

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

(Data summarized on June 22)

| Place of Sampling                | North of Unit 5-6 Discharge Channel at 1F<br>(Approx. 30m North of Unit 5-6 Discharge Channel) |                         | Around 1F South Discharge Channel of 1F<br>(Approx. 330m South of Unit 1-4 Discharge Channel) |                         | Density Limit Specified by the Reactor Regulation (Bq/L)<br>(The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.) |
|----------------------------------|--|-------------------------|---|-------------------------|--|
|                                  | Time of Sampling   |                         | Time of Sampling  |                         |  |
|                                  | Jun 21, 2012<br>9:00 AM  |                         | Jun 21, 2012<br>8:40 AM   |                         |  |
| Detected Nuclides<br>(Half-life) | Density of Sample<br>(Bq/L)  | Scaling Factor<br>( / ) | Density of Sample<br>(Bq/L)   | Scaling Factor<br>( / ) |  |
| I-131<br>(Approx. 8 days)        | ND   | -                       | ND  | -                       | 40   |
| Cs-134<br>(Approx. 2 years)      | 1.7  | 0.03                    | ND  | -                       | 60   |
| Cs-137<br>(Approx. 30 years)     | ND   | -                       | ND  | -                       | 90   |

\* The density specified by the Reactor Regulation is converted from Bq/cm<sup>3</sup> 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.

I-131: Approx. 0.57Bq/L, Cs-134: Approx.1.2Bq/L, Cs-137: Approx.1.6Bq/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.

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

(Data summarized on June 22)

| Place of Sampling                | 2F Around the North Discharge Channel<br>(Around Unit 3-4 Discharge Channel)<br>(Approx. 10km from 1F) |                         | 2F Around Iwasawa Shore<br>(Approx. 7km South of Unit 1 & 2 Discharge Channel)<br>(Approx. 16km from 1F) |                         | Density Limit<br>Specified by the Reactor<br>Regulation (Bq/L)<br>(The density limit in the<br>water outside the<br>surrounding monitored<br>areas is provided in<br>section 6 of Appendix 2.) |
|----------------------------------|--|-------------------------|--|-------------------------|--|
| Time of Sampling                 | Jun 19, 2012<br>8:15 AM  |                         | Jun 19, 2012<br>7:50 AM  |                         |  |
| Detected Nuclides<br>(Half-life) | Density of Sample<br>(Bq/L)  | Scaling Factor<br>( / ) | Density of Sample<br>(Bq/L)  | Scaling Factor<br>( / ) |  |
| I-131<br>(Approx. 8 days)        | ND   | -                       | ND   | -                       | 40   |
| Cs-134<br>(Approx. 2 years)      | ND   | -                       | 0.29   | 0.00                    | 60   |
| Cs-137<br>(Approx. 30 years)     | 0.30   | 0.00                    | 0.29   | 0.00                    | 90   |

\* The density specified by the Reactor Regulation is converted from Bq/cm<sup>3</sup> 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.

I-131: Approx. 0.15Bq/L, Cs-134: Approx.0.23Bq/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.

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

(Data summarized on June 22)

| Place of Sampling<br>(Place No.) | 3km Offshore of Odaka Ward (T-14) |                            |                             |                            | 15km Offshore of 1F (T-5)   |                            |                             |                            | 3km Offshore of kmlwasawa Shore (T-11) |                            |                             |                            | Density Limit Specified<br>by the Reactor<br>Regulation (Bq/L)<br>(The density limit in the<br>water outside the<br>surrounding monitored<br>areas is provided in<br>section 6 of Appendix 2.) |
|----------------------------------|-----------------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|--|----------------------------|-----------------------------|----------------------------|--|
|                                  | Upper Layer                       |                            | Lower Layer                 |                            | Upper Layer                 |                            | Lower Layer                 |                            | Upper Layer                            |                            | Lower Layer                 |                            |  |
| Time of Sampling                 | May 17, 2012<br>9:40 AM           |                            | May 17, 2012<br>9:40 AM     |                            | May 18, 2012<br>9:00 AM     |                            | May 18, 2012<br>9:00 AM     |                            | May 18, 2012<br>7:00 AM                |                            | May 18, 2012<br>7:00 AM     |                            |  |
| Detected Nuclides<br>(Half-life) | Density of<br>Sample (Bq/L)       | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L)            | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) |  |
| Cs-134<br>(Approx. 2 years)      | 0.026                             | 0.00                       | 0.030                       | 0.00                       | 0.014                       | 0.00                       | 0.027                       | 0.00                       | 0.081                                  | 0.00                       | 0.15                        | 0.00                       | 60   |
| Cs-137<br>(Approx. 30 years)     | 0.038                             | 0.00                       | 0.042                       | 0.00                       | 0.022                       | 0.00                       | 0.037                       | 0.00                       | 0.11                                   | 0.00                       | 0.21                        | 0.00                       | 90   |

| Place of Sampling<br>(Place No.) | 15km Offshore of Iwasawa Shore (T-7) |                            |                             |                            | 3km Offshore of Onahama Port (T-18) |                            |                             |                            | 5km Offshore of Natsui River (T-M10) |                            |                             |                            | Density Limit Specified<br>by the Reactor<br>Regulation (Bq/L)<br>(The density limit in the<br>water outside the<br>surrounding monitored<br>areas is provided in<br>section 6 of Appendix 2.) |
|----------------------------------|--------------------------------------|----------------------------|-----------------------------|----------------------------|-------------------------------------|----------------------------|-----------------------------|----------------------------|--------------------------------------|----------------------------|-----------------------------|----------------------------|--|
|                                  | Upper Layer                          |                            | Lower Layer                 |                            | Upper Layer                         |                            | Lower Layer                 |                            | Upper Layer                          |                            | Lower Layer                 |                            |  |
| Time of Sampling                 | May 21, 2012<br>8:40 AM              |                            | May 21, 2012<br>8:40 AM     |                            | May 21, 2012<br>5:15 AM             |                            | May 21, 2012<br>5:15 AM     |                            | May 21, 2012<br>6:40 AM              |                            | May 21, 2012<br>6:40 AM     |                            |  |
| Detected Nuclides<br>(Half-life) | Density of<br>Sample (Bq/L)          | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L)         | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L)          | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) |  |
| Cs-134<br>(Approx. 2 years)      | 0.033                                | 0.00                       | 0.0086                      | 0.00                       | 0.082                               | 0.00                       | 0.047                       | 0.00                       | 0.011                                | 0.00                       | 0.016                       | 0.00                       | 60   |
| Cs-137<br>(Approx. 30 years)     | 0.043                                | 0.00                       | 0.0099                      | 0.00                       | 0.11                                | 0.00                       | 0.069                       | 0.00                       | 0.018                                | 0.00                       | 0.023                       | 0.00                       | 90   |

\* The density specified by the Reactor Regulation is converted from Bq/cm<sup>3</sup> to Bq/L.

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

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

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

(Data summarized on June 22)

| Place of Sampling<br>(Place No.) | 3km Offshore of Northern Iwaki City (T-12) |                            |                             |                            | 1km Offshore of Natsui River (T-17-1) |                            |                             |                            | 3km Offshore of Toyoma (T-20) |                            |                             |                            | Density Limit Specified<br>by the Reactor Regulation<br>(Bq/L)<br><br>(The density limit in the<br>water outside the<br>surrounding monitored<br>areas is provided in<br>section 6 of Appendix 2.) |
|----------------------------------|--|----------------------------|-----------------------------|----------------------------|---------------------------------------|----------------------------|-----------------------------|----------------------------|-------------------------------|----------------------------|-----------------------------|----------------------------|--|
|                                  | Upper Layer                                |                            | Lower Layer                 |                            | Upper Layer                           |                            | Lower Layer                 |                            | Upper Layer                   |                            | Lower Layer                 |                            |  |
| Time of Sampling                 | May 14, 2012<br>6:35 AM                    |                            | May 14, 2012<br>6:35 AM     |                            | May 14, 2012<br>7:05 AM               |                            | May 14, 2012<br>7:05 AM     |                            | May 14, 2012<br>7:30 AM       |                            | May 14, 2012<br>7:30 AM     |                            |  |
| Detected Nuclides<br>(Half-life) | Density of<br>Sample (Bq/L)                | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L)           | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L)   | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) |  |
| Cs-134<br>(Approx. 2 years)      | 0.11                                       | 0.00                       | 0.090                       | 0.00                       | 0.11                                  | 0.00                       | 0.092                       | 0.00                       | 0.073                         | 0.00                       | 0.088                       | 0.00                       | 60   |
| Cs-137<br>(Approx. 30 years)     | 0.16                                       | 0.00                       | 0.13                        | 0.00                       | 0.15                                  | 0.00                       | 0.13                        | 0.00                       | 0.10                          | 0.00                       | 0.12                        | 0.00                       | 90   |

| Place of Sampling<br>(Place No.) | 1km Offshore of Niida River (T-13-1) |                            |                             |                            | 3km Offshore of Soma (T-22) |                            |                             |                            | 5km Offshore of Kashima (T-MA) |                            |                             |                            | Density Limit Specified<br>by the Reactor Regulation<br>(Bq/L)<br><br>(The density limit in the<br>water outside the<br>surrounding monitored<br>areas is provided in<br>section 6 of Appendix 2.) |
|----------------------------------|--------------------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|--------------------------------|----------------------------|-----------------------------|----------------------------|--|
|                                  | Upper Layer                          |                            | Lower Layer                 |                            | Upper Layer                 |                            | Lower Layer                 |                            | Upper Layer                    |                            | Lower Layer                 |                            |  |
| Time of Sampling                 | May 21, 2012<br>8:25 AM              |                            | May 21, 2012<br>8:25 AM     |                            | May 21, 2012<br>9:40 AM     |                            | May 21, 2012<br>9:40 AM     |                            | May 21, 2012<br>7:10 AM        |                            | May 21, 2012<br>7:10 AM     |                            |  |
| Detected Nuclides<br>(Half-life) | Density of<br>Sample (Bq/L)          | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L)    | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) |  |
| Cs-134<br>(Approx. 2 years)      | 0.036                                | 0.00                       | 0.041                       | 0.00                       | 0.017                       | 0.00                       | 0.013                       | 0.00                       | 0.021                          | 0.00                       | 0.019                       | 0.00                       | 60   |
| Cs-137<br>(Approx. 30 years)     | 0.050                                | 0.00                       | 0.053                       | 0.00                       | 0.024                       | 0.00                       | 0.020                       | 0.00                       | 0.031                          | 0.00                       | 0.027                       | 0.00                       | 90   |

\* The density specified by the Reactor Regulation is converted from Bq/cm<sup>3</sup> to Bq/L.

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

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

(Data summarized on June 22)

| Place of Sampling<br>(Place No.) | Around 15 km Offshore of Odaka Ward(T-B1) |                            |                             |                            | Around 18km Offshore of Ukedo River (T-B2) |                            |                             |                            | Around 10km Offshore of 2F (T-B4) |                            |                             |                            | Density Limit Specified<br>by the Reactor Regulation<br>(Bq/L)<br><br>(The density limit in the<br>water outside the<br>surrounding monitored<br>areas is provided in<br>section 6 of Appendix 2.) |
|----------------------------------|---|----------------------------|-----------------------------|----------------------------|--|----------------------------|-----------------------------|----------------------------|-----------------------------------|----------------------------|-----------------------------|----------------------------|--|
|                                  | Upper Layer                               |                            | Lower Layer                 |                            | Upper Layer                                |                            | Lower Layer                 |                            | Upper Layer                       |                            | Lower Layer                 |                            |  |
| Time of Sampling                 | May 17, 2012<br>9:15 AM                   |                            | May 17, 2012<br>9:15 AM     |                            | May 17, 2012<br>8:50 AM                    |                            | May 17, 2012<br>8:50 AM     |                            | May 21, 2012<br>6:05 AM           |                            | May 21, 2012<br>6:10 AM     |                            |  |
| Detected Nuclides<br>(Half-life) | Density of<br>Sample (Bq/L)               | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L)                | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L)       | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) |  |
| Cs-134<br>(Approx. 2 years)      | 0.016                                     | 0.00                       | 0.018                       | 0.00                       | 0.016                                      | 0.00                       | 0.019                       | 0.00                       | 0.018                             | 0.00                       | 0.026                       | 0.00                       | 60   |
| Cs-137<br>(Approx. 30 years)     | 0.024                                     | 0.00                       | 0.029                       | 0.00                       | 0.023                                      | 0.00                       | 0.028                       | 0.00                       | 0.027                             | 0.00                       | 0.040                       | 0.00                       | 90   |

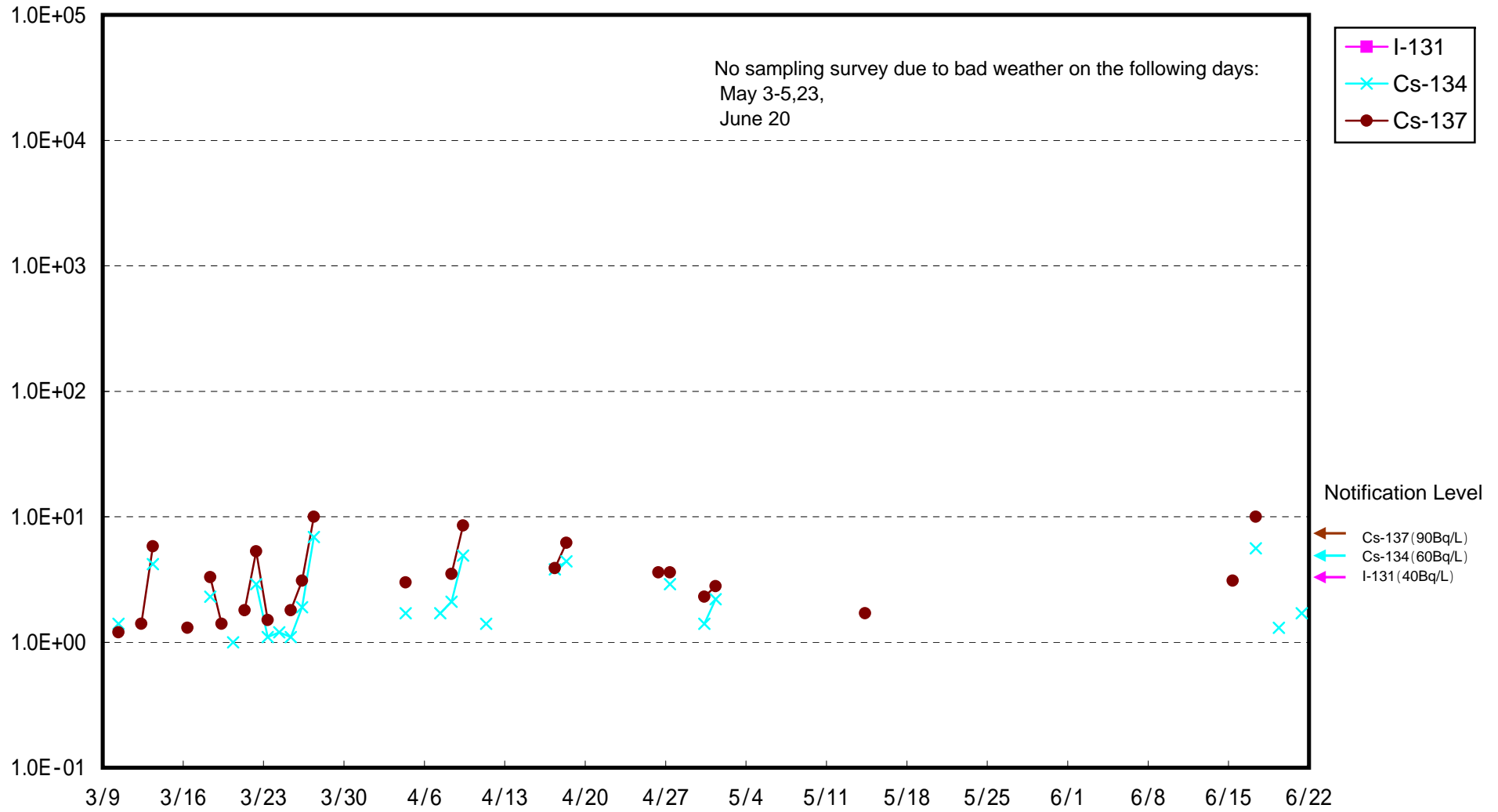
| Place of Sampling<br>(Place No.) | /                           |                            |                             |                            | /                           |                            |                             |                            | /                           |                            |                             |                            | Density Limit Specified<br>by the Reactor Regulation<br>(Bq/L)<br><br>(The density limit in the<br>water outside the<br>surrounding monitored<br>areas is provided in<br>section 6 of Appendix 2.) |
|----------------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|--|
| Time of Sampling                 | /                           |                            | /                           |                            | /                           |                            | /                           |                            | /                           |                            | /                           |                            |  |
| Detected Nuclides<br>(Half-life) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) | Density of<br>Sample (Bq/L) | Scaling<br>Factor<br>( / ) |  |
| Cs-134<br>(Approx. 2 years)      | /                           | /                          | /                           | /                          | /                           | /                          | /                           | /                          | /                           | /                          | /                           | /                          | 60   |
| Cs-137<br>(Approx. 30 years)     | /                           | /                          | /                           | /                          | /                           | /                          | /                           | /                          | /                           | /                          | /                           | /                          | 90   |

\* The density specified by the Reactor Regulation is converted from Bq/cm<sup>3</sup> to Bq/L.

