

Nuclides Analysis Result of Radioactive Materials in the Seawater <Offshore of Miyagi prefecture 1/6>

(Data summarized on December 4)

Place of Sampling (Place No.)	Offshore of Minamisanriku (T-MG0)						Offshore of Minamisanriku (T-MG0)						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		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer		
Time of Sampling	Jul 16, 2013 9:20 AM		Jul 16, 2013 10:13 AM		Jul 16, 2013 9:55 AM		Aug 5, 2013 1:05 PM		Aug 5, 2013 1:33 PM		Aug 5, 2013 1:20 PM		
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	-	ND	-	ND	-	ND	-	60
Cs-137 (Approx. 30 years)	ND	-	0.0015	0.00	0.0025	0.00	0.0026	0.00	0.0030	0.00	0.0024	0.00	90

Place of Sampling (Place No.)	*1 Offshore of Minamisanriku (T-MG0)						Ishinomaki Bay (T-MG1)						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		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer		
Time of Sampling	Aug 20, 2013 12:27 PM		Aug 20, 2013 1:02 PM		Aug 20, 2013 12:51 PM		Jul 17, 2013 10:27 AM		Jul 17, 2013 10:24 AM		Jul 17, 2013 10:20 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)	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	-	0.0047	0.00	0.0021	0.00	0.0015	0.00	60
Cs-137 (Approx. 30 years)	0.0020	0.00	0.0019	0.00	0.0020	0.00	0.0084	0.00	0.0077	0.00	0.0036	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.

Cs-134: Approx.0.0017Bq/L, Cs-137: Approx.0.0016Bq/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. (Since the announcement on June 15, 2012.)

* Analyzed by: *1 THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD.

Nuclides Analysis Result of Radioactive Materials in the Seawater <Offshore of Miyagi prefecture 2/6>

(Data summarized on December 4)

Place of Sampling (Place No.)	Ishinomaki Bay (T-MG1)						Ishinomaki Bay (T-MG1)						*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.)
	Upper Layer		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer			
Time of Sampling	Aug 1, 2013 10:41 AM		Aug 1, 2013 10:37 AM		Aug 1, 2013 10:33 AM		Aug 20, 2013 10:31 AM		Aug 20, 2013 10:25 AM		Aug 20, 2013 10:22 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)	0.0025	0.00	ND	-	0.0019	0.00	0.0019	0.00	ND	-	ND	-	60	
Cs-137 (Approx. 30 years)	0.0054	0.00	0.0033	0.00	0.0030	0.00	0.0053	0.00	0.0024	0.00	0.0022	0.00	90	

Place of Sampling (Place No.)	Offshore of Kinkasan East (T-MG2)						Offshore of Kinkasan East (T-MG2)						*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.)
	Upper Layer		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer			
Time of Sampling	Jul 17, 2013 7:44 AM		Jul 17, 2013 8:02 AM		Jul 17, 2013 7:59 AM		Aug 1, 2013 8:03 AM		Aug 1, 2013 8:21 AM		Aug 1, 2013 8:01 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	-	0.0017	0.00	ND	-	0.0015	0.00	ND	-	ND	-	60	
Cs-137 (Approx. 30 years)	ND	-	0.0033	0.00	0.0045	0.00	0.0031	0.00	ND	-	0.0030	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.

Cs-134: Approx.0.0022Bq/L, Cs-137: Approx.0.0017Bq/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. (Since the announcement on June 15, 2012.)

* Analyzed by: *1 THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD.

Nuclides Analysis Result of Radioactive Materials in the Seawater <Offshore of Miyagi prefecture 3/6>

(Data summarized on December 4)

Place of Sampling (Place No.)	*1 Offshore of Kinkasan East (T-MG2)						Offshore of Kinkasan South (T-MG3)						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		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer		
Time of Sampling	Aug 20, 2013 7:46 AM		Aug 20, 2013 8:08 AM		Aug 20, 2013 7:53 AM		Jul 17, 2013 8:52 AM		Jul 17, 2013 9:06 AM		Jul 17, 2013 8:54 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)	0.0015	0.00	ND	-	ND	-	ND	-	ND	-	ND	-	60
Cs-137 (Approx. 30 years)	0.0041	0.00	0.0024	0.00	0.0025	0.00	0.0031	0.00	0.0030	0.00	0.0019	0.00	90

Place of Sampling (Place No.)	Offshore of Kinkasan South (T-MG3)						*1 Offshore of Kinkasan South (T-MG3)						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		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer		
Time of Sampling	Aug 1, 2013 8:59 AM		Aug 1, 2013 9:21 AM		Aug 1, 2013 9:08 AM		Aug 20, 2013 8:54 AM		Aug 20, 2013 9:09 AM		Aug 20, 2013 8:57 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	-	ND	-	ND	-	ND	-	60
Cs-137 (Approx. 30 years)	0.0025	0.00	0.0027	0.00	0.0036	0.00	0.0040	0.00	0.0013	0.00	0.0036	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.

Cs-134: Approx.0.0016Bq/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. (Since the announcement on June 15, 2012.)

* Analyzed by: *1 THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD.

Nuclides Analysis Result of Radioactive Materials in the Seawater <Offshore of Miyagi prefecture 4/6>

(Data summarized on December 4)

Place of Sampling (Place No.)	Offshore of Shichigahama (T-MG4)						Offshore of Shichigahama (T-MG4)						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		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer		
Time of Sampling	Jul 17, 2013 9:08 AM		Jul 17, 2013 9:10 AM		Jul 17, 2013 9:05 AM		Aug 7, 2013 7:53 AM		Aug 7, 2013 8:06 AM		Aug 7, 2013 7:56 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)	0.0053	0.00	0.0033	0.00	0.0032	0.00	0.0020	0.00	ND	-	ND	-	60
Cs-137 (Approx. 30 years)	0.0085	0.00	0.0090	0.00	0.0083	0.00	0.0050	0.00	0.0018	0.00	0.0028	0.00	90

Place of Sampling (Place No.)	*1 Offshore of Shichigahama (T-MG4)						Central Area of Sendai Bay (T-MG5)						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		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer		
Time of Sampling	Aug 20, 2013 9:12 AM		Aug 20, 2013 9:16 AM		Aug 20, 2013 9:08 AM		Jul 17, 2013 8:16 AM		Jul 17, 2013 8:23 AM		Jul 17, 2013 8:12 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)	0.0024	0.00	0.0018	0.00	0.0026	0.00	0.0035	0.00	ND	-	0.0062	0.00	60
Cs-137 (Approx. 30 years)	0.0065	0.00	0.0044	0.00	0.0069	0.00	0.0078	0.00	0.0027	0.00	0.014	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.

Cs-134: Approx.0.0015Bq/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. (Since the announcement on June 15, 2012.)

* Analyzed by: *1 THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD.

Nuclides Analysis Result of Radioactive Materials in the Seawater <Offshore of Miyagi prefecture 5/6>

(Data summarized on December 4)

Place of Sampling (Place No.)	Central Area of Sendai Bay (T-MG5)						Central Area of Sendai Bay (T-MG5)						*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.)
	Upper Layer		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer			
Time of Sampling	Aug 6, 2013 8:15 AM		Aug 6, 2013 8:27 AM		Aug 6, 2013 8:19 AM		Aug 20, 2013 8:22 AM		Aug 20, 2013 8:26 AM		Aug 20, 2013 8:18 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	-	0.0021	0.00	ND	-	0.0027	0.00		60
Cs-137 (Approx. 30 years)	0.0018	0.00	0.0024	0.00	0.0023	0.00	0.0054	0.00	0.0022	0.00	0.0068	0.00		90

Place of Sampling (Place No.)	Offshore of Abukuma River (T-MG6)						Offshore of Abukuma River (T-MG6)						*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.)
	Upper Layer		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer			
Time of Sampling	Jul 17, 2013 10:08 AM		Jul 17, 2013 10:12 AM		Jul 17, 2013 10:06 AM		Aug 6, 2013 9:29 AM		Aug 6, 2013 9:26 AM		Aug 6, 2013 9:21 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)	0.0046	0.00	0.0049	0.00	0.0039	0.00	0.0038	0.00	ND	-	ND	-		60
Cs-137 (Approx. 30 years)	0.010	0.00	0.011	0.00	0.0082	0.00	0.0073	0.00	0.0025	0.00	0.0052	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.

Cs-134: Approx.0.0016Bq/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. (Since the announcement on June 15, 2012.)

* Analyzed by: *1 THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD.

Nuclides Analysis Result of Radioactive Materials in the Seawater <Offshore of Miyagi prefecture 6/6>

(Data summarized on December 4)

Place of Sampling (Place No.)	*1 Offshore of Abukuma River (T-MG6)						/						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		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer		
Time of Sampling	Aug 20, 2013 10:15 AM		Aug 20, 2013 10:23 AM		Aug 20, 2013 10:10 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)	
Cs-134 (Approx. 2 years)	0.0021	0.00	ND	-	ND	-	/	/	/	/	/	/	60
Cs-137 (Approx. 30 years)	0.0062	0.00	0.0031	0.00	0.0041	0.00	/	/	/	/	/	/	90

Place of Sampling (Place No.)	/						/						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		Middle Layer		Lower Layer		Upper Layer		Middle Layer		Lower Layer		
Time of Sampling	/		/		/		/		/		/		
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)	/	/	/	/	/	/	/	/	/	/	/	/	60
Cs-137 (Approx. 30 years)	/	/	/	/	/	/	/	/	/	/	/	/	90

