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

September 9, 2019 **rev. 9/11/19 GAH**

Kendal Heldt
Western Utility Contractors, Inc.
2565 Palmer Ave.
University Park, IL 60466

RE: 410 N. Michigan Ave. Thorium Monitoring 9/3/19
CDOT Permit # 1144043

Dear Ms. Heldt:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation of a utility trench connecting to a building at 410 N. Michigan Avenue in Chicago, Illinois. The monitoring was performed by Jeremy Kieser, SAHCI Health Physicist, on September 3, 2019.

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 August 6, 2019. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,299 counts per minute (cpm).

The background count rate for this location was measured at 1,994 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 after each 18-inch lift and recording the highest count rate for the floors and walls to a maximum excavation depth of 54 inches below ground surface. All soil was 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 1,900 cpm to 3,000 cpm. No count rates were found at any time that exceeded the instrument specific threshold limits of 7,299 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.

Regulatory Notification of Survey Completion

I will be providing a copy of this report to both the City of Chicago Department of Public Health 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.

Glenn Huber, CHP
President

sahci
Stan A. Huber Consultants, Inc.

Radiation Survey Form

Location/ Project ID: 410 N. Michigan

Date: September 3, 2019 **Technician:** Jeremy Kiser

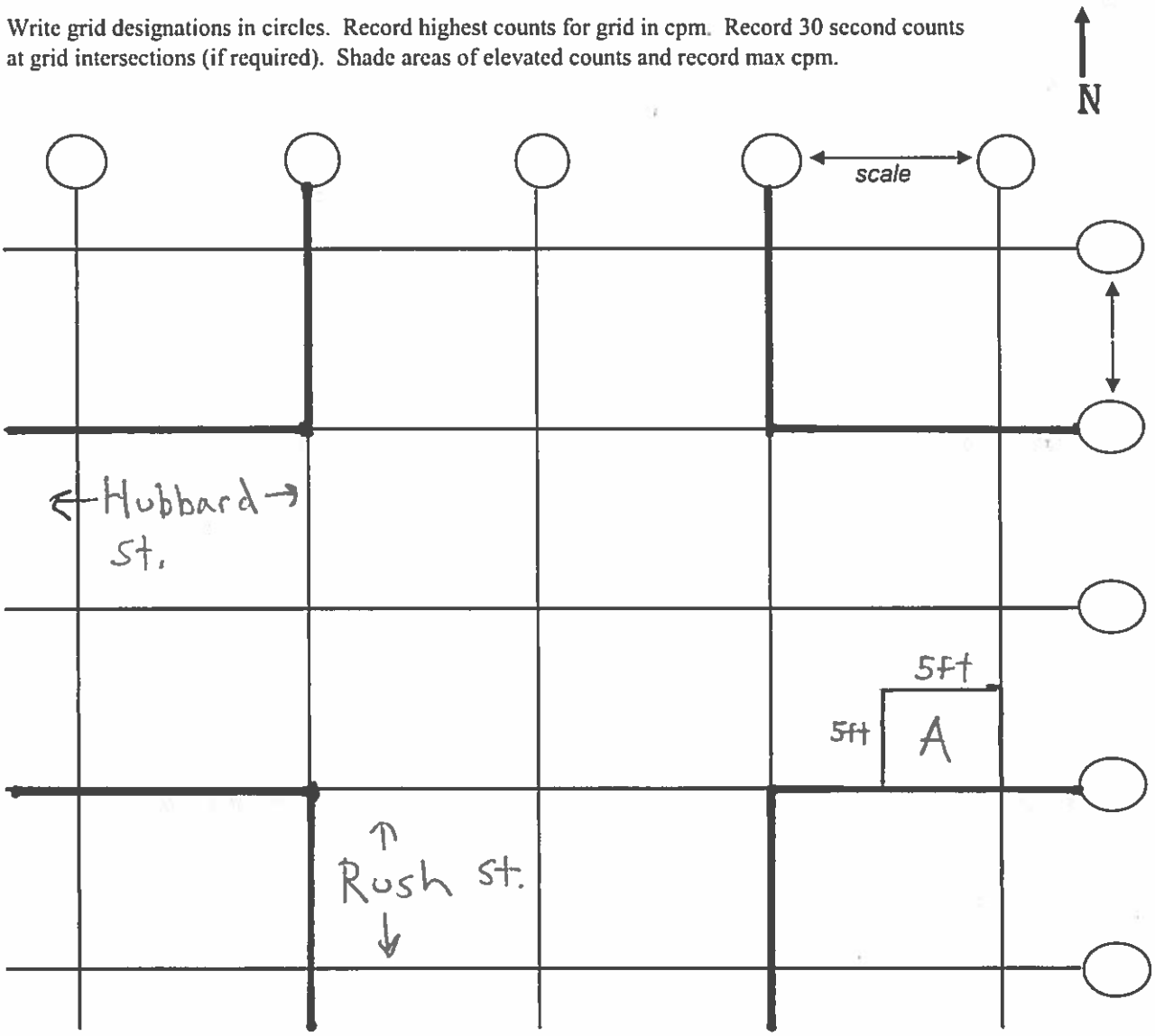
Inst Model: Ludlum 2221 **Serial No. :** 132844

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

Lift Elevation: Surface to 4 1/2 ft

Background 1994 **cpm** **Action Level:** 7299 **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.



Section A: Surface: 1900 cpm
18 inches: 3000 cpm
36 inches: 2200 cpm
54 inches: 2400 cpm