**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

May 28, 2020

958183

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring – City of Chicago Department of Water Management
CDOT Permit: 1242867 – 150-249 E. North Lower Water St.

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for replacement of 3 sidewalk ramps at 150-249 E. North Lower Water Street in Chicago, Illinois. The monitoring was performed by Jeremy Kieser, SAHCI Health Physicist, on May 21, 2020. 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 August 6, 2019. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,673 counts per minute (cpm).

The average background count rate for these locations was measured at 1,741 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 excavations where the sidewalks were removed and recording the highest count rate for the floor and walls to an excavation depth of 1 foot below ground surface. All concrete was loaded directly into a truck for disposal.

The maximum gamma count rates for the surface and single lift at each location were recorded on the attached Radiation Survey Forms. The count rates in the excavations ranged from 1,600 cpm to 2,400 cpm. No count rates were found at any time that exceeded the threshold limit of 6,673 cpm.

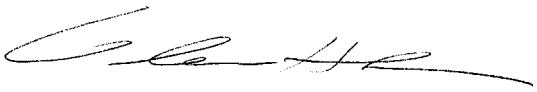
Additional Monitoring

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: DOT 1242867

Date: May 21, 2020 Technician: Jeremy Kieser

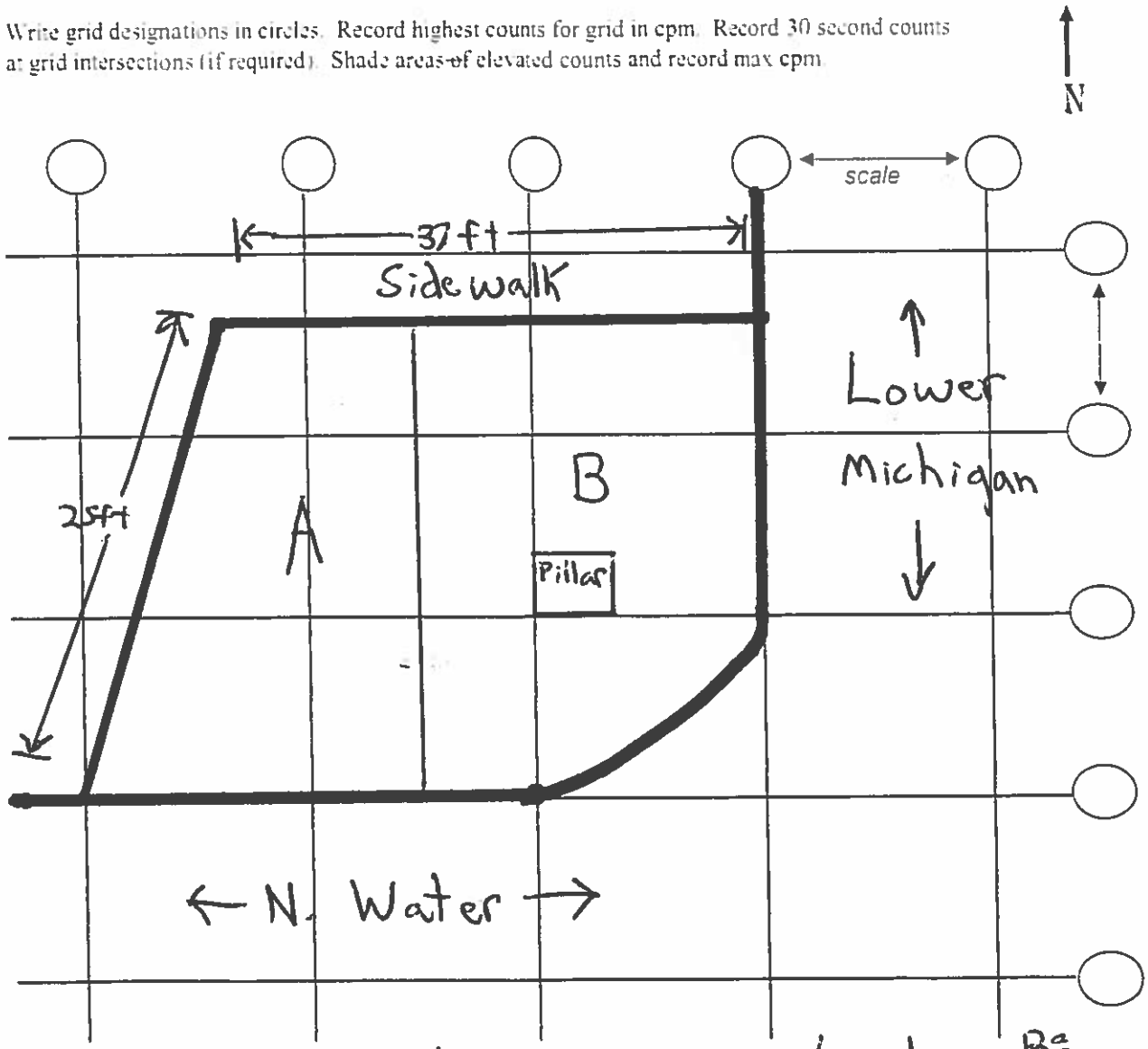
Inst Model: Ludlum 2221 Serial No. : 127242

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

Lift Elevation: Surface to 1 ft.

