

September 3, 2025

Revision 1 GAH 9/3/25

706879

Angel Camacho  
SET Environmental  
450 Sumac Road  
Wheeling, Illinois 60090

RE: Thorium Monitoring – City of Chicago Department of Water Management  
CDOT Permit: 2158493 646 N. Michigan Ave.

Dear Mr. Camacho:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for a repair of a Chicago Department of Water Management catch basin frame and cover at 646 N. Michigan Ave. in Chicago, Illinois. The monitoring was performed by Bethany Tennyson, SAHCI Health Physicist, on August 28, 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. 132844) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on May 6, 2025. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,141 counts per minute (cpm).

The average background count rate for this location was 1,686 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 surrounding the existing catch basin to a depth of approximately 36 inches below ground surface. 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 1,648 cpm to 2,800 cpm. No count rates were found at any time that exceeded the threshold limit of 7,141 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:** 646 N. Michigan Ave. - Emergency Catch Basin Repair

**Date:** 8/28/25

**Technician:** Bethany Tennyson

**Inst Model:** Ludlum 2221

**Serial No.:** 132844

**Probe Type:** 1"x1" Nal / 2"x2" Nal  
 Shielded / Not Shielded

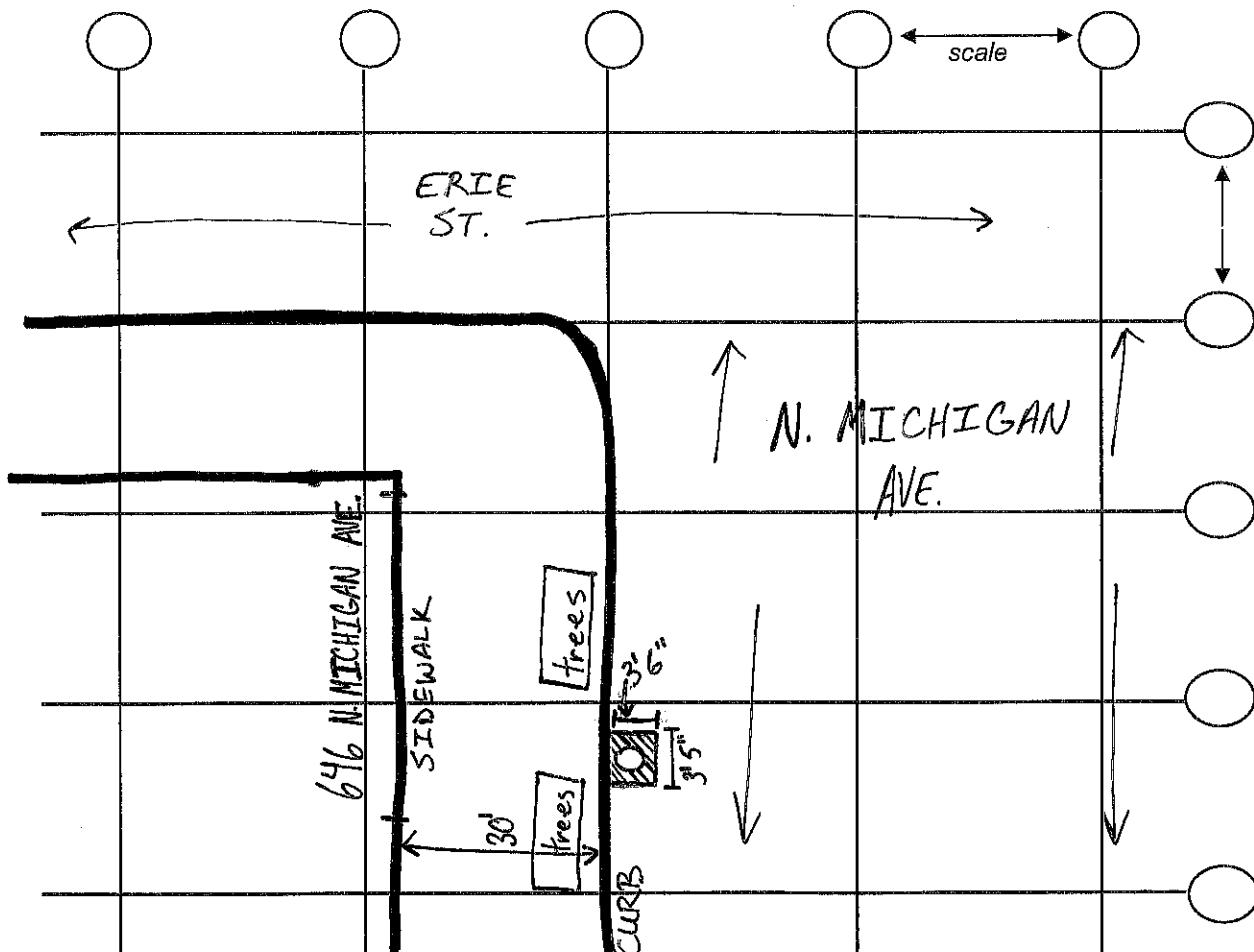
**Lift Elevation:** Surface to -3'

**Background** 1,686 cpm

**Action Level:** 7,141 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.

N



= EXCAVATED

SURFACE: 1648 cpm

18": 2250 cpm

36": 2800 cpm