



October 31, 2018

Luke Wells
Electric Conduit Construction
816 Hicks Drive
Elburn, IL 60119

RE: Thorium Monitoring at 1-376 W. Hubbard St. on October 31, 2018
CDOT Permit #1023152

Dear Mr. Wells:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation and raising of 4 manholes at 1-376 W. Hubbard St. in Chicago, Illinois. The monitoring was performed by Glenn Huber, SAHCI Health Physicist, on October 31, 2018.

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 August 6, 2018. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,262 counts per minute (cpm).

The background count rate for this location was found to average 1,830 cpm.

Soil Gamma Scans

Survey data was collected by surveying the road surface prior to breaking the concrete and again after a single 18-inch lift and recording the highest count rate for the floors and walls to a maximum excavation depth of 1.5 feet below ground surface. No soil was encountered during excavation, only road base above the existing manhole vaults. All excavated material 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 excavations ranged from 1,600 cpm to 1,900 cpm. No count rates were found at any time that exceeded the threshold limit of 6,262 cpm.

Additional Monitoring

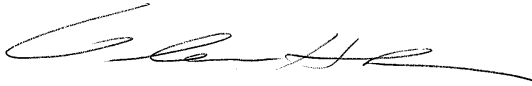
Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

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 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.

A handwritten signature in black ink, appearing to read 'Glenn Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: Electric Conduit Construction 1-376 W. Hubbard

Date: 10/31/18

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No. : 134542

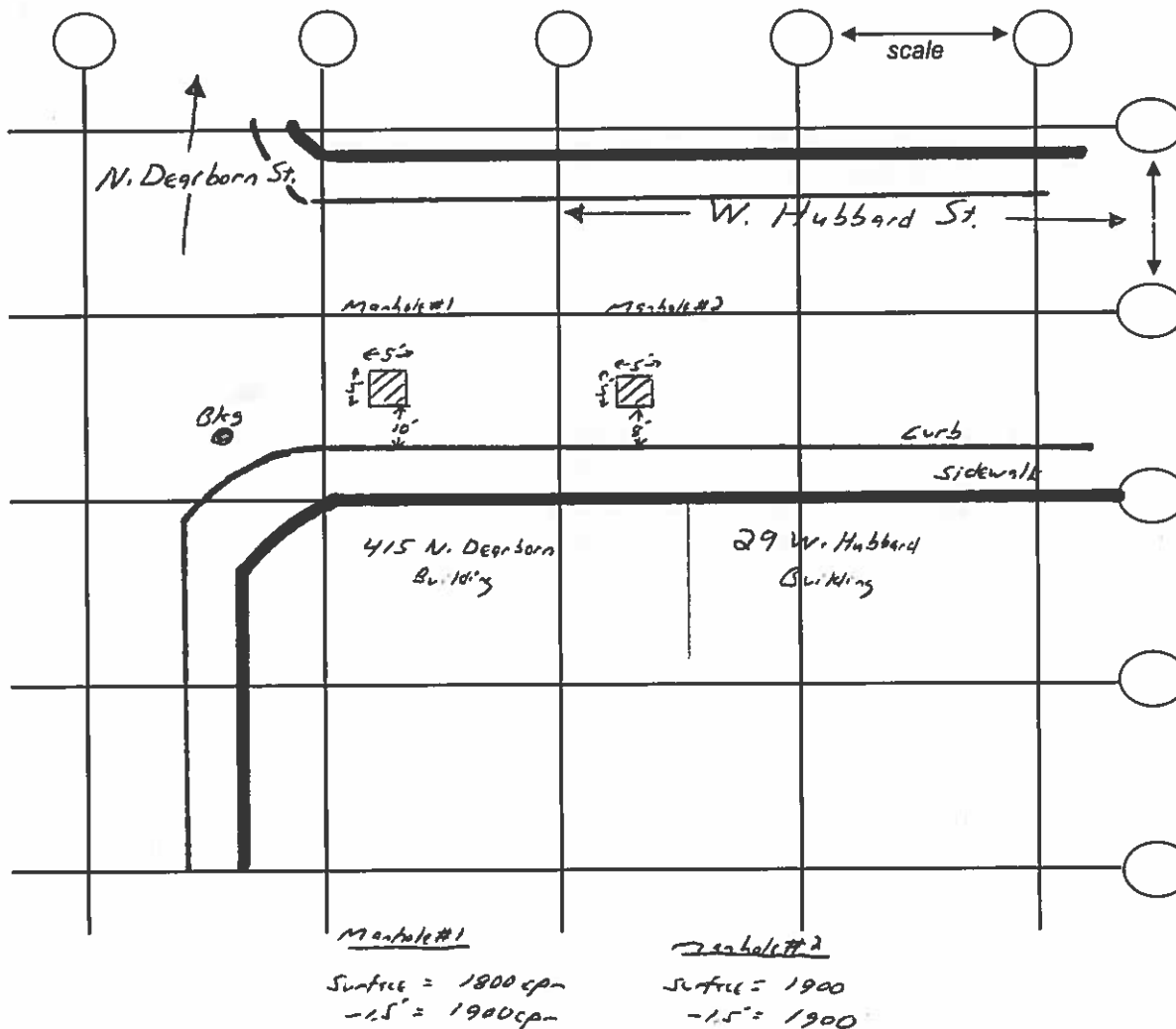
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: surface → -1.5'

Background 1830 cpm

Action Level: 6262 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.