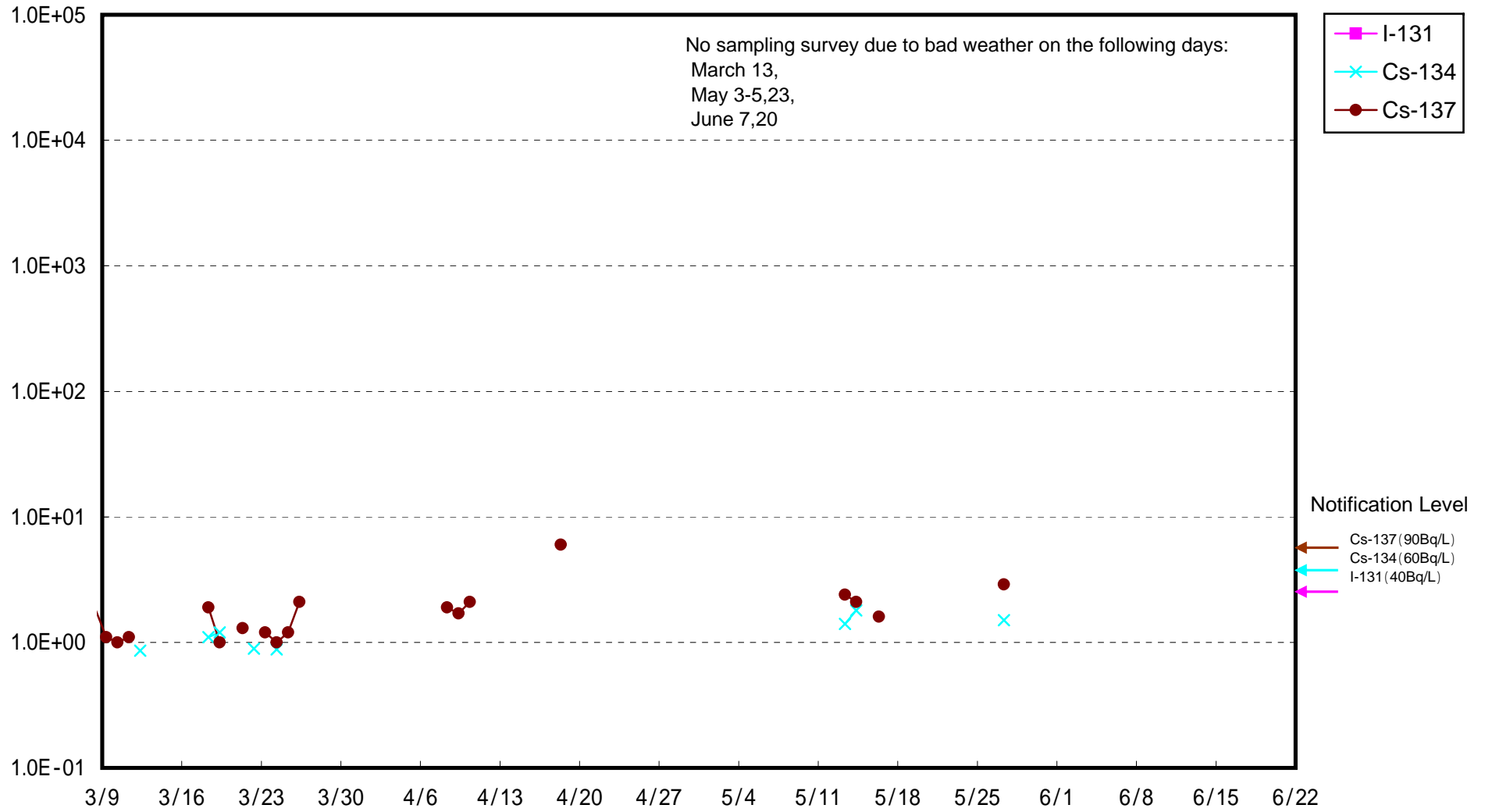
\* In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.

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

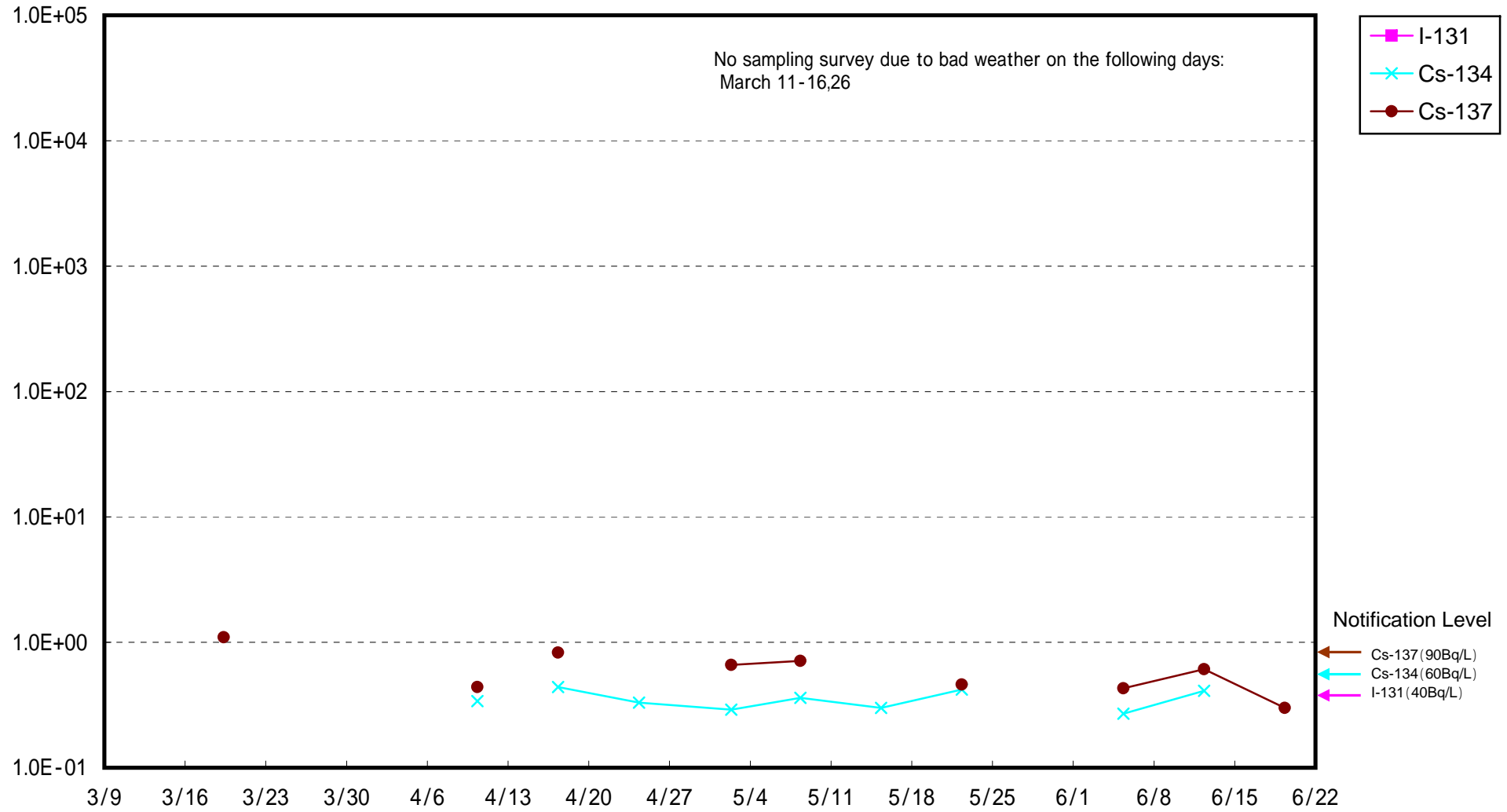
Radioactivity Density of the Seawater at the North of 1F Unit 5-6 Discharge Channel (Bq/L)



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

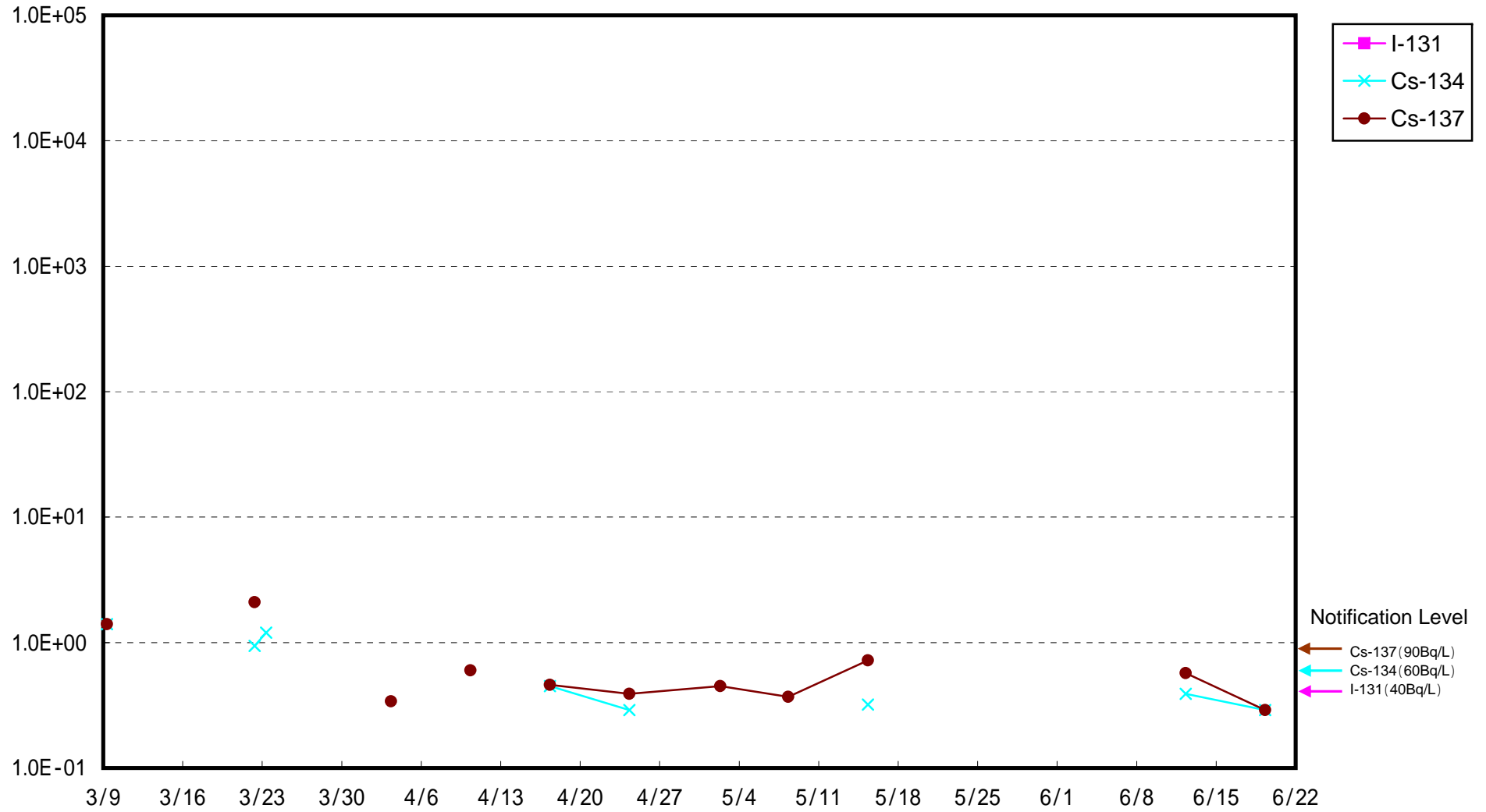


Radioactivity Density of the Seawater at 2F North Discharge Channel (Bq/L)

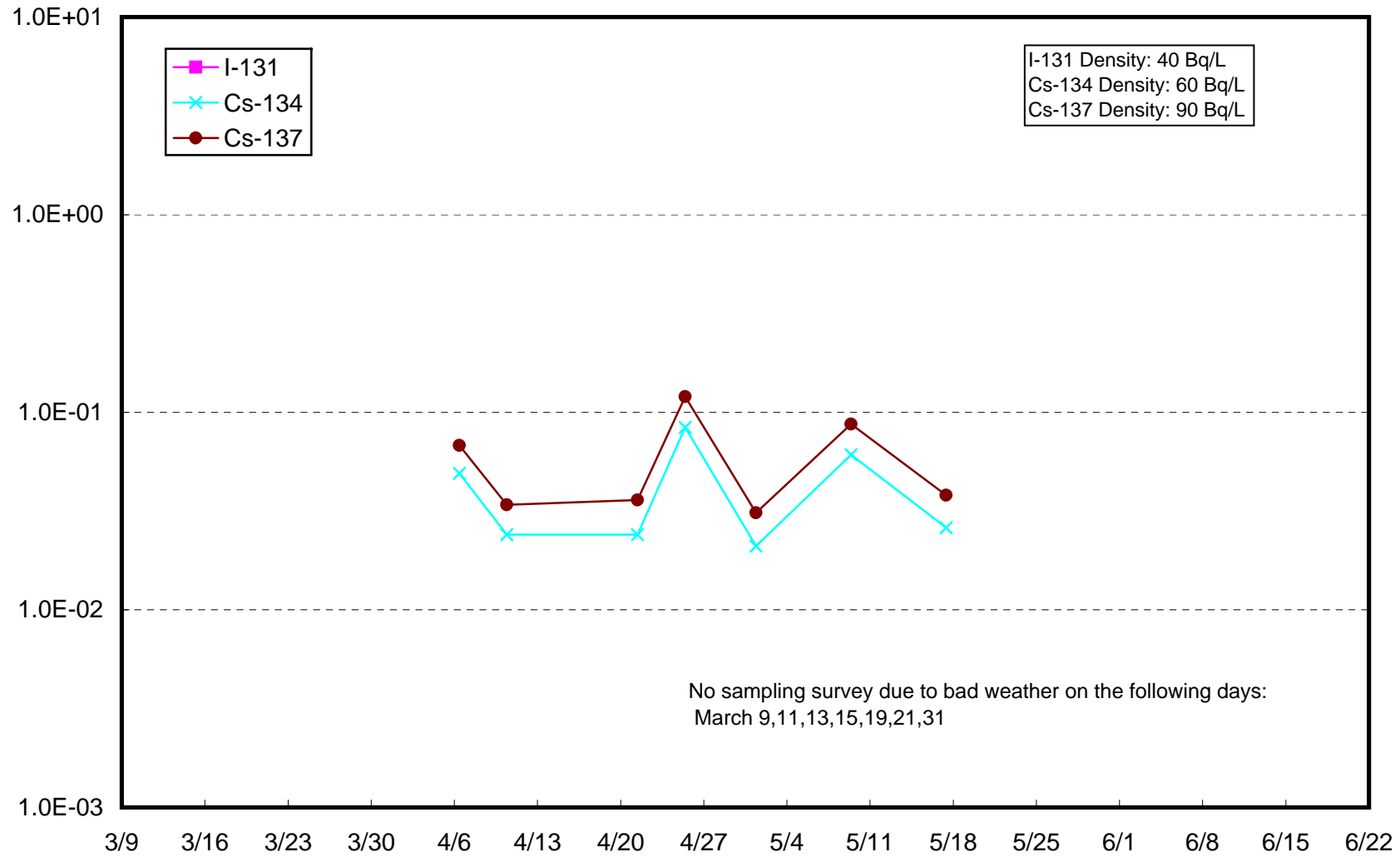




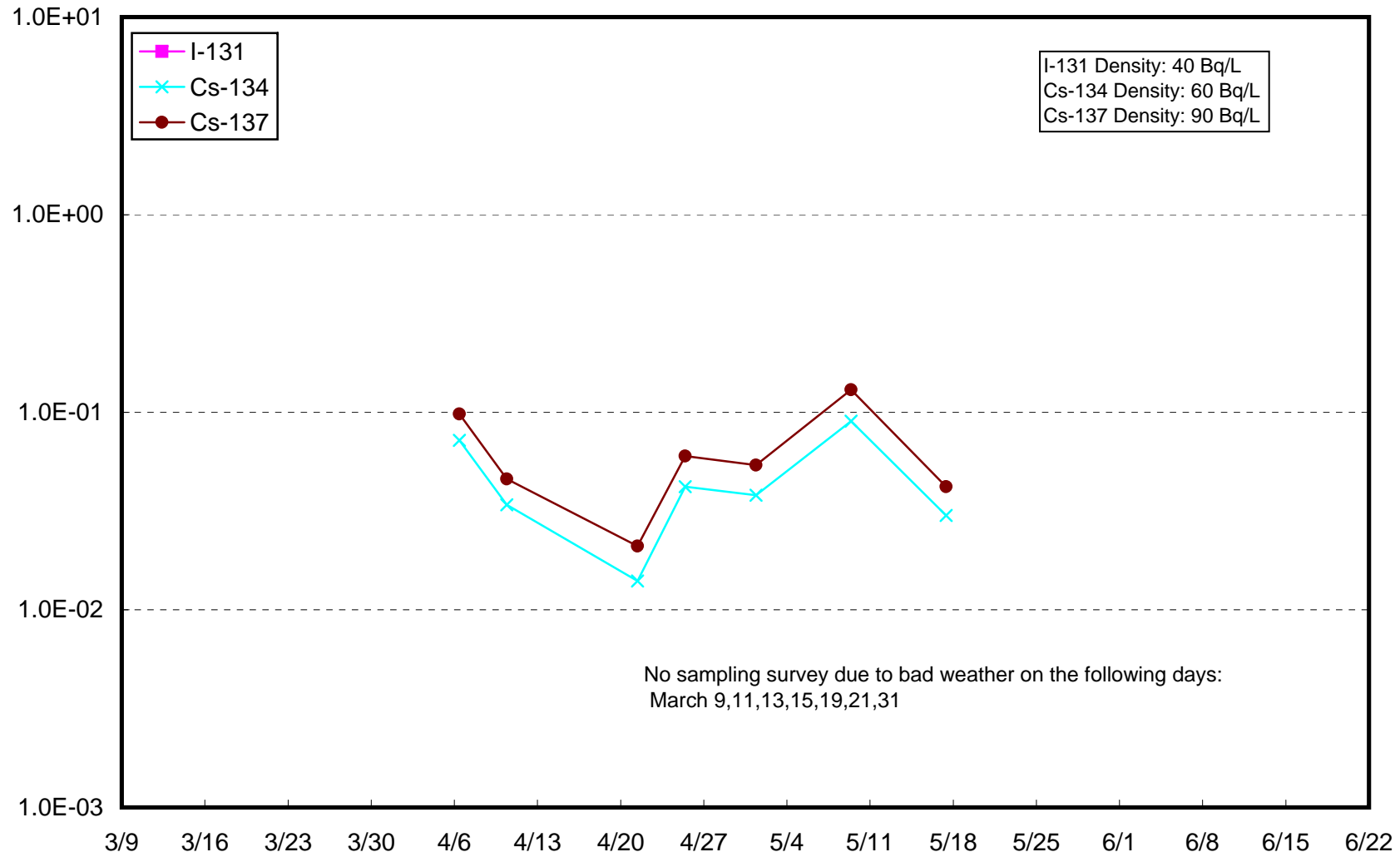
Radioactivity Density of the Seawater at Iwasawa Shore at 2F (Bq/L)