Background 1741 cpm Action Level: 6673 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.




Location A:
Surface: 2200 cpm
1ft: 2400 cpm

Location B:
Surface: 1800 cpm
1ft: 2100 cpm

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Location/ Project ID: DOT 1242867

Date: May 21, 2020 Technician: Jeremy Kieser

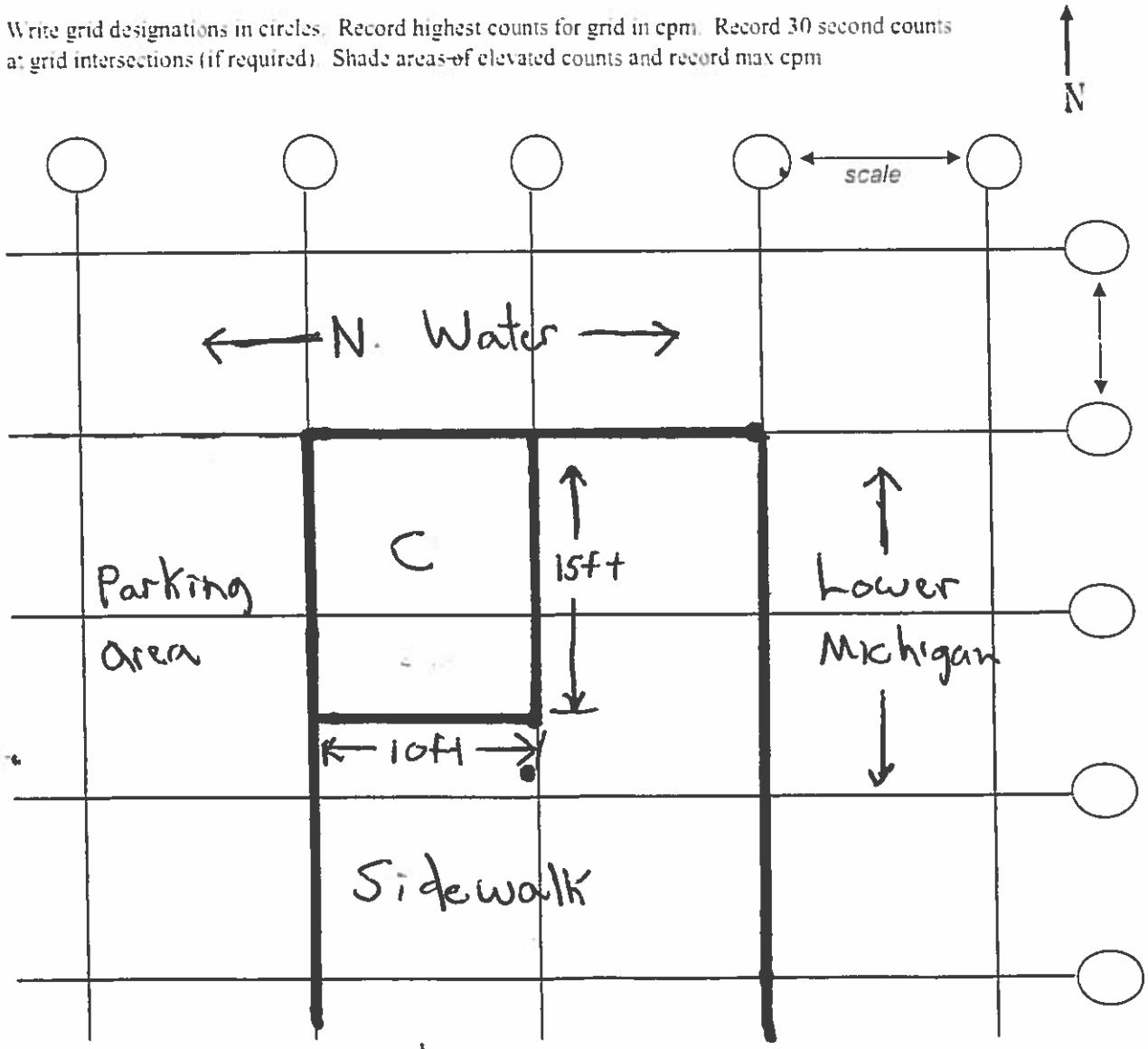
Inst Model: Ludlum 2221 Serial No. : 127242

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

Lift Elevation: Surface to 1 ft.

