

**Nuclides Analysis Result of the Radioactive Materials in the Seawater
< Coast, Fukushima Daiichi Nuclear Power Station >**

(Data summarized on December 9)

Place of Sampling	North of Unit 5-6 Discharge Channel at Fukushima Daiichi NPS (Approx. 30m North of Unit 5-6 Discharge Channel)		Around South Discharge Channel of Fukushima Daiichi NPS (Appox. 1.3km South of Unit 1-4 Discharge Channel)		② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)	
Time of Sampling	Dec 8, 2014 6:50 AM		Dec 8, 2014 5:50 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 (Approx. 8 days)	ND(0.70)	-	ND(0.58)	-	40	
Cs-134 (Approx. 2 years)	ND(0.81)	-	ND(0.67)	-	60	
Cs-137 (Approx. 30 years)	0.77	0.01	ND(0.64)	-	90	

* The density specified by the Reactor Regulation is converted from Bq/cm^3 to Bq/L .

* Data of other nuclides is under evaluation.

* In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.

* "ND" indicates that the measurement result is below the detection limit, which is provided in parentheses.

Nuclides Analysis Result of the Radioactive Materials in the Seawater
 < Coast, Fukushima Daiichi Nuclear Power Station, Remeasurement >

(Data summarized on December 9)

Place of Sampling	North of Unit 5-6 Discharge Channel at Fukushima Daiichi NPS (Approx. 30m North of Unit 5-6 Discharge Channel)				Around South Discharge Channel of Fukushima Daiichi NPS (Appox. 1.3km South of Unit 1-4 Discharge Channel)				② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)	
Time of Sampling	Nov 10, 2014 5:30 AM				Nov 10, 2014 5:35 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)		
Cs-134 (Approx. 2 years)	0.10	0.00			0.056	0.00			60	
Cs-137 (Approx. 30 years)	0.29	0.00			0.19	0.00			90	

* The density specified by the Reactor Regulation is converted from Bq/cm³ to Bq/L.

* In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.

* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.

* Analyzed by: Tokyo Power Technology Ltd.

Nuclides Analysis Result of the Radioactive Materials in the Seawater
 < Coast, Fukushima Daini Nuclear Power Station >

Reference

(Data summarized on December 9)

Place of Sampling	2F Around the North Discharge Channel (Around Unit 3-4 Discharge Channel) (Approx. 10km from 1F)				2F Around Iwasawa Shore (Approx. 7km South of Unit 1 & 2 Discharge Channel) (Approx. 16km from 1F)				② Density Limit Specified by the Reactor Regulation (Bq/L)
Time of Sampling	Nov 11, 2014 9:40 AM				Nov 11, 2014 4:05 PM				(The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
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)	
Cs-134 (Approx. 2 years)	0.023	0.00			0.012	0.00			60
Cs-137 (Approx. 30 years)	0.080	0.00			0.052	0.00			90

* The density specified by the Reactor Regulation is converted from Bq/cm³ to Bq/L.

* In the case of 2 nuclides or more, the sum of scaling factors to density limits is compared to 1.

* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.

* Analyzed by : Tokyo Power Technology Ltd.

Nuclides Analysis Result of Radioactive Materials in the Seawater<Coast Fukushima Daiichi NPS Within 20km Range>

Reference

Data summarized on December 9

Place of Sampling	South side of Ukedo Port(At 5.5km off shore of Unit 5 and Unit 6 north side)				② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)	
Time of Sampling	Nov 11,2014 9:20 AM					
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)		
Cs-134 (Approx. 2 years)	0.021	0.00			60	
Cs-137 (Approx. 30 years)	0.062	0.00			90	

* The density specified by the Reactor Regulation is converted from Bq/cm³ to Bq/L.

* In the case of 2 nuclides or more, the sum of scaling factors to density limits is compared to 1.

* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.

* Analyzed by : Tokyo Power Technology Ltd.

Nuclides Analysis Result of Radioactive Materials in the Seawater <Offshore 1/3>

(Data summarized on December 9)

Place of Sampling (Place No.)	*1				*2				*2				② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)	
	3km Offshore of Odaka Ward (T-14)		3km Offshore of Odaka Ward (T-14)		3km Offshore of Ukedo River (T-D1)									
Time of Sampling	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer			
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)		
Cs-134 (Approx. 2 years)	0.0022	0.00	0.0039	0.00	0.0024	0.00	ND	-	0.0031	0.00	0.0040	0.00	60	
Cs-137 (Approx. 30 years)	0.0094	0.00	0.013	0.00	0.012	0.00	0.0057	0.00	0.012	0.00	0.015	0.00	90	

Place of Sampling (Place No.)	*2				*2				*2				② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)	
	3km Offshore of Ukedo River (T-D1)		3km Offshore of Fukushima Daiichi NPS (T-D5)		3km Offshore of Fukushima Daiichi NPS (T-D5)									
Time of Sampling	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer			
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)		
Cs-134 (Approx. 2 years)	0.0091	0.00	0.0032	0.00	0.0051	0.00	0.0052	0.00	0.0083	0.00	0.0033	0.00	60	
Cs-137 (Approx. 30 years)	0.031	0.00	0.012	0.00	0.020	0.00	0.023	0.00	0.027	0.00	0.010	0.00	90	

* The density specified by the Reactor Regulation is converted from Bq/cm³ to Bq/L.

* In the case of 2 nuclides or more, the sum of scaling factors to density limits is compared to 1.

* "ND" indicates that the measurement result is below the detection limit.

Cs-134: Approx.0.0013Bq/L As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.

* Analyzed by : *1 THE GENERAL ENVIRONMENTAL TECHNOLOGY Co., LTD.、*2 Tokyo Power Technology Ltd.

Nuclides Analysis Result of Radioactive Materials in the Seawater <Offshore 2/3>

(Data summarized on December 9)

Place of Sampling (Place No.)	*2				*2				*1				② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)	
	3km Offshore of Fukushima Daini NPS (T-D9)				3km Offshore of Fukushima Daini NPS (T-D9)				15km Offshore of Fukushima Daiichi NPS (T-5)					
Time of Sampling	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer			
	Nov 4, 2014 9:34 AM		Nov 4, 2014 9:34 AM		Nov 12, 2014 8:38 AM		Nov 12, 2014 8:38 AM		Oct 25, 2014 8:32 AM		Oct 25, 2014 8:32 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)		
Cs-134 (Approx. 2 years)	0.0032	0.00	0.0060	0.00	0.0020	0.00	0.0032	0.00	0.0019	0.00	ND	-	60	
Cs-137 (Approx. 30 years)	0.011	0.00	0.018	0.00	0.0064	0.00	0.0091	0.00	0.0072	0.00	0.0052	0.00	90	

Place of Sampling (Place No.)	*1				*1				*1				② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)	
	15km Offshore of Fukushima Daiichi NPS (T-5)				3km Offshore of Iwasawa Shore (T-11)				3km Offshore of Iwasawa Shore (T-11)					
Time of Sampling	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer			
	Oct 30, 2014 7:58 AM		Oct 30, 2014 7:58 AM		Oct 25, 2014 7:15 AM		Oct 25, 2014 7:15 AM		Oct 28, 2014 7:19 AM		Oct 28, 2014 7:19 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)		
Cs-134 (Approx. 2 years)	ND	-	ND	-	0.0063	0.00	0.012	0.00	0.0080	0.00	0.0078	0.00	60	
Cs-137 (Approx. 30 years)	0.0027	0.00	0.0037	0.00	0.021	0.00	0.043	0.00	0.024	0.00	0.027	0.00	90	

* The density specified by the Reactor Regulation is converted from Bq/cm³ to Bq/L.

* In the case of 2 nuclides or more, the sum of scaling factors to density limits is compared to 1.

* "ND" indicates that the measurement result is below the detection limit.

Cs-134: Approx.0.0013Bq/L As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.

* Analyzed by : *1 THE GENERAL ENVIRONMENTAL TECHNOLOGY Co., LTD.、*2 Tokyo Power Technology Ltd.

Nuclides Analysis Result of Radioactive Materials in the Seawater <Offshore 3/3>

(Data summarized on December 9)

Place of Sampling (Place No.)	15km Offshore of Odaka ward (T-B1)				18km Offshore of Ukedo river (T-B2)				10km Offshore of Fukushima Daiichi NPS (T-B3)				② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)	
	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer			
Time of Sampling	Oct 29, 2014 6:40 AM		Oct 29, 2014 6:40 AM		Oct 29, 2014 6:00 AM		Oct 29, 2014 6:00 AM		Oct 27, 2014 5:21 AM		Oct 27, 2014 5:21 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)		
Cs-134 (Approx. 2 years)	ND	-	ND	-	ND	-	0.0017	0.00	0.0019	0.00	ND	-	60	
Cs-137 (Approx. 30 years)	0.0048	0.00	0.0050	0.00	0.0053	0.00	0.0064	0.00	0.0080	0.00	0.0051	0.00	90	

Place of Sampling (Place No.)	10km Offshore of Fukushima Daini (T-B4)												② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)	
	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer			
Time of Sampling	Oct 27, 2014 6:19 AM		Oct 27, 2014 6:19 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)		
Cs-134 (Approx. 2 years)	0.0033	0.00	ND	-									60	
Cs-137 (Approx. 30 years)	0.0086	0.00	0.0058	0.00									90	

* The density specified by the Reactor Regulation is converted from Bq/cm³ to Bq/L.

* In the case of 2 nuclides or more, the sum of scaling factors to density limits is compared to 1.

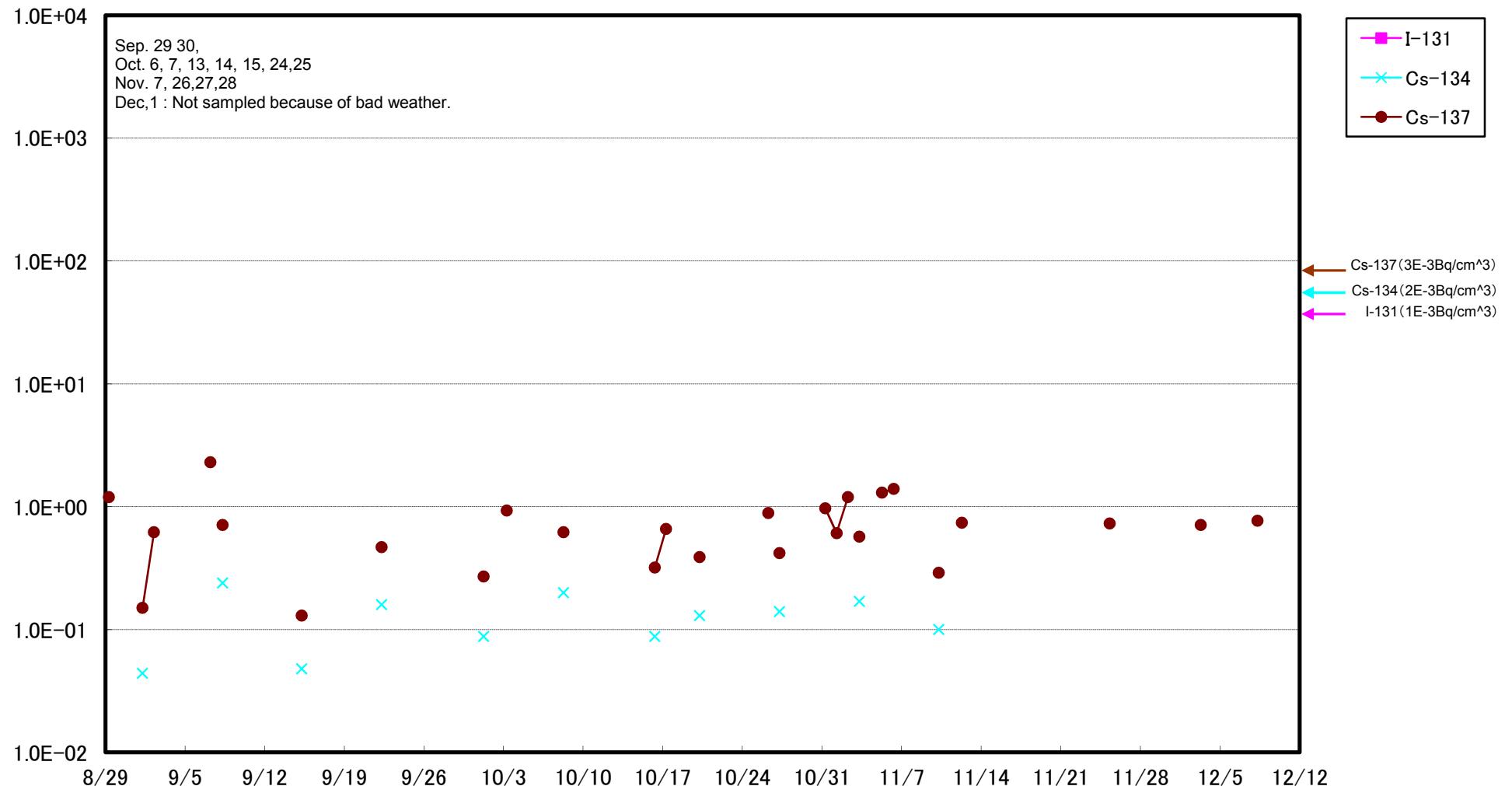
* "ND" indicates that the measurement result is below the detection limit.

