



March 31, 2023

981446

Zachary Hoffman
City Lights, Ltd.
9993 S. Virginia Avenue
Chicago Ridge, IL 60415

RE: Thorium Monitoring at 161-165 E. Ohio St.
CDOT Permit # 1789396

Dear Mr. Hoffman:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for installation of a bus shelter at 161-165 E. Ohio St. in Chicago, Illinois. The monitoring was performed by Mark Dewald, SAHCI Health Physics Technician, on March 30, 2023.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 99147) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was last 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 6,936 counts per minute (cpm).

The background count rate for this location was measured as 1,287 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by entering the excavation and recording the highest count rate for the floor and walls to a depth of 30 inches below ground surface. All concrete and soil were loaded directly into a truck for disposal.

The maximum gamma count rates on the surface and each lift were recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,300 cpm to 2,500 cpm. No count rates were found at any time that exceeded the threshold limit of 6,936 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 (CDPH) and USEPA, 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 "G. Huber", with a long, sweeping horizontal stroke extending to the right.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: 161-165 E. Ohio St - City Lights

Date: 3/30/2023

Technician: Mark Dewald

Inst Model: Ludlum 2221

Serial No.: 99147

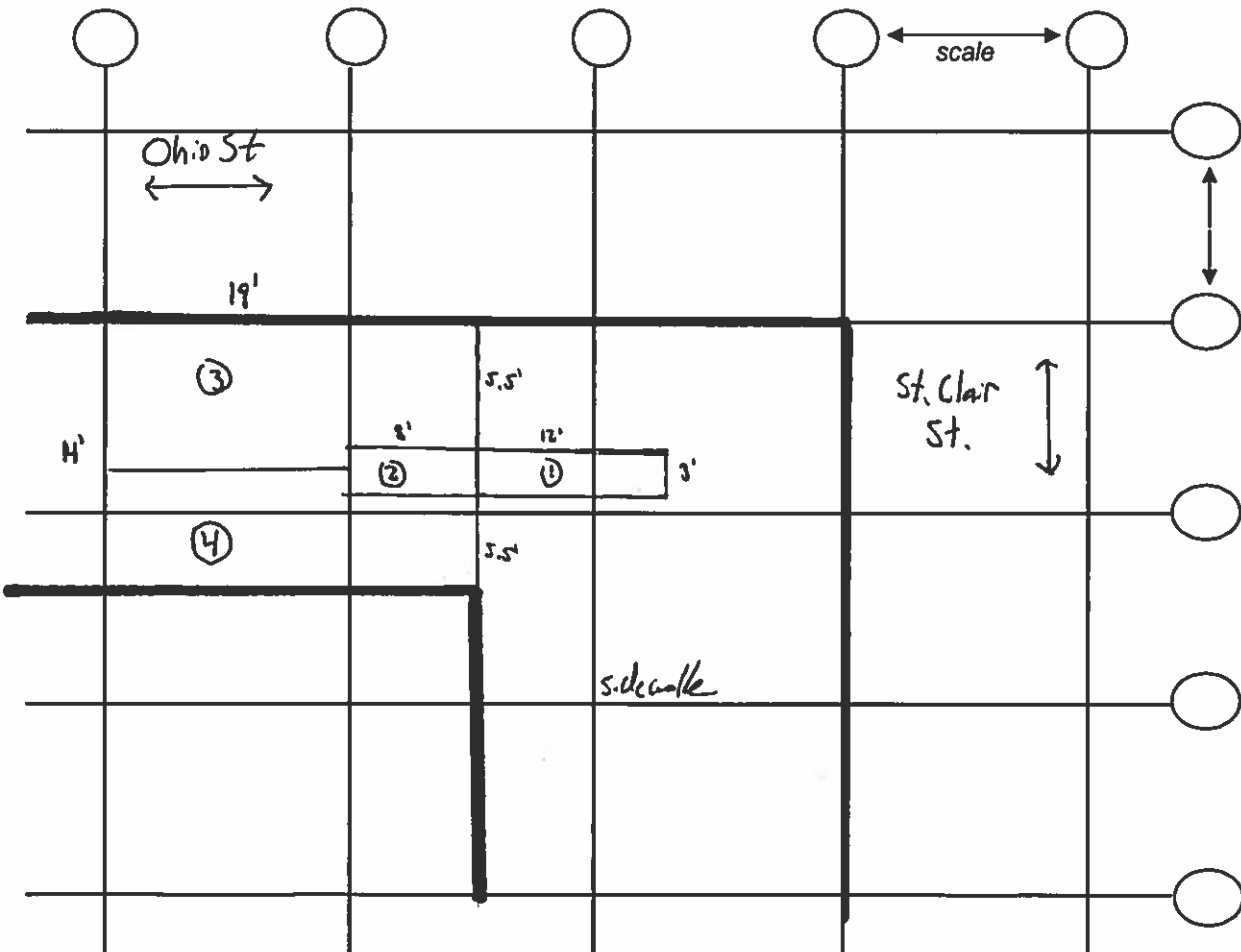
Probe Type: 1"x1" NaI 2"x2" NaI
 Shielded Not Shielded

Lift Elevation: Surface to -30" BGS

Background 1,287 **cpm**

Action Level: 6,936 **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.



	0-8"	8-26"	26-44"	30-48"
Area 1	1700	2100	2200	2500
Area 2	1400	2000	2400	2400
Area 3	1500	1800	NA	NA
Area 4	1300	2200	NA	NA