

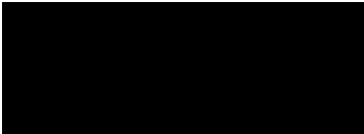
**Laboratory Test Results**  
**Tokyo soil samples**

Prepared for:

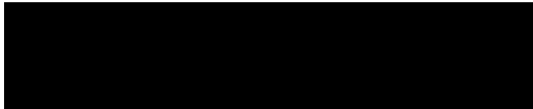
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By:

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Dear Mr. Gundersen,

Thank you for sending us your samples from Japan. We appreciate the opportunity to review these materials as part of our research project at Worcester Polytechnic Institute. The results below are provided free of charge in consideration of the right to publish these results in the public domain.

Five soil samples were received on March 7, 2011 via USPS, tracking number 9502 5106 3553 2065 3774 10. Packaging conformed to the limits of 49 CFR 173.421 for radioactive material. Samples were properly sealed and labeled, and consisted of soil material that was free of plants, seeds, or free liquids. Samples were tared and weighed prior to analysis by sodium iodide gamma spectrometry. Results were determined by peak height and were blank subtracted. Samples were standardized against an Eckert & Ziegler Isotope Products multinuclide standard source, source ID number 1542-56-1, evaporated metallic salt on aluminized mylar, prepared on September 8, 2011.

### Sample data

Location	Spectrum	weight (g)	time (s)
Shibuya District #1	678	8.8	600
Kamakura #2	677	20.4	600
Chiyoda-Ku playground #3	675	33.6	600
Chiyoda-Ku roof #4	674	15.4	600
Hibiya Park #5	676	39.1	600
40.1 nCi Cs137			600
48.2 nCi Co60			600

### Spectral data

peak ht. <b>Cs134</b>	peak ht. <b>Cs137</b>	peak ht. <b>Co60</b>	present(Y/N) <b>U235</b>
417	507	72	negative
154	157	58	positive
371	437	-	trace
305	307	-	trace
318	373	72	trace
40.1 nCi Cs137	16882	-	negative
48.2 nCi Co60	-	9736	negative

### Results of analyses

pCi/g <b>Cs134</b>	pCi/g <b>Cs137</b>	pCi/g <b>Co60</b>
137	167	40
17.9	18	14.1
26	31	ND
47	47	ND
19	23	9.1

Test results are in wet weights, as received. Peak heights are blank subtracted. Peaks were measured using Quantum-MCA software by Princeton Gamma Tech. U235 reporting is qualitative only, using the 185.9 and 143.5 keV energies. Co60 and Cs137 are standardized against the E & Z source. Cs134 is calibrated against a single isotope source provided by General Electric. Original spectra are available upon request as N42 formatted ASCII files.

\*\*\*\*\*end of report\*\*\*\*\*