Cs-134: Approx.0.00148Bq/L As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

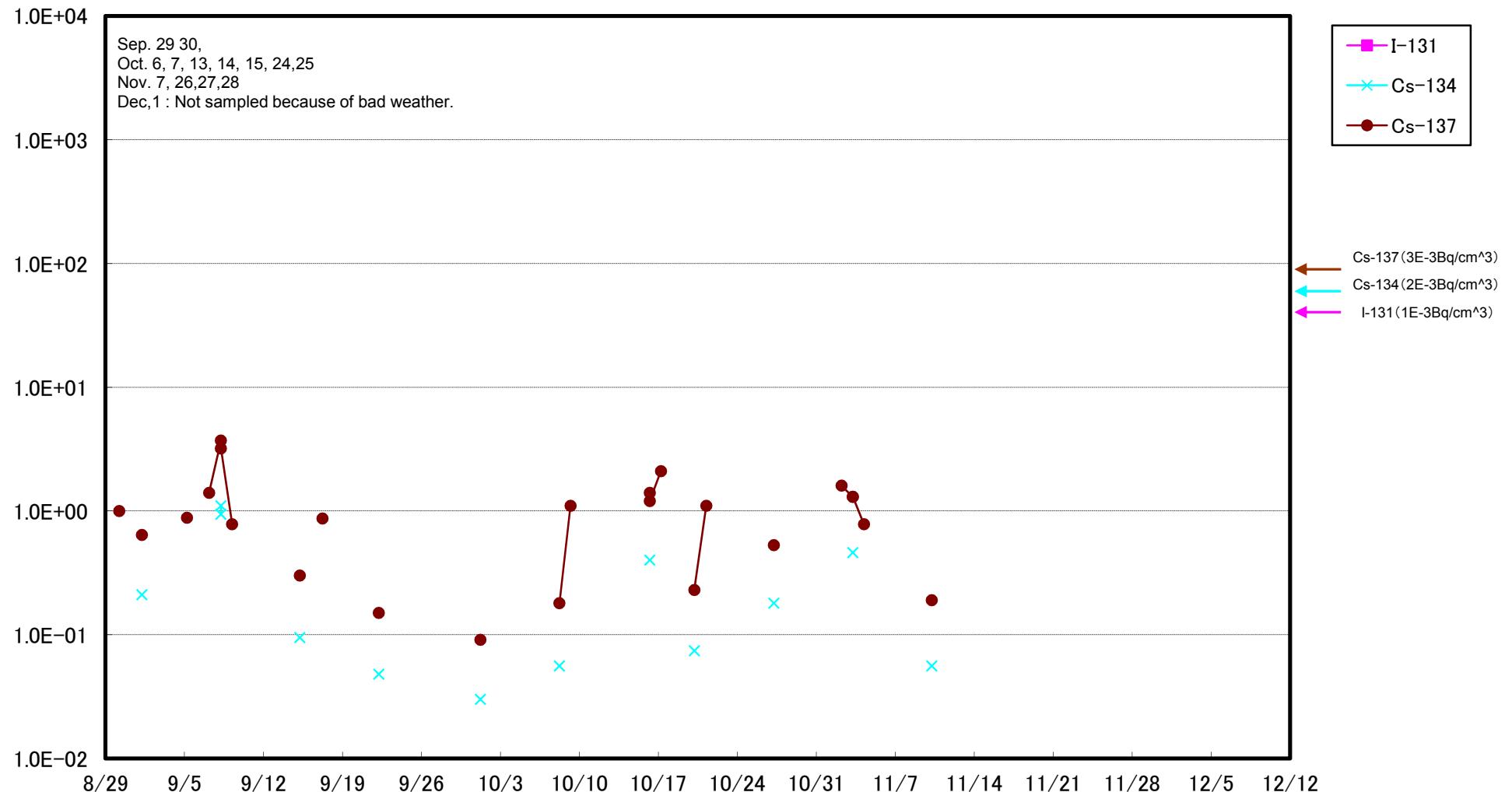
* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.

* Analyzed by : THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD..

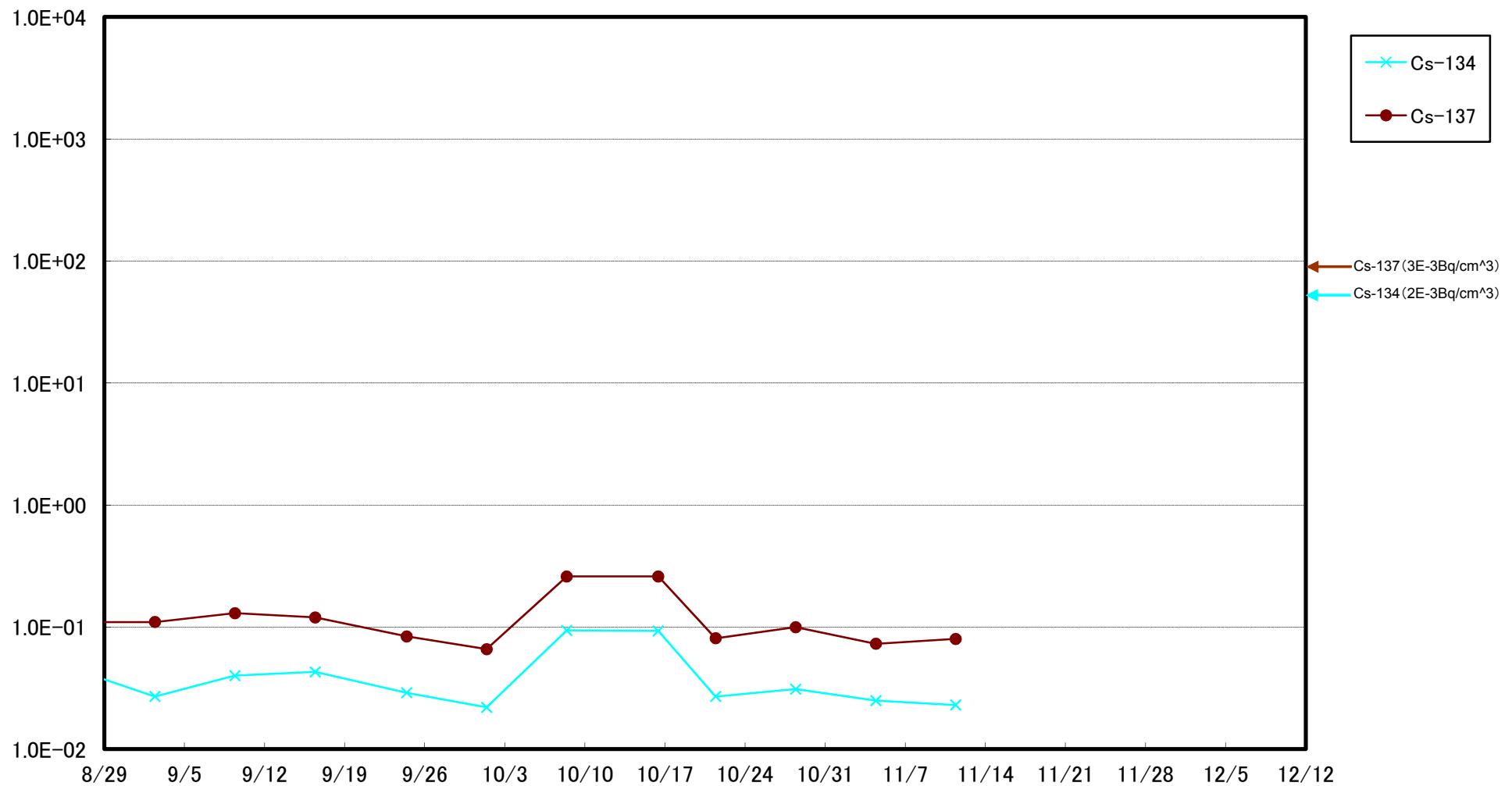
Radioactivity Density of the Seawater at 1F Units 5–6 North Discharge Channel (Bq/L)



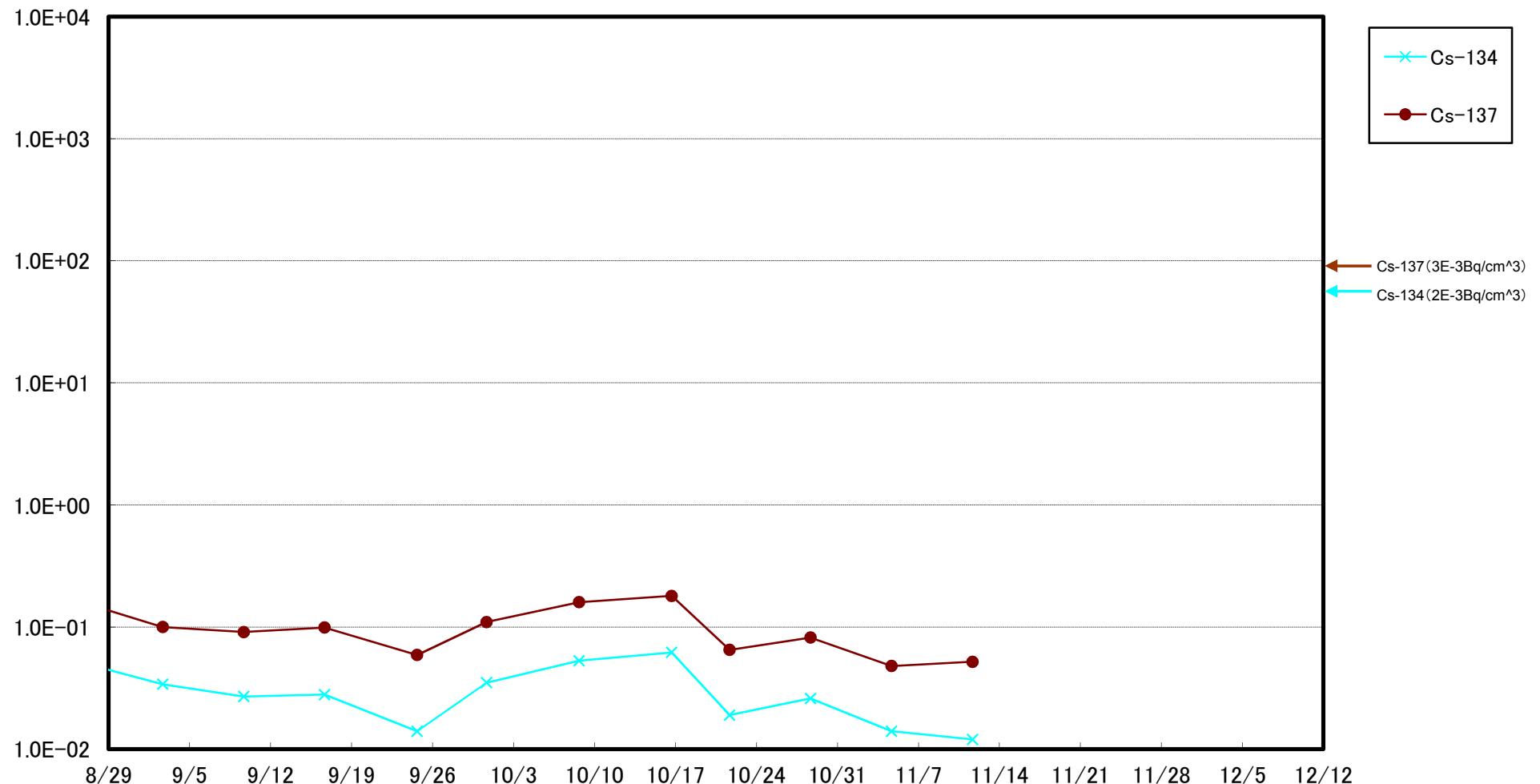
Radioactivity Density of the Seawater at 1F South Discharge Channel (Bq/L)



