

## 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

January 11, 2017

Kendal Unger Western Utility Contractors, Inc. 2565 Palmer Ave. University Park, IL 60466

RE: 430 N. Michigan Avenue Thorium Monitoring

CDOT Permit # 745955

Dear Ms. Unger:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for a Comcast manhole repair project at 430 N. Michigan Ave. in Chicago, Illinois. The monitoring was performed by Glenn Huber, SAHCI Health Physicist, on January 9, 2017.

#### <u>Instrumentation</u>

Surface gamma scans were performed using a Ludlum Model 2221 Scaled / Ratemeter (serial no. 134542) with attached 2"x2" Nal probe (w/ 6" collimated lead shield). The instrument was calibrated on August 8, 2016. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,338 counts per minute (cpm).

The average background count rate for this location was determined to be 1,624 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 4.5 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 1,600 cpm to 2,100 cpm. No count rates were found at any time that exceeded the threshold limit of 6,338 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.

Glenn Huber, CHP

President

NAME OF TAXABLE PARTY.	1	100	1	
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# Radiation Survey Form

Location/ Project ID: Wastern Utility Contractors - 430 N. Michigan Avenu				
Date:	Technician:			
Inst Model: Ludham 2221	Serial No.: /34542			
Probe Type: 1"x1" Nal /2"x2" Nal /Shielded / Not Shielded	Lift Elevation:			
Background 1624 cpm	Action Level: 6338 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.				
9 9	scale			
444 N. Michigen Ave. Building				
	Fine			
- Alley ->	8=849 1624cp- Lower N. Michigan Avenue			
430 N. Michig an Ave. Building	manhole Force			

III = Excaveled
Area

Surface = 1600 cpm -15' = 1900 cpm -3.0' = 2100 cpm -4.5' = 2000 cpm