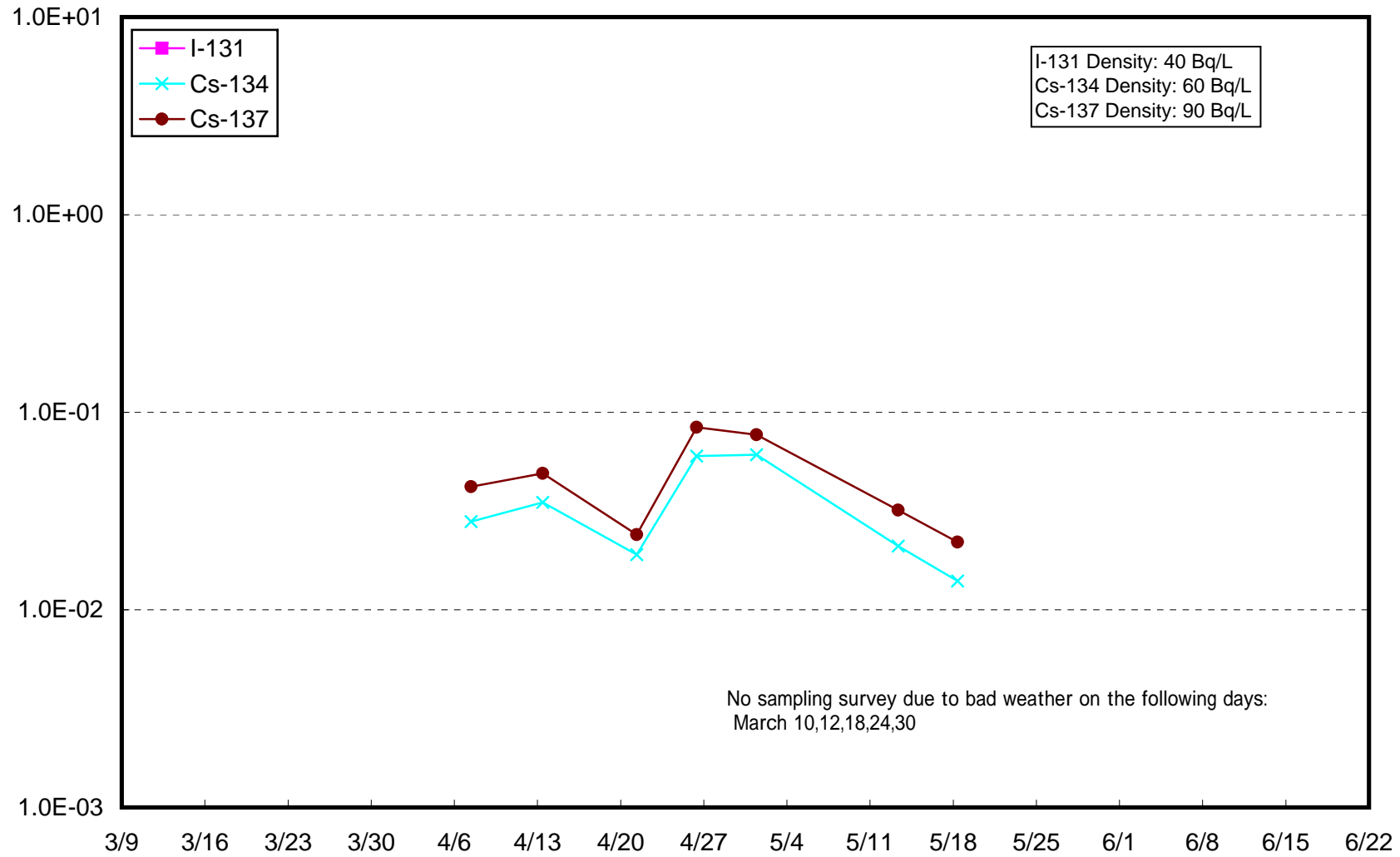
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Upper Layer (Bq/L)



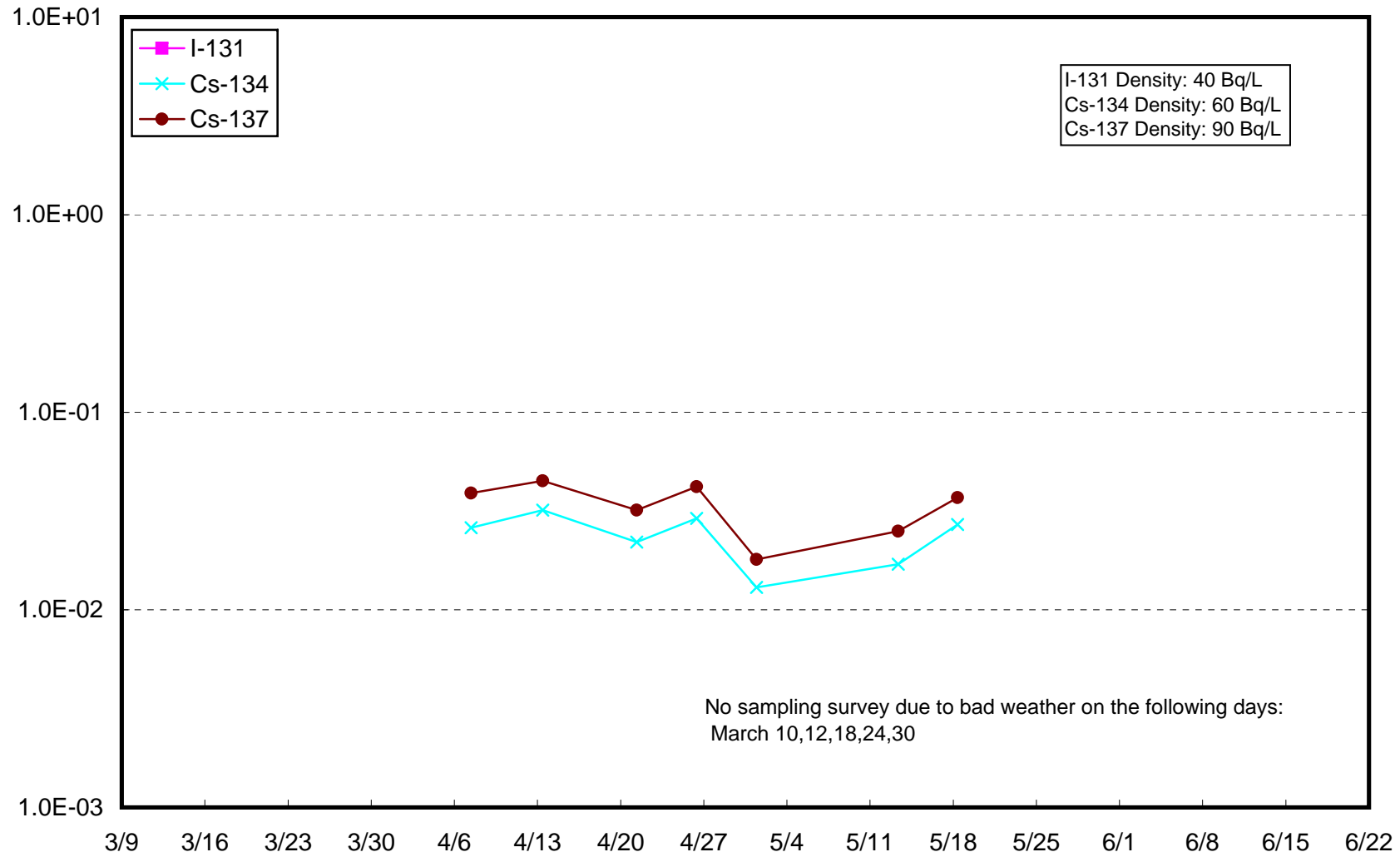
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Lower Layer (Bq/L)



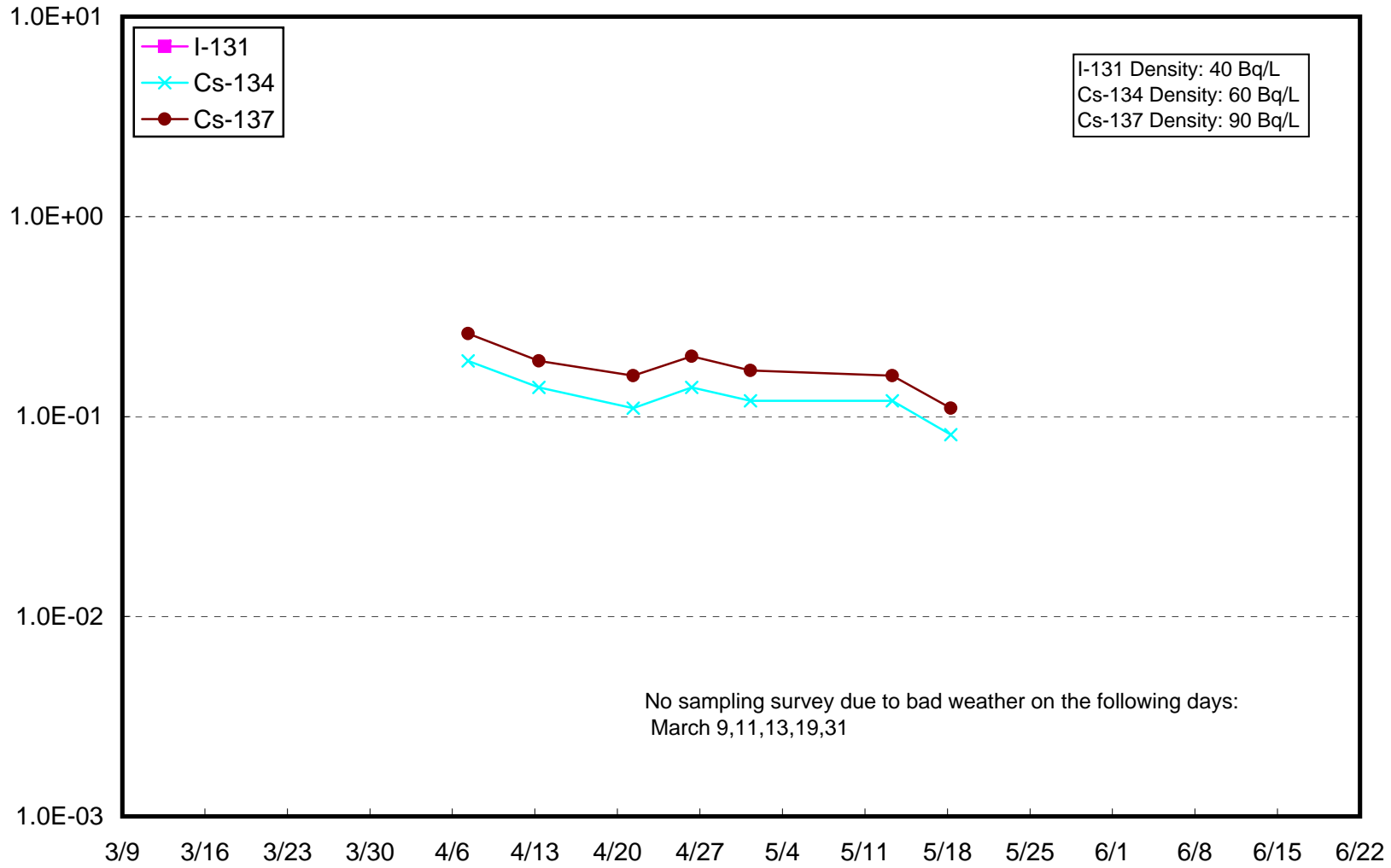
Radioactivity Density of the Seawater at 15km Offshore of Fukushima Daiichi NPS (T-5) Upper Layer (Bq/L)



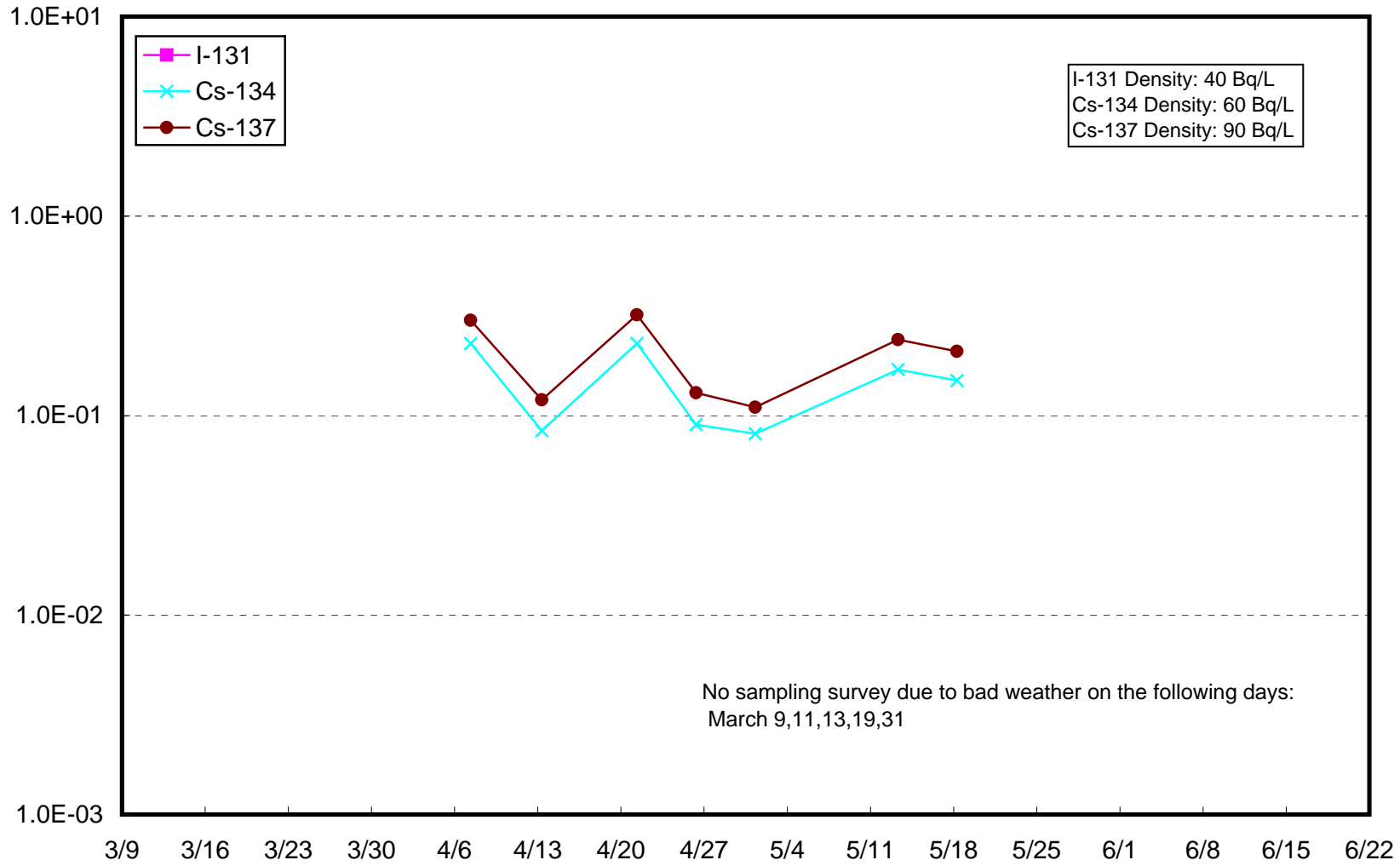
Radioactivity Density of the Seawater at 15km Offshore of Fukushima Daiichi NPS (T-5) Lower Layer (Bq/L)