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

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

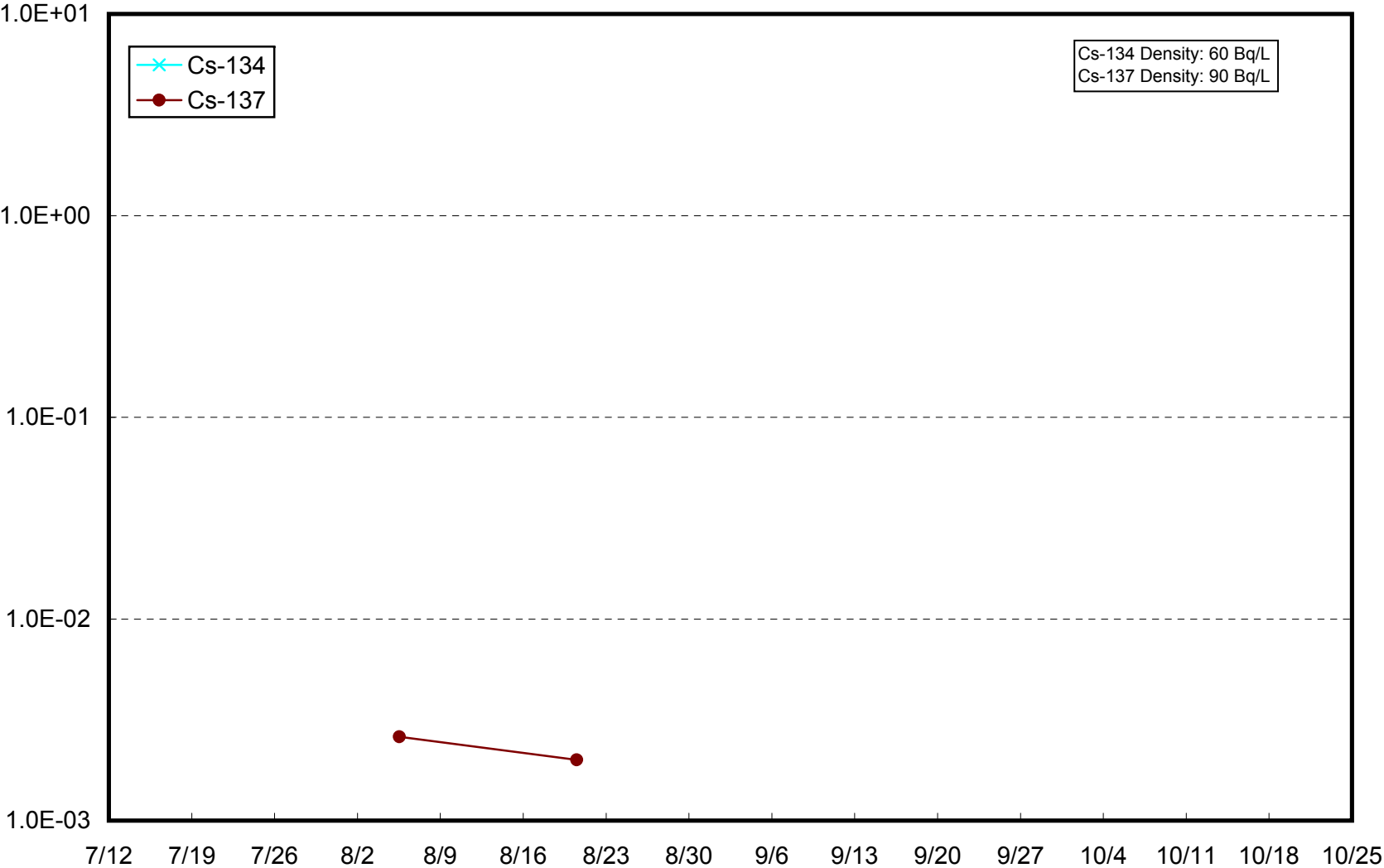
Cs-134: Approx.0.0014Bq/L

As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

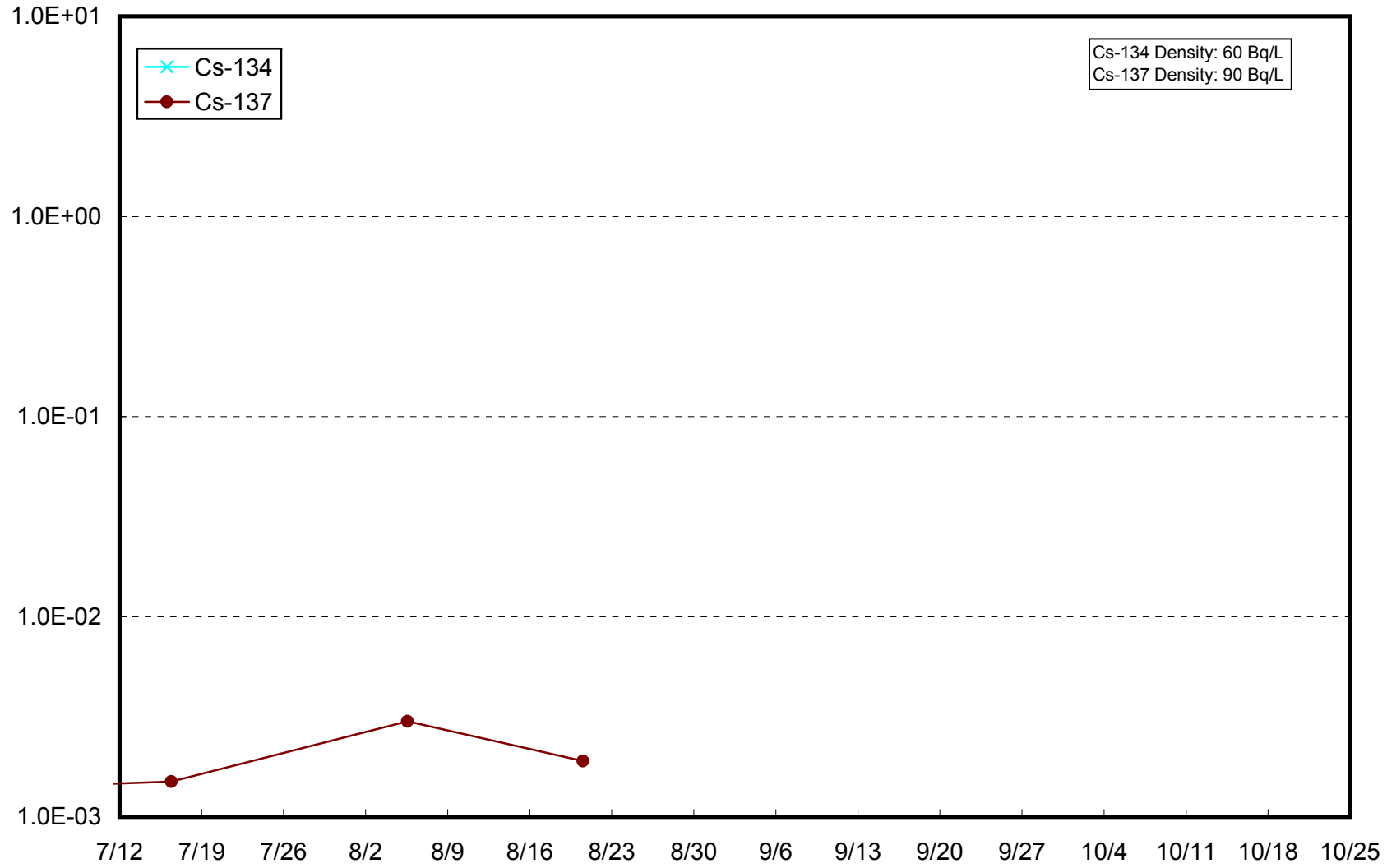
* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted. (Since the announcement on June 15, 2012.)

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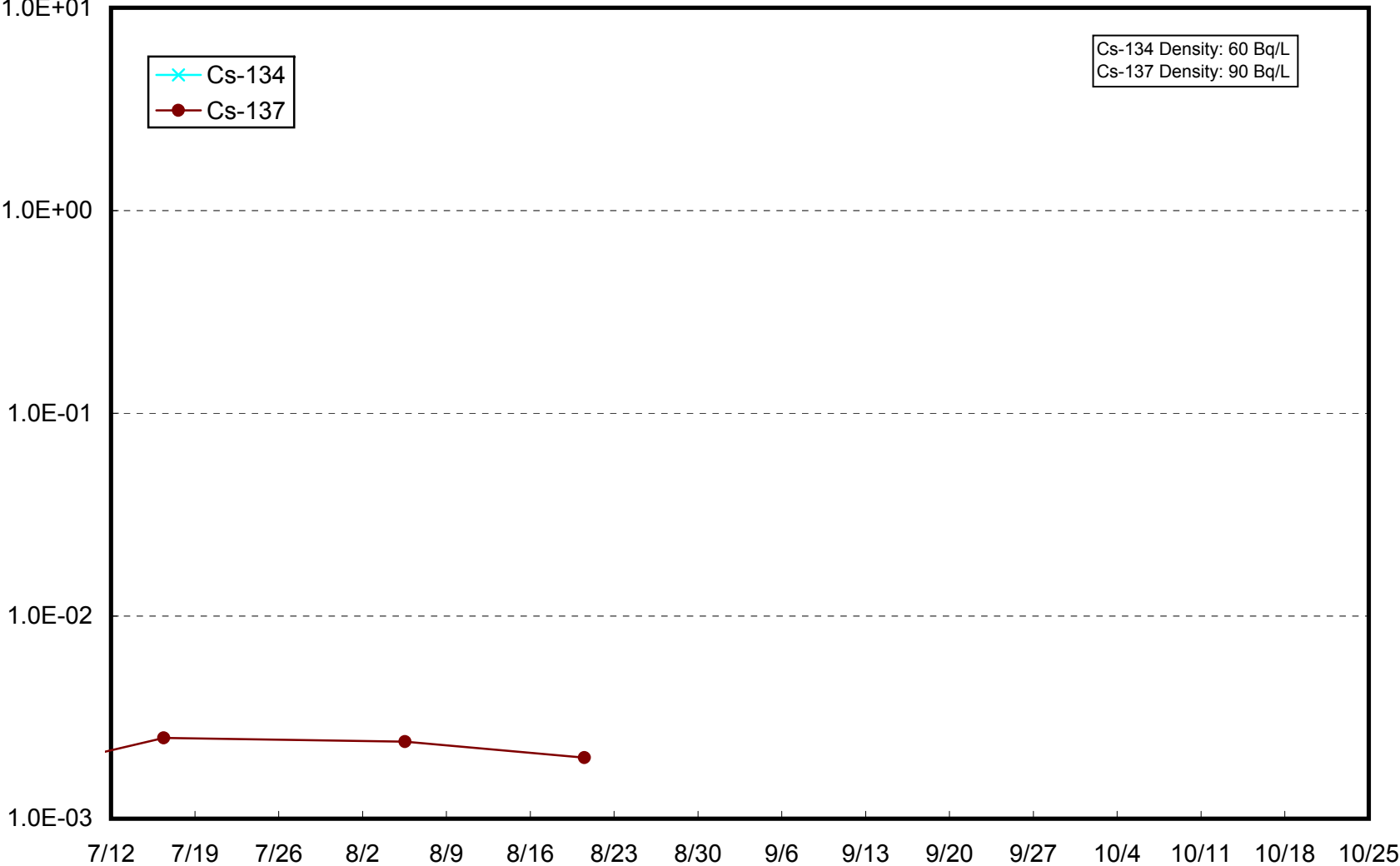
Radioactivity Density of the Seawater at Offshore of Minamisanriku (T-MG0) Upper Layer (Bq/L)



