



May 5, 2018

Mike Lanenga  
SET Environmental  
450 Sumac Road  
Wheeling, Illinois 60090

RE: 230 E. Ontario St. Thorium Monitoring – City of Chicago Department of Water Management  
CDOT Permit: 943694

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for repair of a storm sewer catch basin at 230 E. Ontario St. in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician on May 2, 2018. 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 Scaled / Ratemeter (serial no. 126946) with attached 2"x2" NaI detector (w/ 6" collimated lead shield). The instrument was calibrated on October 11, 2017. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,366 counts per minute (cpm).

The average background count rate for this location was measured as 1,872 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 an excavation depth of 3 feet 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 1,800 cpm to 2,600 cpm. No count rates were found at any time that exceeded the threshold limit of 7,366 cpm.

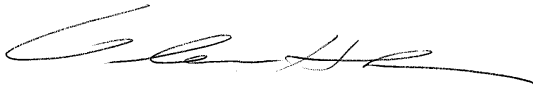
Additional Monitoring

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.

A handwritten signature in black ink, appearing to read 'Glenn Huber', written in a cursive style.

Glenn Huber, CHP  
President

### Radiation Survey Form

Location/ Project ID: DWM - 230 E. ONTARIO ST. - CHICAGO, IL - CATCH BASIN REPAIR  
ROW RADIOLOG.COM  
SOIL SURVEY

Date: 5/2/18 Technician: BRIAN SCHEMANT

Inst Model: LUOWM-2221 Serial No.: 126496

Probe Type: 1"x1" NaI / 2"x2" NaI / Shielded / Not Shielded  
 Lift Elevation: 0-36"

Background 1872 cpm Action Level: 7366 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.

