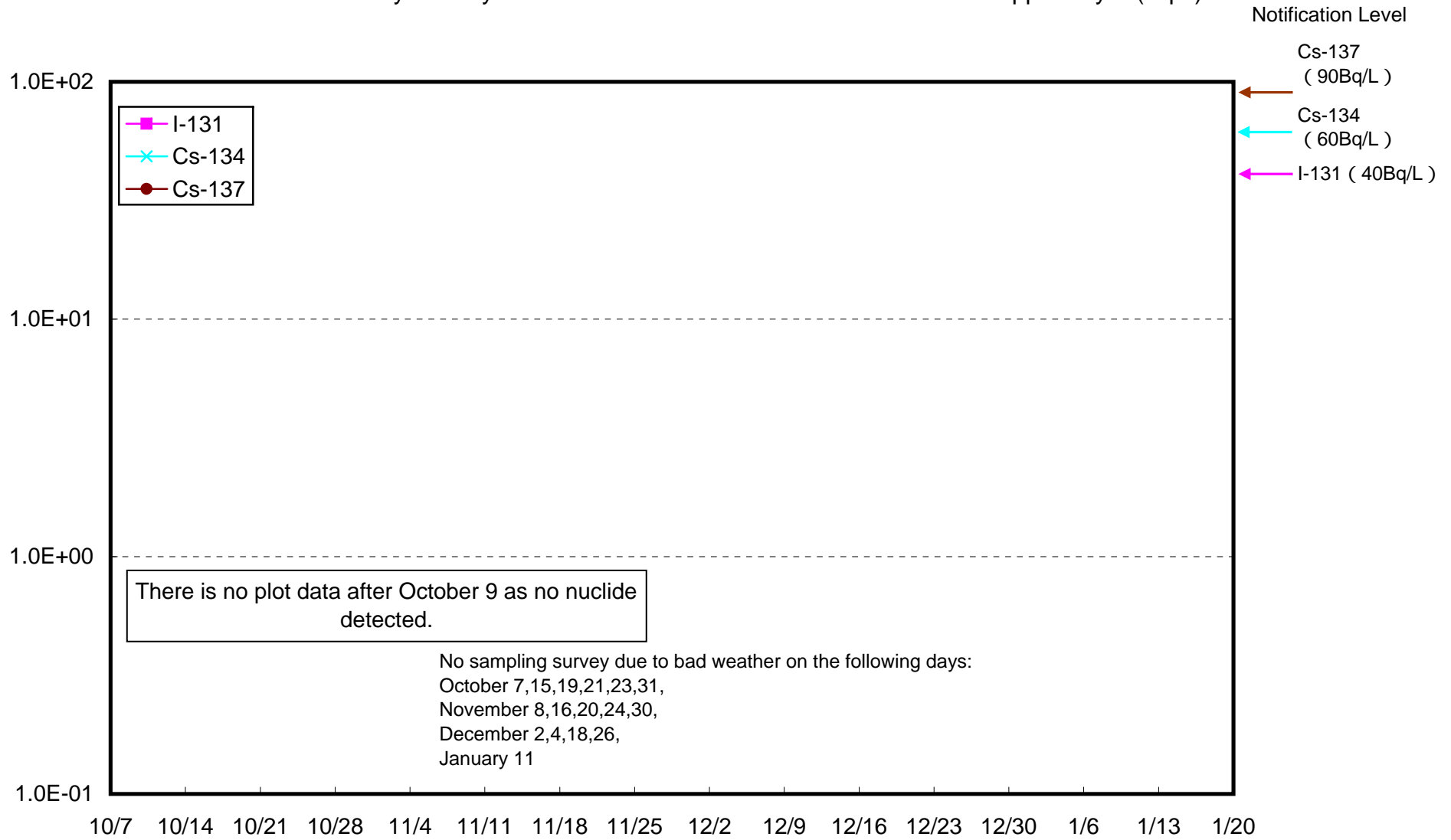
Notification Level
Cs-137 (90Bq/L)
Cs-134 (60Bq/L)
I-131 (40Bq/L)



Radioactivity Density of Seawater 8km Offshore of Odaka Ward Lower Layer (Bq/L)



Radioactivity Density of Seawater 8km Offshore of Iwasawa Shore Upper Layer (Bq/L)



