

September 25, 2018 revised 10/2/18 GAH

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: E. Riverwalk and Lake Shore Drive Thorium Monitoring 9/18/18 (2FM)

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the drilling of 2 borings for traffic bollards at E. Riverwalk and Lake Shore Drive in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on September 18, 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 Scaler / Ratemeter (serial no. 126496) with attached Ludlum Model 44-10 2"x2" NaI probe (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 determined to be 2,109 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Surface gamma scans were performed on all boring spoils generated to a maximum depth of 4 feet below ground surface.

The maximum gamma count rate for each 2-foot boring interval was recorded on the attached Radiation Survey Form. The count rates in the excavations ranged from 2,800 cpm to 4,100 cpm. No count rates were found at any time that exceeded the instrument specific threshold limits of 7,366 cpm.

Additional Monitoring

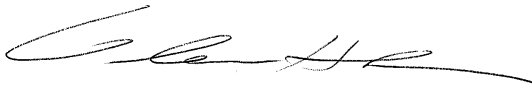
Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

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.

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: RIVERWALK CHICAGO, IL - BOLLARD POST INSTALLATION - ROW / RAO SURVEY

Date: 9/18/2018

Technician: BRIAN SCHMIDT

Inst Model: Luavm-2221

Serial No.: 126496

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

Lift Elevation: 0-4'

Background 2109 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.