Background 1741 cpm Action Level: 6673 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




Location C8
Surface: 1700 cpm
1 ft: 2100 cpm

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# Radiation Survey Form

Location/ Project ID: DOT 1242867

Date: May 21, 2020 Technician: Jeremy Kieser

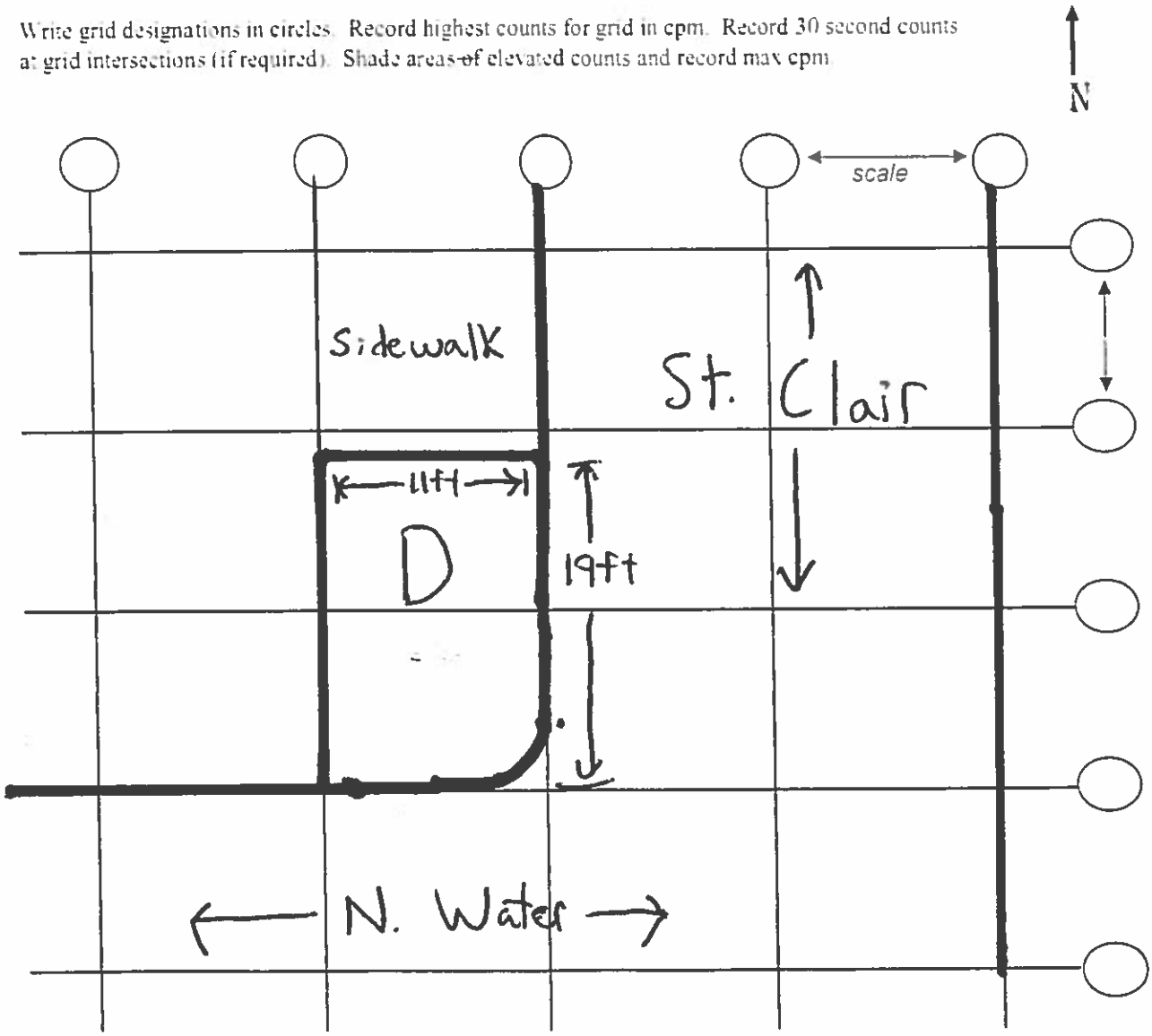
Inst Model: Ludlum 2221 Serial No. : 127242

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

Lift Elevation: Surface to 1 ft.

Background 1741 cpm Action Level: 6673 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




Location D:
Surface: 1600 cpm
1ft: 1800 cpm