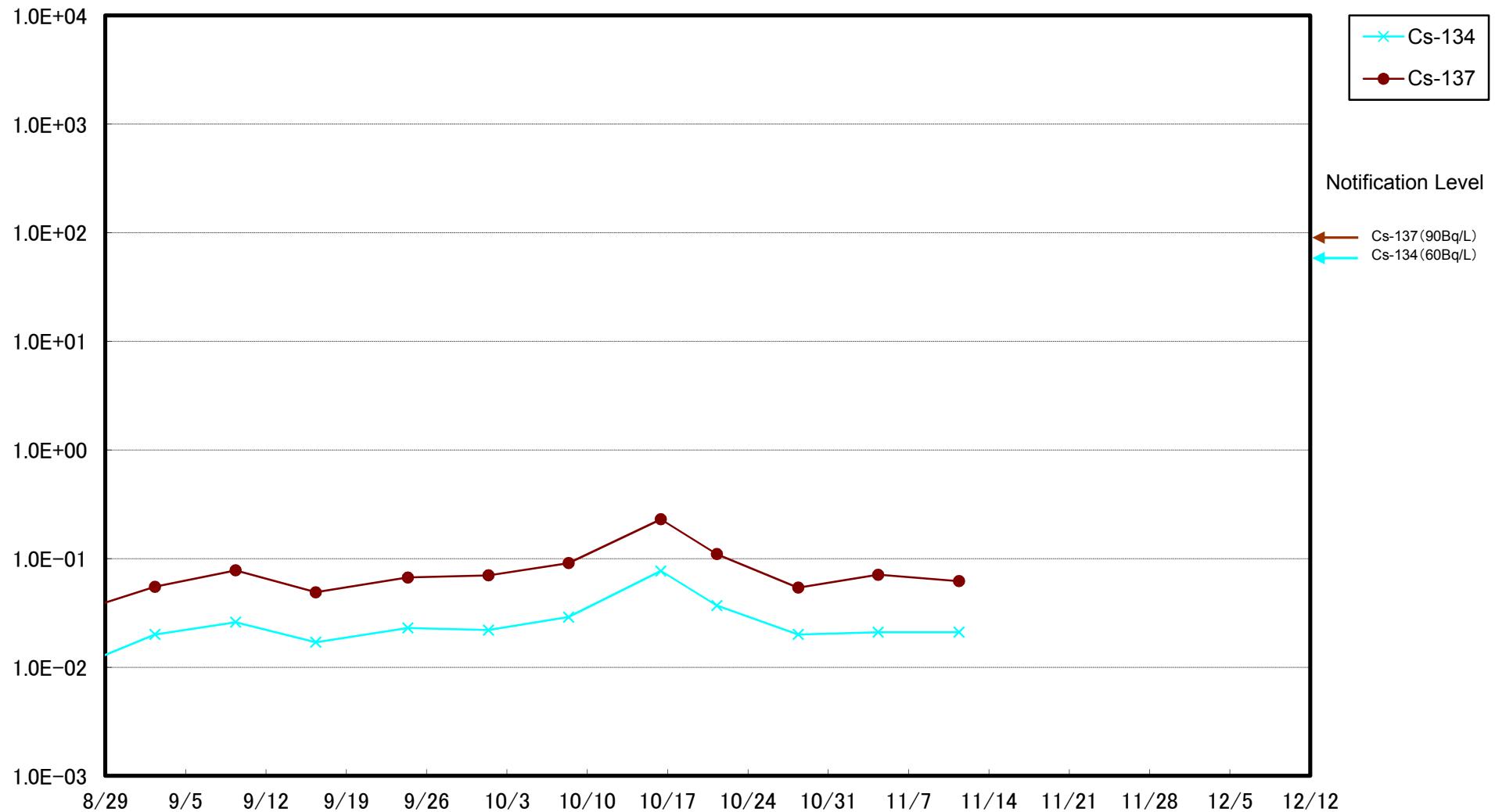
Radioactivity Density of the Seawater at 2F North Discharge Channel (Bq/L)



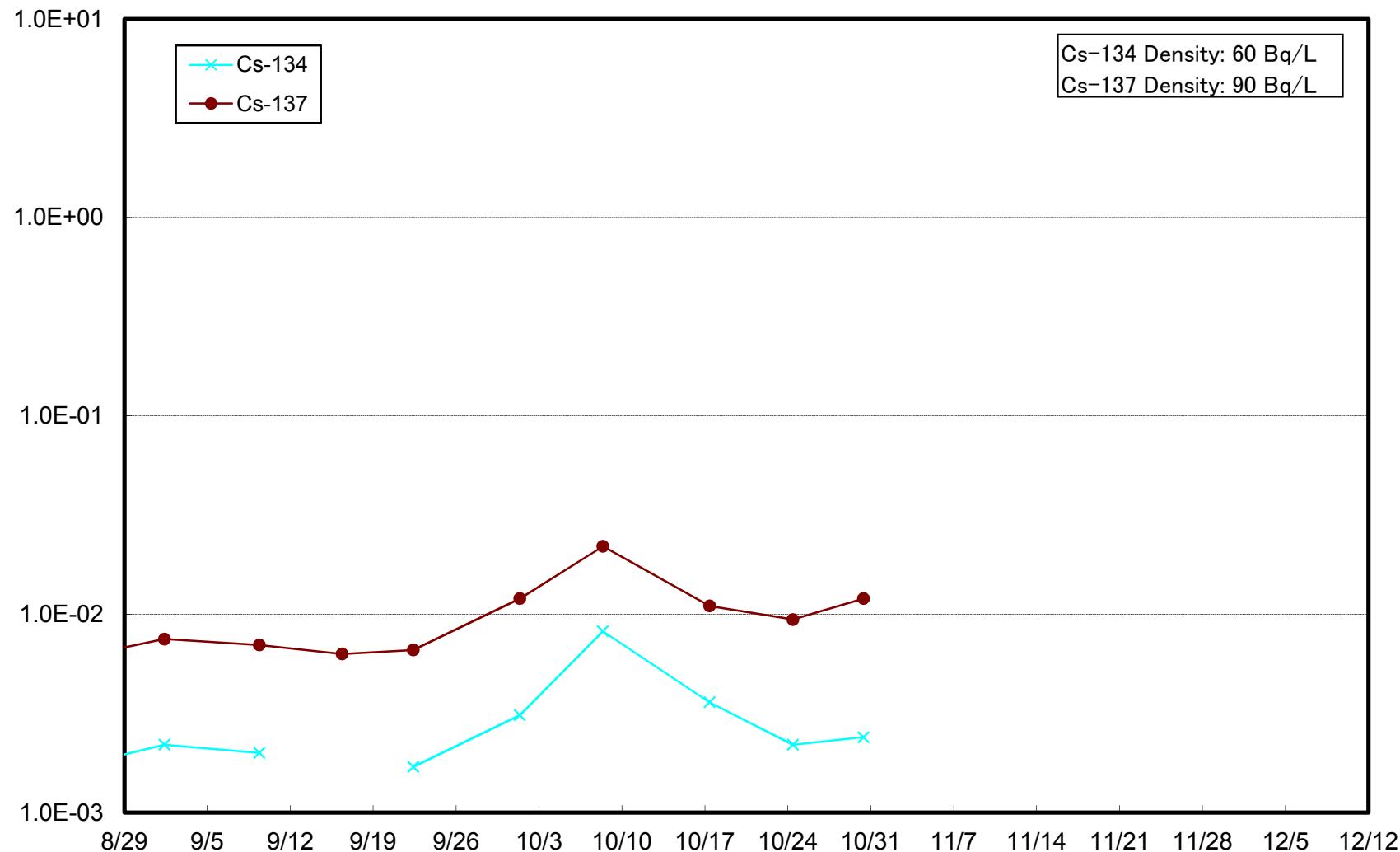
Radioactivity Density of the Seawater at 2F around Iwasa shore (Bq/L)



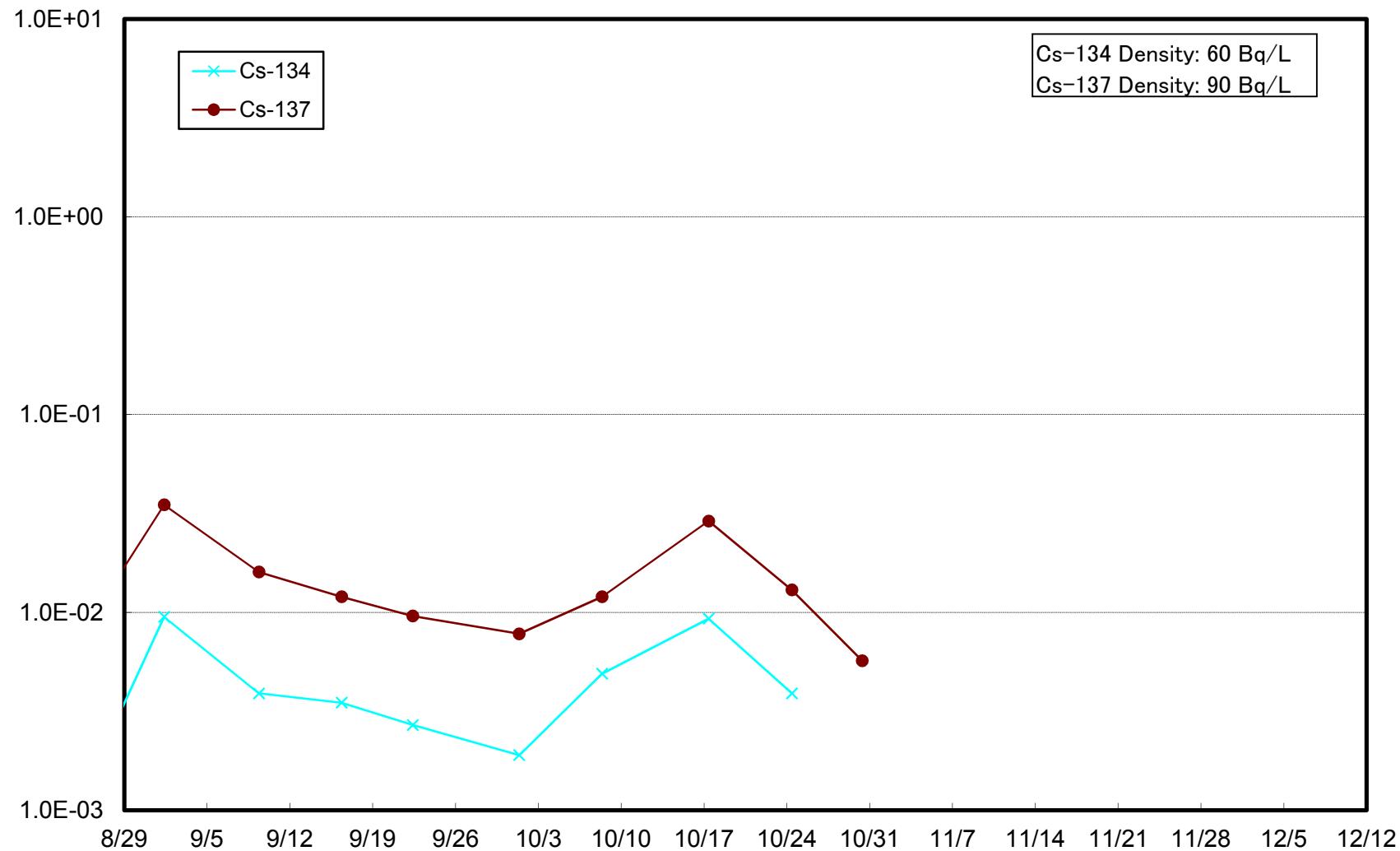
Density of Radioactivity South side of Ukedo port (Bq/L)



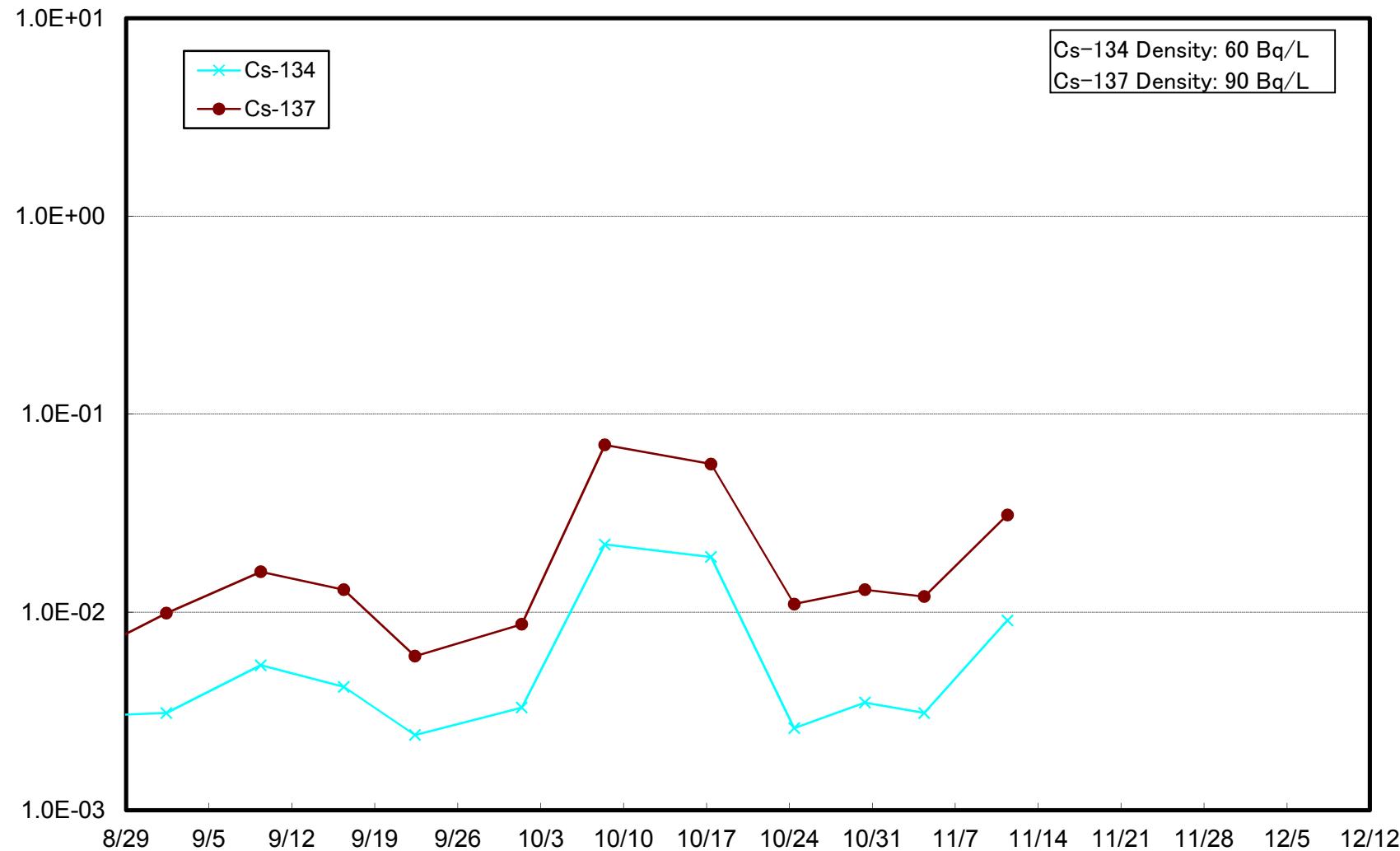
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Upper Layer (Bq/L)