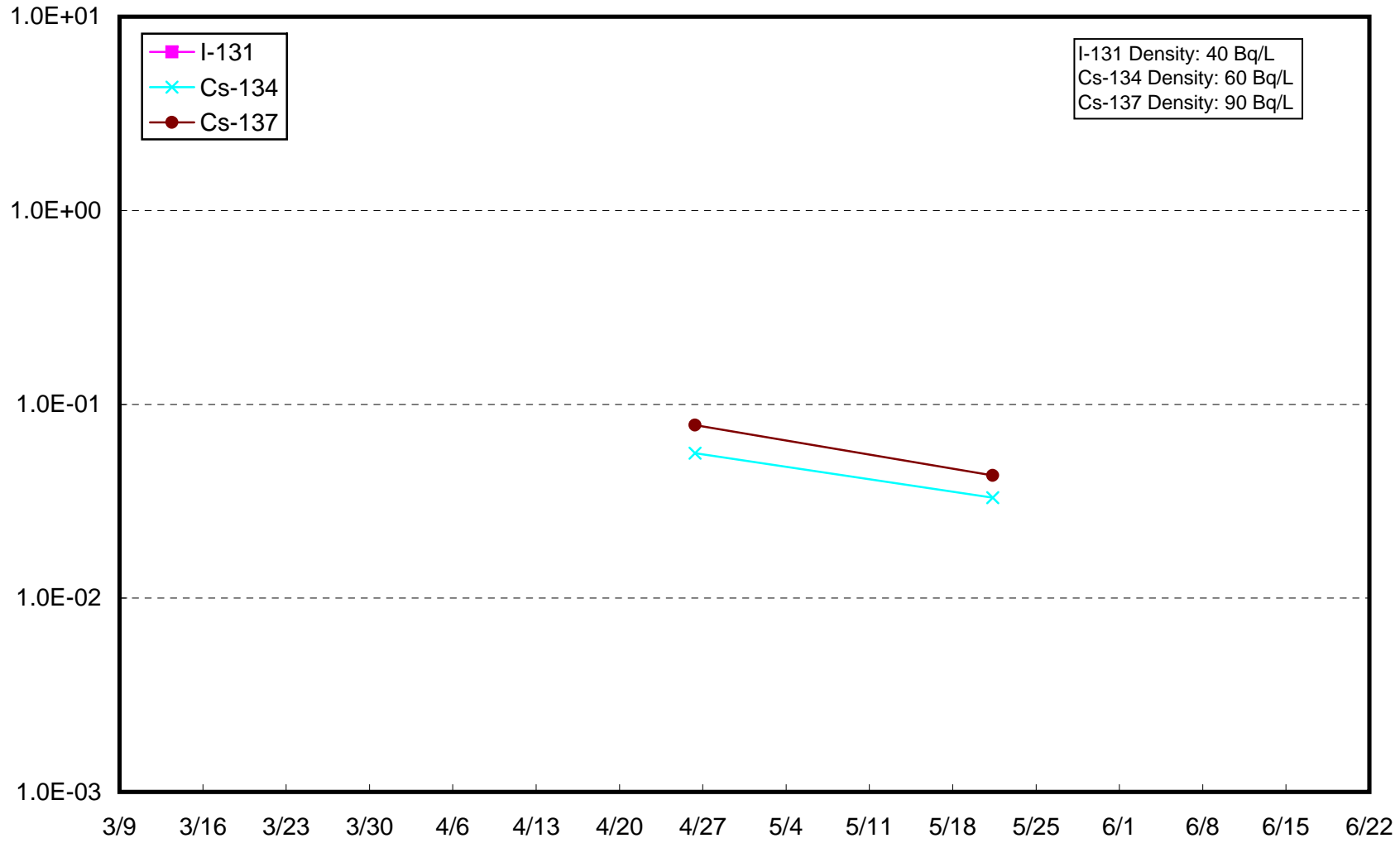
Radioactivity Density of the Seawater at 3km Offshore of Iwasawa Shore (T-11) Upper Layer (Bq/L)



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

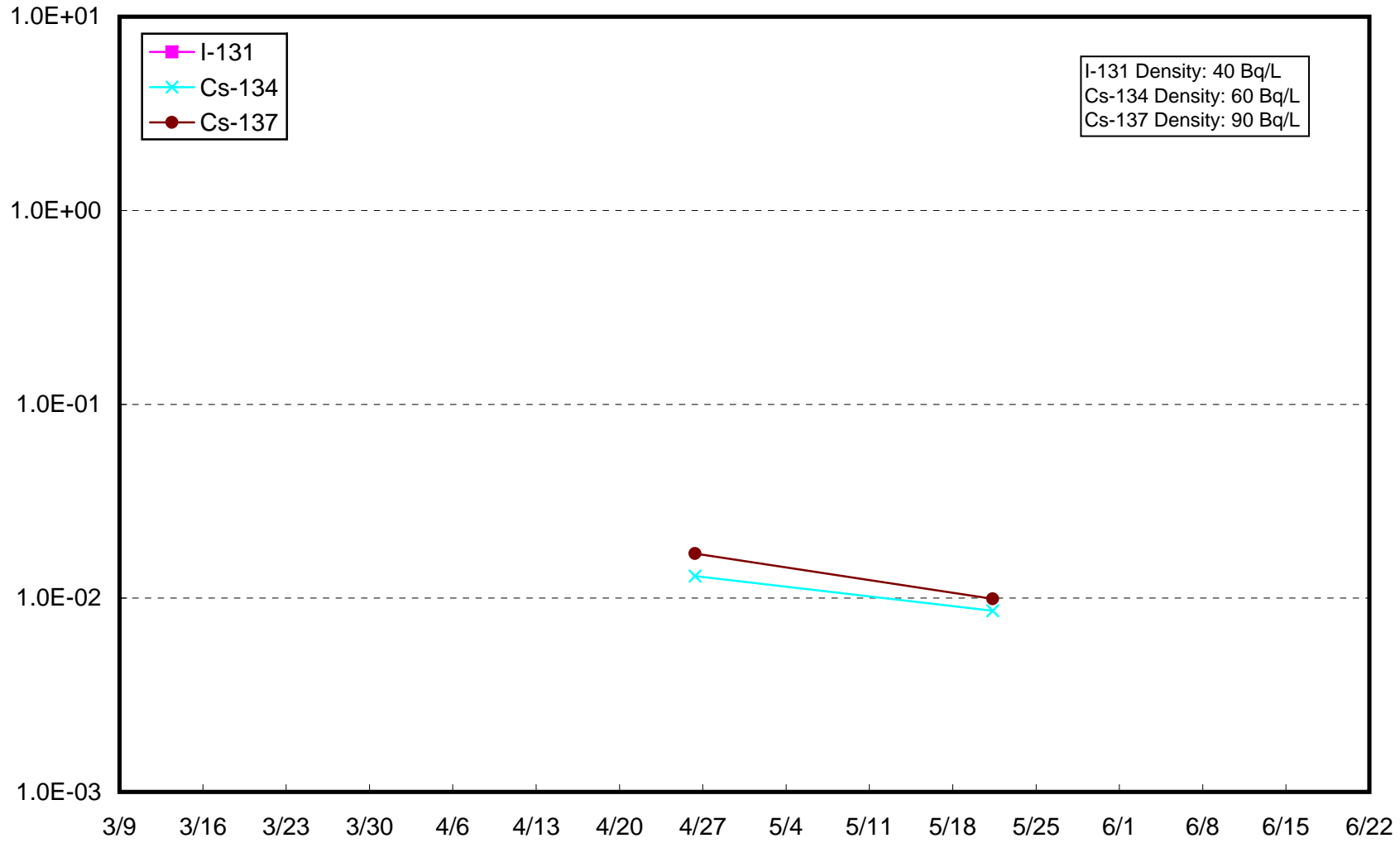


Radioactivity Density of the Seawater at 15km Offshore of Iwasawa Shore (T-7) Upper Layer (Bq/L)

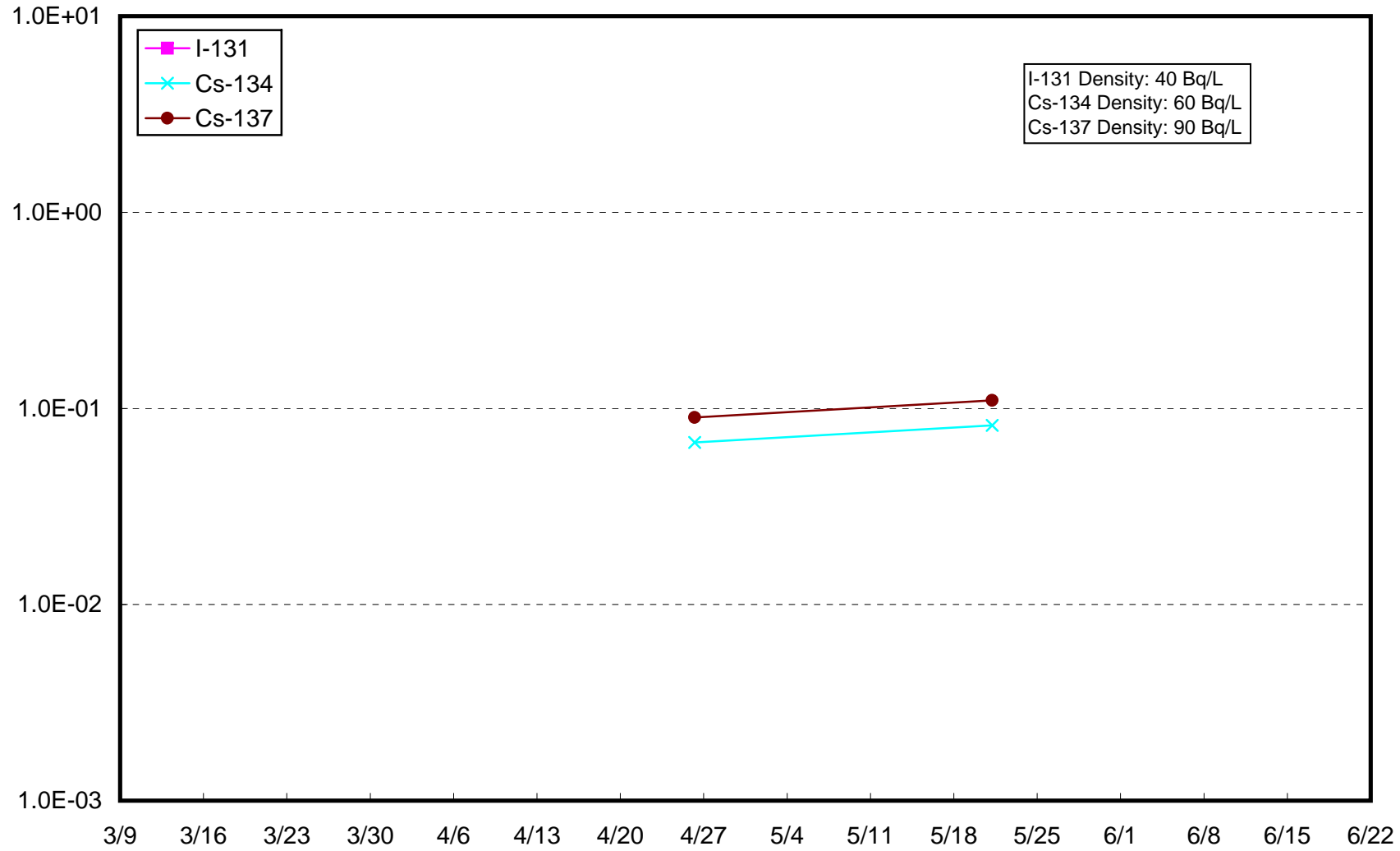




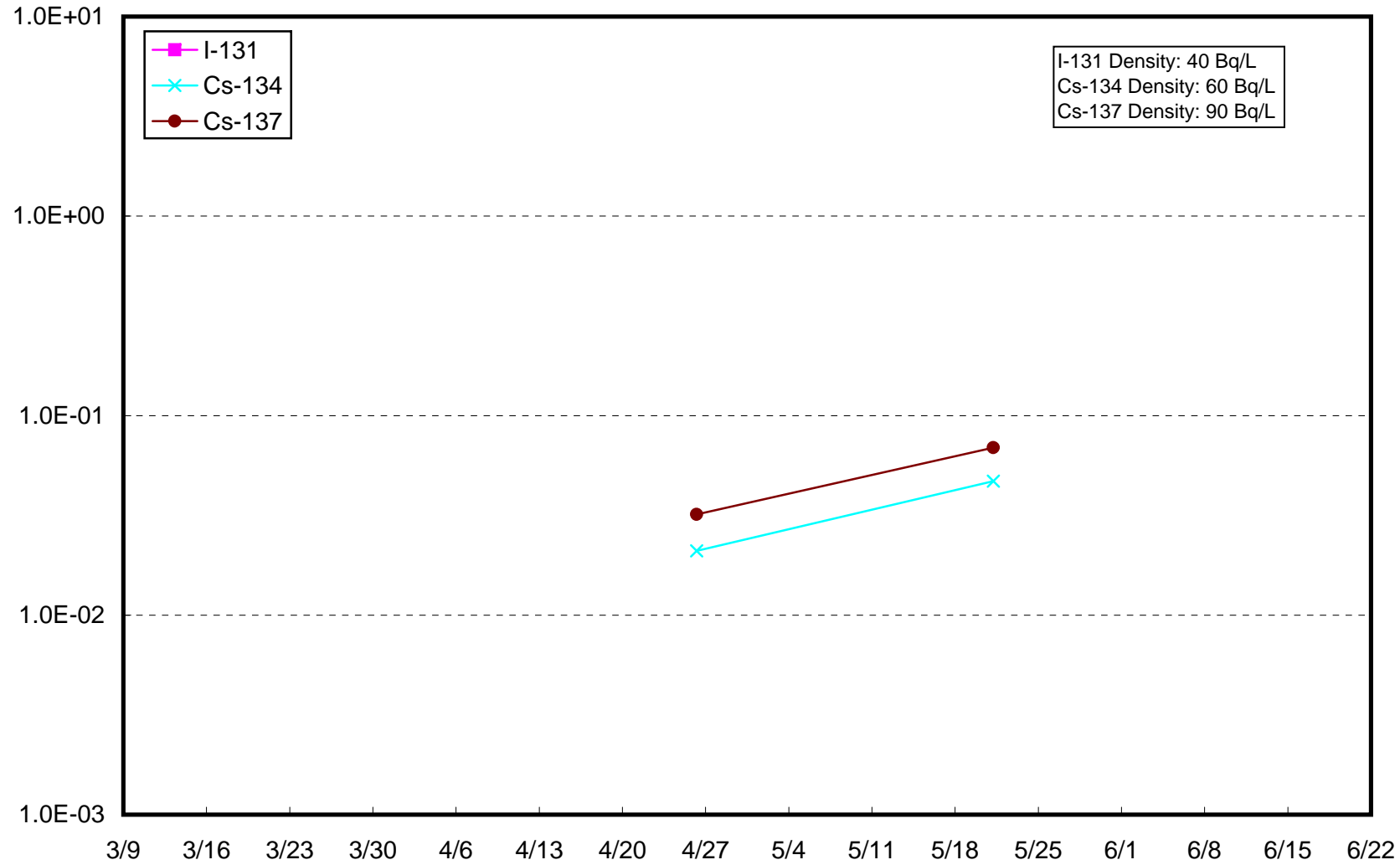
Radioactivity Density of the Seawater at 15km Offshore of Iwasawa Shore (T-7) Lower Layer (Bq/L)



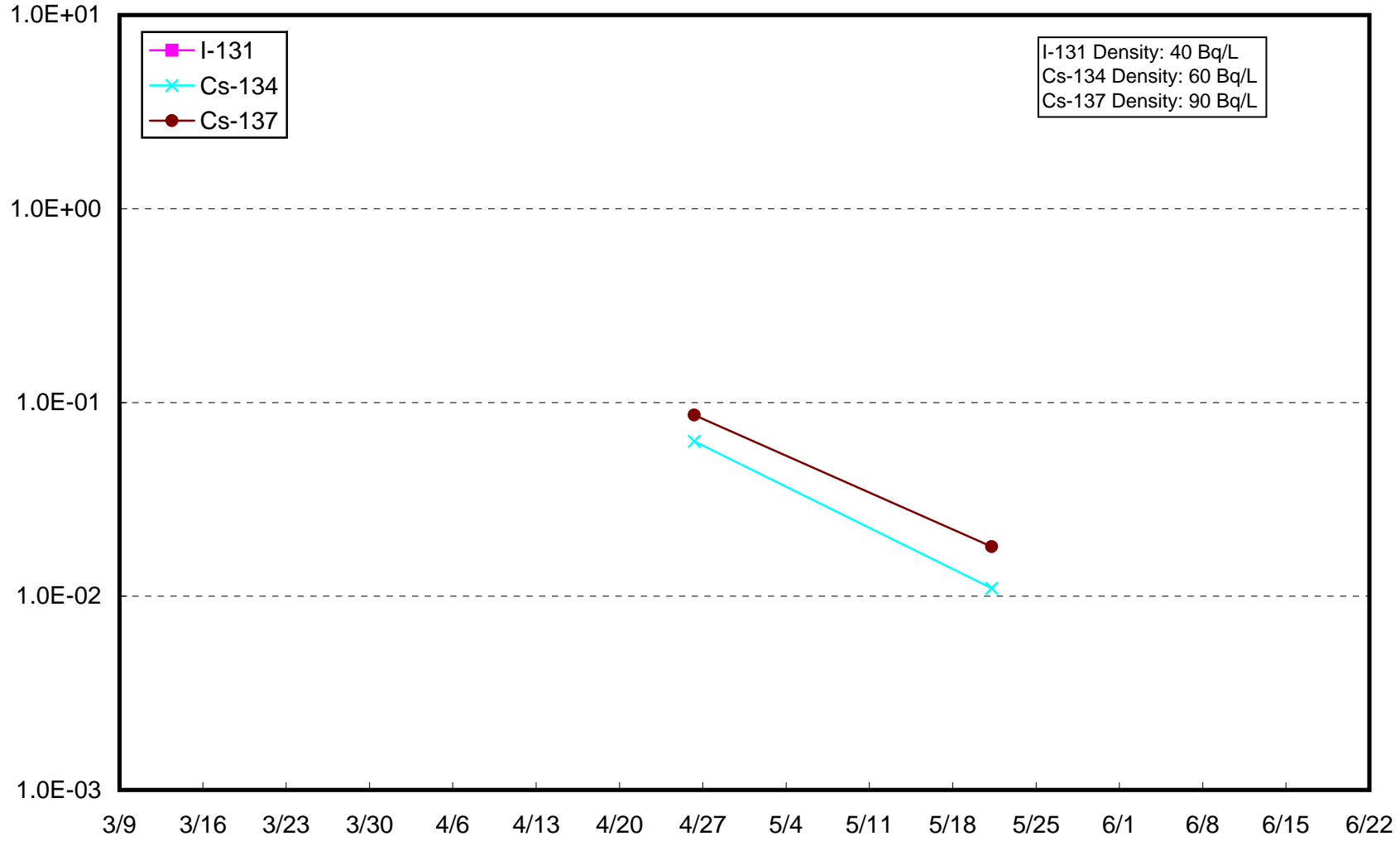
Radioactivity Density of the Seawater at 3km Offshore of Onahama Port (T-18) Upper Layer (Bq/L)