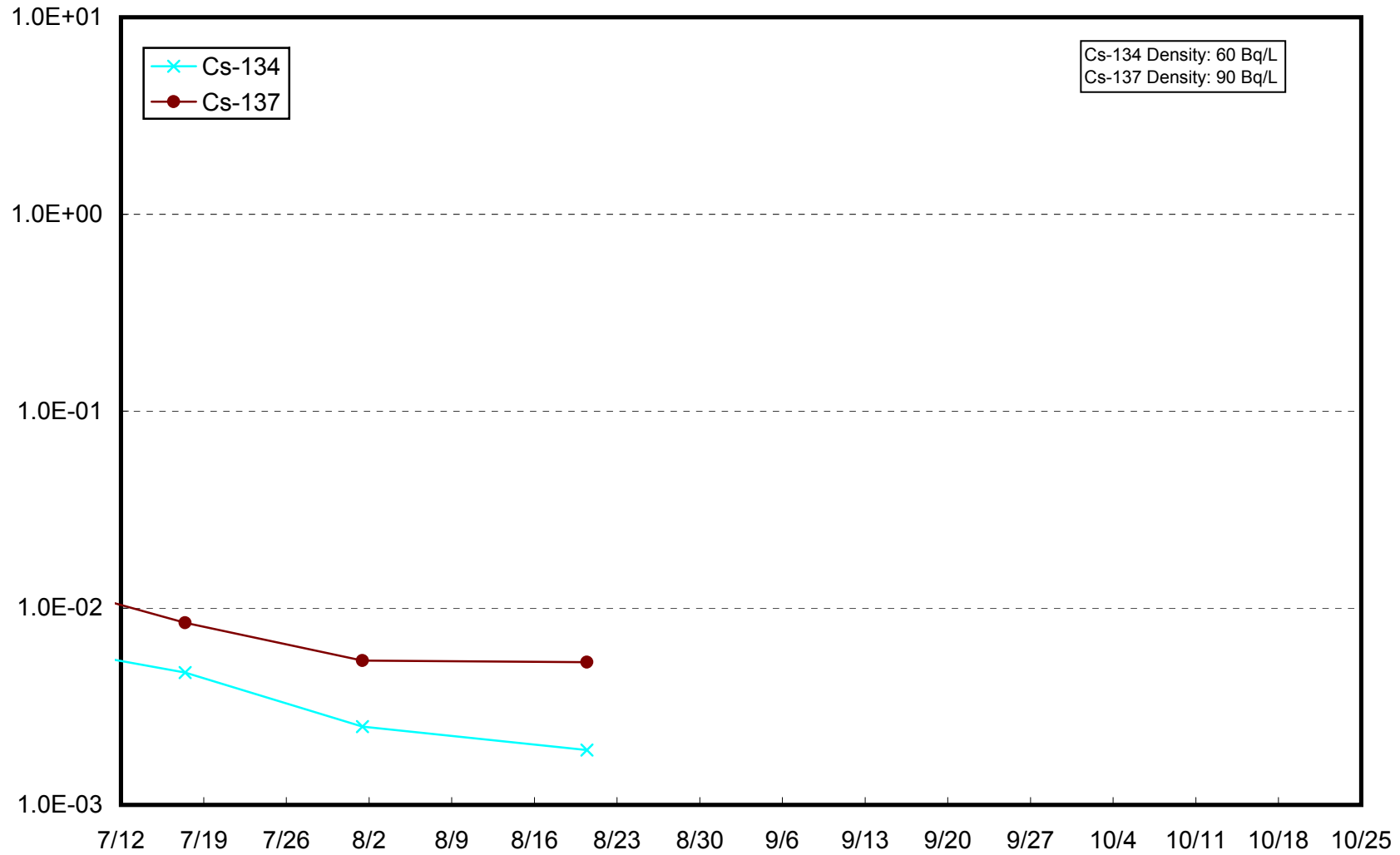
Radioactivity Density of the Seawater at Offshore of Minamisanriku (T-MG0) Middle Layer (Bq/L)



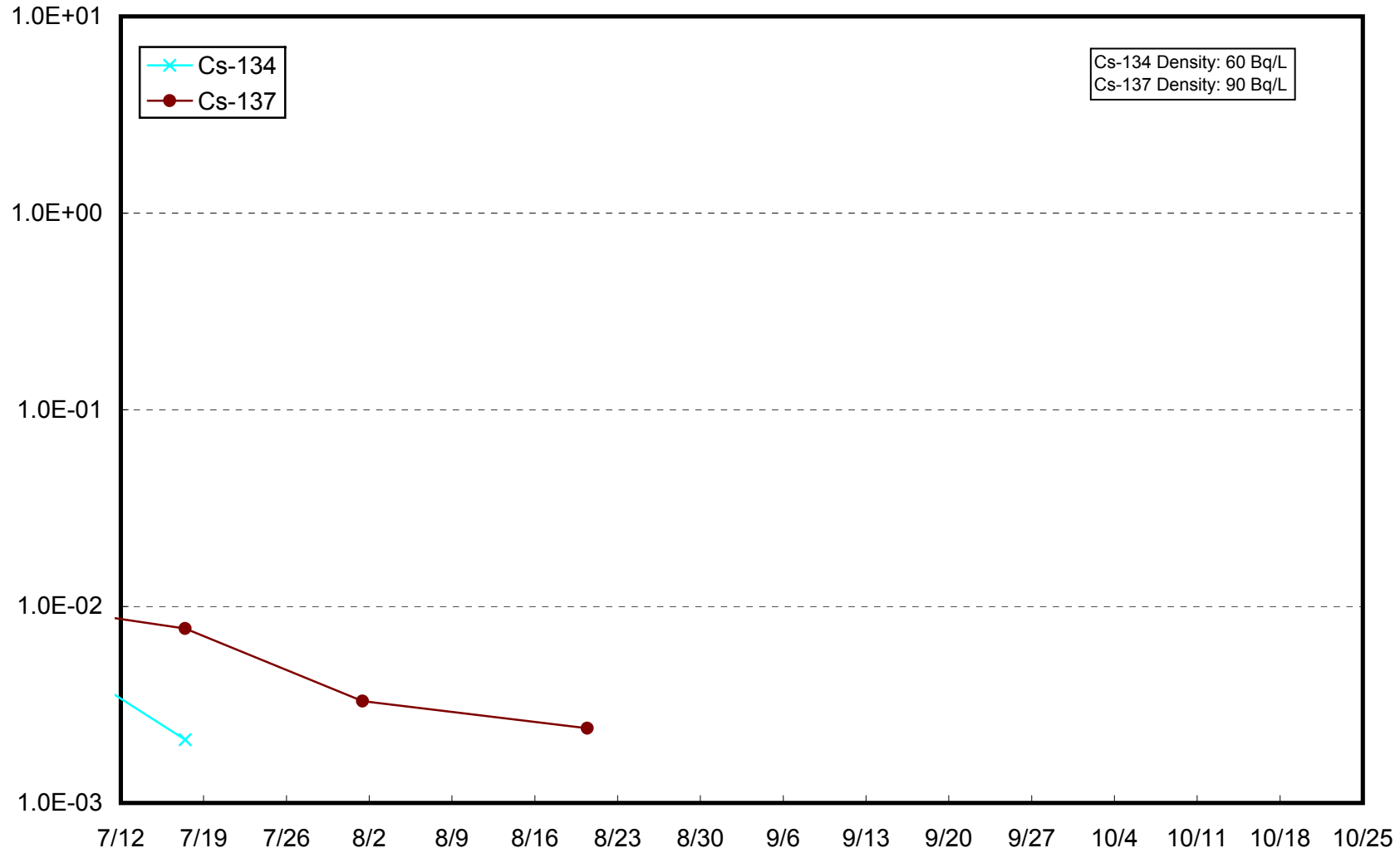
Radioactivity Density of the Seawater at Offshore of Minamisanriku (T-MG0) Lower Layer (Bq/L)



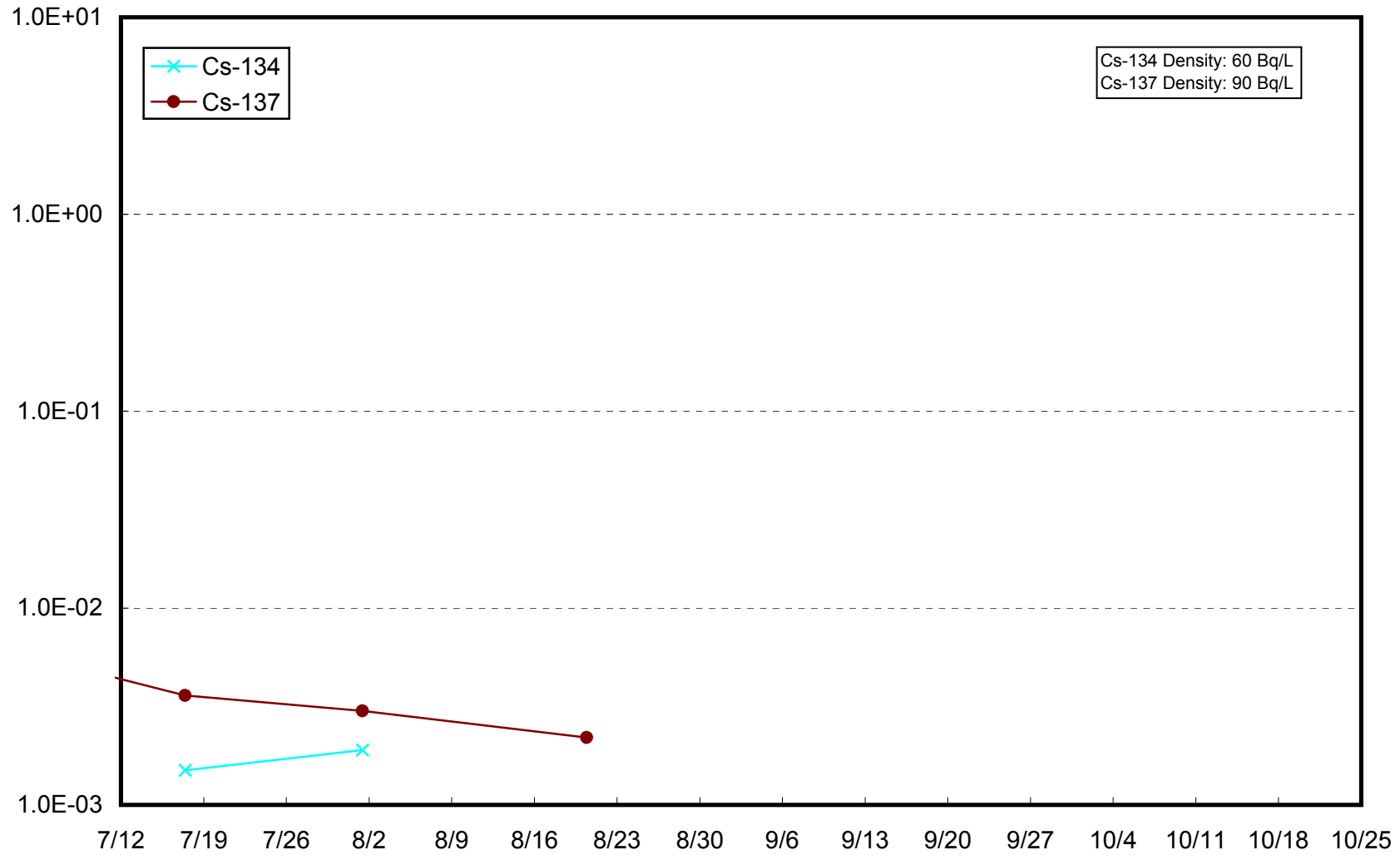
Radioactivity Density of the Seawater in Ishinomaki Bay (T-MG1) Upper Layer (Bq/L)



