

## 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

March 1, 2016

Greg Preisch Electric Conduit Construction 816 Hicks Drive Elburn, IL 60119

RE: 211 E. Ohio St. Thorium Monitoring

Dear Mr. Preisch:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation installation of a utility duct in an alley at 211 E. Ohio St. in Chicago, Illinois. The monitoring was performed on February 25 and February 26, 2016.

## <u>Instrumentation</u>

Surface gamma scans were performed by Brian Schmidt using a Ludlum Model 2221 Scaled / Ratemeter (serial no. 126496) with attached 2"x2" Nal probe (6" lead shielded). The instrument was calibrated on October 15, 2015. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,054 counts per minute (cpm).

The average background count rate for this location was found to be 2,200 cpm.

## Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Data was collected by monitoring the soil in each 18 inch lift as it was removed from the excavation and recording the highest count rate for the floor and walls to an excavation depth of 3 feet. No soil was stockpiled during the project and all excavated materials were loaded directly into the truck after screening.

The maximum gamma count rates for each 18 inch lift are detailed on the attached Radiation Survey Form. The count rates in the excavation ranged from 2100 cpm to 3,900 cpm. No count rates were found at any time that exceeded the threshold limit of 7,054 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.

You will need to forward a copy of this report to the City of Chicago Department of Public Health (Attn: Rahmatunsia Begum) with the CDOT Permit Number in the subject line. I will be providing a copy of this report to 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

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Radiation Survey Form

| Radiation Survey Form  |  |  |  |  |  |
|--|--|--|--|--|--|
| Location/ Project ID: Zij E. Ouio                            | STAGET - CLICAGO, IL - ELECTRICAL CONSONIT ROW INSTAURTION |  |  |  |  |
| ,  | Technician: BAIAN SCHMITT                                  |  |  |  |  |
| Inst Model: Lupum - 2721                                     | Serial No. : 126496  |  |  |  |  |
| Probe Type: 1"x1" Nal / 2"x2" Nal<br>Shielded / Not Shielded | Lift Elevation: 0-36"                                      |  |  |  |  |
| Background 2200 cpm  | Action Level: 7057 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

BUILDING

BUILDING

BUILDING

COMB

BUILDING

CAMAGE

DO-18" - 2100

18.96" - 3300

36-54" - 2400

36-54" - 2400

36-54" - 2400

36-54" - 2400

36-54" - 2400

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36-54" - 3100

B-1 (1 mis Court) = 2700 cpm