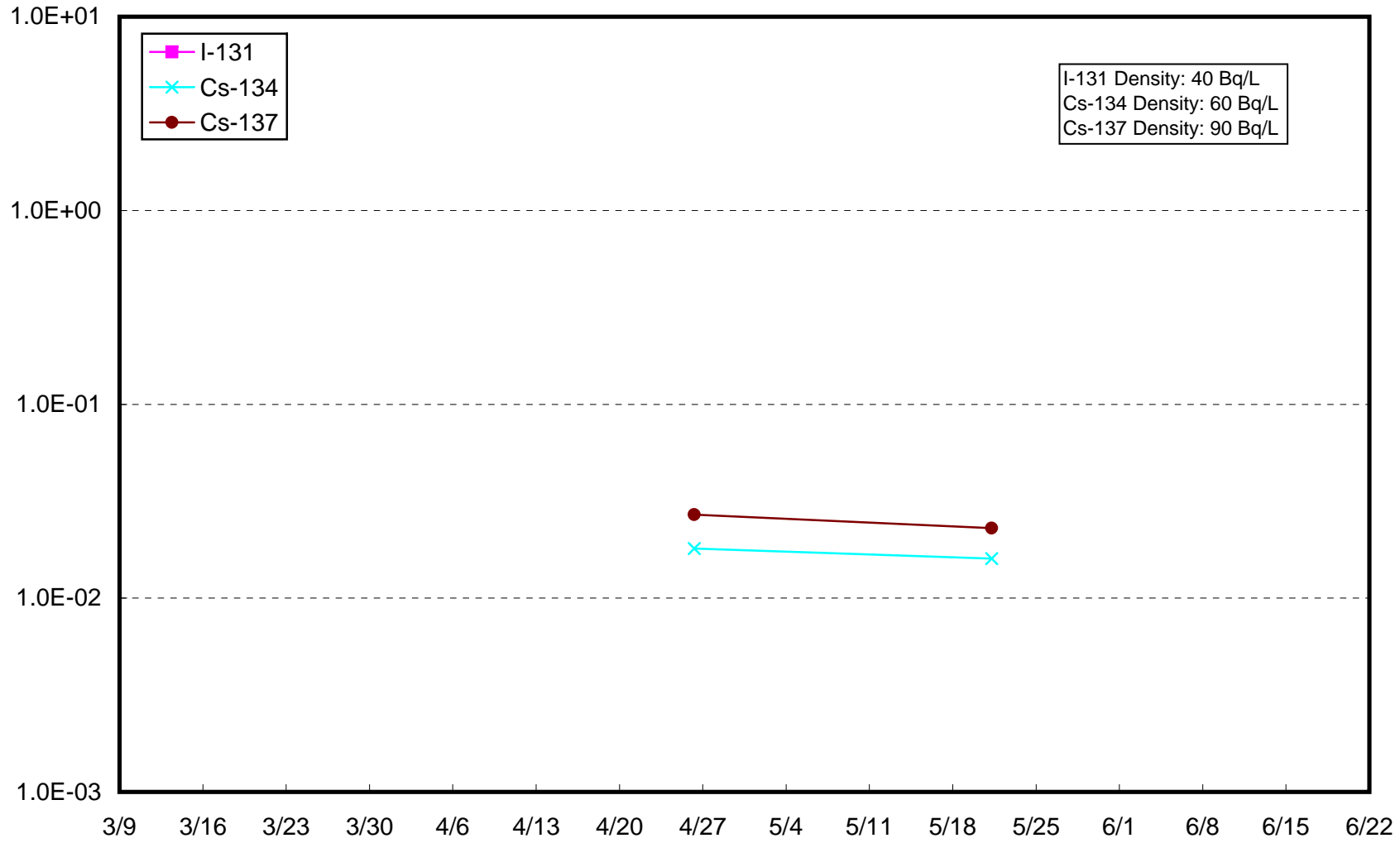
Radioactivity Density of the Seawater at 3km Offshore of Onahama Port (T-18) Lower Layer (Bq/L)



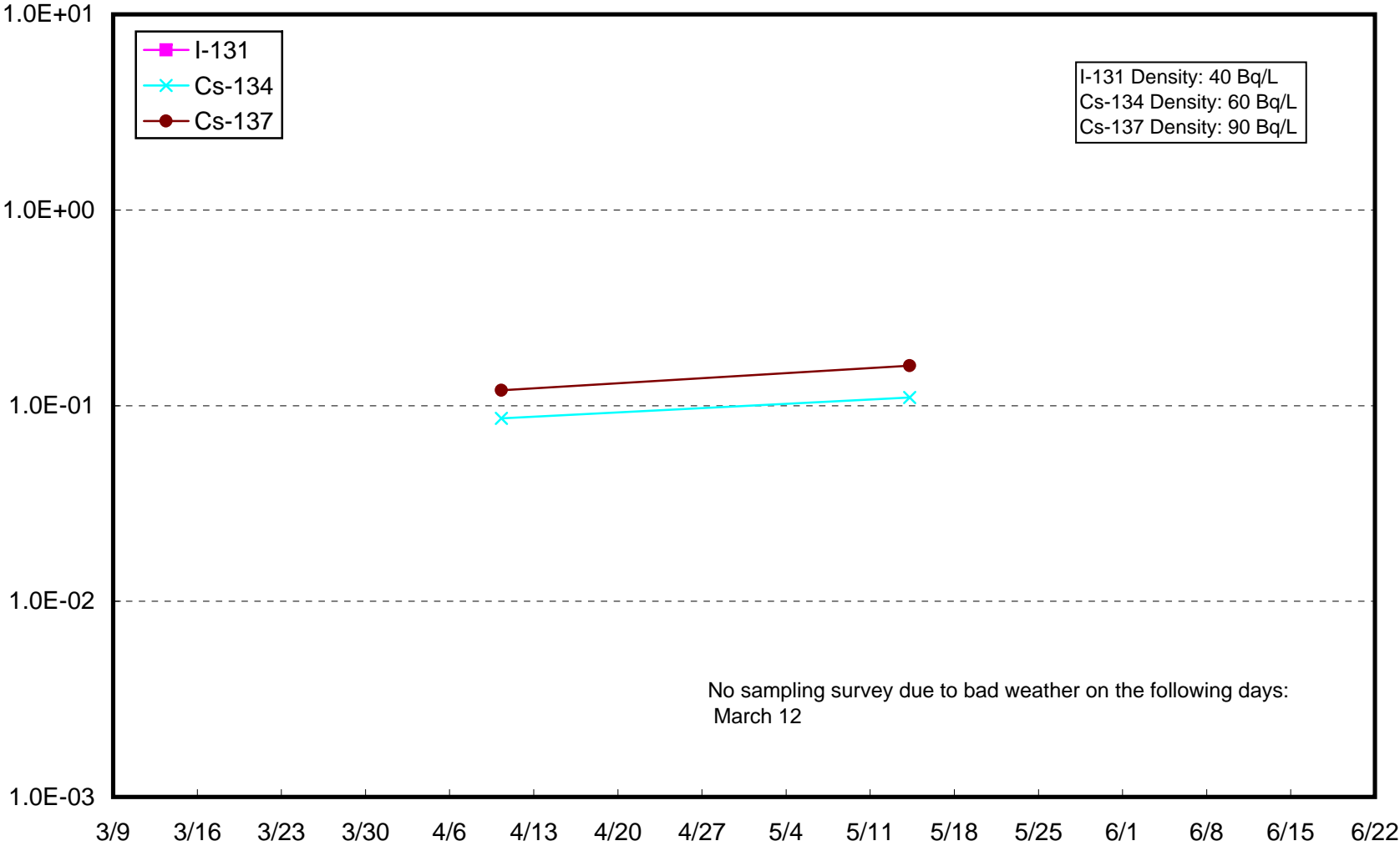
Radioactivity Density of the Seawater at 5km Offshore of Numanouchi (T-M10) Upper Layer (Bq/L)



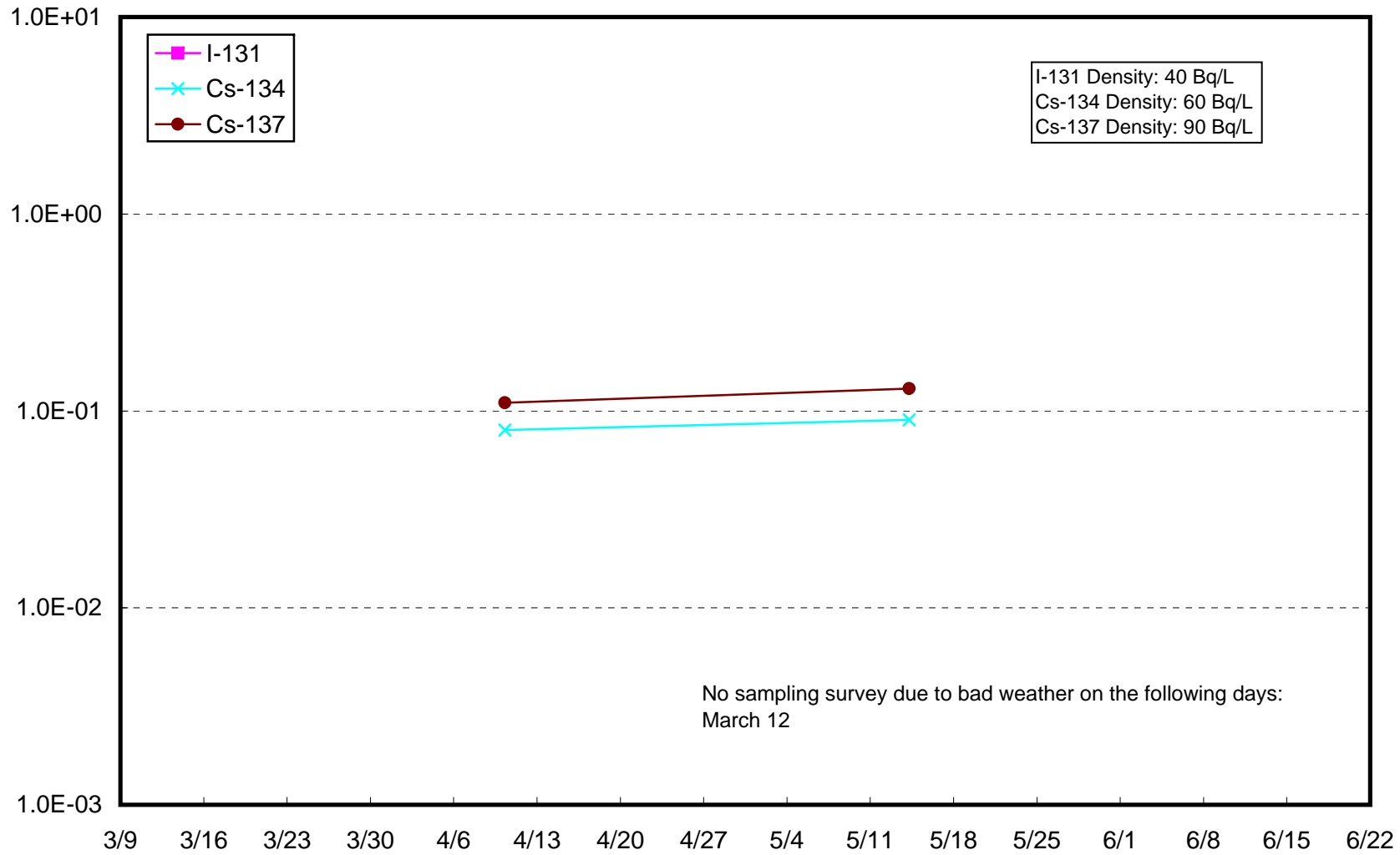
Radioactivity Density of the Seawater at 5km Offshore of Numanouchi (T-M10) Lower Layer (Bq/L)



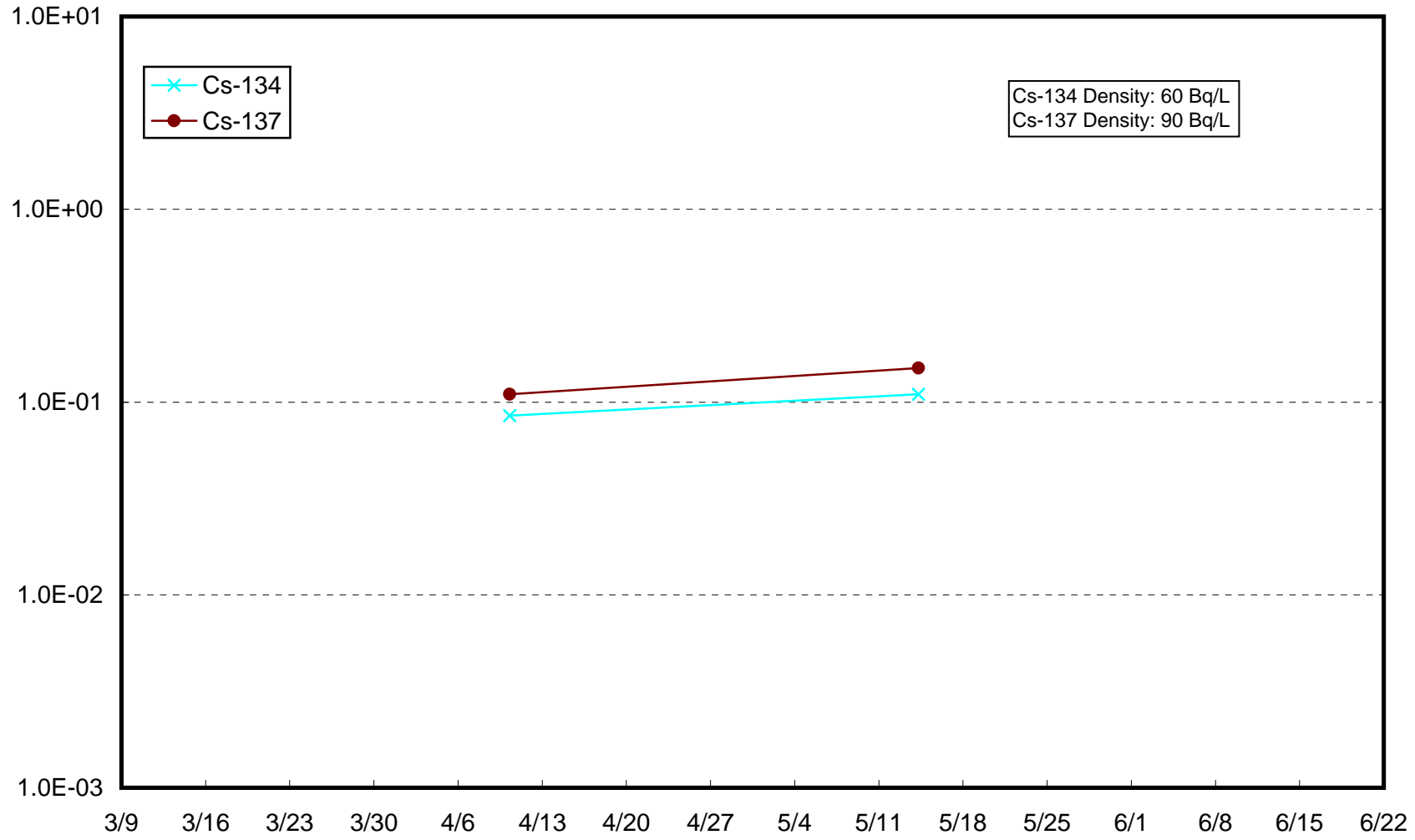
Radioactivity Density of the Seawater at 3km Offshore of North of Iwaki City(T-12) Upper Layer (Bq/L)



Radioactivity Density of the Seawater at 3km Offshore of North of Iwaki City(T-12) Lower Layer (Bq/L)

