



June 17, 2022

976082

Nicole Espinoza  
Electric Conduit Construction  
3333 S. Iron St.  
Chicago, IL 60608

RE: Thorium Monitoring at 352-559 E. Illinois St.  
CDOT Permit # 1676661

Dear Ms. Espinoza:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for 6 manhole cover adjustments at 352-559 E. Illinois St. in Chicago, Illinois. The monitoring was performed by Mark Dewald, SAHCI Health Physics Technician, on June 7 and 8, 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 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 7,819 counts per minute (cpm).

The background count rate for this location was measured at 1,504 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 around the existing manholes to a depth of 12 inches below ground surface. All asphalt and concrete 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 Forms. The count rates in the excavations ranged from 1,200 cpm to 3,700 cpm. No count rates were found at any time that exceeded the 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 (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 "Glenn Huber", written in a cursive style.

Glenn Huber, CHP  
President

## Radiation Survey Form

**Location/ Project ID:** 383 - 601 E. Illinois St Cover Replacement - ECC

**Date:** 6/7/22 - 6/8/22

**Technician:** Mark Dewald

**Inst Model:** Ludlum 2221

**Serial No. :** 126496

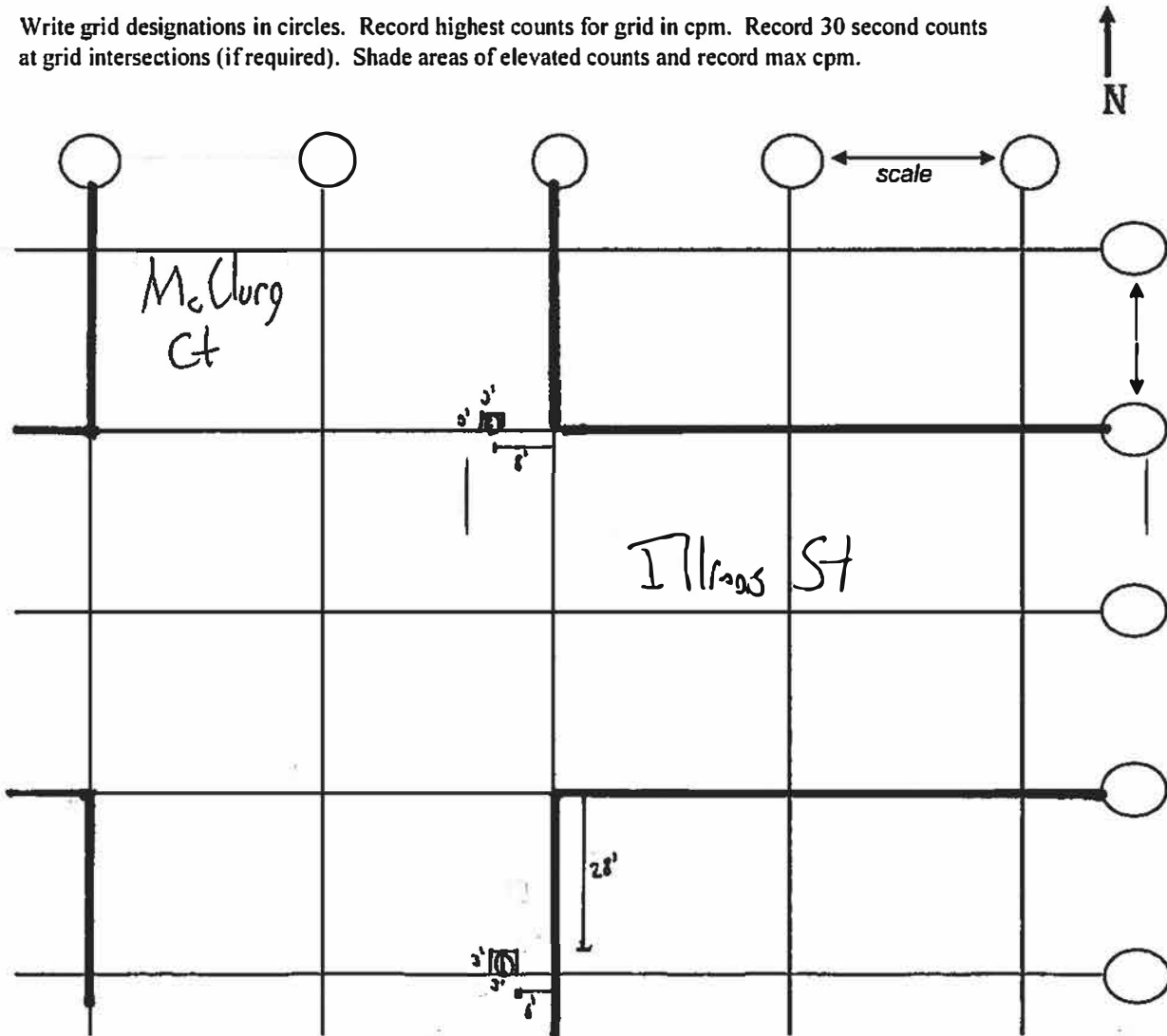
**Probe Type:** 1"x1" NaI 2"x2" NaI  
 Shielded  Not Shielded