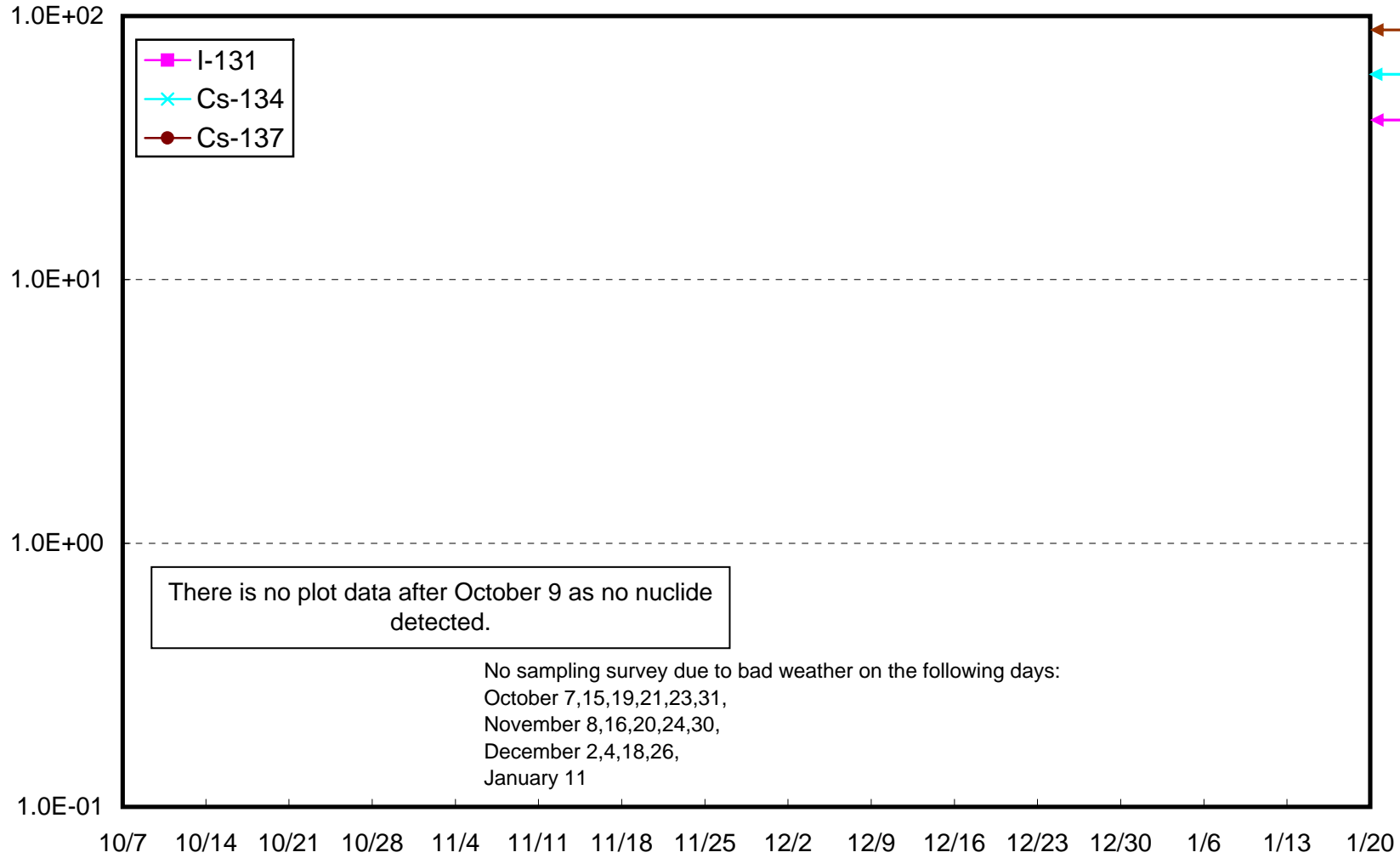
Radioactivity Density of Seawater 8km Offshore of Iwasawa Shore Lower Layer (Bq/L)

Notification Level

Cs-137
(90Bq/L)

Cs-134
(60Bq/L)

I-131 (40Bq/L)



There is no plot data after October 9 as no nuclide detected.

No sampling survey due to bad weather on the following days:
October 7,15,19,21,23,31,
November 8,16,20,24,30,
December 2,4,18,26,
January 11