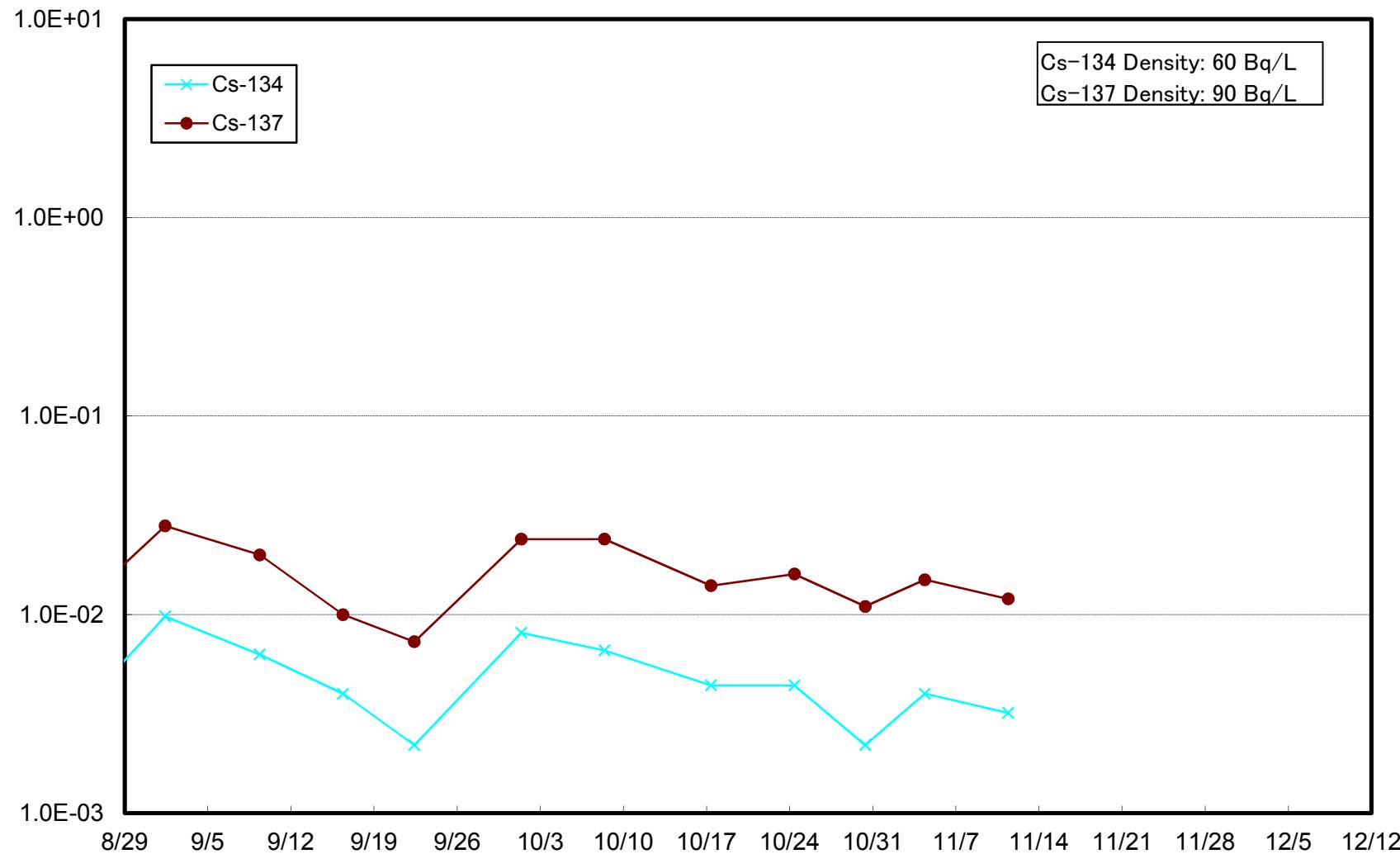
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Lower Layer (Bq/L)



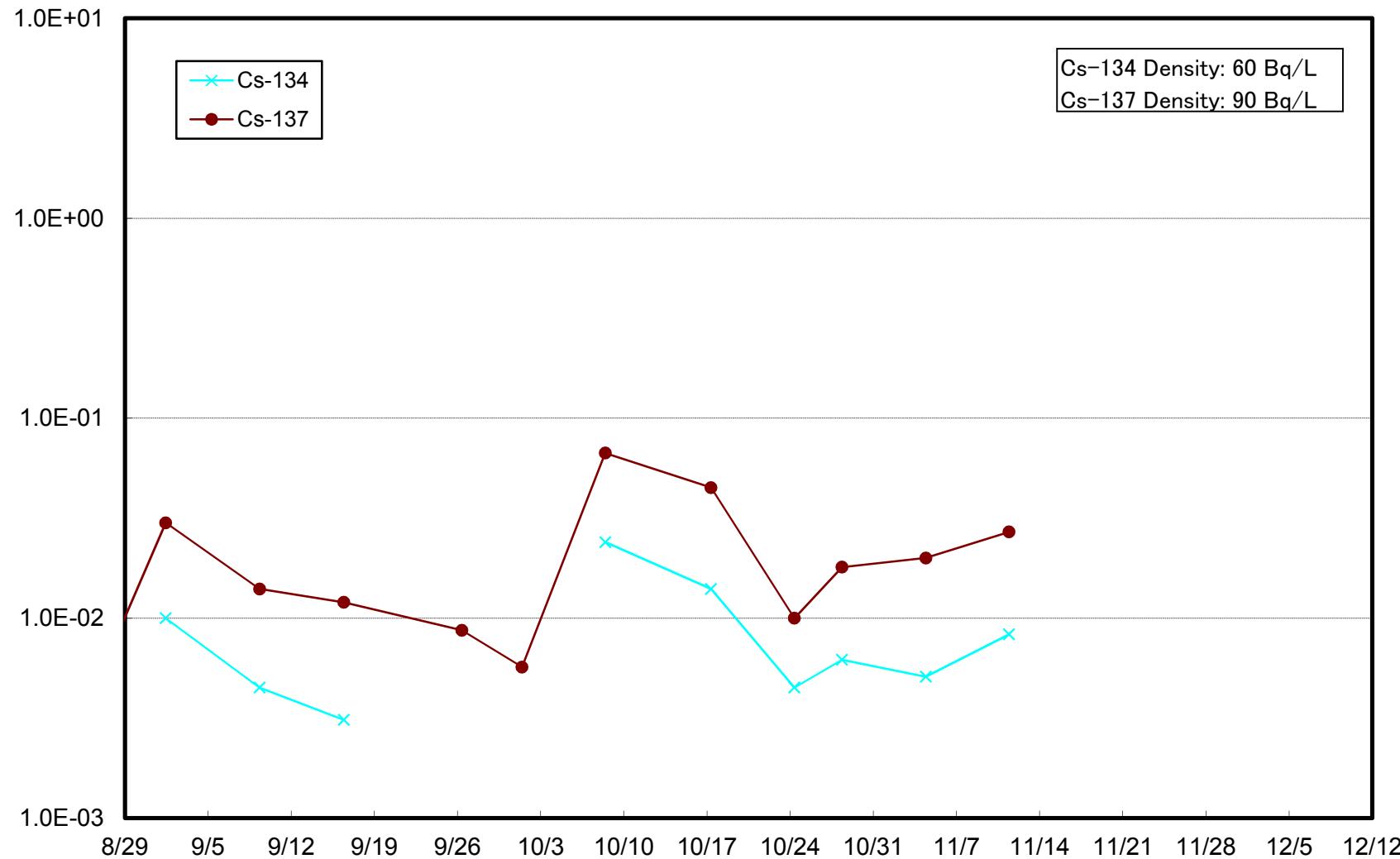
Radioactivity Density of the Seawater at 3km Offshore of Ukedo River (T-D1) Upper Layer (Bq/L)



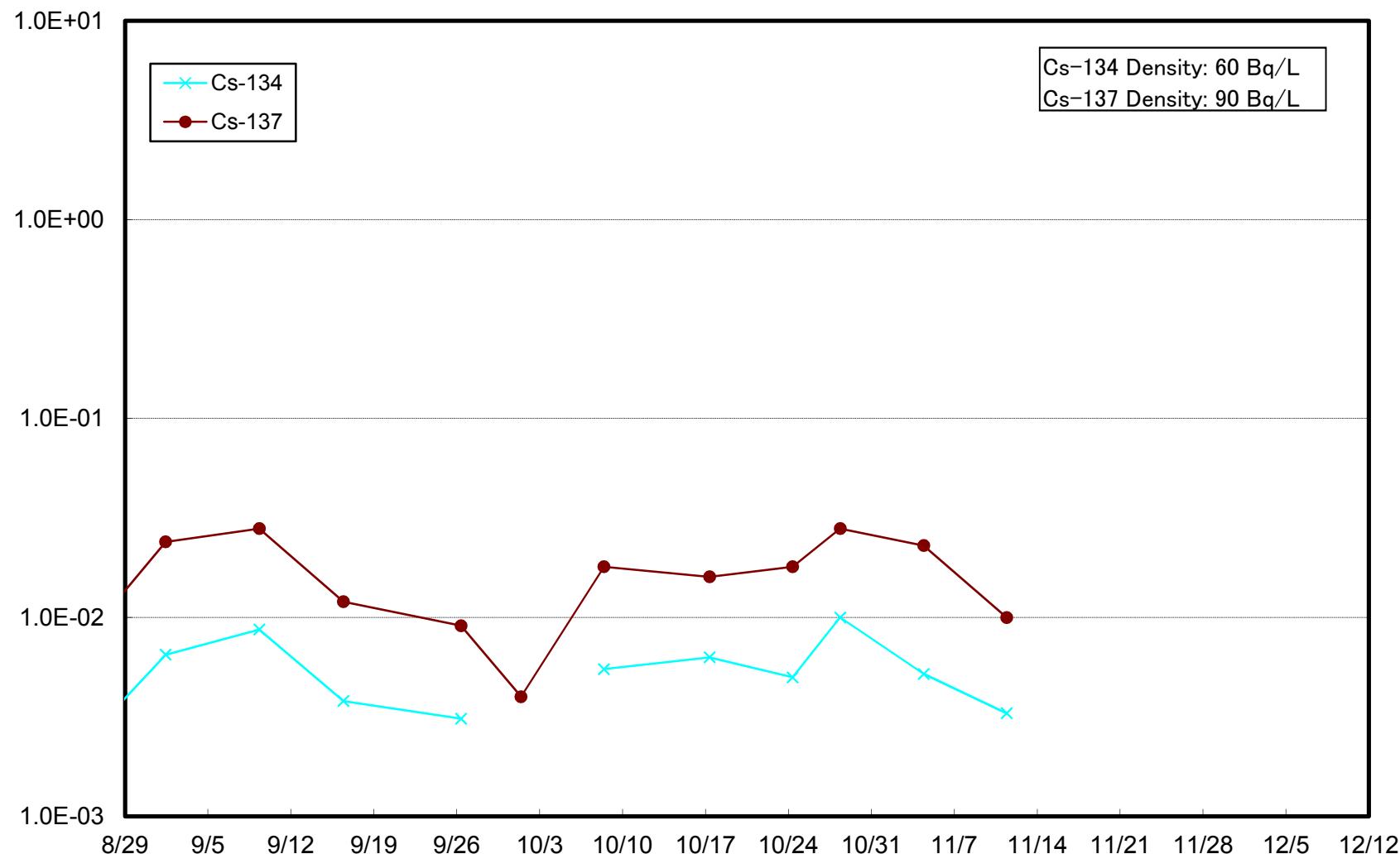
Radioactivity Density of the Seawater at 3km Offshore of Ukedo River (T-D1) Lower Layer (Bq/L)



