



May 25, 2022

975919

Angel Camacho
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring: 425 - 457 E. Riverwalk (Urban Kayaks)
CDOT Permit: N/A

Dear Mr. Camacho:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for a concrete patio at 425 – 457 E. Riverwalk. The monitoring was performed by Mark Dewald, SAHCI Health Physics Technician, on April 25, 2022, through May 2, 2022. 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. 127242) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on May 5, 2021. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument was 6,995 counts per minute (cpm).

The average background count rate for this location was measured at 1,743 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 ground surface prior to excavation and again after a single 12-inch excavation lift.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavations for the new patio ranged from 1,700 cpm to 2,900 cpm. See attached Radiation Survey Form.

No count rates were found at any time that exceeded the threshold limit of 6,995 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.

Additional utility work is planned at this location in June 2022. A separate survey report will be submitted when that work is completed.

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 'G. Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: 425-57 E. Lower Wacker St. Concrete Patio Install - Urban Kayaks

Date: 4/25/22 - 5/2/22

Technician: Mark Dewald

Inst Model: Ludlum 2221

Serial No. : 127242

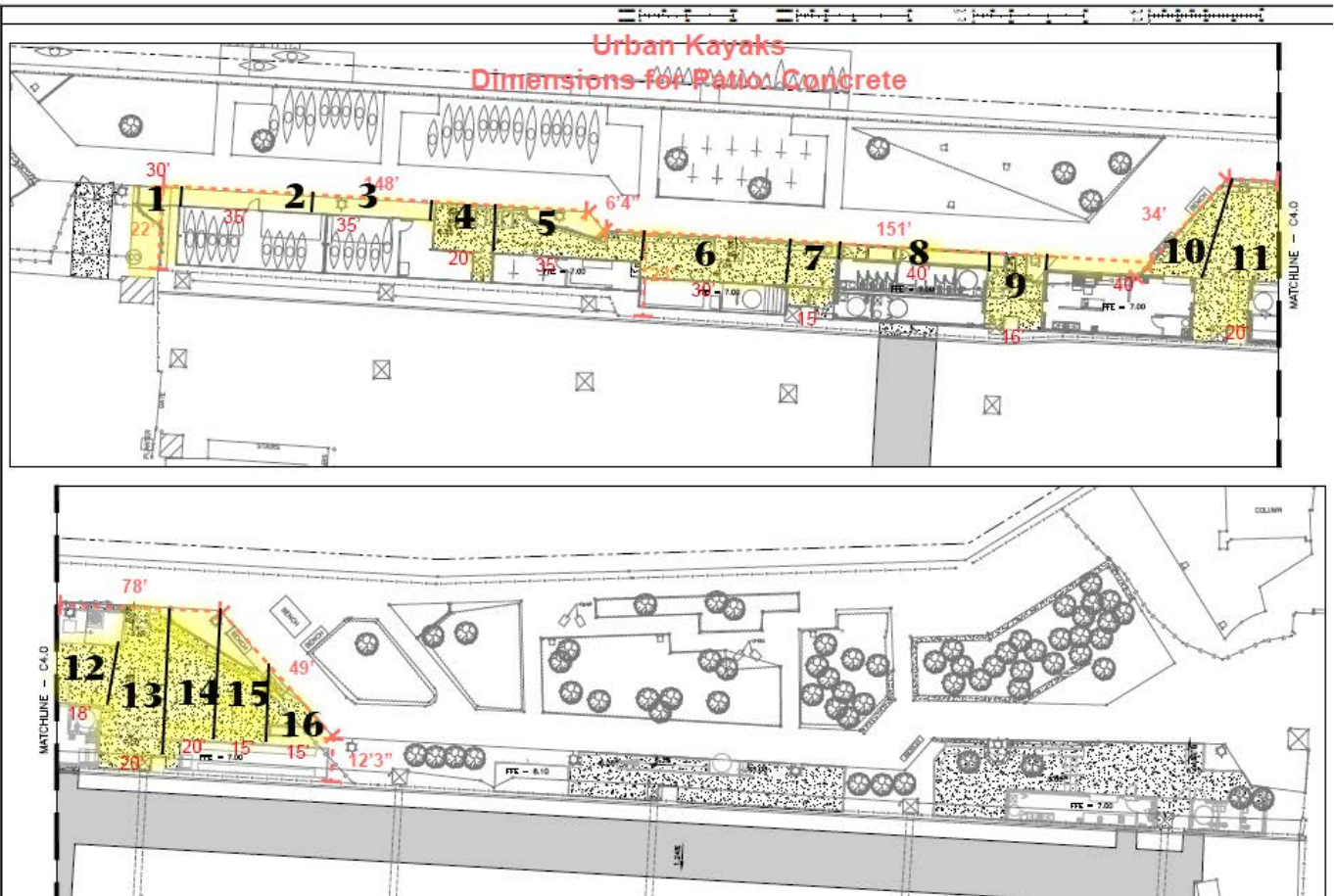
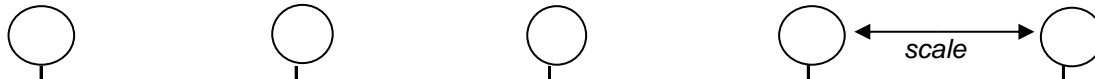
Probe Type: 1"x1" NaI 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface to -12" BGS

Background 1,743 cpm

Action Level: 6,995 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	Area 9	Area 10	Area 11	Area 12	Area 13	Area 14	Area 15	Area 16
0-18"	2200	2100	2400	2500	2300	2100	2500	2400	2200	2100	1700	1800	1900	1900	2000	2100
12-30"	2600	2600	2400	2900	2800	2100	2400	2500	2600	2600	2200	1900	1900	2100	2200	2200