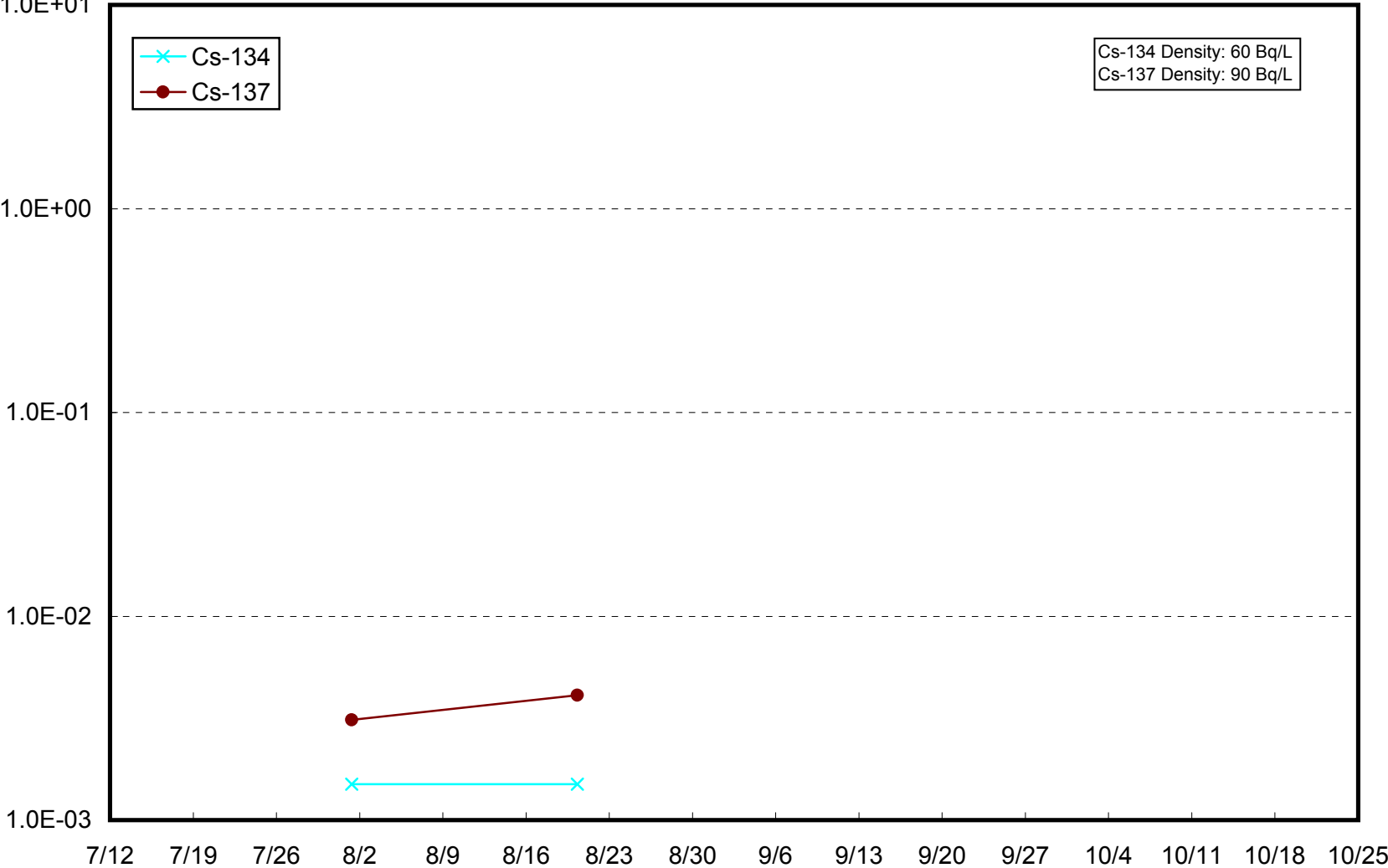
Radioactivity Density of the Seawater in Ishinomaki Bay (T-MG1) Middle Layer (Bq/L)



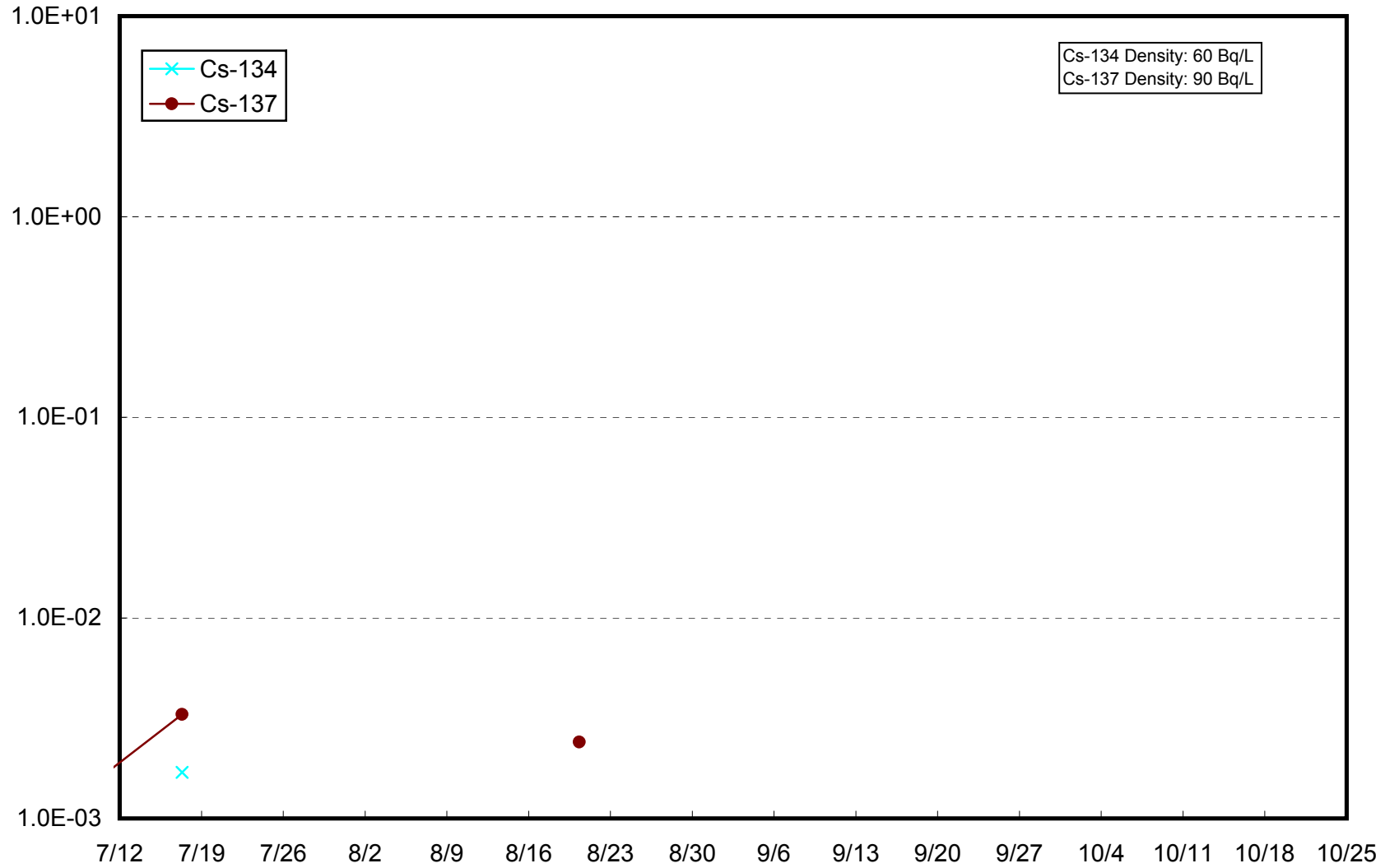
Radioactivity Density of the Seawater in Ishinomaki Bay (T-MG1) Lower Layer (Bq/L)



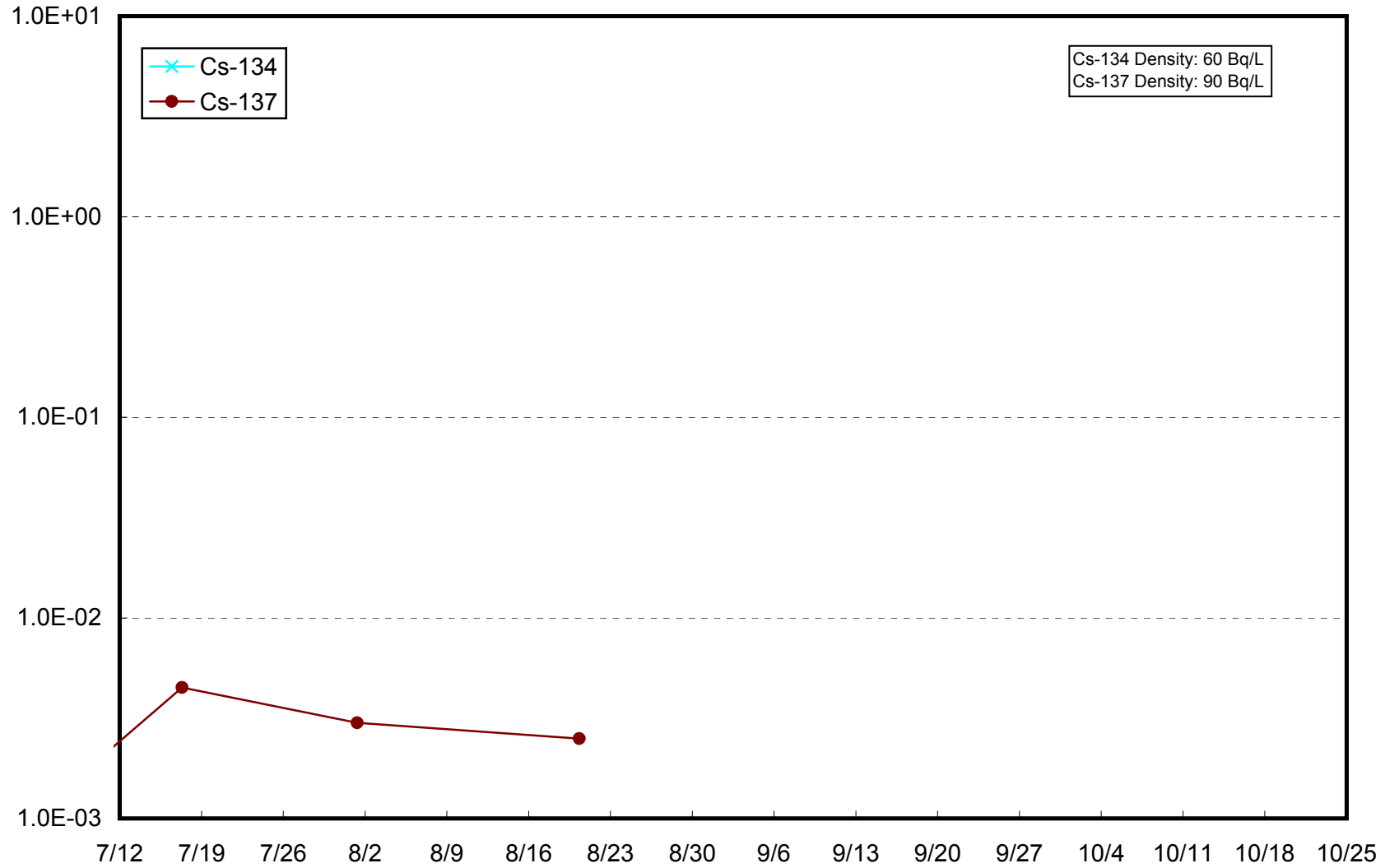
Radioactivity Density of the Seawater at Offshore of Kinkasan East (T-MG2) Upper Layer (Bq/L)



