



February 17, 2025

705370

Angel Camacho
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring – City of Chicago Department of Water Management
CDOT Permit: 2043746 501 N. Streeter Dr. (Emergency)

Dear Mr. Camacho:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for an emergency repair of a Chicago Department of Water Management water main at 501 N. Streeter Dr. in Chicago, Illinois. The monitoring was performed by Glenn Huber, SAHCI Health Physicist, on February 11, 2025. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring*.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 134542) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on May 7, 2024. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,228 counts per minute (cpm).

The average background count rate for this location was 1,838 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by scanning the surface and walls of the excavation to a depth of 108 inches below ground surface. Material excavated below 54 inches was surveyed in the excavator bucket as it was removed. Excavated material was loaded directly into a truck for disposal

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates ranged from 1,900 cpm to 3,300 cpm. No count rates were found at any time that exceeded the threshold limit of 7,228 cpm.

Additional Monitoring

Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, as required.

Thank you for your assistance with this project. If you have any questions or need additional information, please call me at (815) 485-6161.

Sincerely,
Stan A. Huber Consultants, Inc.



Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: 501 N. Streeter Dr. DWM Water Main Repair

Date: 2/11/25

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No.: 134542

Probe Type: 1"x1" NaI / 2"x2" NaI
 Shielded / Not Shielded

Lift Elevation: Surface to -108"

Background 1,838 cpm

Action Level: 7,228 cpm

Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.