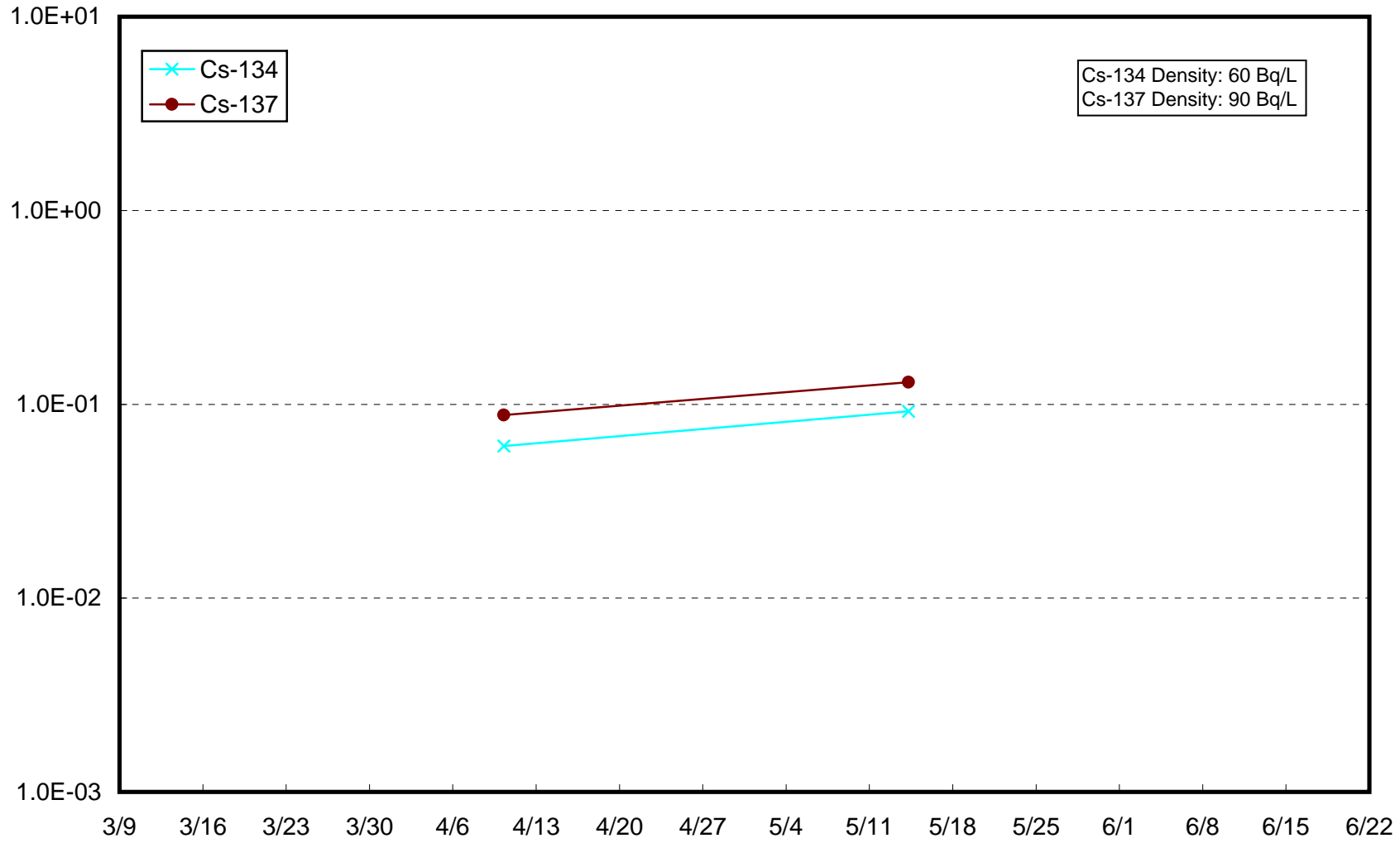


Radioactivity Density of the Seawater at 1km Offshore of Natsui River (T-17-1) Upper Layer (Bq/L)

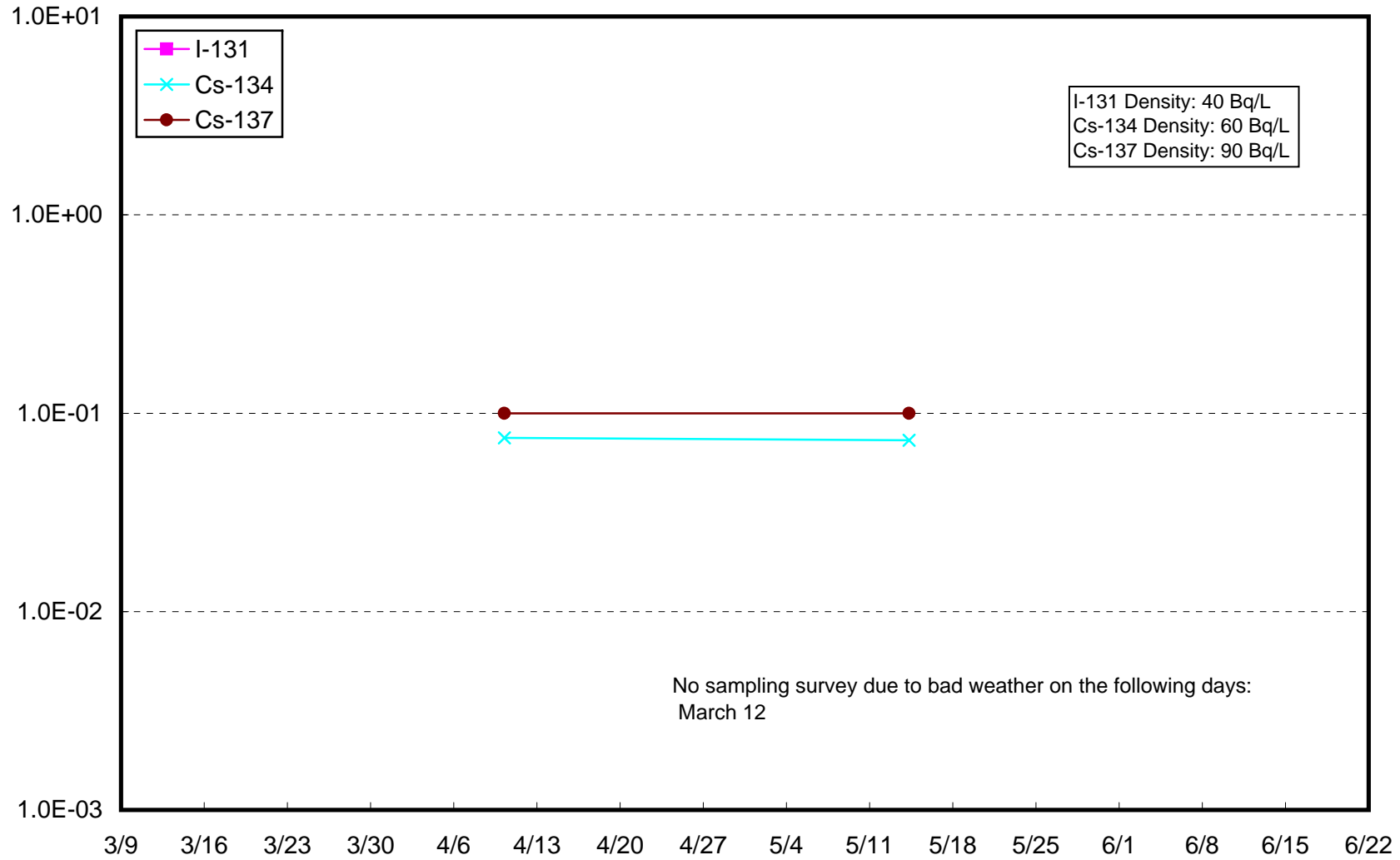




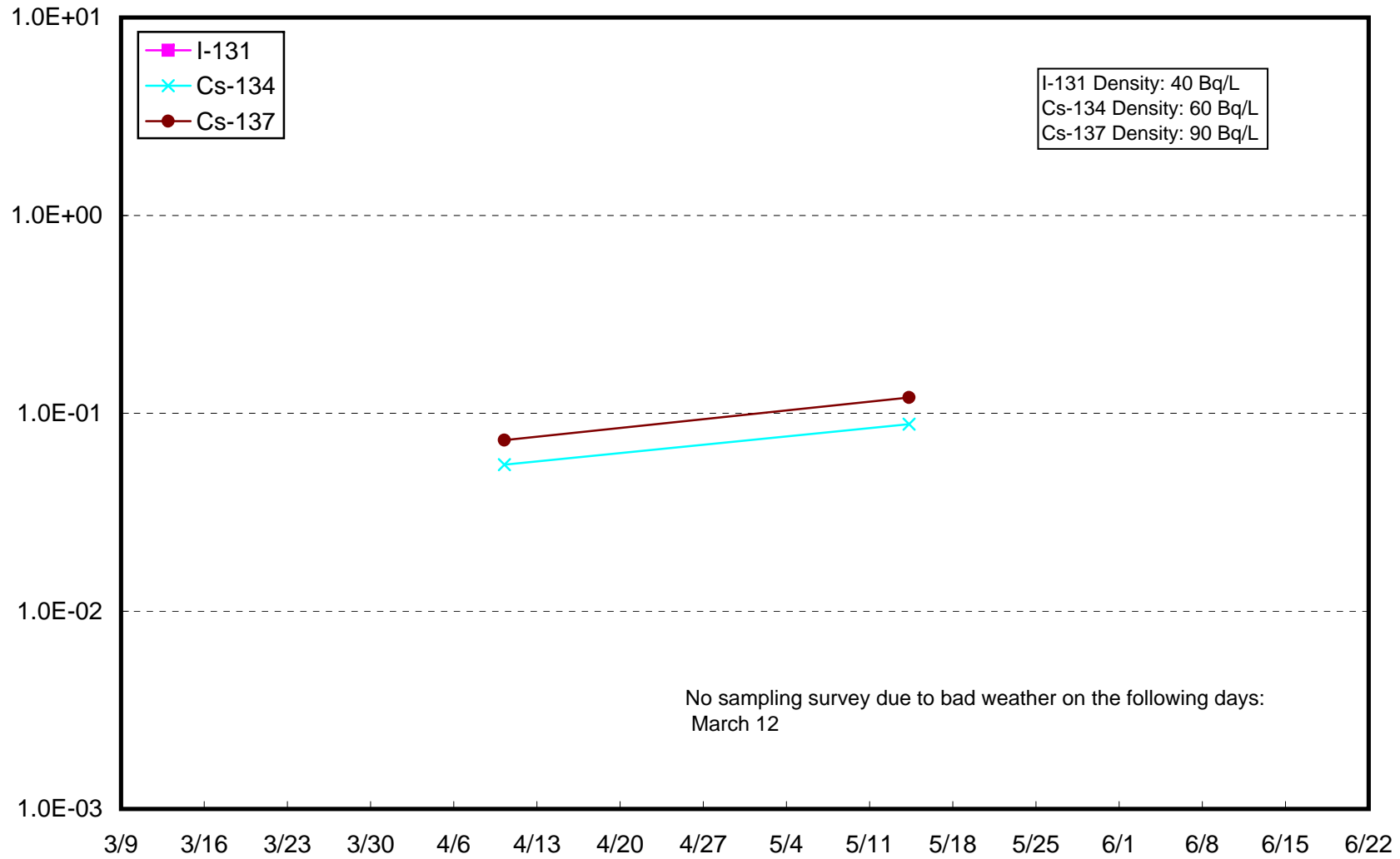
Radioactivity Density of the Seawater at 1km Offshore of Natsui River (T-17-1) Lower Layer (Bq/L)



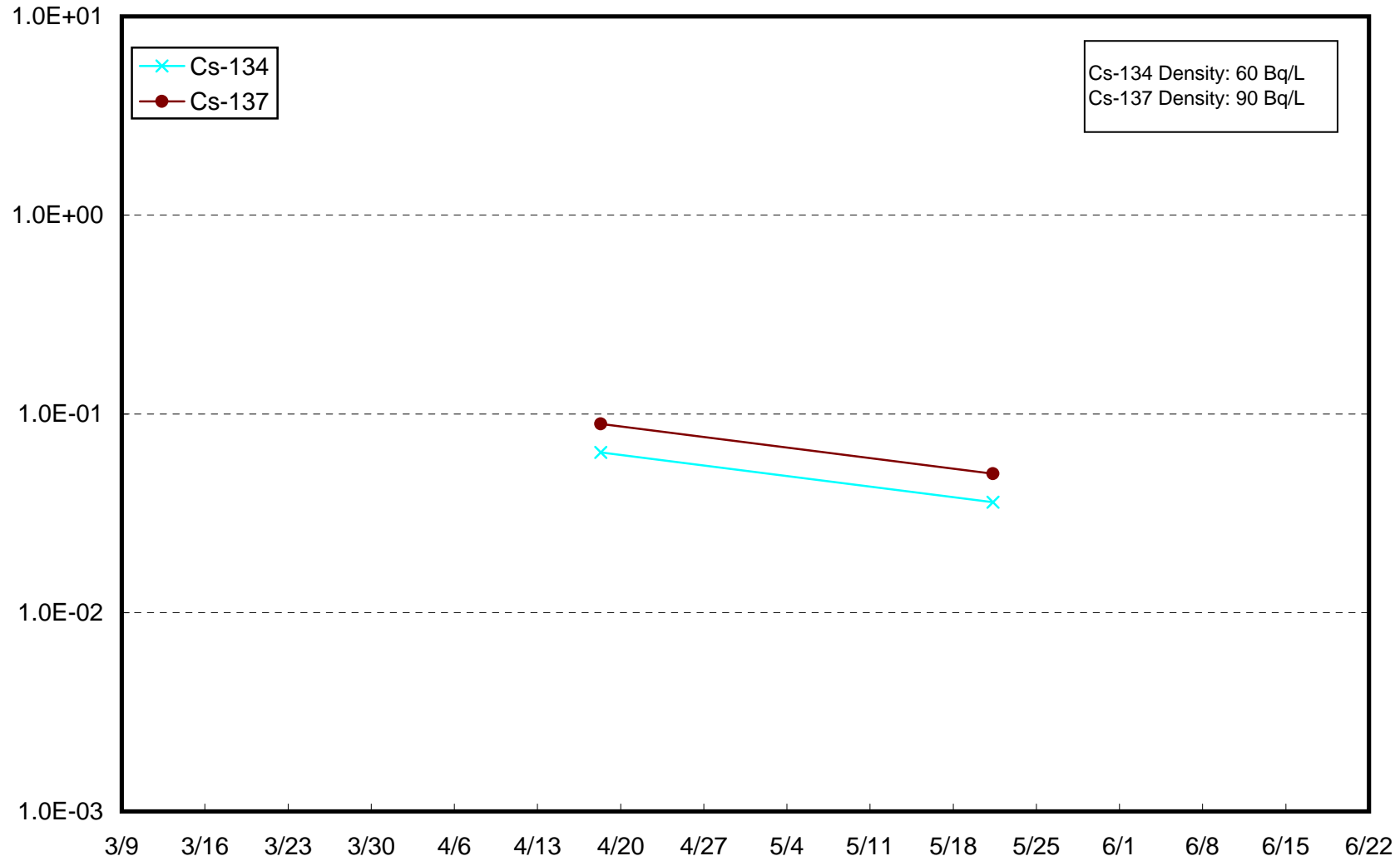
Radioactivity Density of the Seawater at 3km Offshore of Toyoma (T-20) Upper Layer (Bq/L)



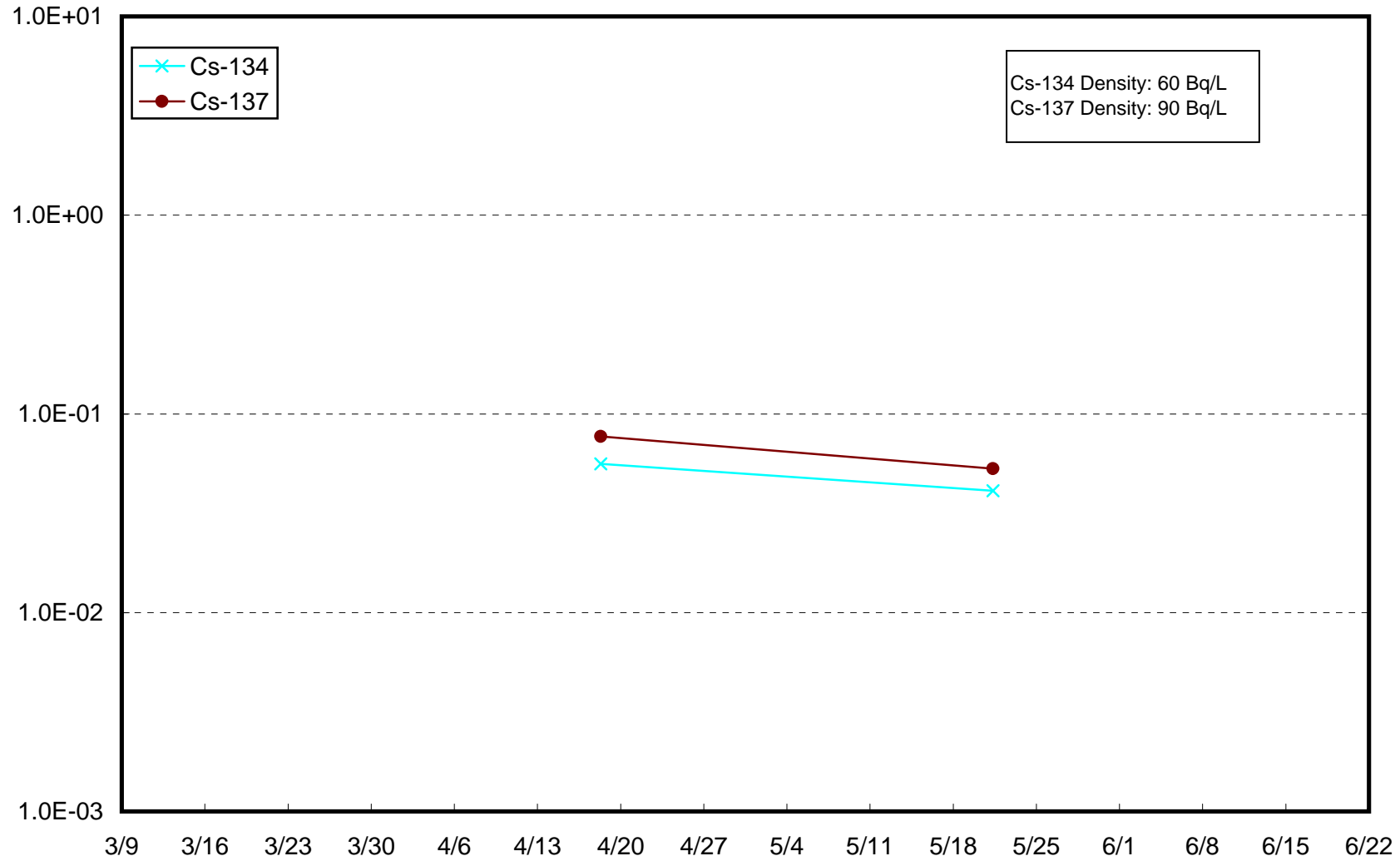
Radioactivity Density of the Seawater at 3km Offshore of Toyoma (T-20) Upper Layer (Bq/L)