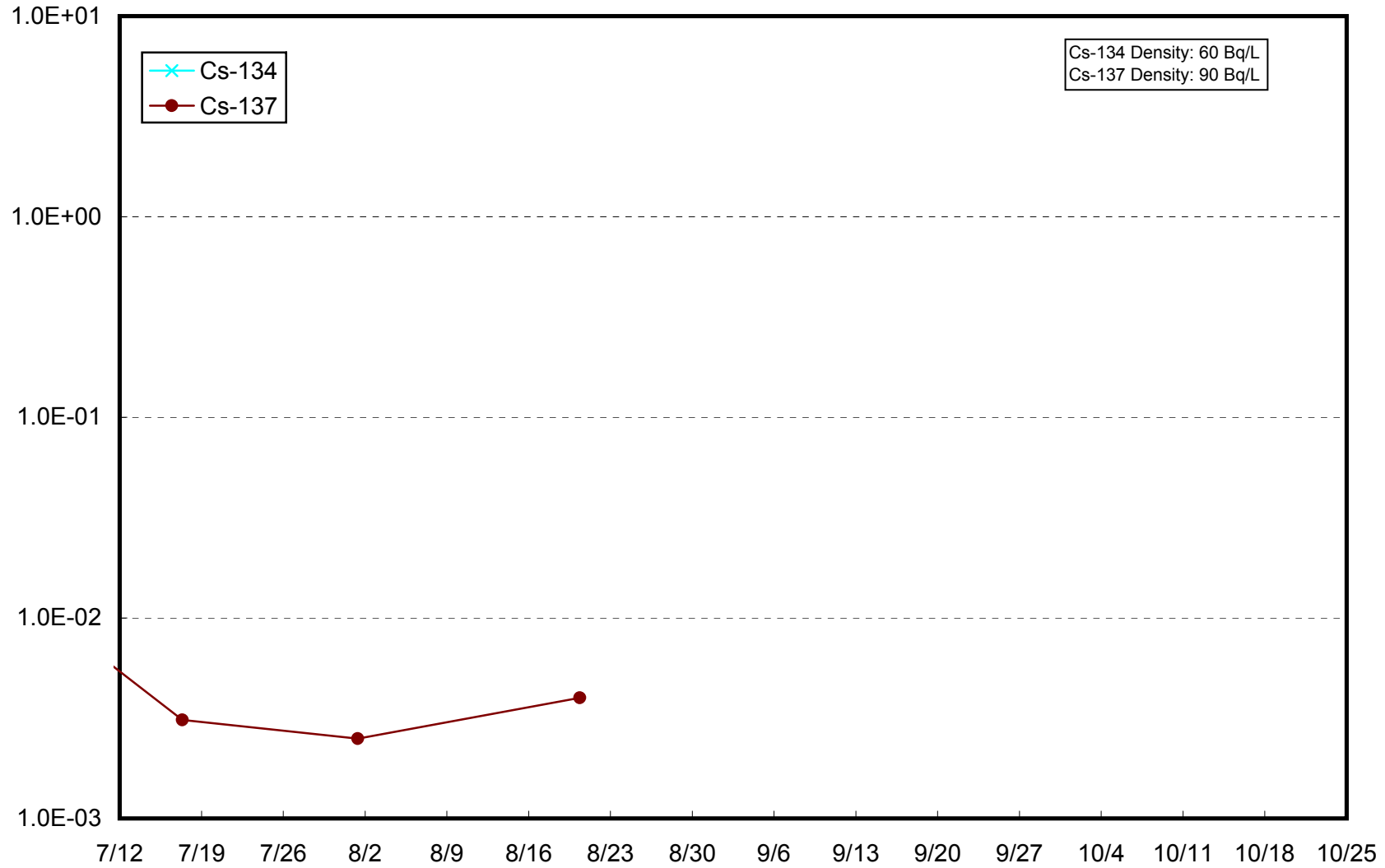
Radioactivity Density of the Seawater at Offshore of Kinkasan East (T-MG2) Middle Layer (Bq/L)



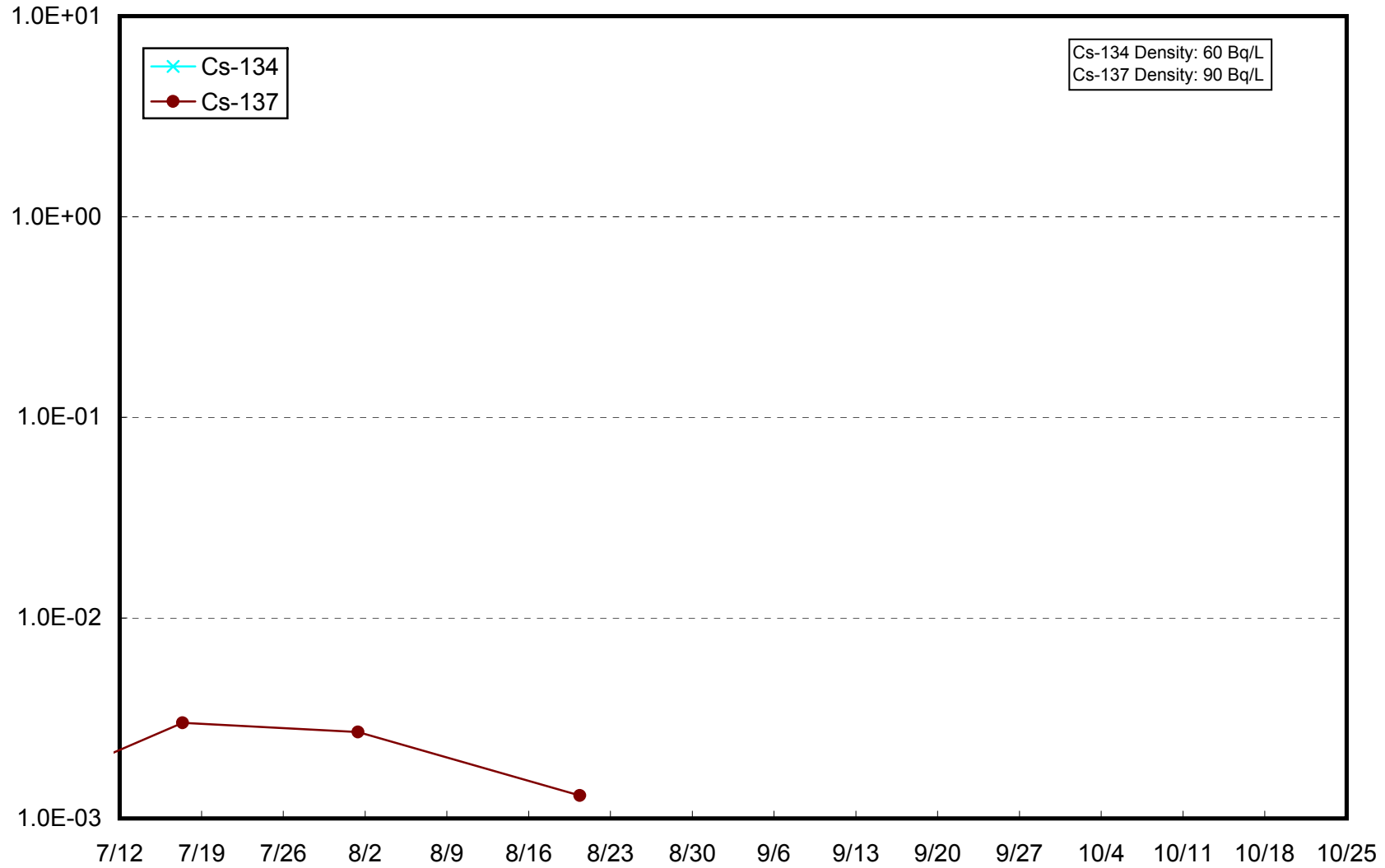
Radioactivity Density of the Seawater at Offshore of Kinkasan East (T-MG2) Lower Layer (Bq/L)



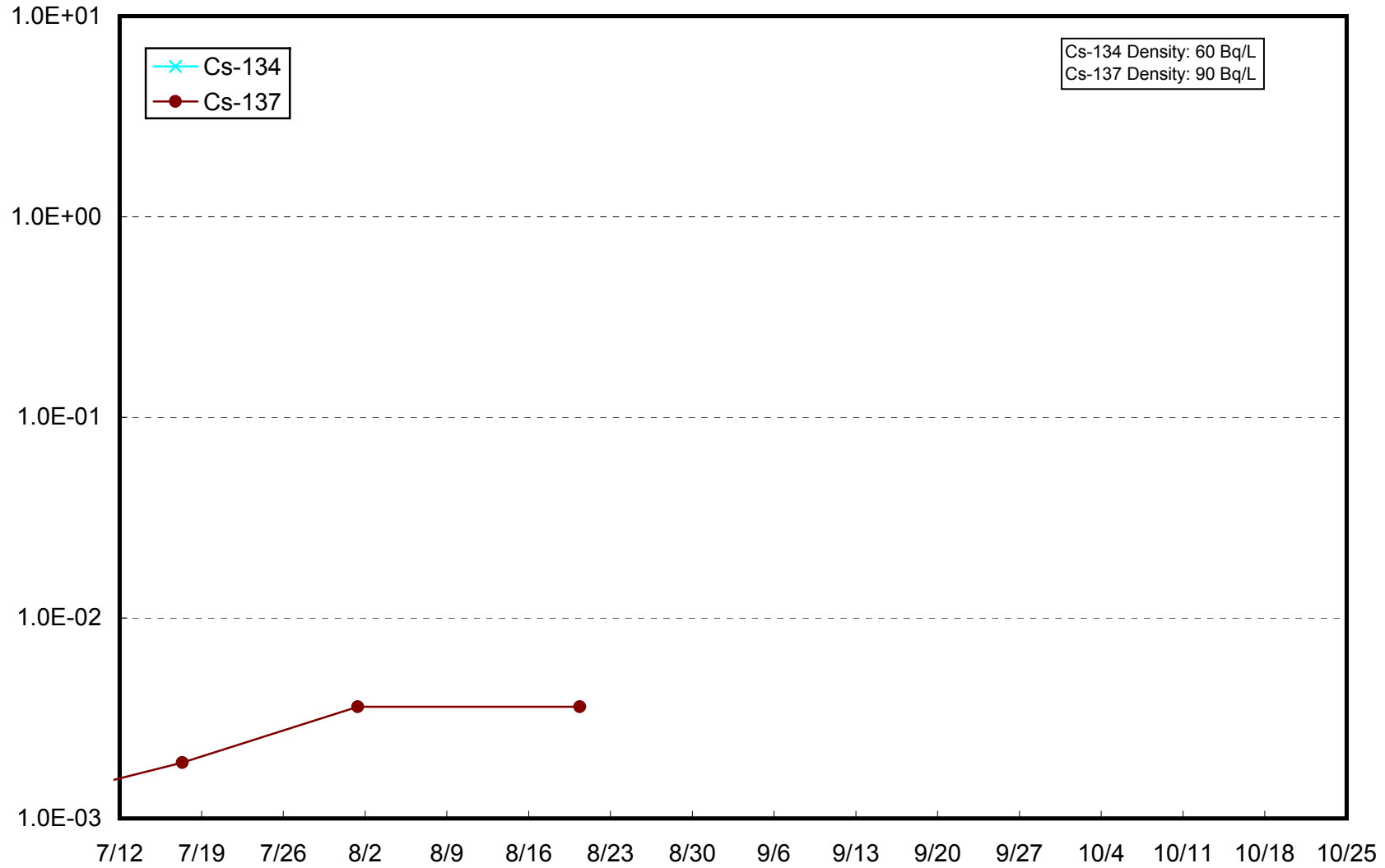
Radioactivity Density of the Seawater at Offshore of Kinkasan South (T-MG3) Upper Layer (Bq/L)