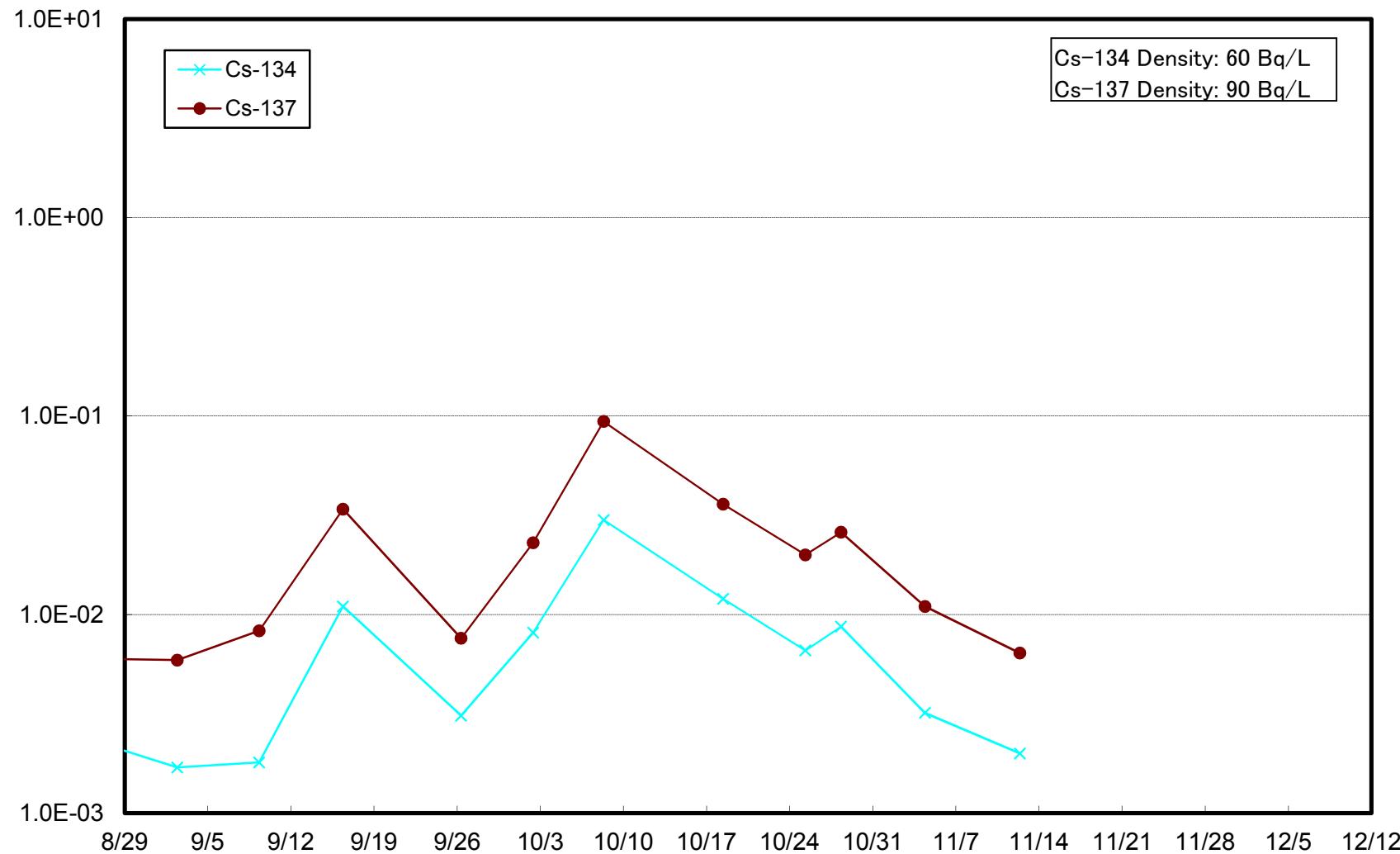
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daiichi NPS (T-D5) Upper Layer (Bq/L)



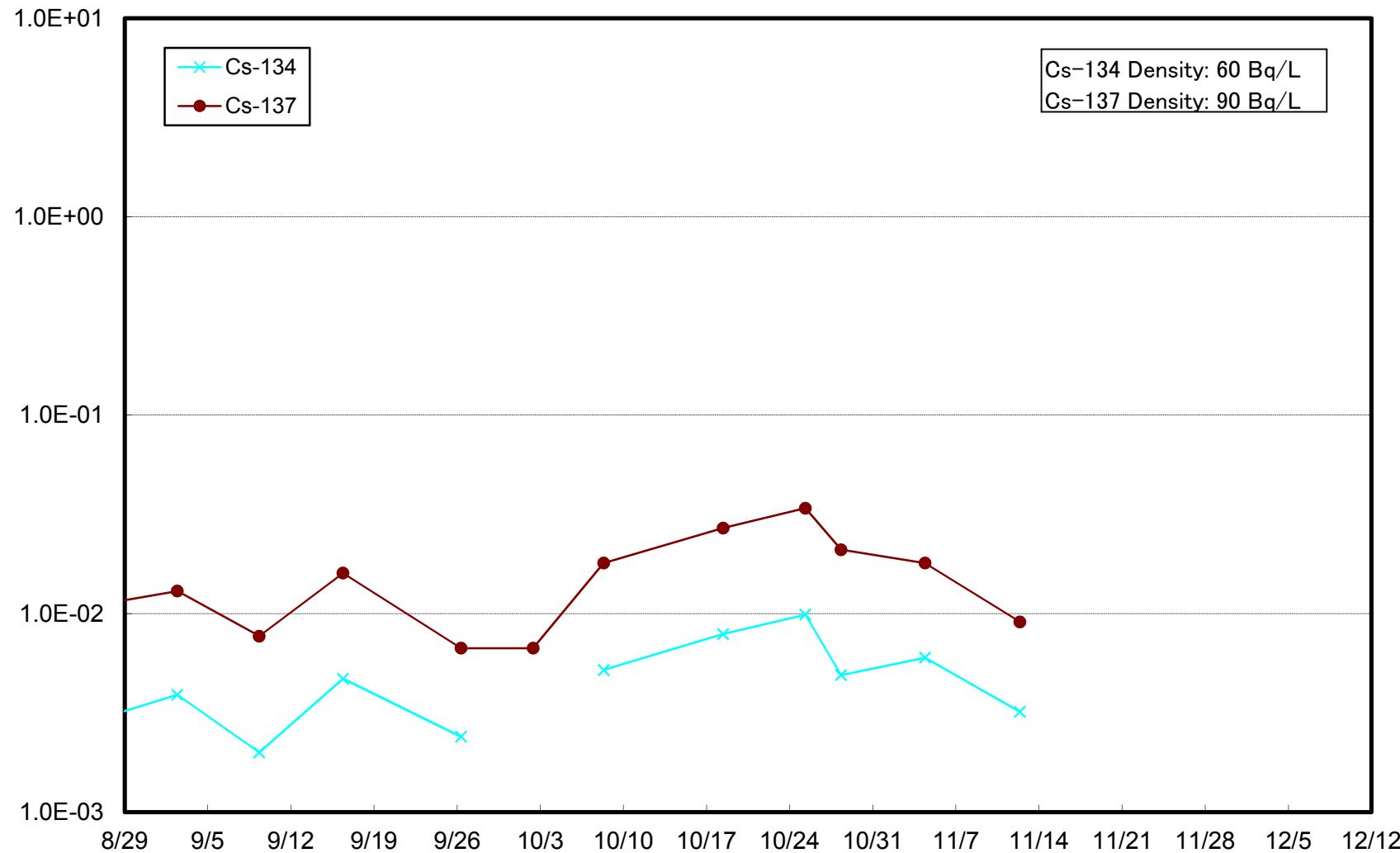
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daiichi NPS (T-D5) Lower Layer (Bq/L)



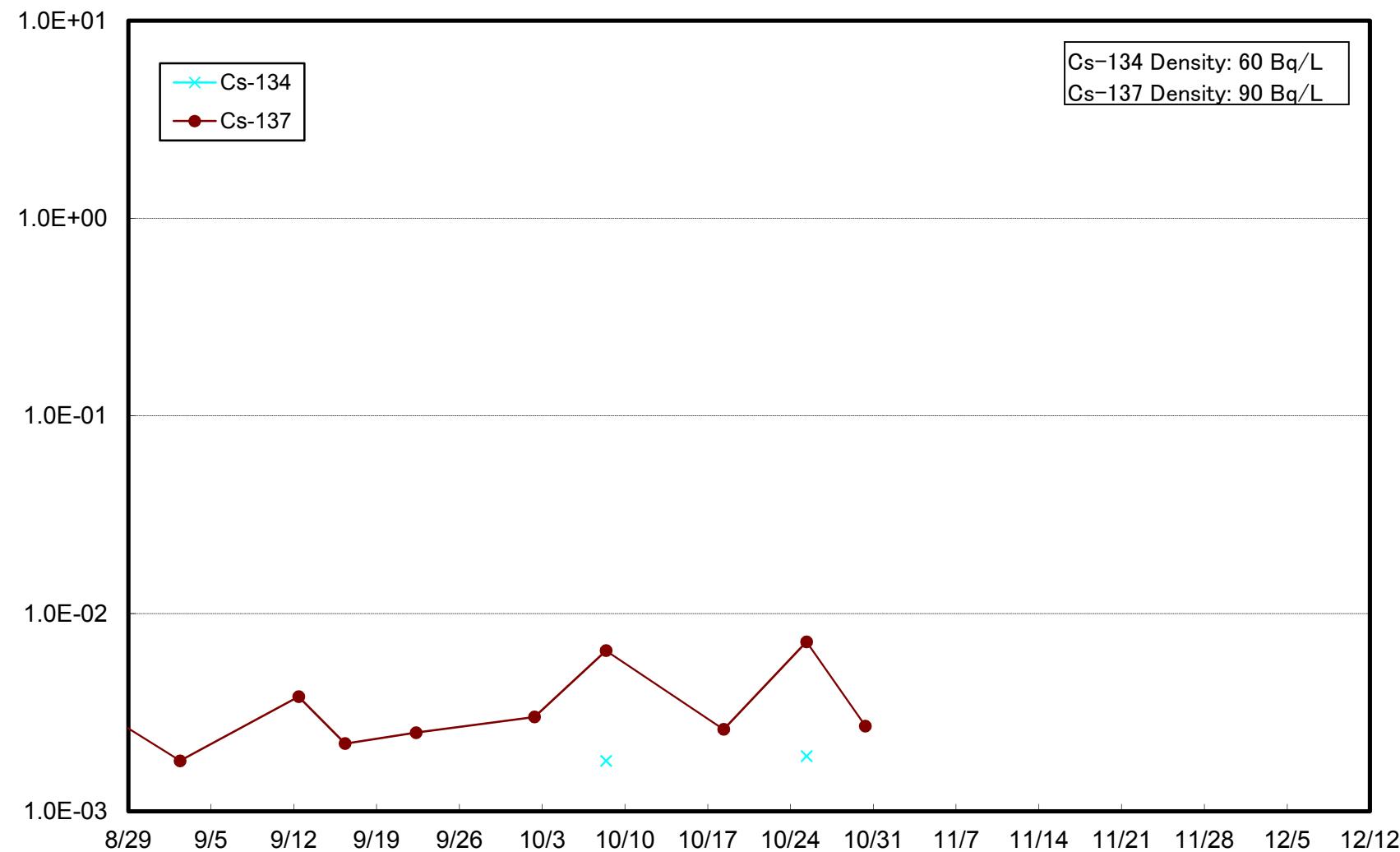
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daini NPS (T-D9) Upper Layer (Bq/L)



