

Stan A. Huber Consultants, Inc.

Health Physics and Radiation Safety Services

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April 26, 2018

Buddy Hix Western Utility Contractors, Inc. 2565 Palmer Ave. University Park, IL 60466

RE: 230 N. Michigan Avenue. Thorium Monitoring 4/18/18 – 4/23/18

CDOT Permit # 901836

Dear Mr. Hix:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for the installation of a utility conduit at 230 N. Michigan Avenue (intersection of N. Garland Ct. and E South Water St.) in Chicago, Illinois. The monitoring was performed by Justin Maxwell, SAHCI Health Physicist, on April 18, 2018 – April 23, 2018.

<u>Instrumentation</u>

Surface gamma scans were performed using a Ludlum Model 2221 Scaled / Ratemeter (serial no. 126497) with attached Ludlum Model 44-10 2"x2" Nal 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 6,542 counts per minute (cpm).

The average background count rate for this location was determined to range from 1,406 cpm to 1,521 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 6 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 1,400 cpm to 3,800 cpm. No count rates were found at any time that exceeded the threshold limit of 6,542 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.

Call He

Glenn Huber, CHP

President