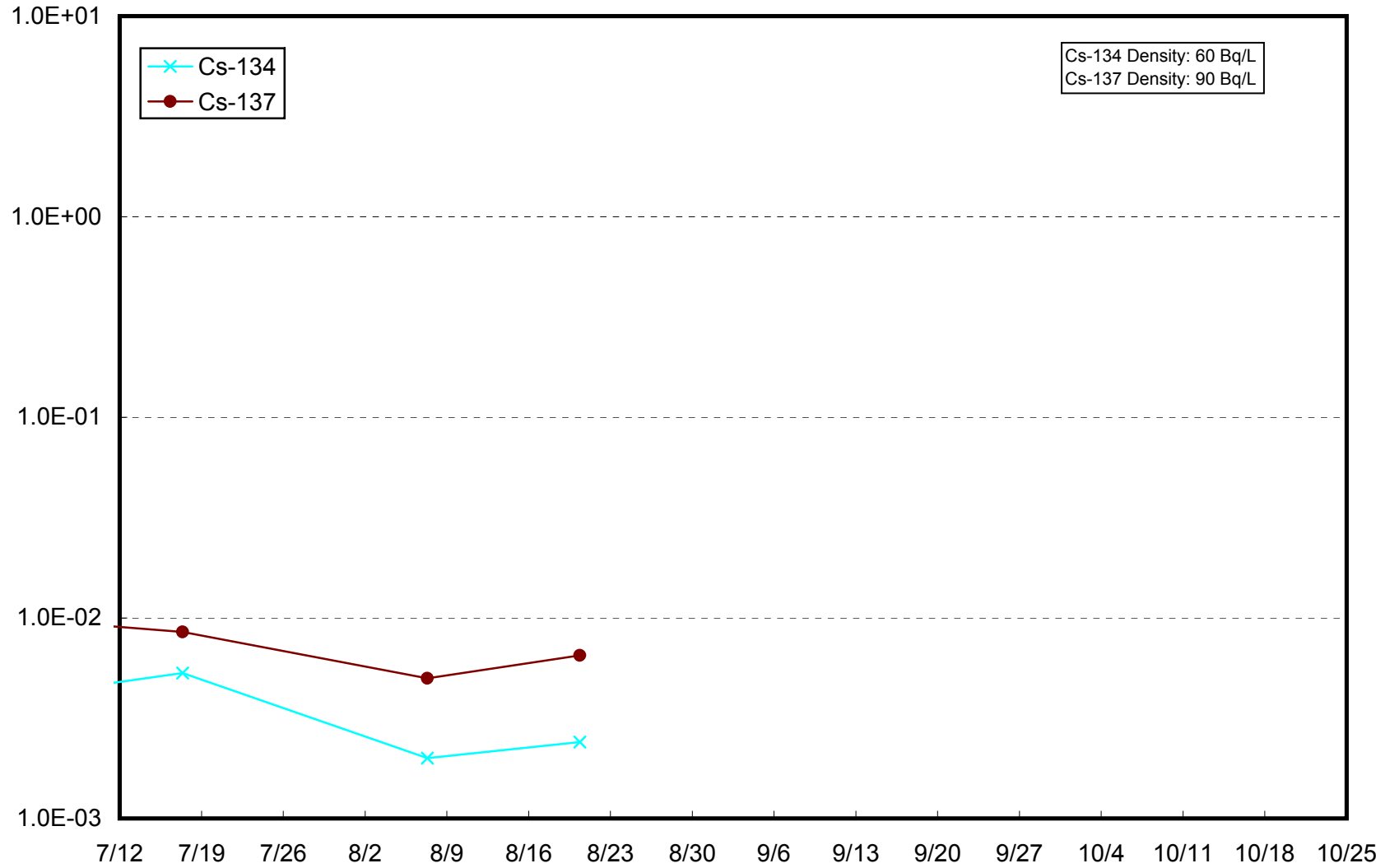
Radioactivity Density of the Seawater at Offshore of Kinkasan South (T-MG3) Middle Layer (Bq/L)



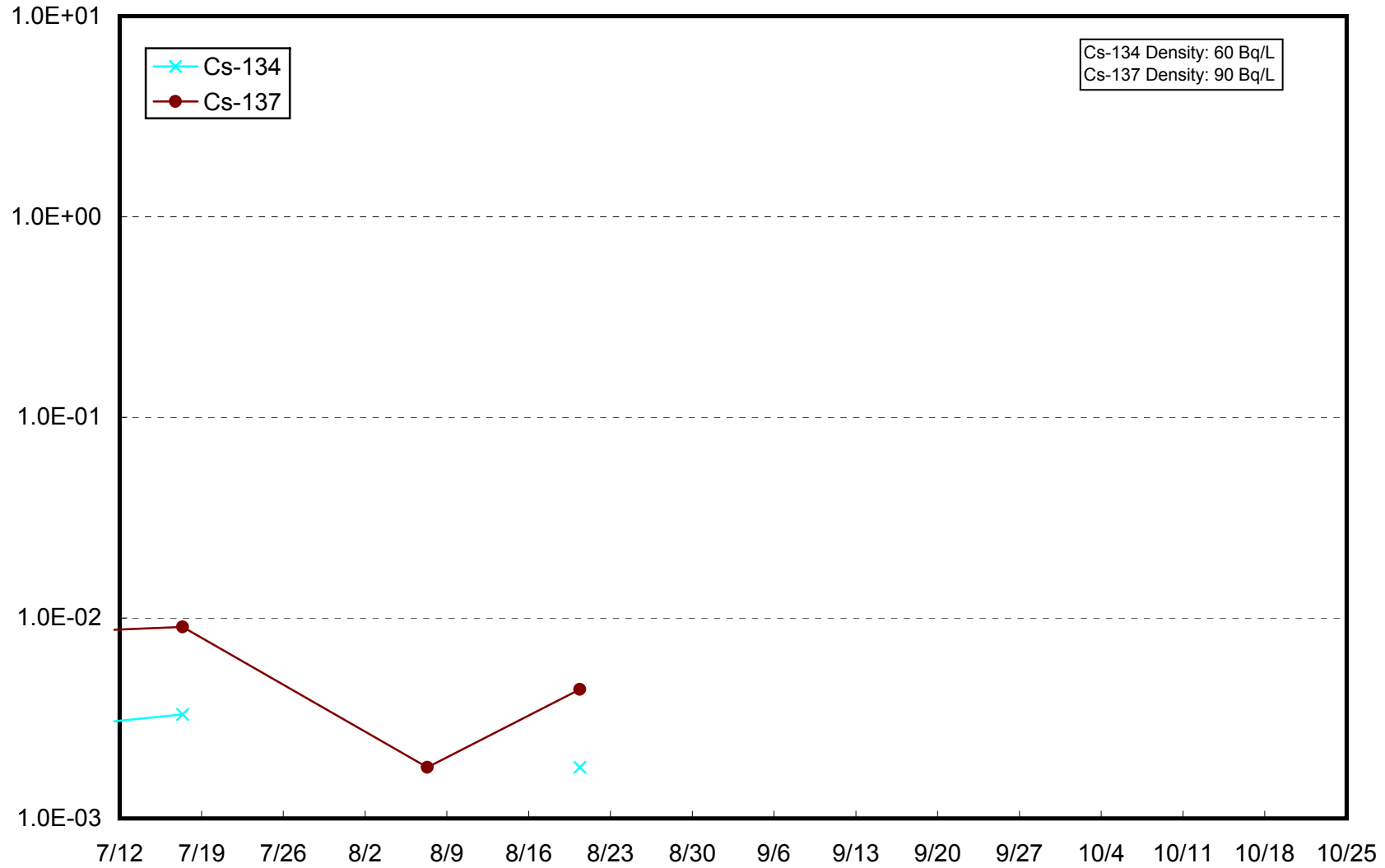
Radioactivity Density of the Seawater at Offshore of Kinkasan South (T-MG3) Lower Layer (Bq/L)