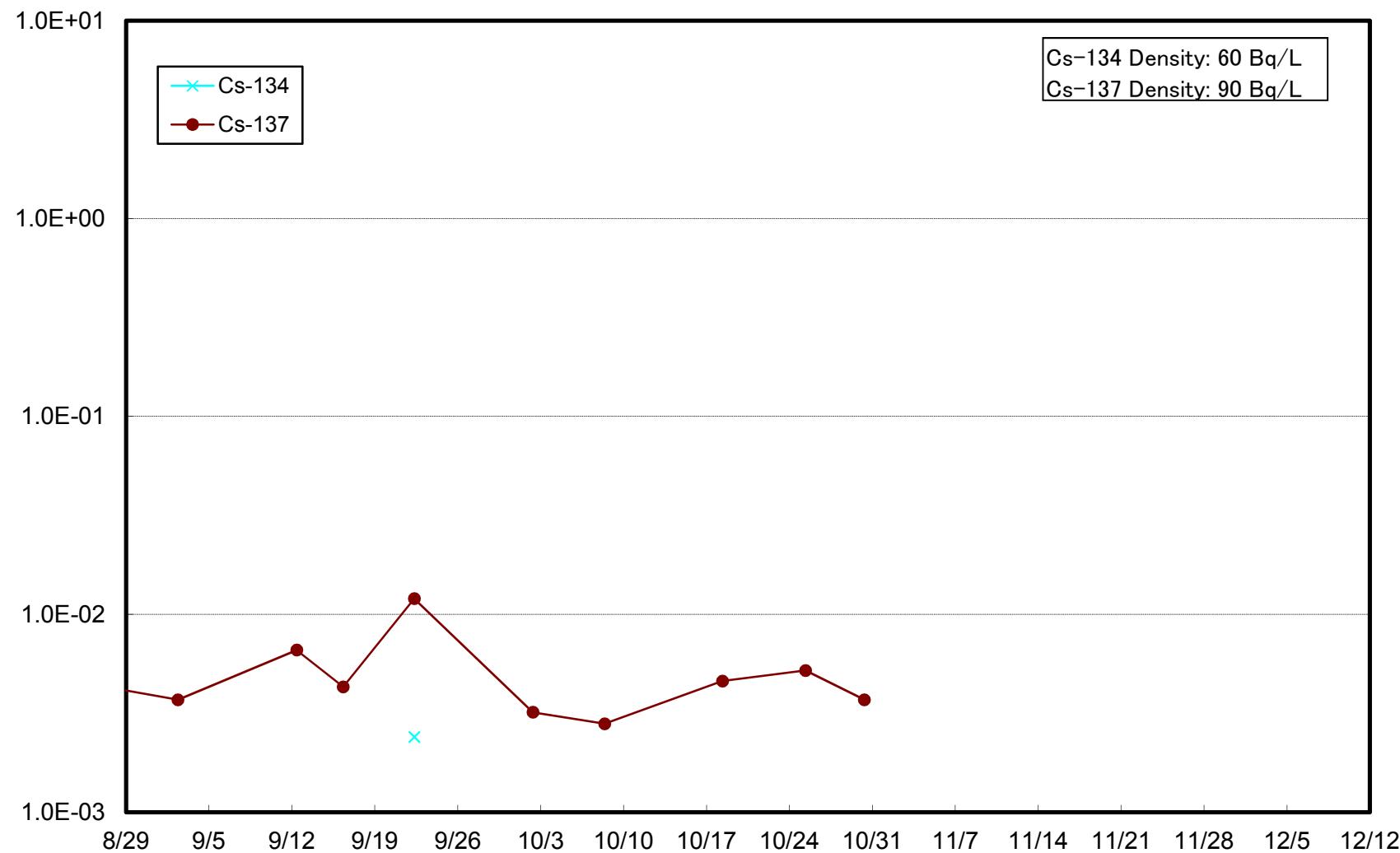
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daini NPS (T-D9) Lower Layer (Bq/L)



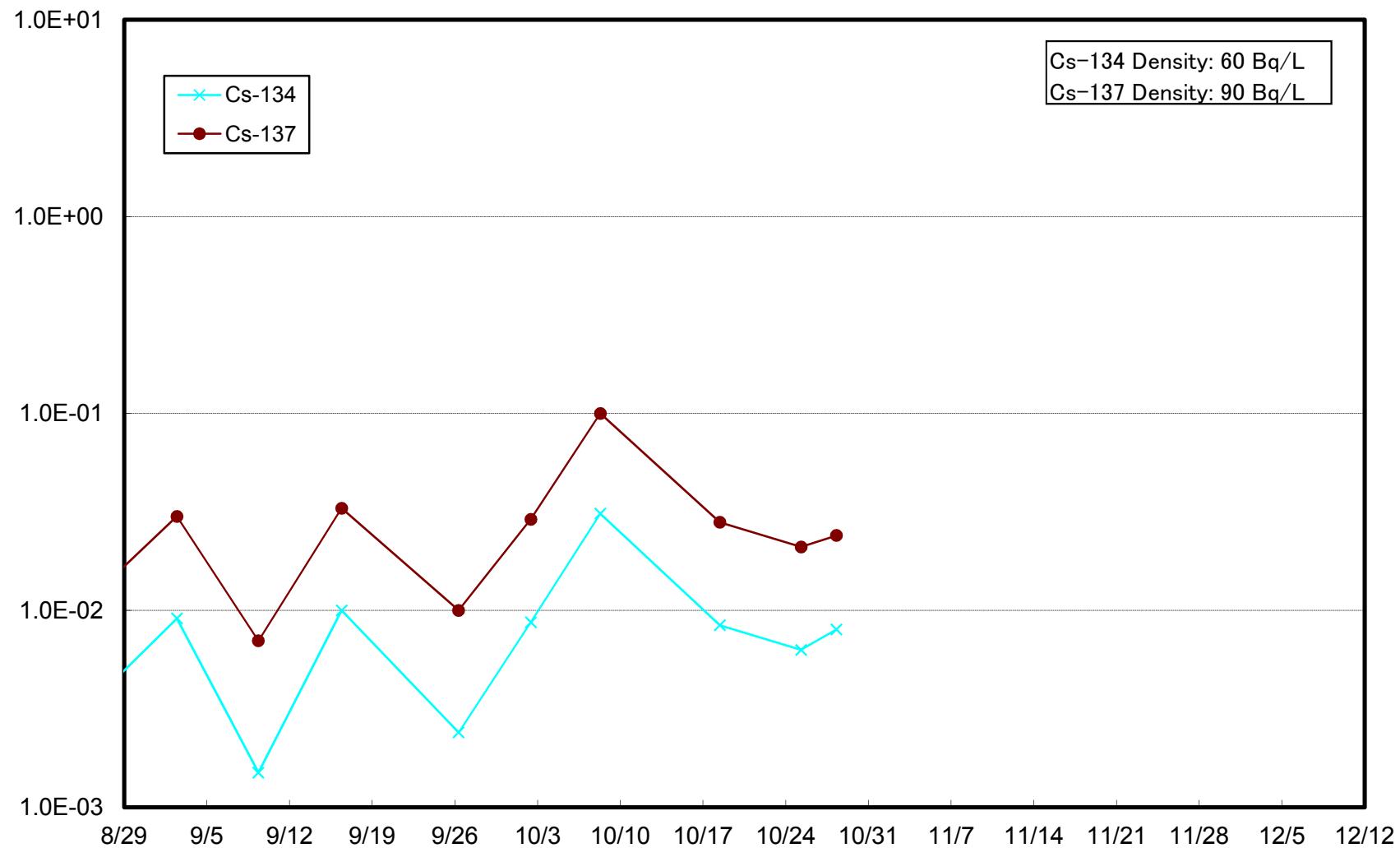
Radioactivity Density of the Seawater at 15km Offshore of Fukushima Daiichi NPS (T-5) Upper Layer (Bq/L)



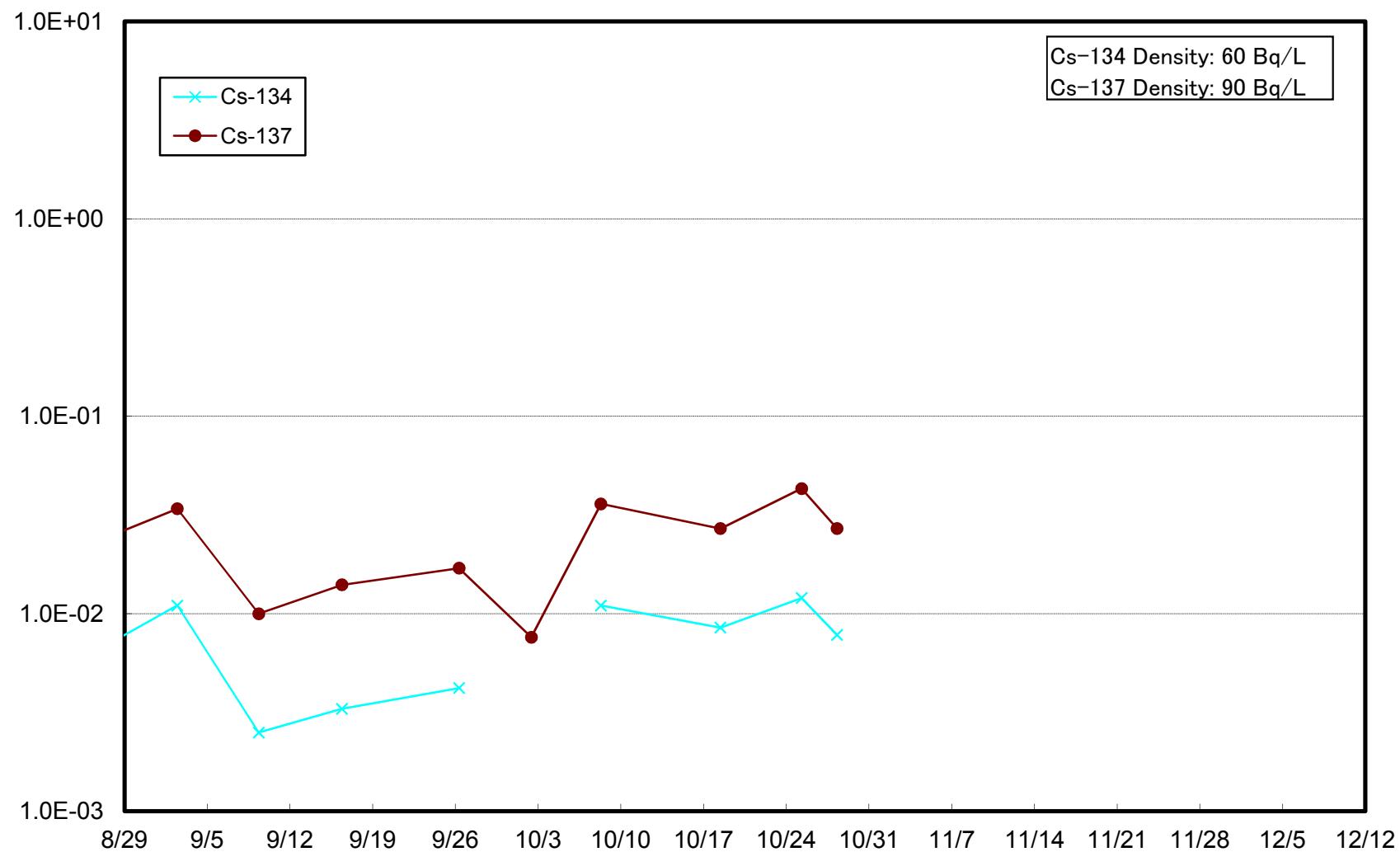
Radioactivity Density of the Seawater at 15km Offshore of Fukushima Daiichi NPS (T-5) Lower Layer (Bq/L)



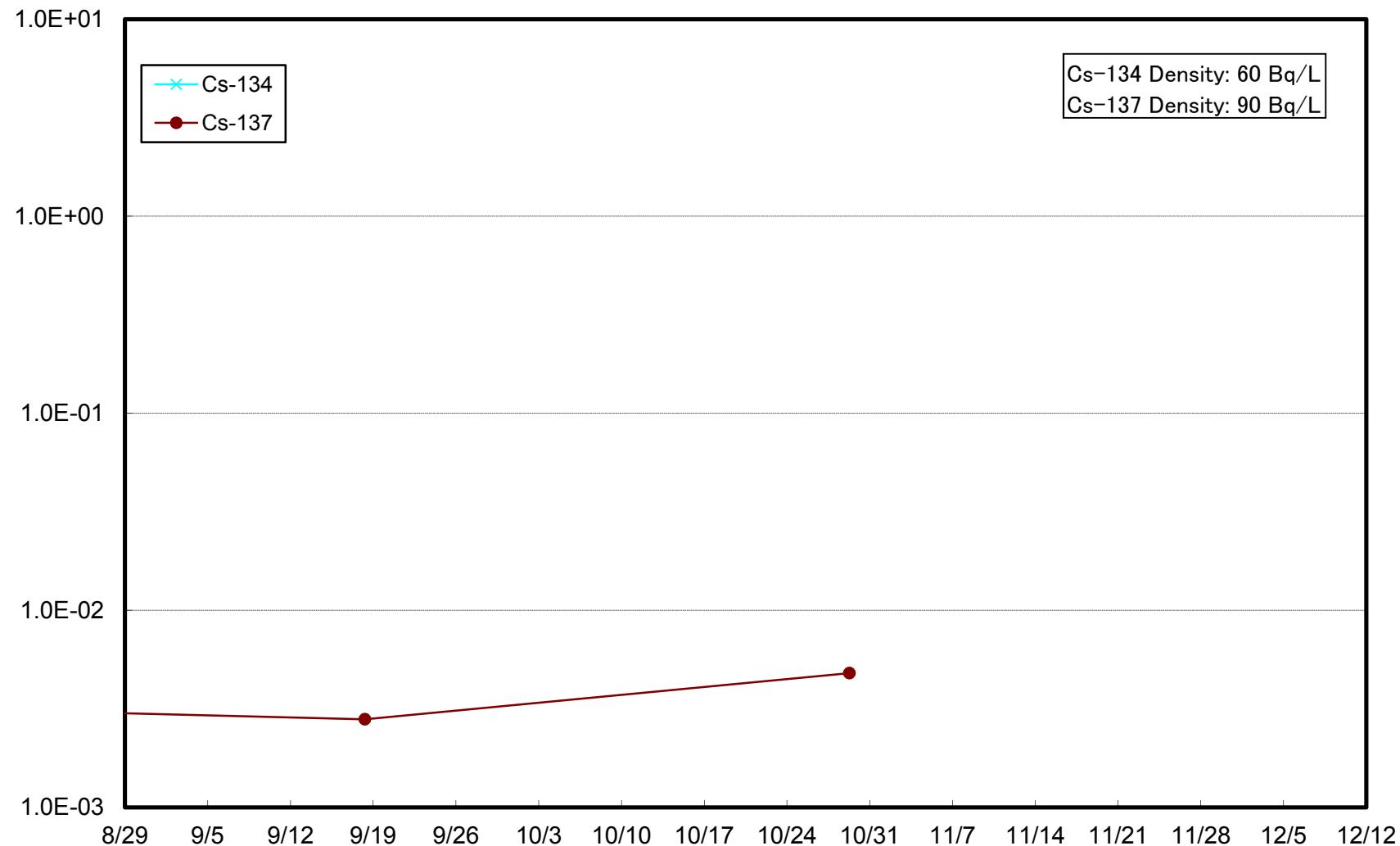
Radioactivity Density of the Seawater at 3km Offshore of Iwasawa Shore (T-11) Upper Layer (Bq/L)