**Lift Elevation:** Surface to -12" BGS

**Background** 1,504 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
0-12"	1700	1200
12-30"	2200	2300

## Radiation Survey Form

**Location/ Project ID:** 383 - 601 E. Illinois St Cover Replacement - ECC

**Date:** 6/7/22 - 6/8/22

**Technician:** Mark Dewald

**Inst Model:** Ludlum 2221

**Serial No. :** 126496

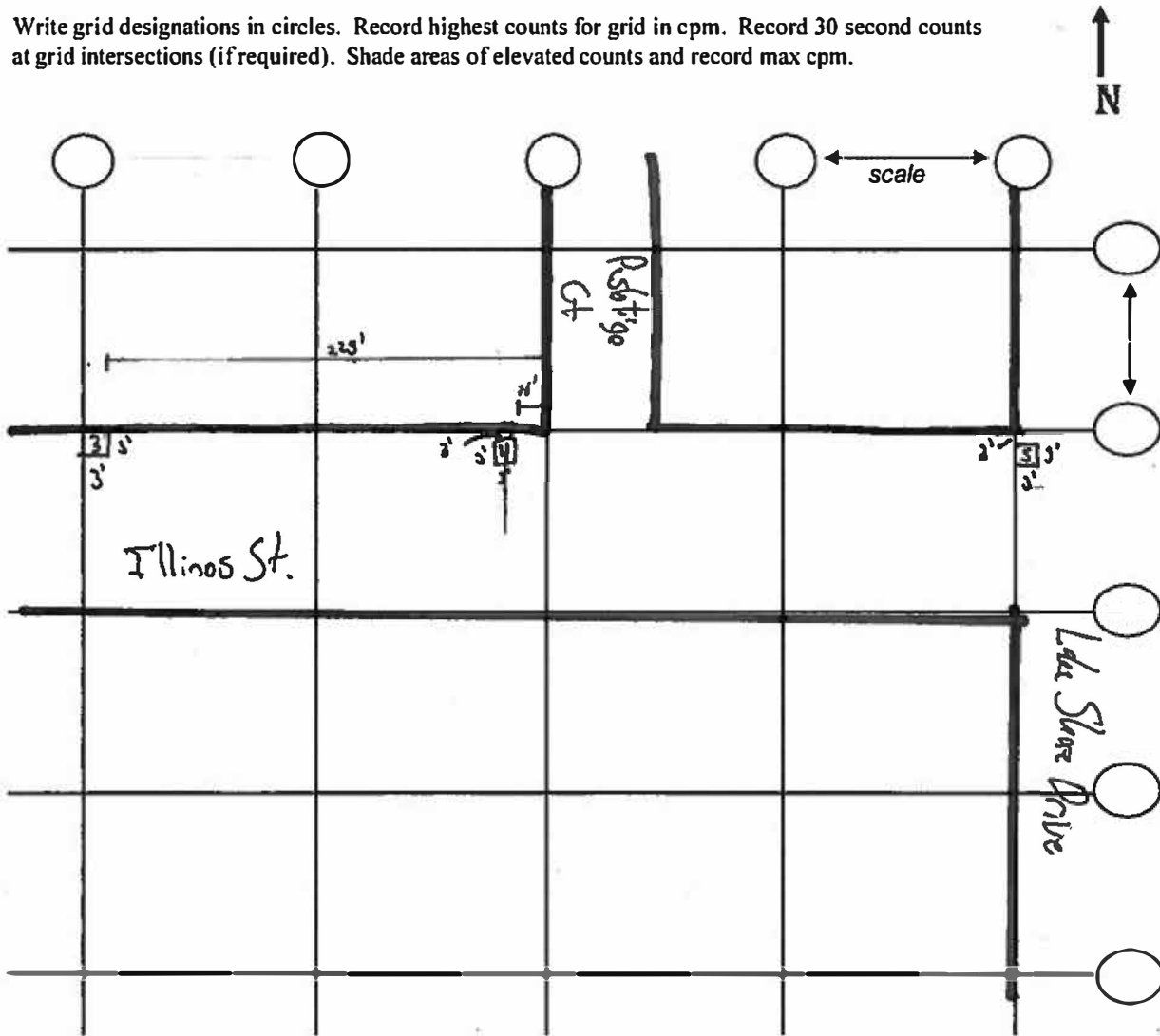
**Probe Type:** 1"x1" NaI 2"x2" NaI  
 Shielded  Not Shielded