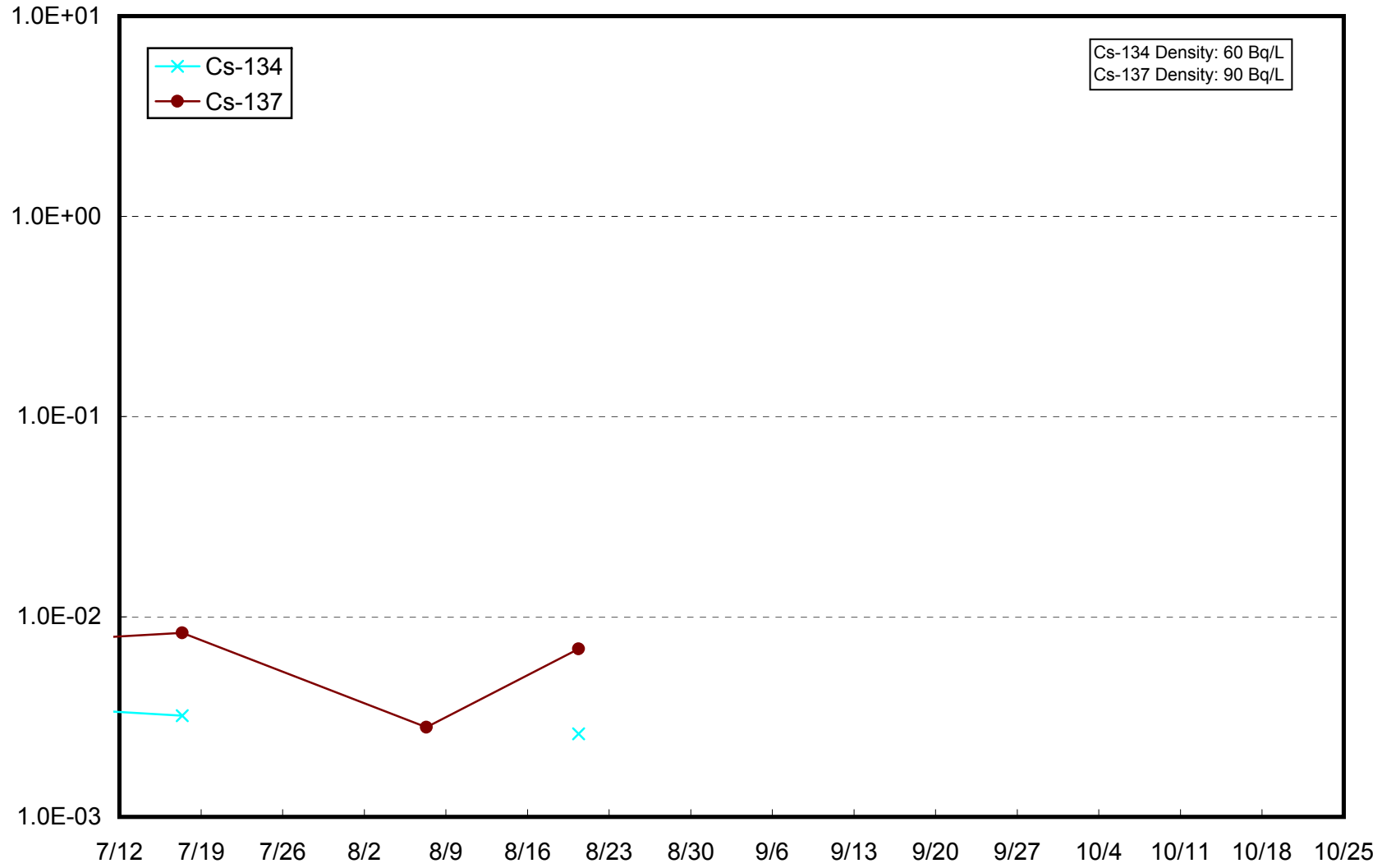
Radioactivity Density of the Seawater at Offshore of Shichigahama (T-MG4) Upper Layer (Bq/L)



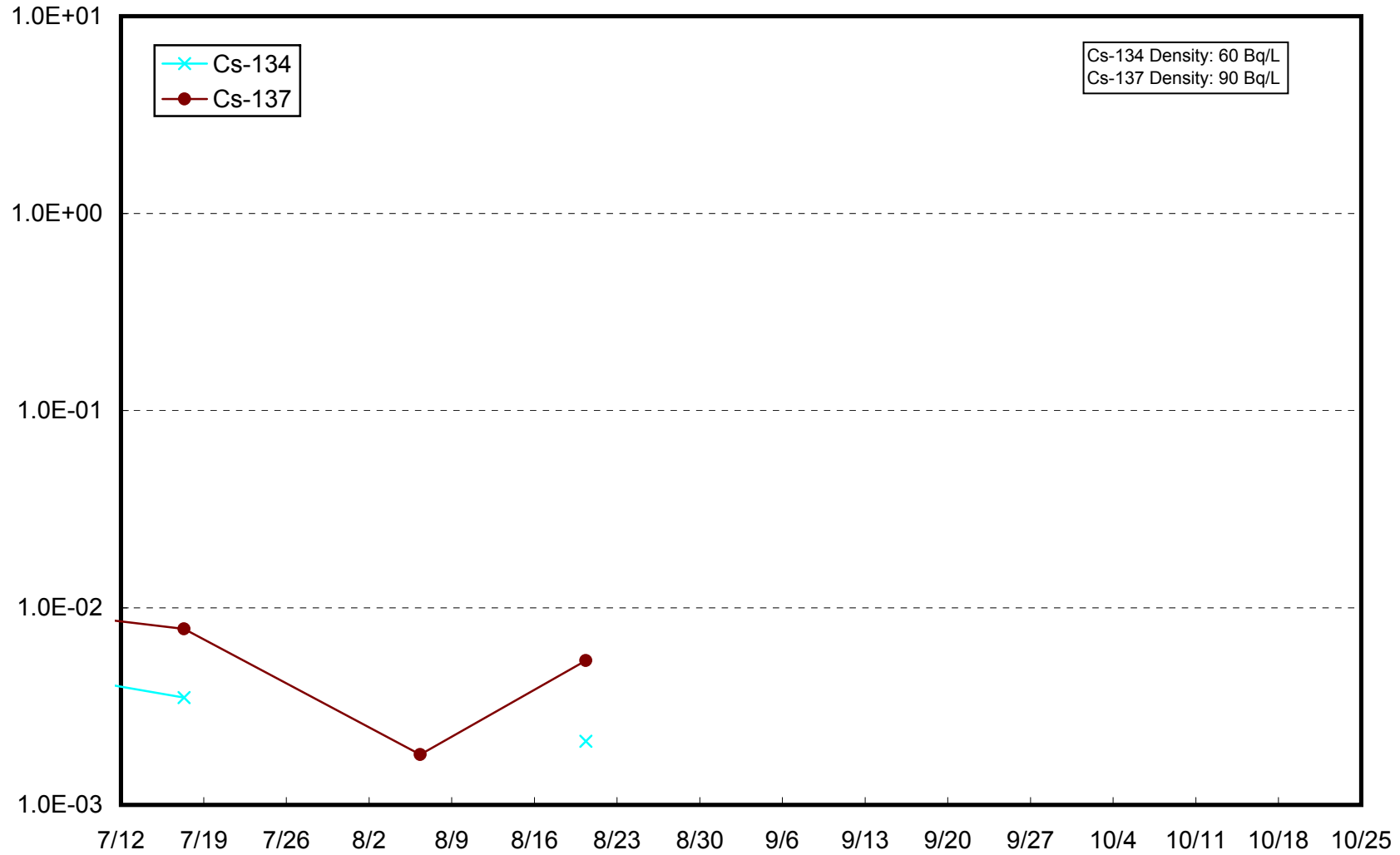
Radioactivity Density of the Seawater at Offshore of Shichigahama (T-MG4) Middle Layer (Bq/L)



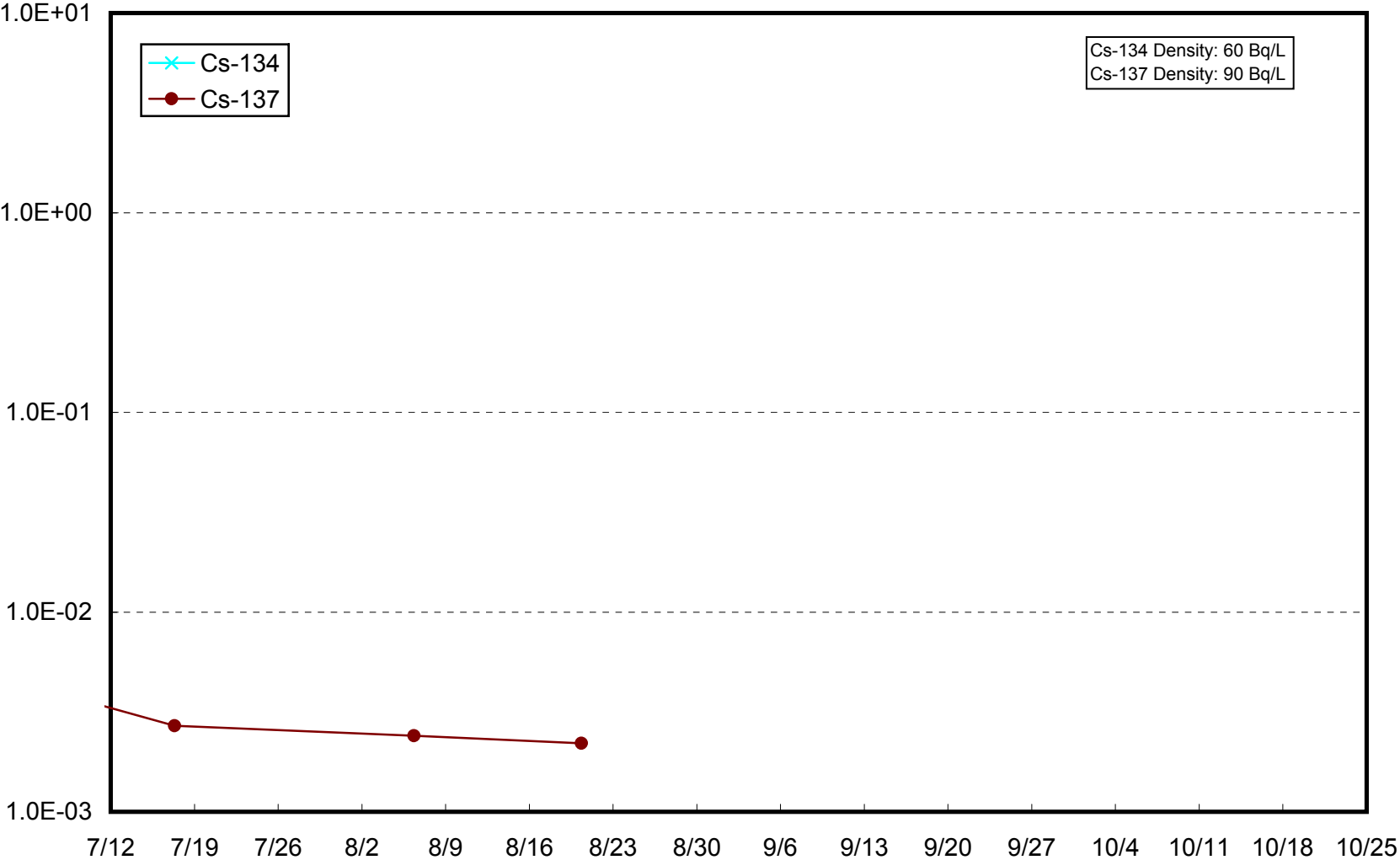
Radioactivity Density of the Seawater at Offshore of Shichigahama (T-MG4) Lower Layer (Bq/L)