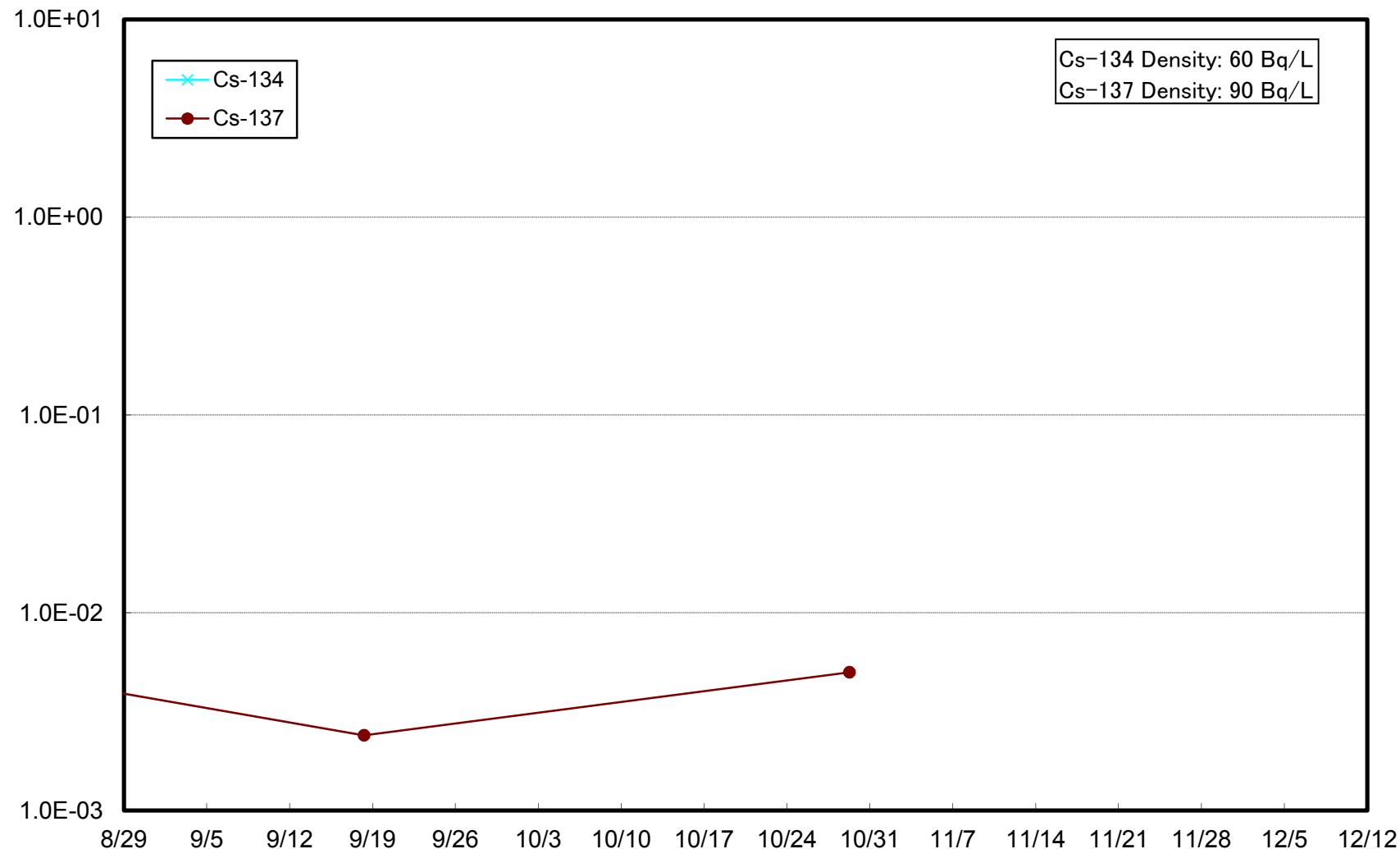
Radioactivity Density of the Seawater at 3km Offshore of Iwasawa Shore (T-11) Lower Layer (Bq/L)



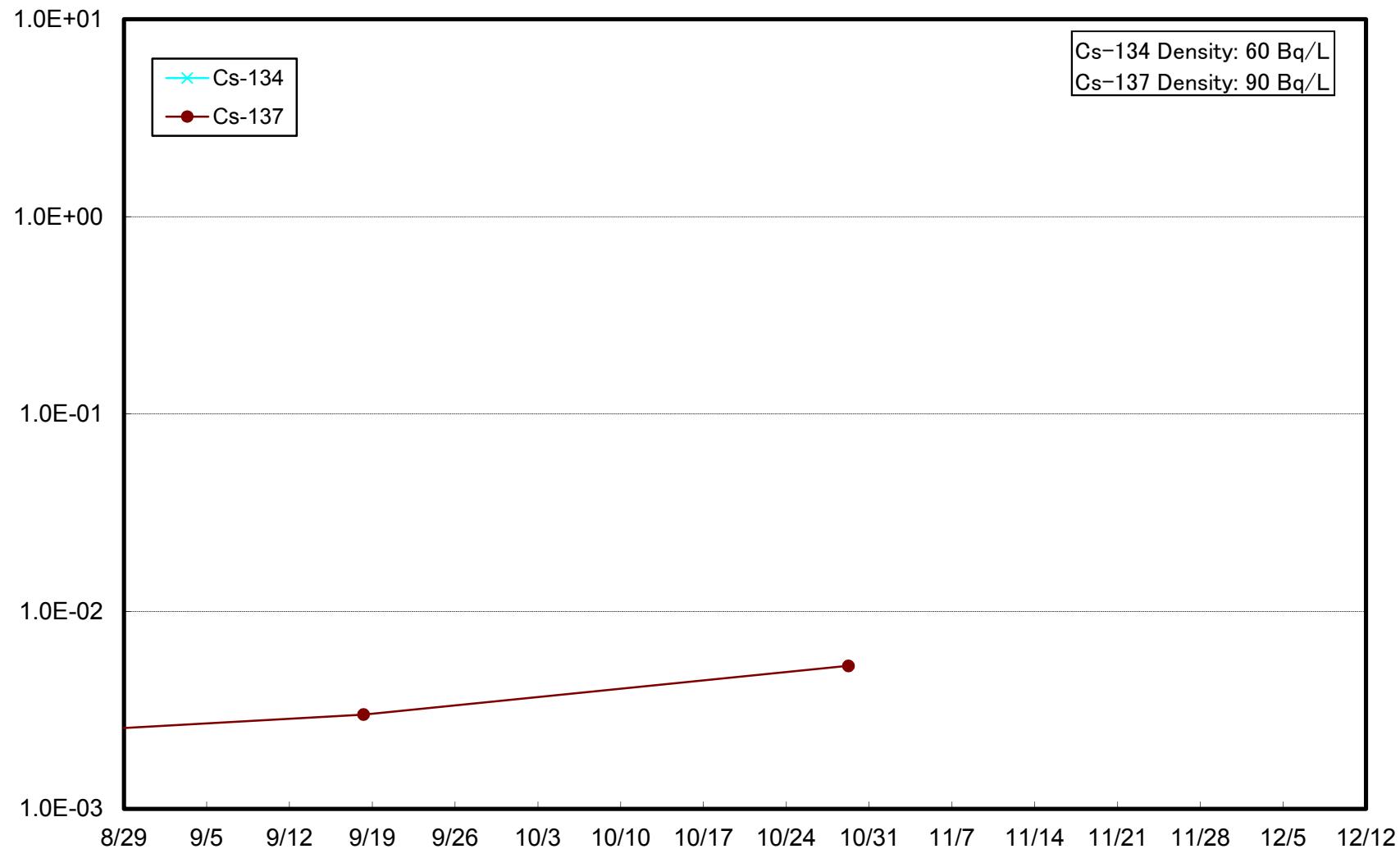
Radioactivity Density of the Seawater at 15km Offshore of Odaka Ward (T-B1) Upper Layer (Bq/L)



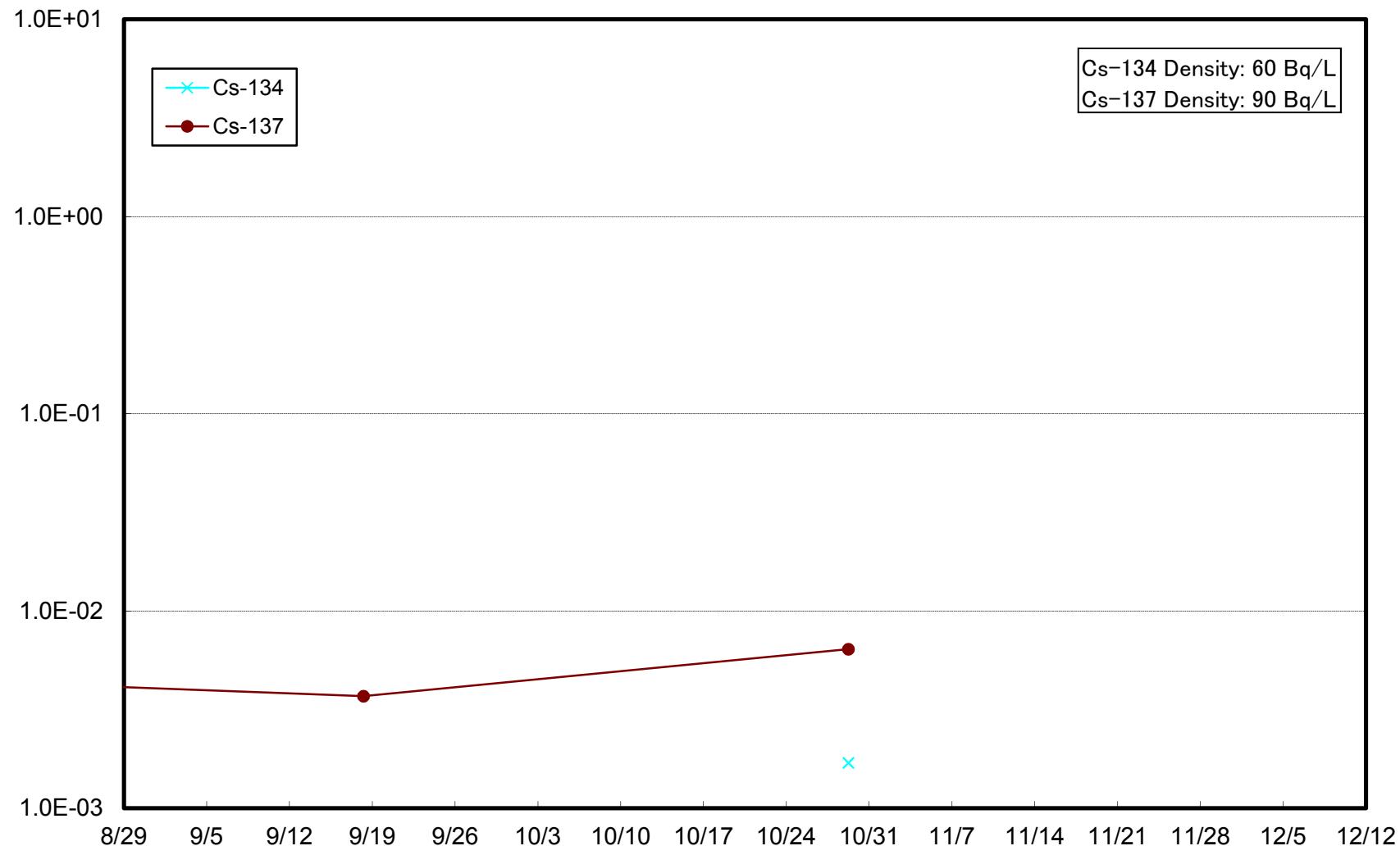
Radioactivity Density of the Seawater at 15km Offshore of Odaka Ward (T-B1) Lower Layer (Bq/L)