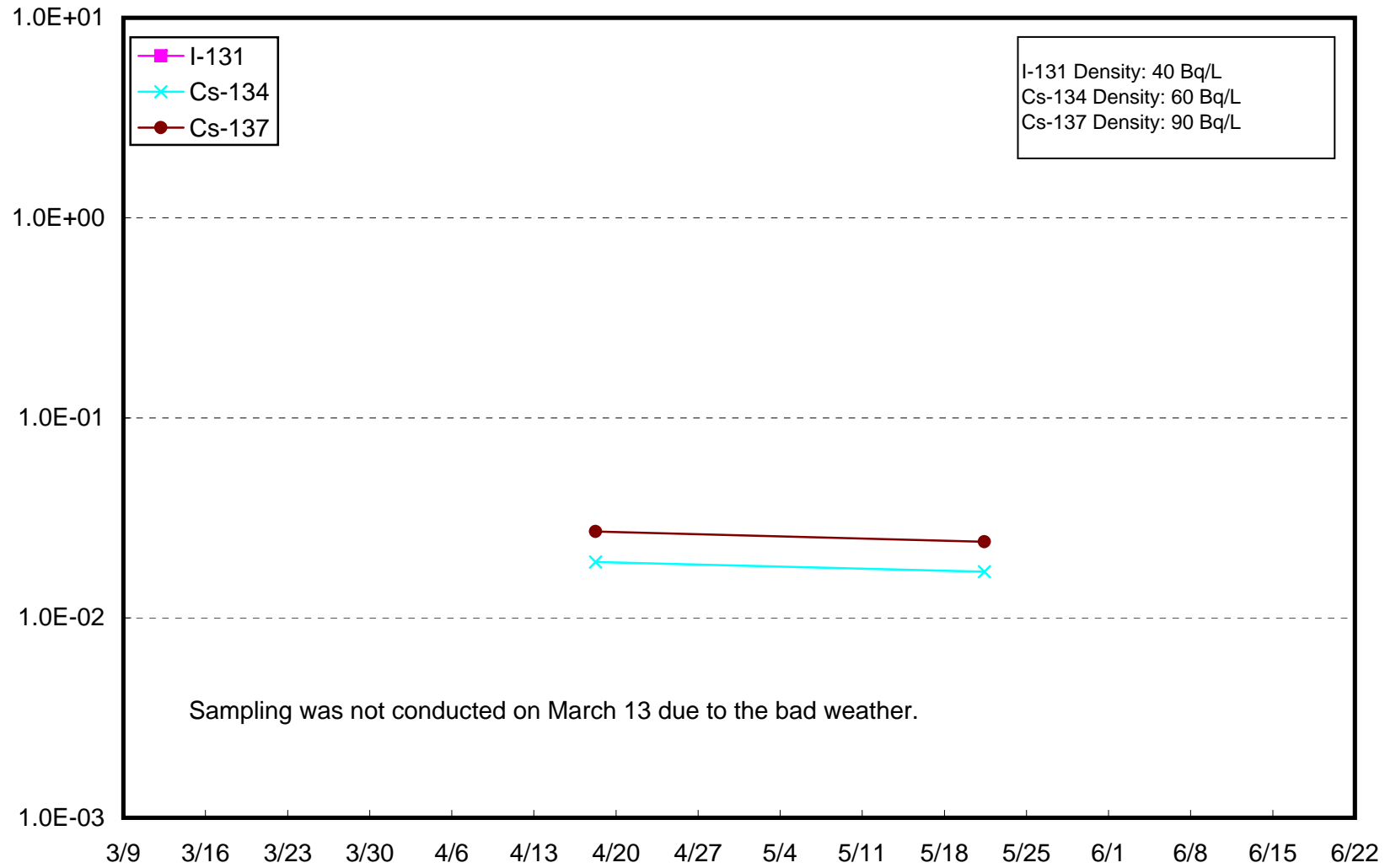
Radioactivity Density of the Seawater at 1km Offshore of Nida River (T-13-1) Upper Layer (Bq/L)



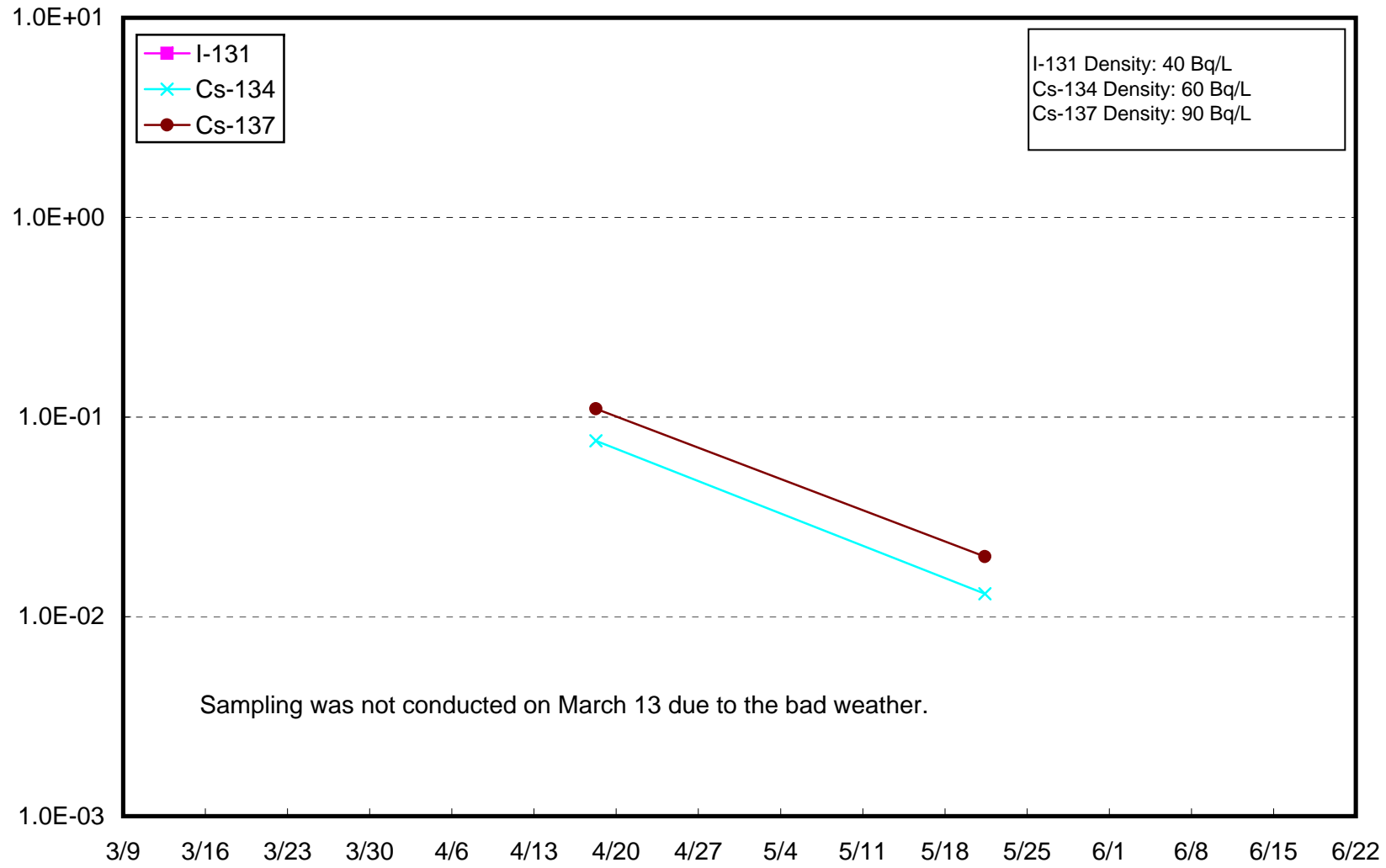
Radioactivity Density of the Seawater at 1km Offshore of Nida River (T-13-1) Lower Layer (Bq/L)



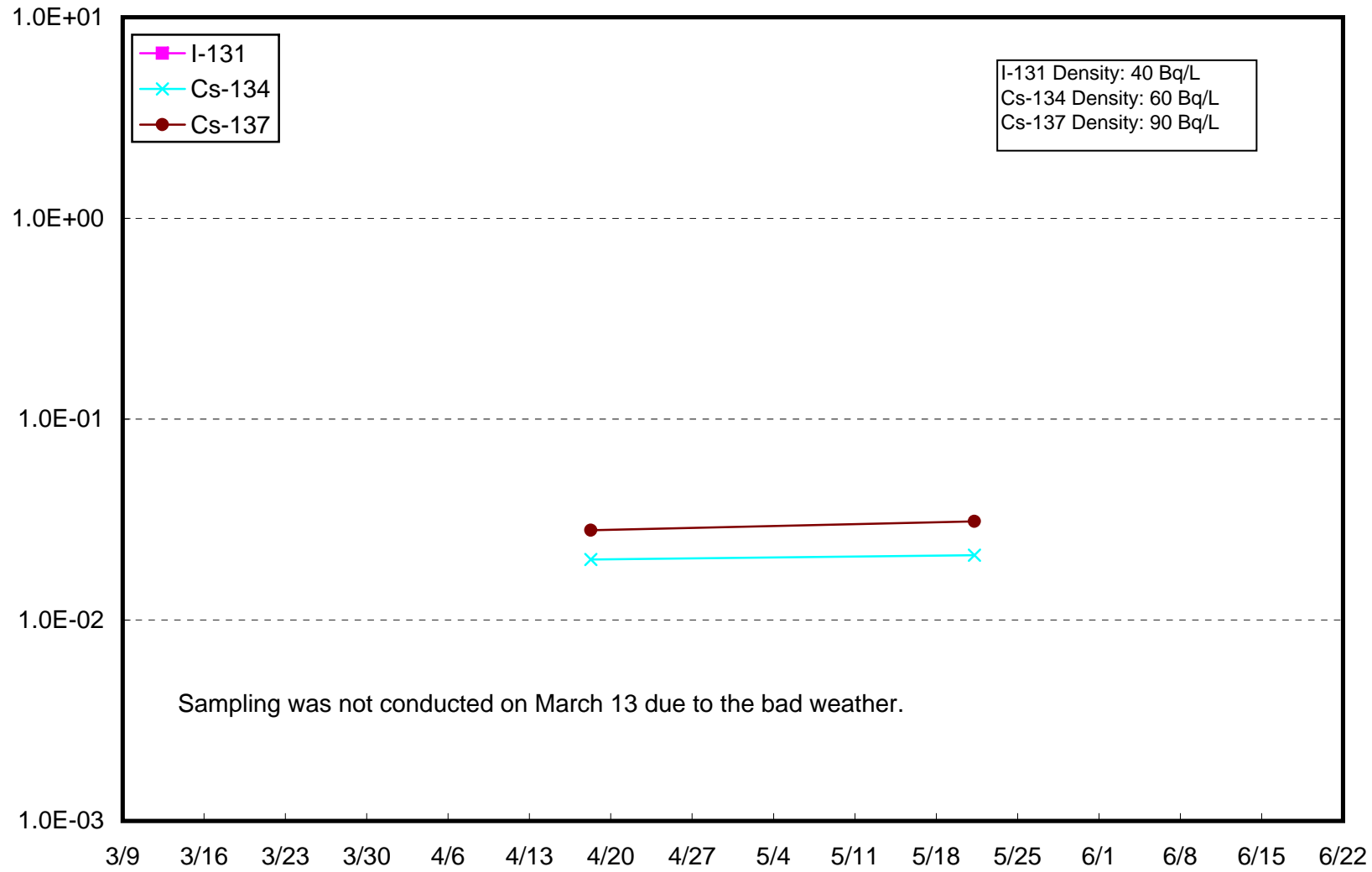
Radioactivity Density of the Seawater at 3km Offshore of Soma (T-22) Upper Layer (Bq/L)



Radioactivity Density of the Seawater at 3km Offshore of Soma (T-22) Lower Layer (Bq/L)

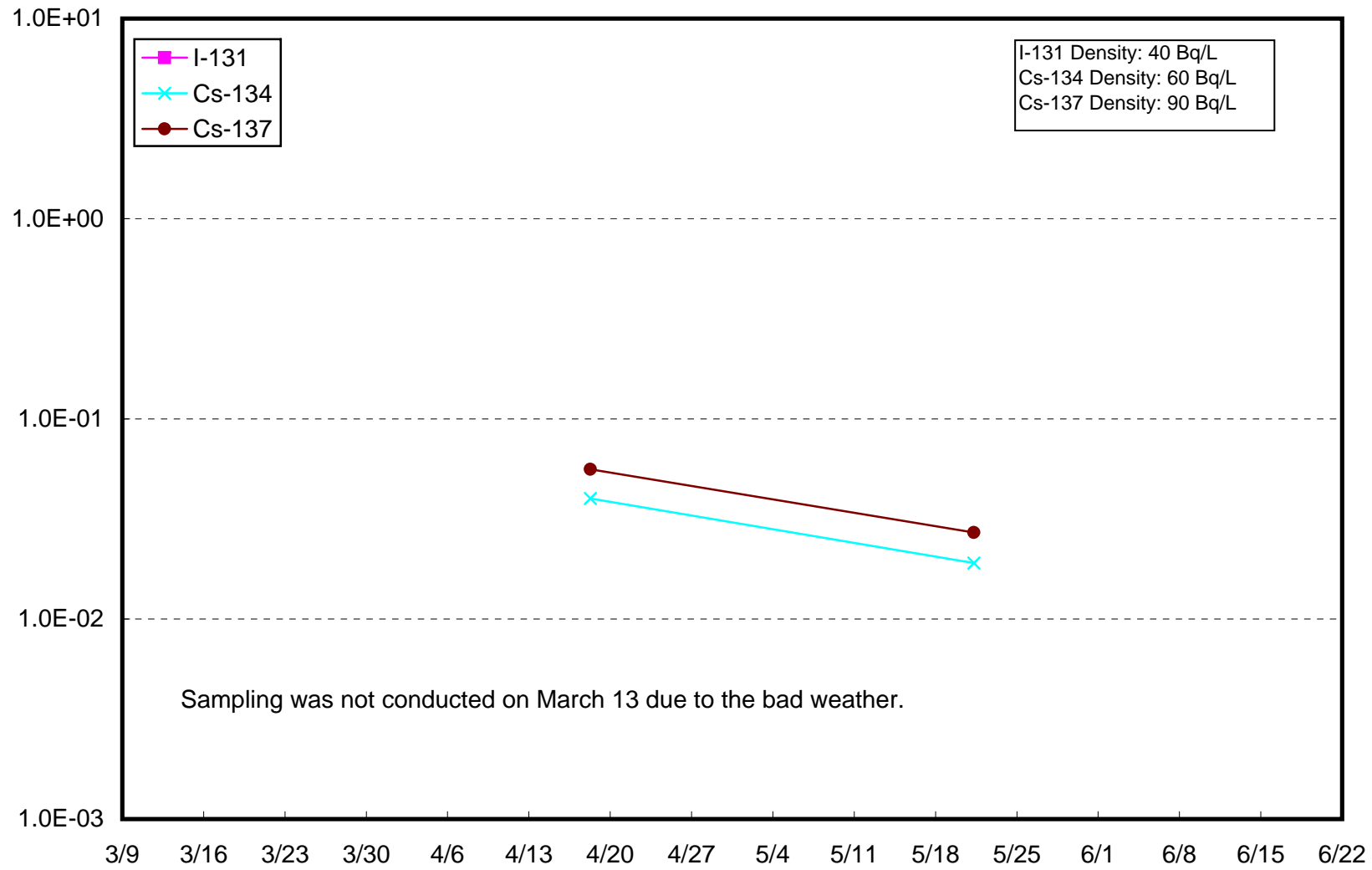


Radioactivity Density of the Seawater at 5km Offshore of Kashima (T-MA) Upper Layer (Bq/L)