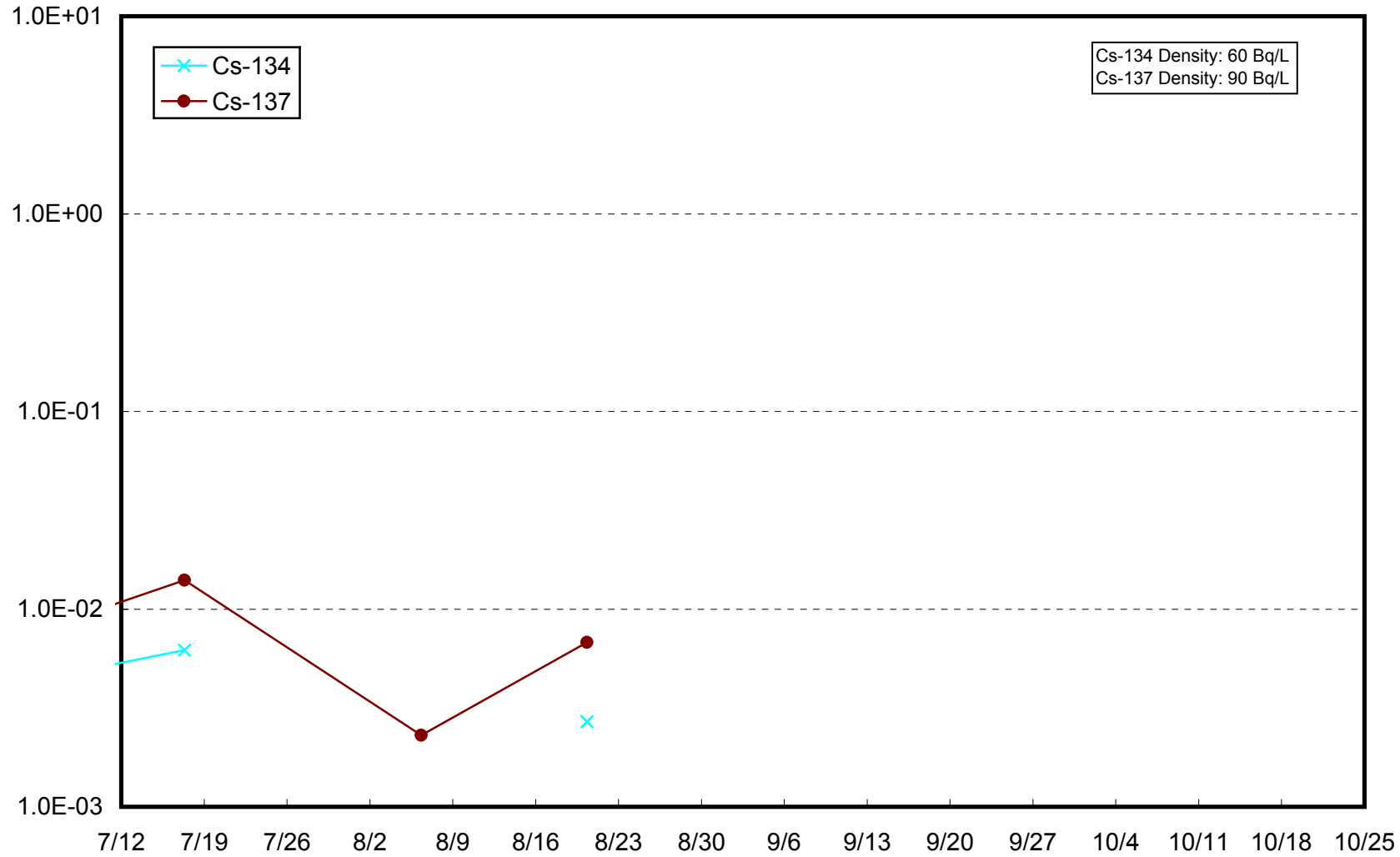
Radioactivity Density of the Seawater in the Central Area of Sendai Bay (T-MG5) Upper Layer (Bq/L)



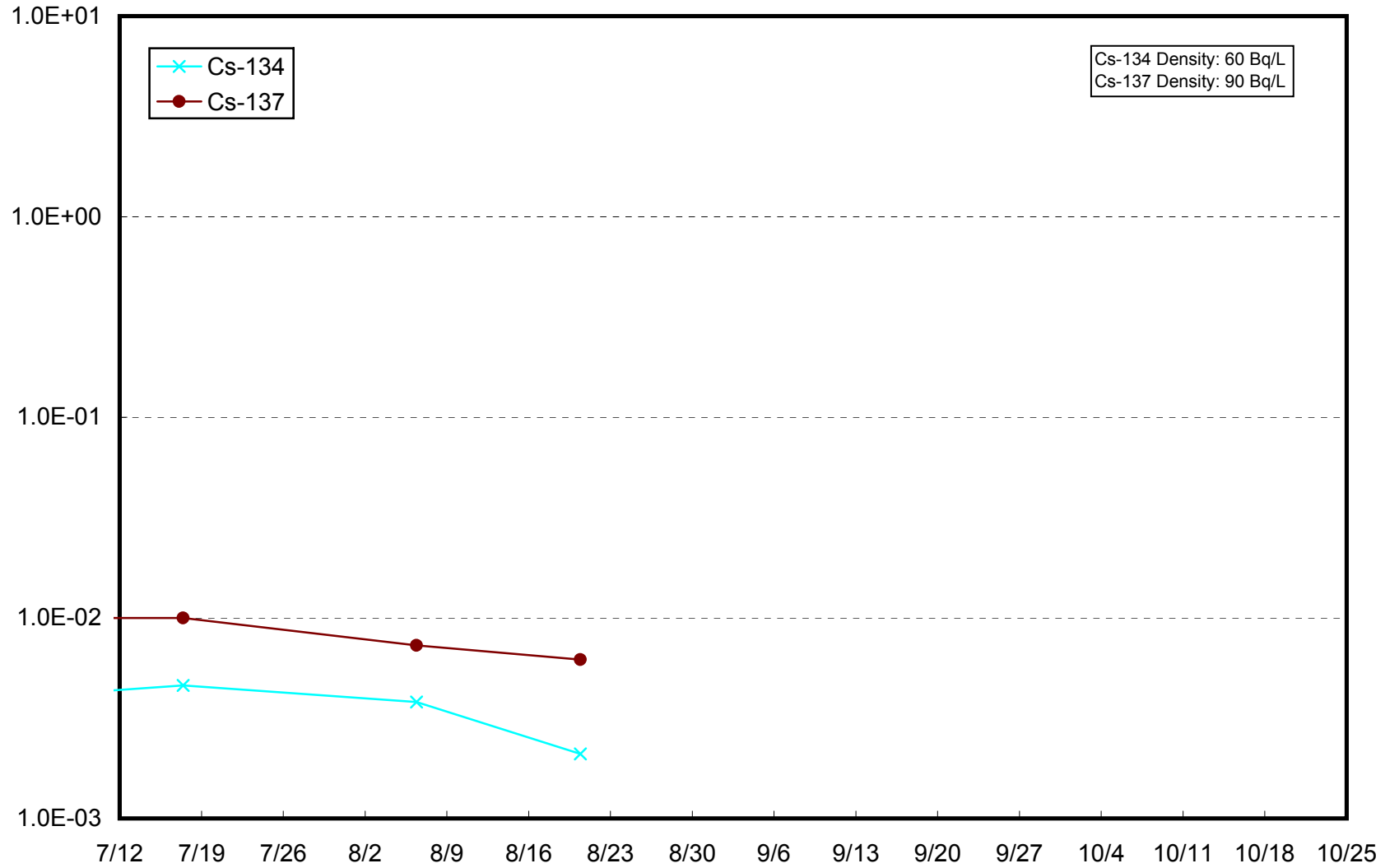
Radioactivity Density of the Seawater in the Central Area of Sendai Bay (T-MG5) Middle Layer (Bq/L)



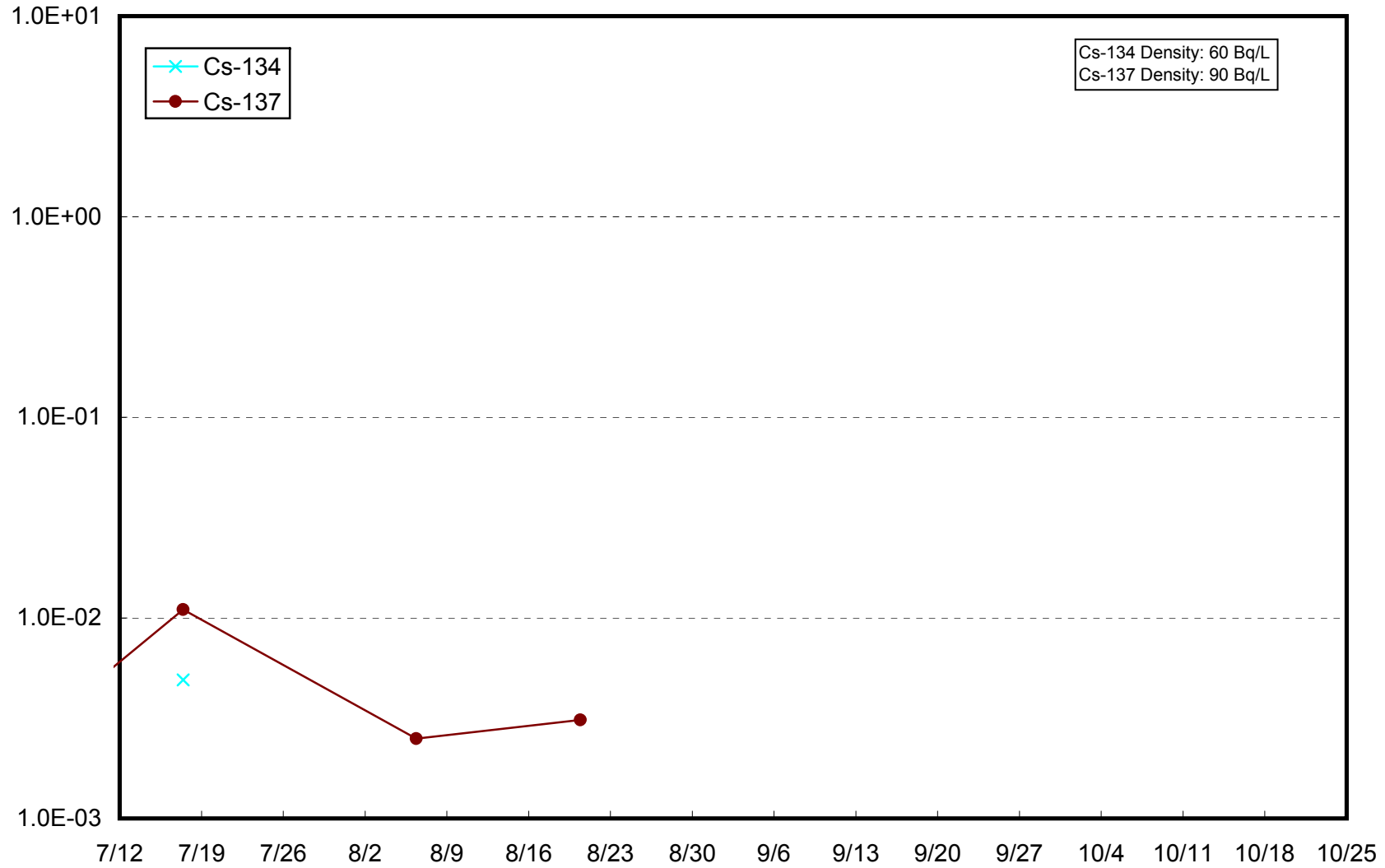
Radioactivity Density of the Seawater in the Central Area of Sendai Bay (T-MG5) Lower Layer (Bq/L)



Radioactivity Density of the Seawater at Offshore of Abukuma River (T-MG6) Upper Layer (Bq/L)



Radioactivity Density of the Seawater at Offshore of Abukuma River (T-MG6) Middle Layer (Bq/L)



Radioactivity Density of the Seawater at Offshore of Abukuma River (T-MG6) Lower Layer (Bq/L)