Radiation Survey Form

Location/ Project ID: Electric Conduit Construction 1-376 W. Hubbard St

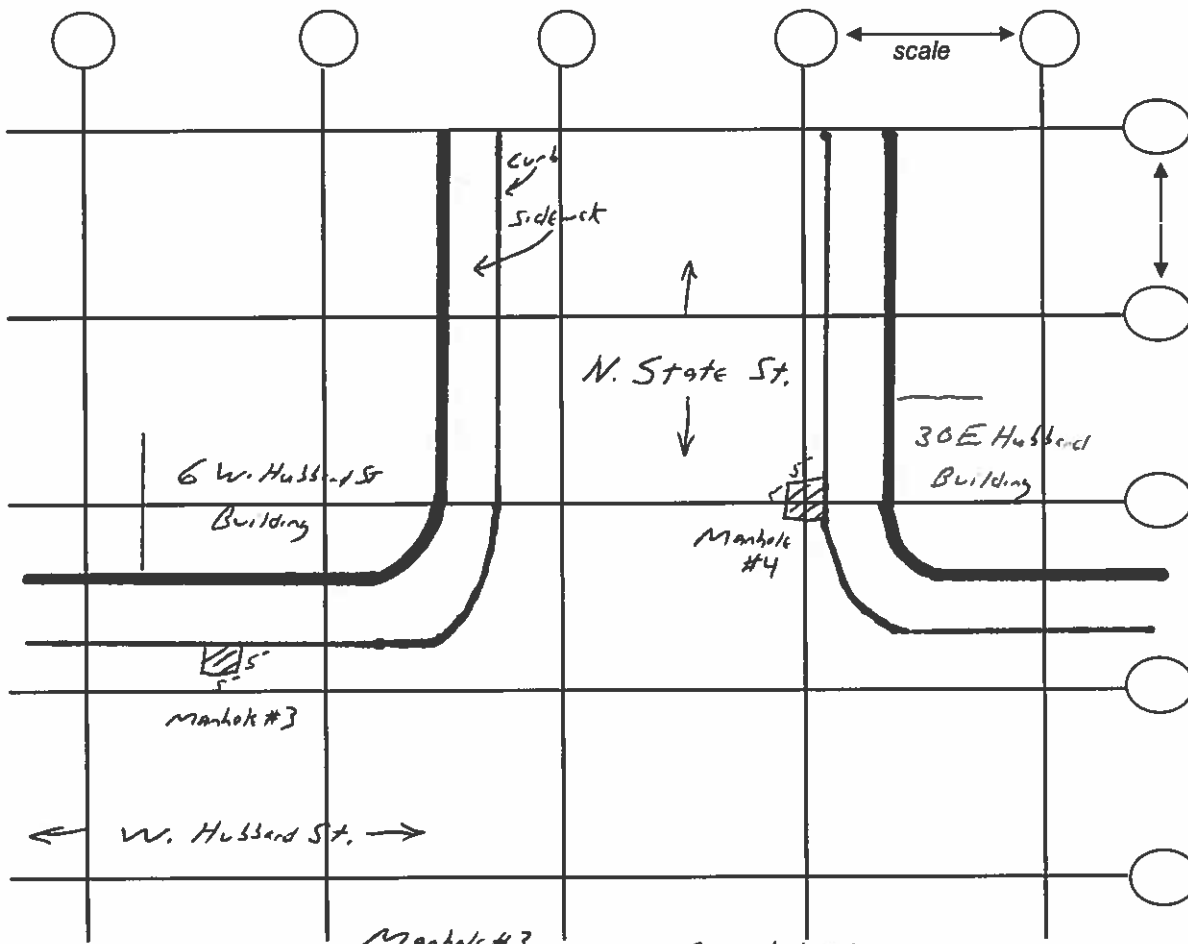
Date: 10/31/18 Technician: Glenn Huber

Inst Model: Ludlum 2221 Serial No.: 134542

Probe Type: 1"x1" NaI 2"x2" NaI
Shielded / Not Shielded Lift Elevation: Surface → -1.5'

Background 1830 cpm Action Level: 6262 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.



Manhole #3
Surface = 1600 cpm
-1.5' = 1800 cpm

Manhole #4
Surface = 1700 cpm
-1.5' = 1800 cpm