



May 21, 2022

975921

Angel Camacho
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring – City of Chicago Department of Transportation
CDOT Permits: 1536857, 1527635, 1527384
E. South Water St. between N. Michigan Ave. and N. Stetson Ave.

Dear Mr. Camacho:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during City of Chicago Department of Transportation excavation work on Lower E. South Water St. between N. Michigan Ave. and N. Stetson Ave. in Chicago, Illinois. The monitoring for this task was performed by Mark Dewald, SAHCI Health Physics Technician. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring*.

This document is being provided as an interim report on radiation monitoring activities that have taken place from April 2, 2022, through May 20, 2022. The following task was performed over this monitoring period:

Sidewalk Installation: May 11, 2022

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 126496) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on May 3, 2022. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,818 counts per minute (cpm).

The background count rate for this location was measured at 1,300 cpm.

Surface Gamma Scans – Sidewalk Installation

Gamma surface scans were performed on street and sidewalk concrete removal using the Ludlum Model 2221 Scaler / Ratemeter detailed above. Survey data was collected by scanning the surface of the concrete prior to removal and then again after removal to a maximum excavation depth of 18 inches below ground surface.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,300 cpm to 2,200 cpm. No count rates were found at any time that exceeded the instrument specific count rate threshold limit of 7,819 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.

A handwritten signature in black ink, appearing to read 'Glenn Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: Water St. - CDOT - Sidewalk Install

Date: 5/11/22

Technician: Mark Dewald

Inst Model: Ludlum 2221

Serial No. : 126496

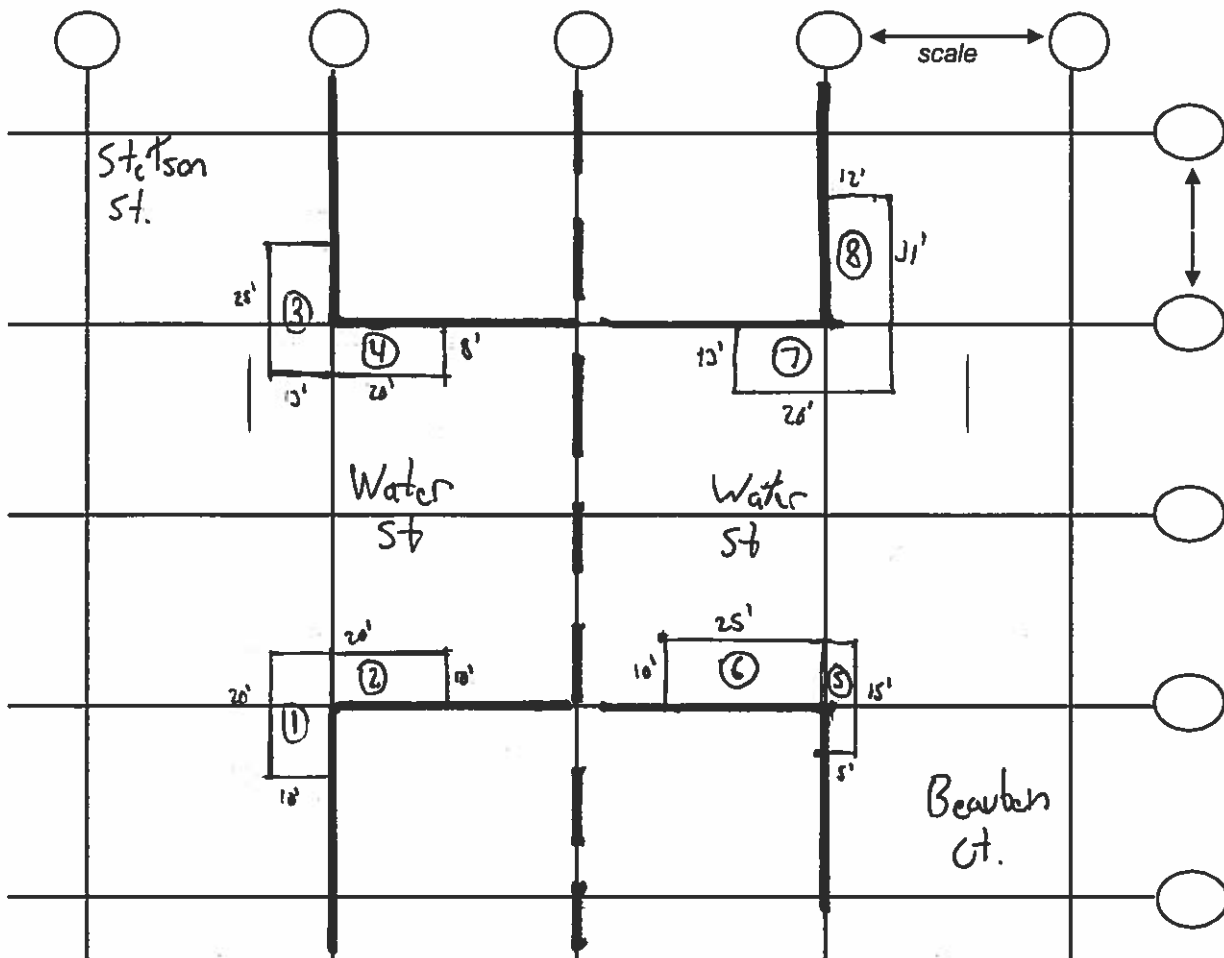
Probe Type: 1"x1" NaI 2"x2" NaI
 Shielded Not Shielded

Lift Elevation: Surface to -18" BGS

Background 1,300 cpm

Action Level: 7,819 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.



	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
0-18"	1900	1400	1700	1400	1500	1300	1800	1900
18-36"	1600	1500	1600	1800	1600	1600	2000	2200