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Stan A. Huber Consultants, Inc.
Health Physics and Radiation Safety Services

200 North Cedar Road – New Lenox, Illinois 60451-1751 – (800) 383-0468 or (815) 485-6161 – FAX (815) 485-4433 – Email sahci@sahci.com – Home Page www.sahci.com

March 1, 2021

Christian Michelsen
Liontoro Group
650 N Woodfield Trail
Roselle, IL 60172

RE: 233 E. Erie St. Thorium Monitoring 2/19/21-2/21/21
CDOT Permit: 1412150

Dear Mr. Michelsen:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for repair an electrical conduit at 233 E. Erie St. in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on February 19 through February 21, 2021.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 132844) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on July 28, 2020. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,592 counts per minute (cpm).

The average background count rate this location was measured at 1,719 cpm.

Soil Gamma Scans – Conduit Repair

Gamma surface scans were performed in the excavation using the Ludlum Model 2221 Scaler / Ratemeter detailed above. Survey data was collected by entering the excavation and recording the highest count rate for the floor and walls to a maximum excavation depth of 5 feet below ground surface. All concrete and soil were loaded directly into a truck for disposal.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,700 cpm to 3,400 cpm. No count rates were found at any time that exceeded the instrument specific count rate threshold limit of 7,592 cpm.

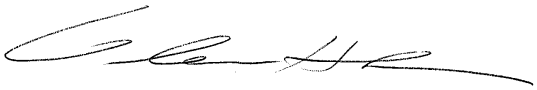
Additional Monitoring

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.



Glenn Huber, CHP
President

sahci
Stan A. Huber Consultants, Inc.

Radiation Survey Form

Location/ Project ID: 233 E. Erie St. - Electrical Utility Repair Excavation - RIW Radiological Soil Survey

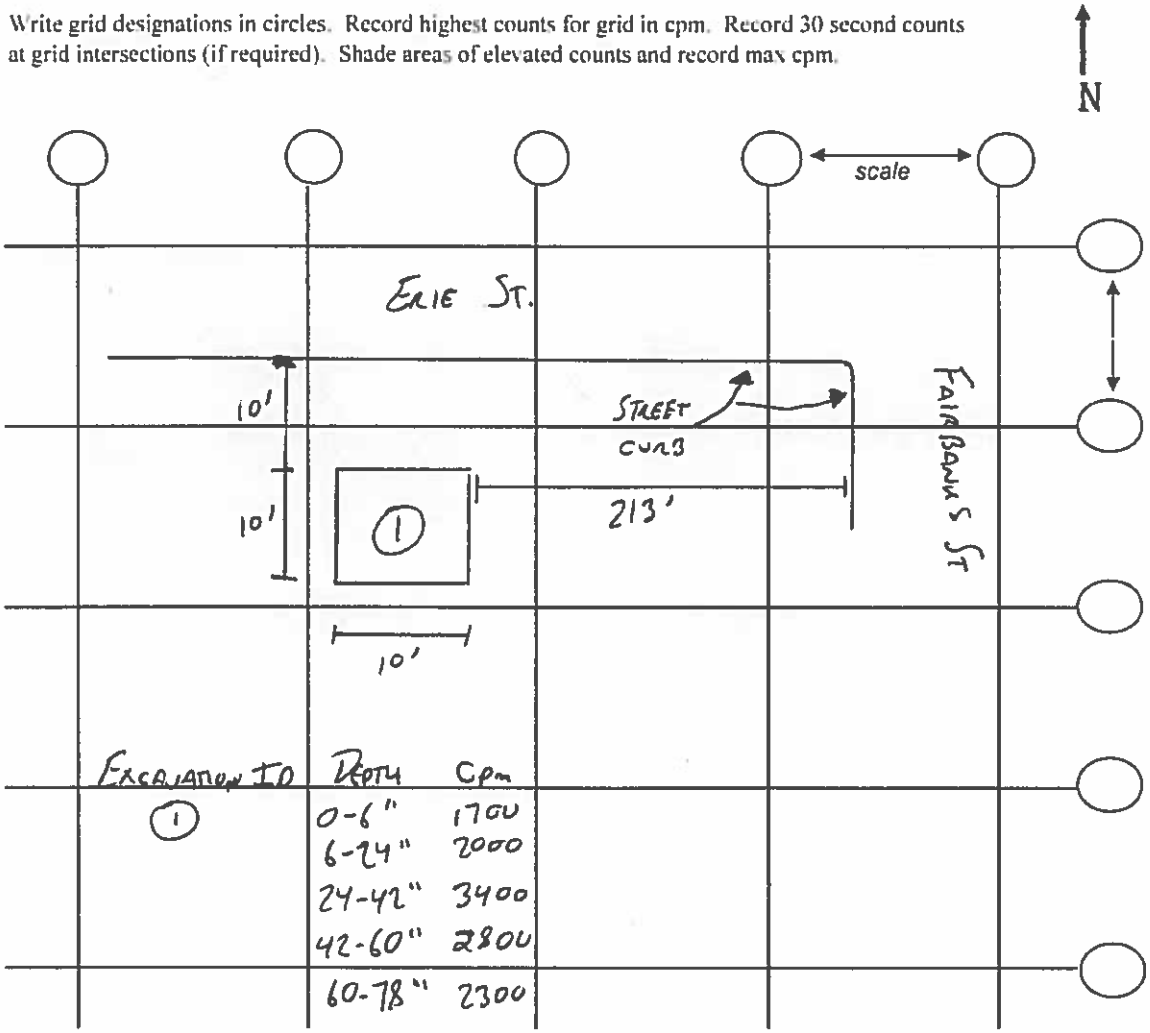
Date: 2/19-21/21 **Technician:** Brian Schmidt

Inst Model: Ludlum-2221 **Serial No. :** 132844

Probe Type: 1"x1" NaI / ~~2"x2" NaI~~ **Lift Elevation:** 0-60"
~~Shielded~~ / Not Shielded

Background 1719 cpm **Action Level:** 7592 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.



Excavation ID	Depth	Cpm
1	0-6"	1700
	6-24"	2000
	24-42"	3400
	42-60"	2800
	60-78"	2300