**Lift Elevation:** Surface to -12" BGS

**Background** 1,504 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 3	Area 4	Area 5
0-12"	1400	1500	1600
12-30"	2100	3700	2100

## Radiation Survey Form

**Location/ Project ID:** 383 - 601 E. Illinois St Cover Replacement - ECC

**Date:** 6/7/22 - 6/8/22

**Technician:** Mark Dewald

**Inst Model:** Ludlum 2221

**Serial No.:** 126496

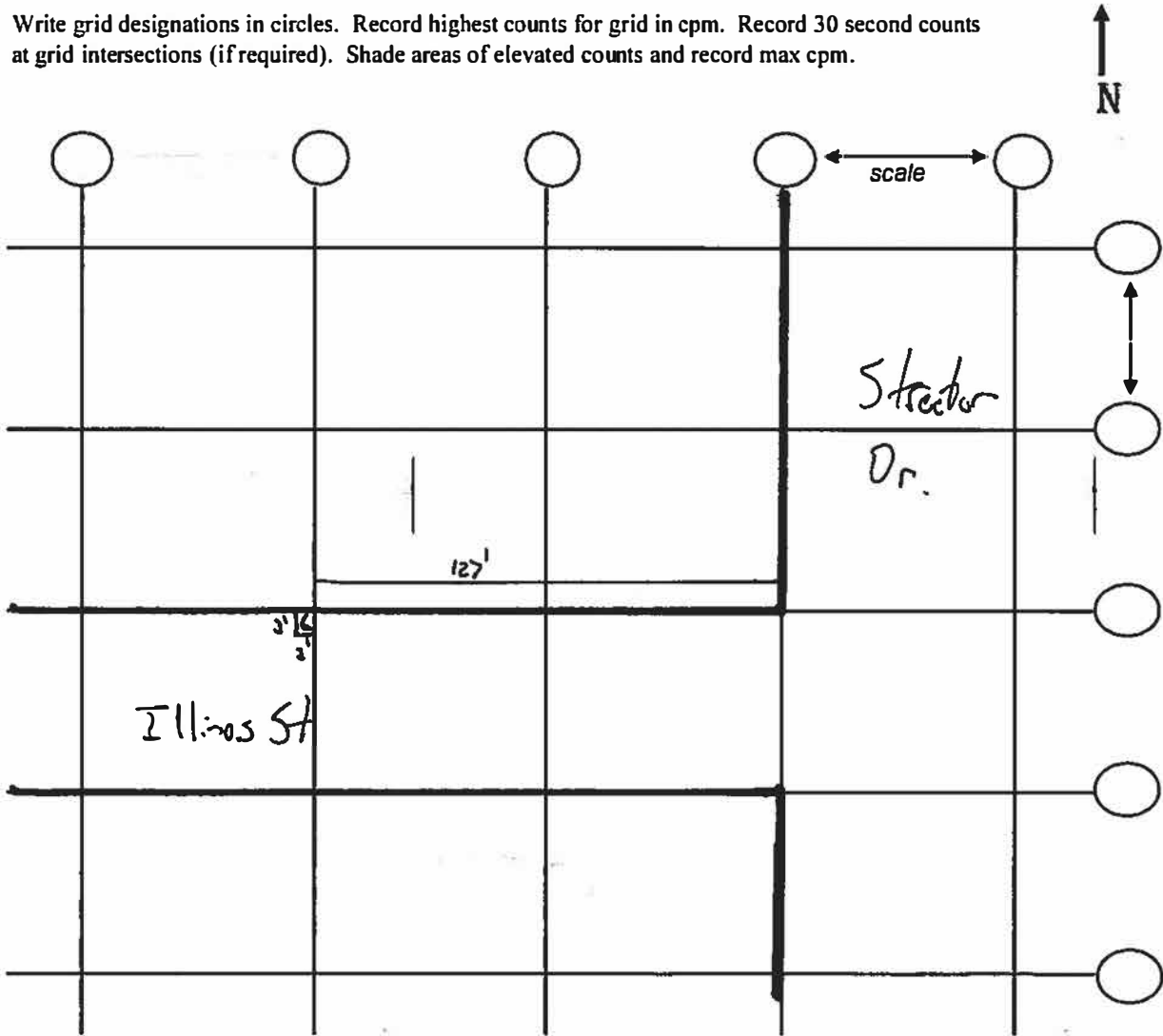
**Probe Type:** 1"x1" NaI 2"x2" NaI  
Shielded / Not Shielded

**Lift Elevation:** Surface to -12" BGS

**Background:** 1,504 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 6
0-12"	1200
12-30"	2400