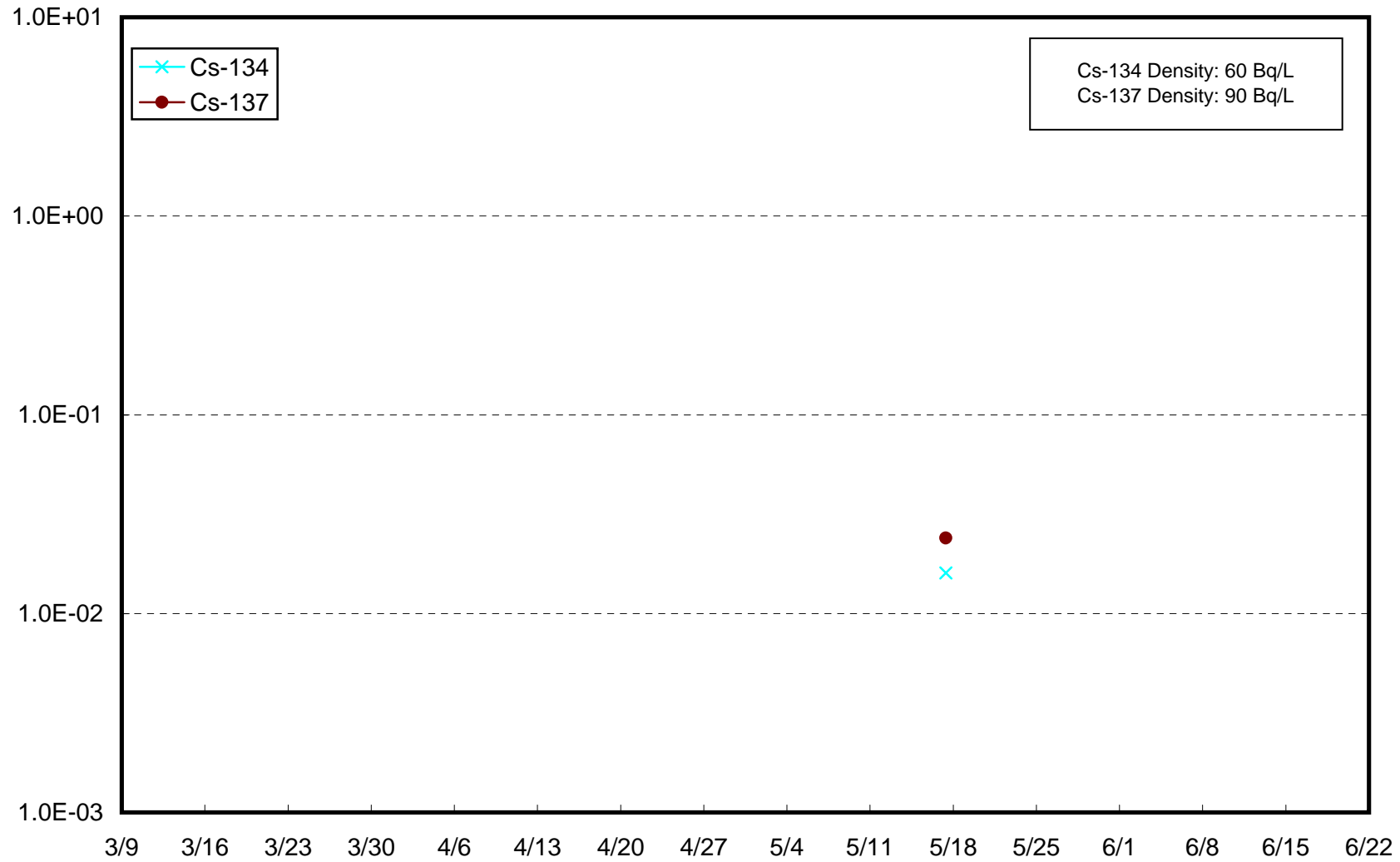




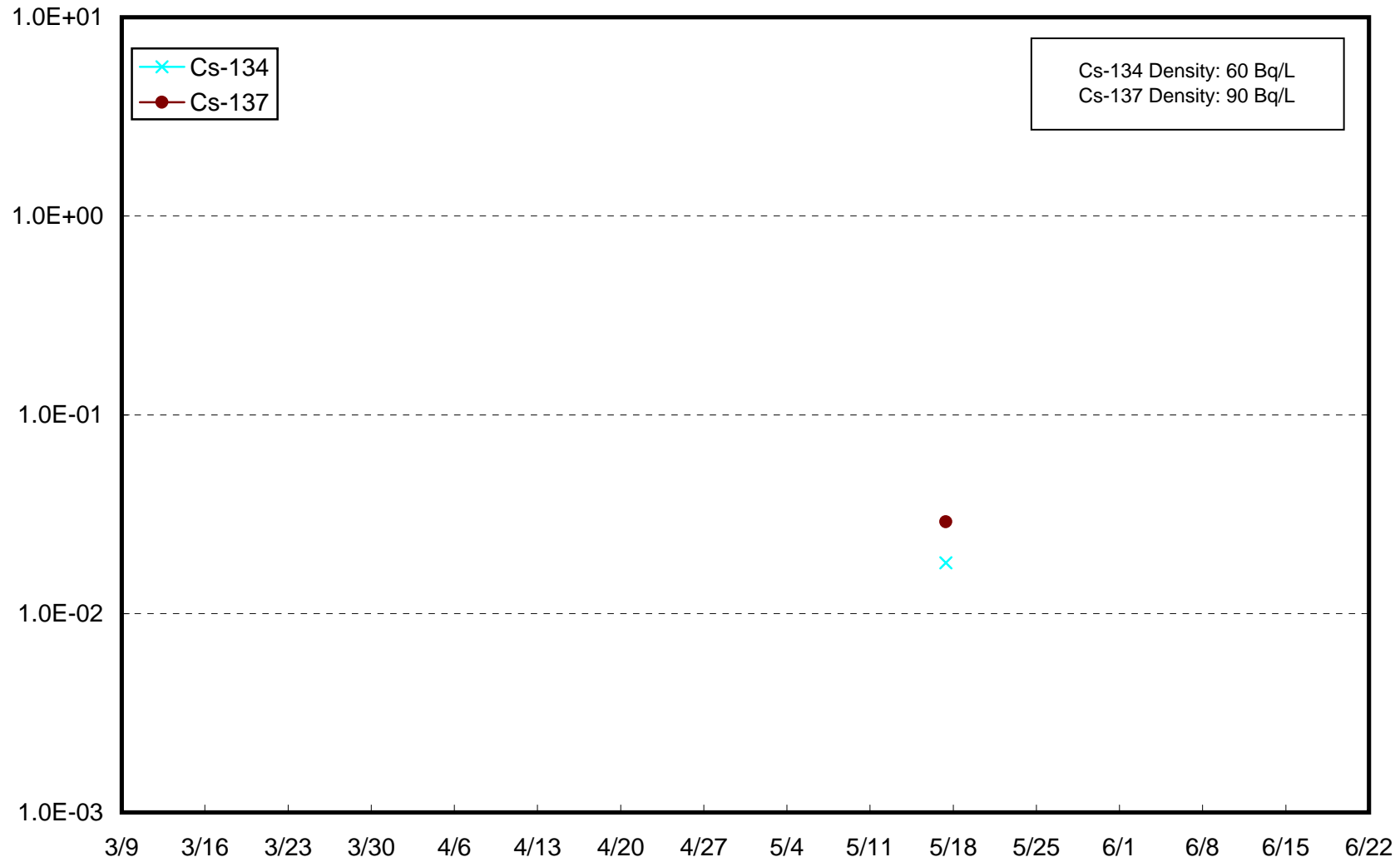
Radioactivity Density of the Seawater at 5km Offshore of Kashima (T-MA) Lower Layer (Bq/L)



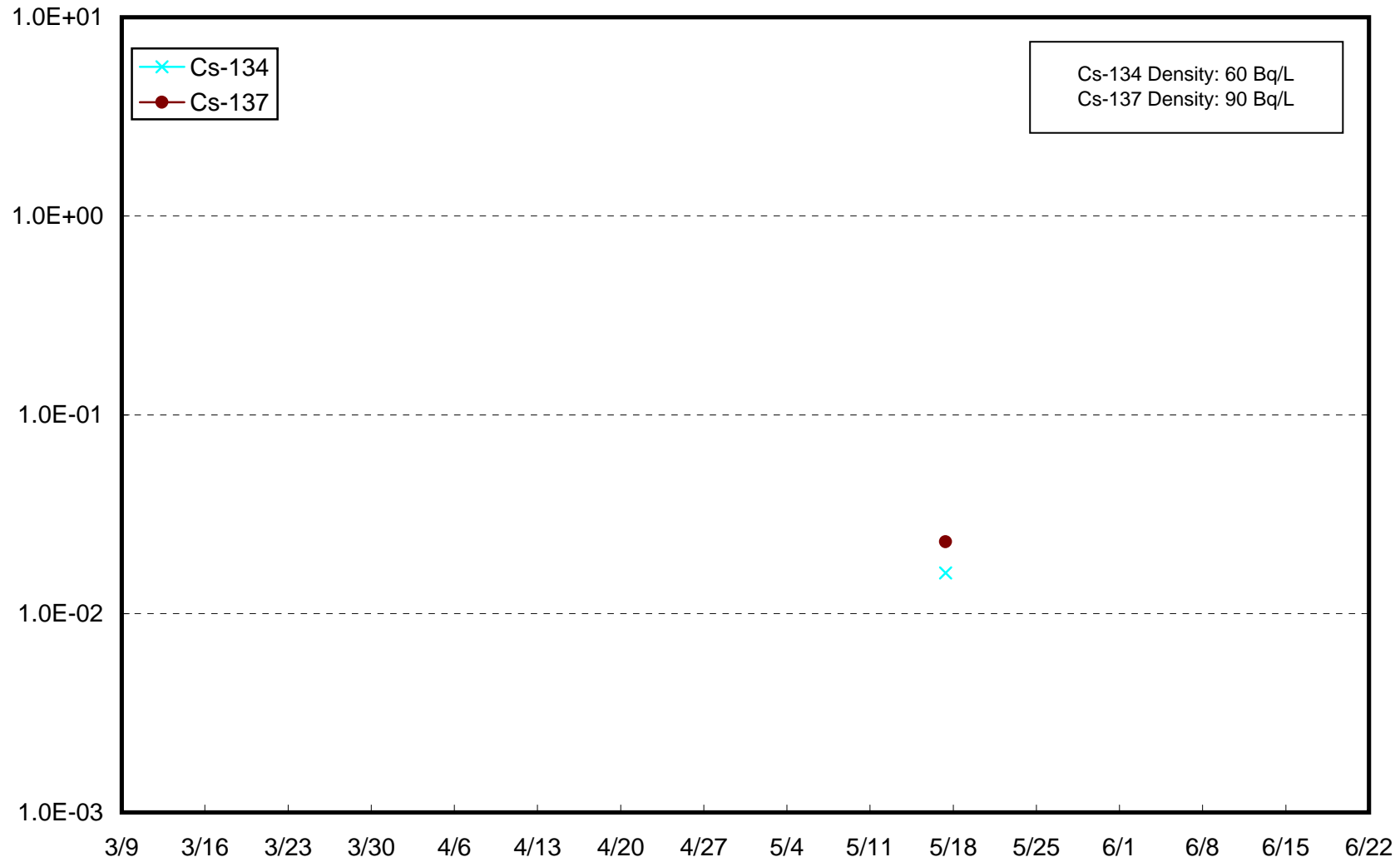
Radioactivity Density of the Seawater at 15km Offshore of Odaka Ward (T-B1) Upper Layer (Bq/L)



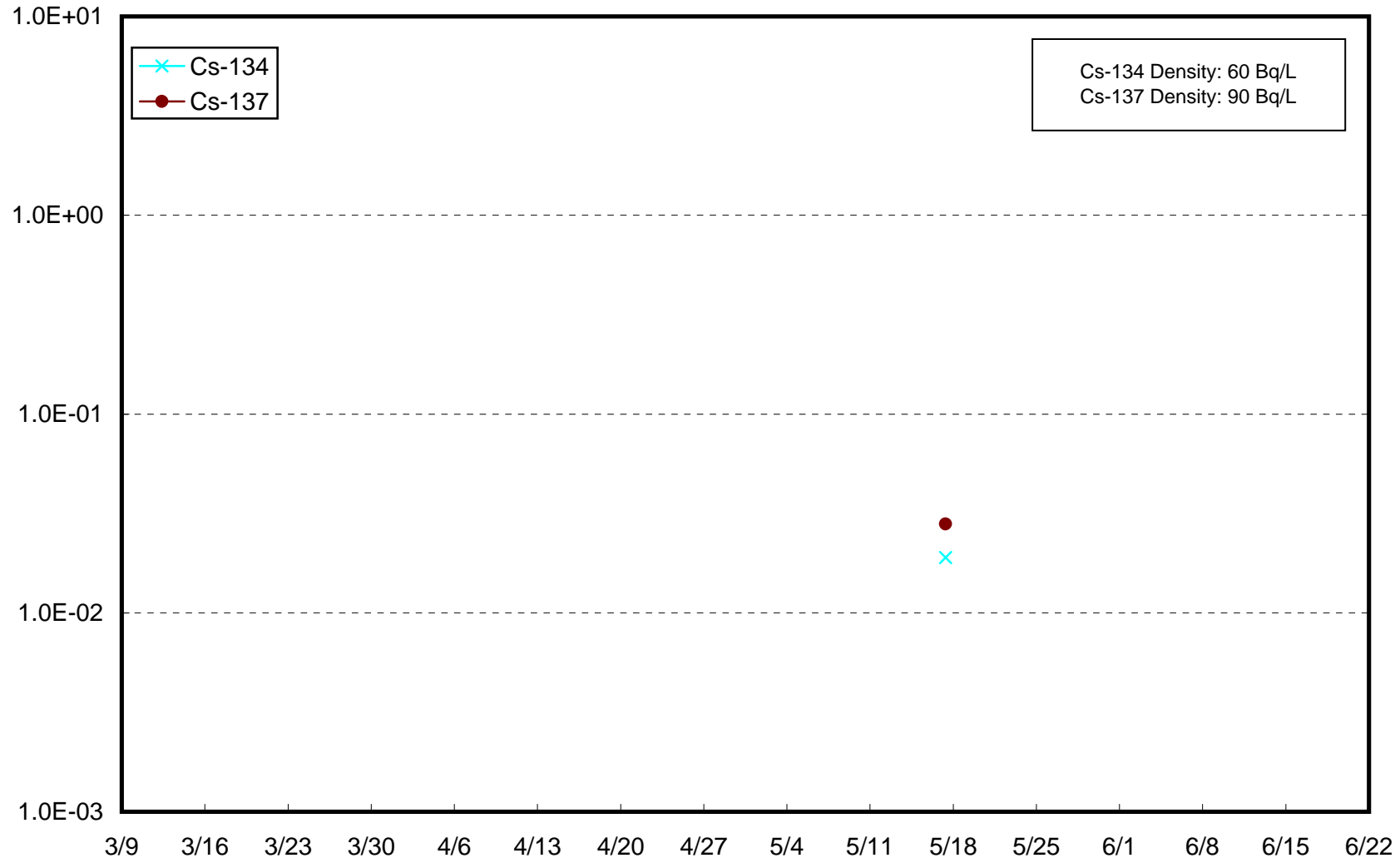
Radioactivity Density of the Seawater at 15km Offshore of Odaka Ward (T-B1) Lower Layer (Bq/L)



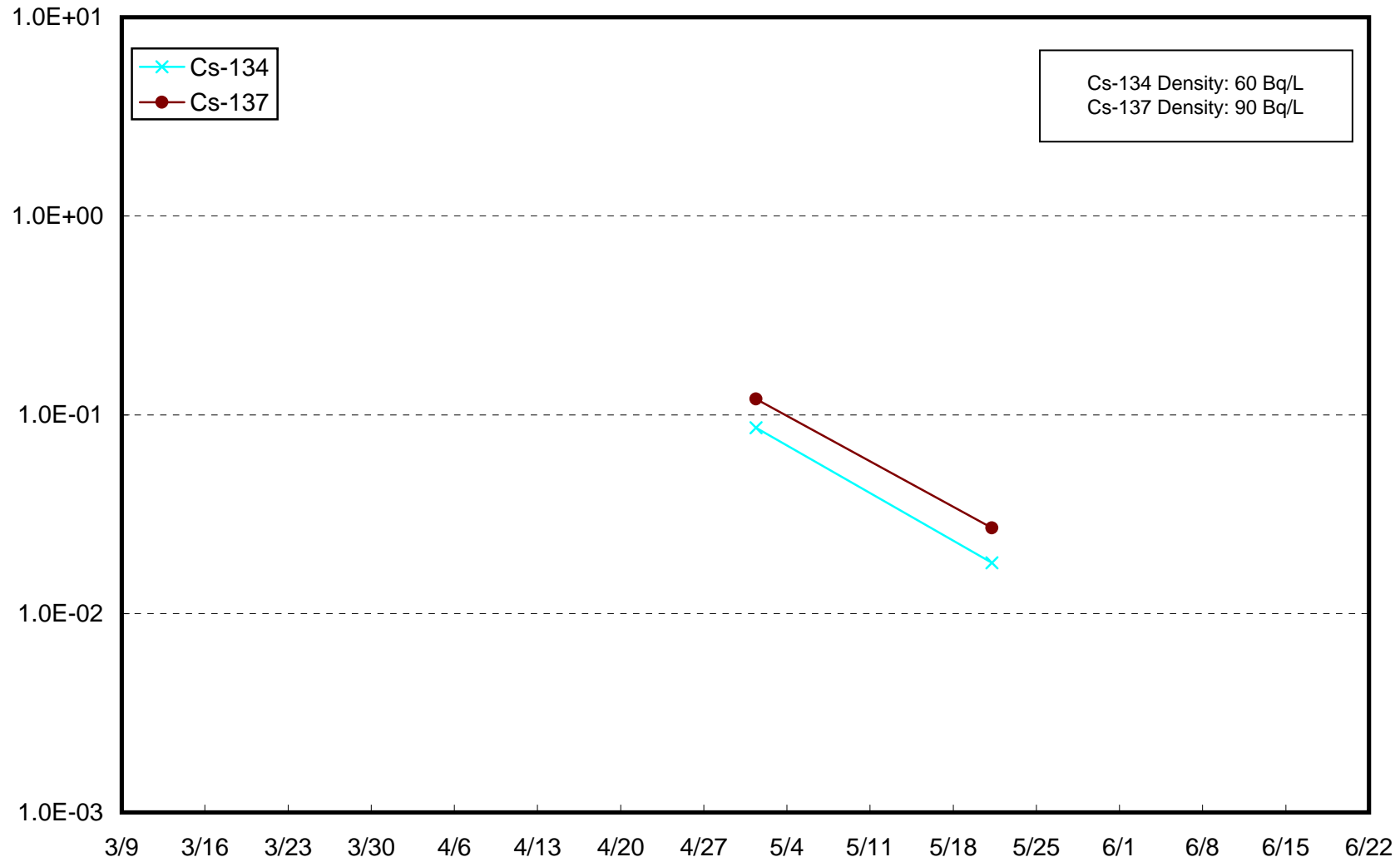
Radioactivity Density of the Seawater at 18km Offshore of Ukedo River (T-B2) Upper Layer (Bq/L)



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



Radioactivity Density of the Seawater Around 10km Offshore of 2F (T-B4) Upper Layer (Bq/L)



Radioactivity Density of the Seawater Around 10km Offshore of 2F (T-B4) Lower Layer (Bq/L)

