



July 11, 2023

984382

Paul Muszynski
Electric Conduit Construction
816 Hicks Dr.
Elburn IL 60119

RE: Thorium Monitoring at 162 E. Ontario
Emergency Dig Ticket 601390966

Dear Mr. Muszynski:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation to repair a damaged conduit at 162 E. Ontario St. in Chicago, Illinois. The monitoring was performed by Glenn Huber, SAHCI Health Physicist, on July 8, 2023.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 134542) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on May 9, 2023. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,552 counts per minute (cpm).

The average background count rate for this location was measured at 1,736 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 on the floors and walls to a depth of 30 inches below ground surface. The original excavation was performed on July 6, 2023, but was stopped at 18 inches below ground surface when the conduit was damaged. This survey covers the expanded 3-foot by 3-foot area of the excavation in addition to another foot deeper in the original excavation.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,900 cpm to 2,300 cpm. No count rates were found at any time that exceeded the threshold limit of 6,552 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 horizontal flourish extending to the right.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: ECC 162 E. Ontario Duct Repair

Date: 7/8/23

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No. : 134542

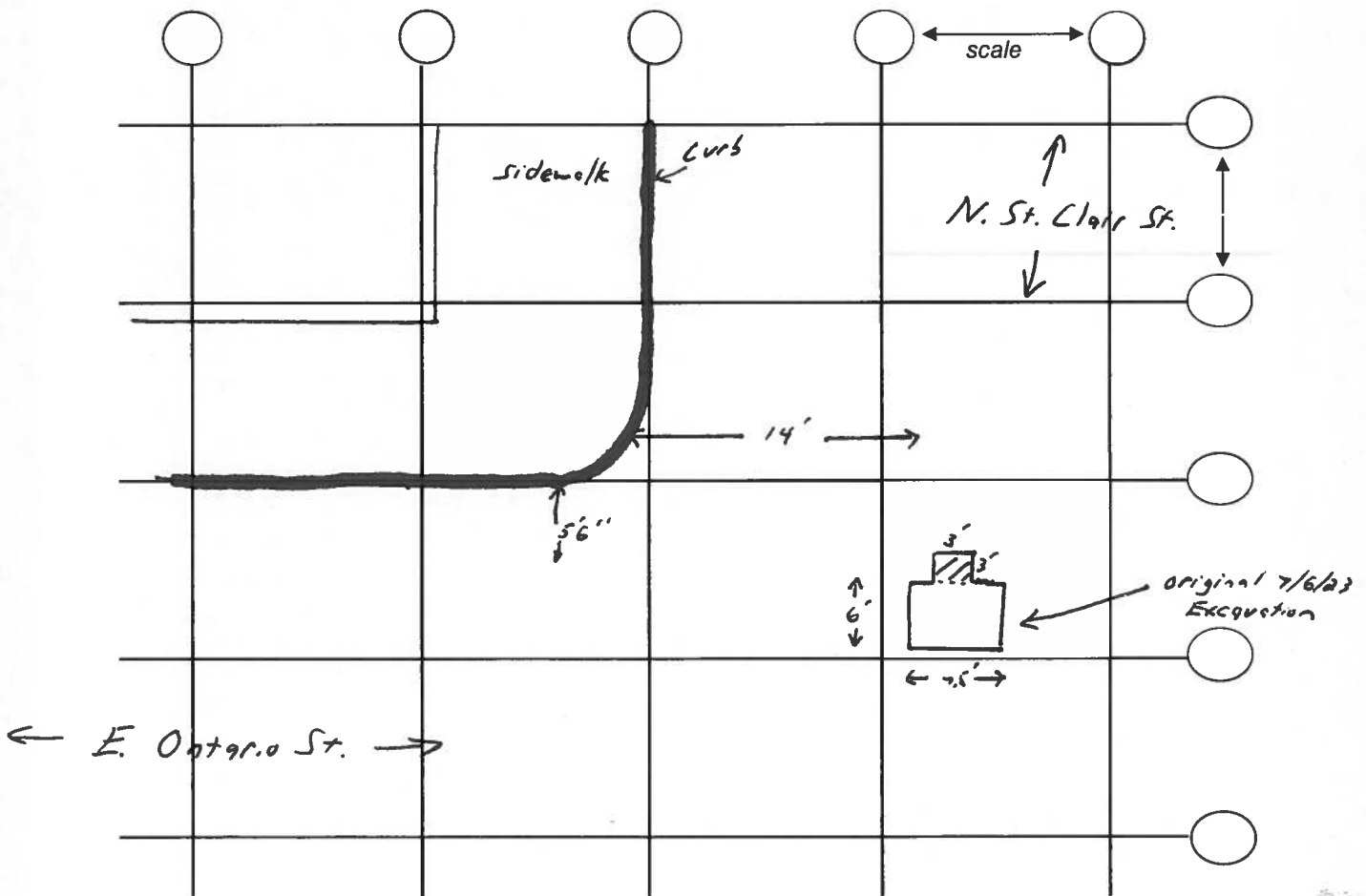
Probe Type: 1"x1" NaI / (2"x2" NaI)
Shielded / Not Shielded


Lift Elevation: surface to -30"

Background 1,736 cpm

Action Level: 6,552 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.



 = Expanded Excavation Area.
Remainder of hole dug on
7/6/23 to -18" when
conduit hit. GAH

Depth	cpm
surf	1900
-18"	2100
-30"	2300