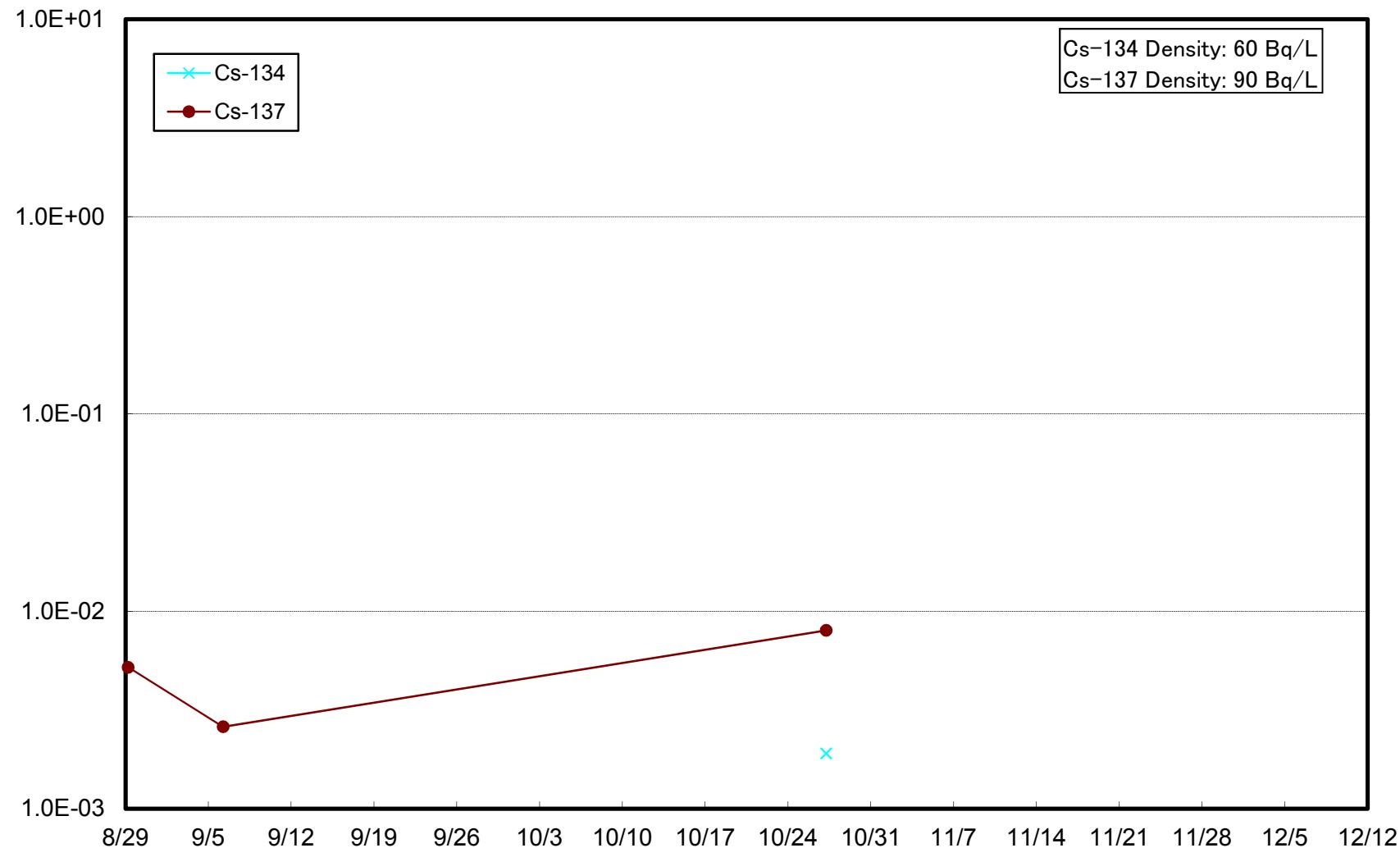
Radioactivity Density of the Seawater at 18km Offshore of Ukedo River (T-B2) Upper Layer (Bq/L)



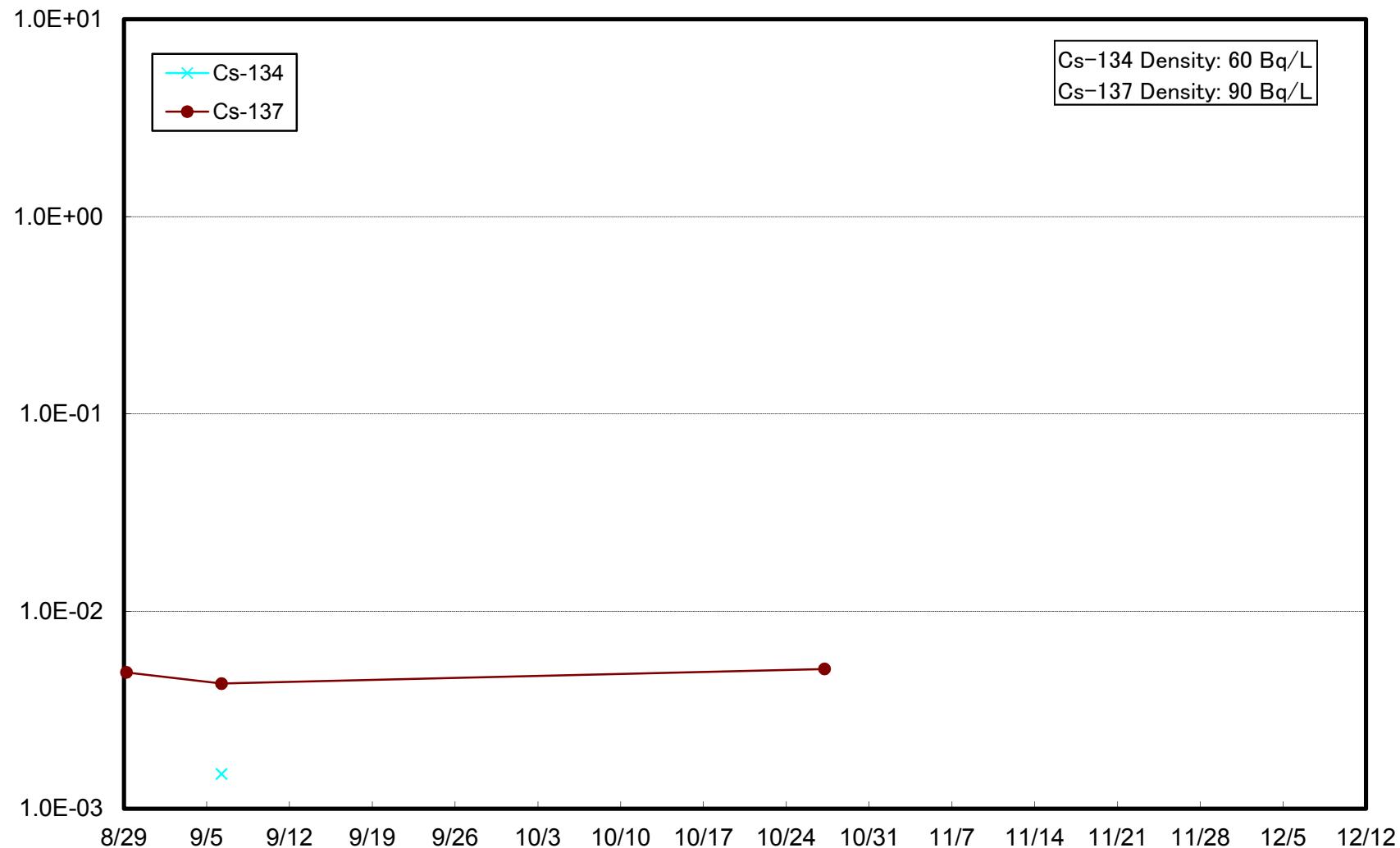
Radioactivity Density of the Seawater at 18km Offshore of Ukedo River (T-B2) Lower Layer (Bq/L)



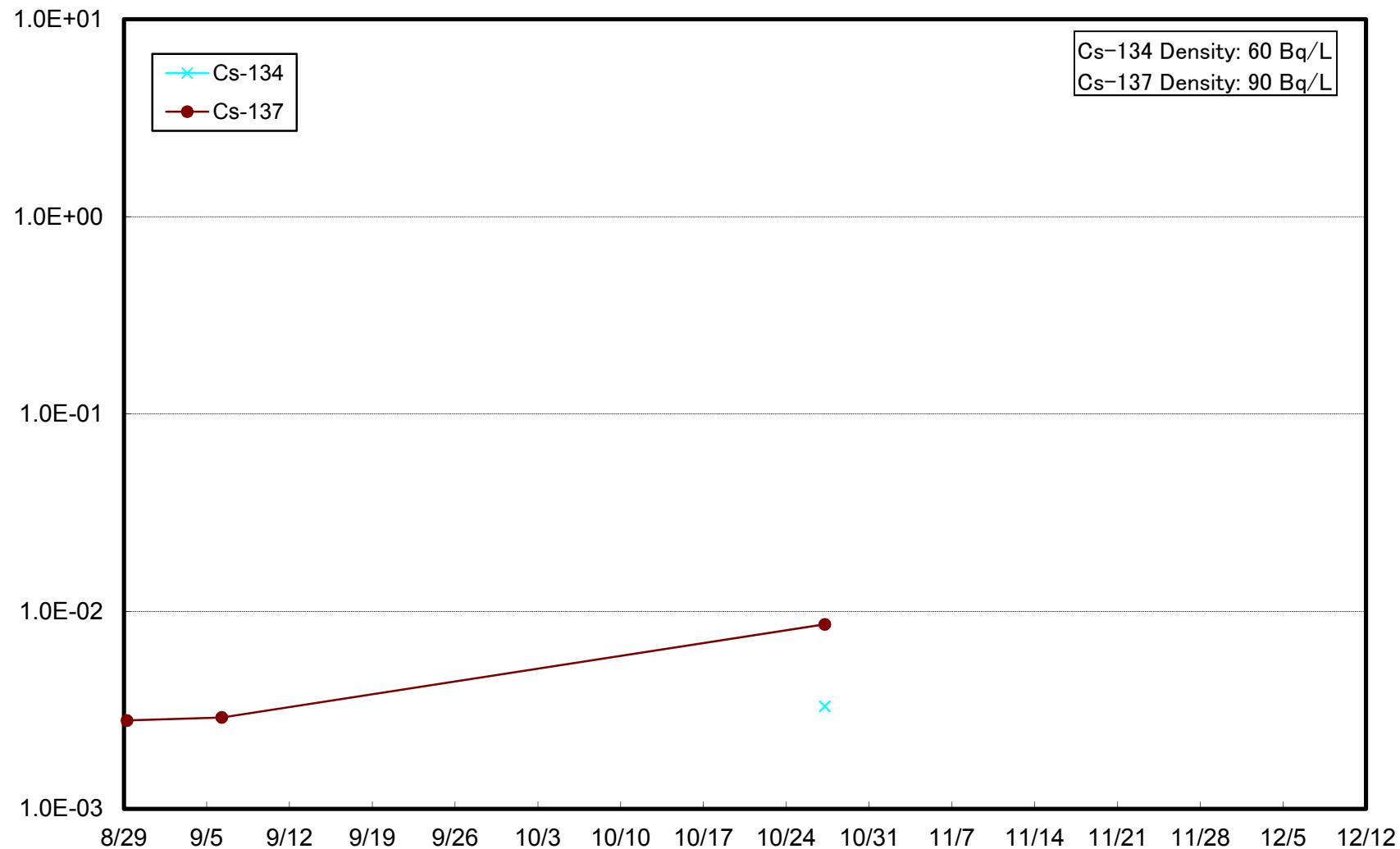
Radioactivity Density of the Seawater at 10km Offshore of Fukushima Daiichi NPS (T-B3) Upper Layer (Bq/L)



Radioactivity Density of the Seawater at 10km Offshore of Fukushima Daiichi NPS (T-B3) Lower Layer (Bq/L)



Radioactivity Density of the Seawater at 10km Offshore of Fukushima Daini NPS (T-B4) Upper Layer (Bq/L)



Radioactivity Density of the Seawater at 10km Offshore of Fukushima Daini NPS (T-B4) Lower Layer (Bq/L)

