



August 3, 2021

Kendal Heldt  
Western Utility Contractors  
2565 Palmer Ave.  
University Park, IL 60484

RE: 14-37 W. Illinois St. Thorium Monitoring 7/28/21  
CDOT Permit: 1535822

Dear Ms. Heldt.

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation of a trench for installation of conduit at 14-37 W. Illinois Street in Chicago, Illinois. The monitoring was performed by Mark Dewald, SAHCI Health Physicist, on July 28, 2021.

#### Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 127242) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on May 5, 2021. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,995 counts per minute (cpm).

The average background count rate for these locations was measured at 2,211 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 recording the highest count rate for the floor and walls to a maximum depth of 42 inches below ground surface. All asphalt, concrete, and soil were 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 excavations ranged from 1,700 cpm to 2,700 cpm. No count rates were found at any time that exceeded the threshold limit of 6,995 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.

Glenn Huber, CHP  
President

## Radiation Survey Form

**Location/ Project ID:** Western Utility - 01-30-210053 Dearborn/Illinois St

**Date:** 7/28/21

**Technician:** Mark Dewald

**Inst Model:** Ludlum 2221

**Serial No. :** 127242

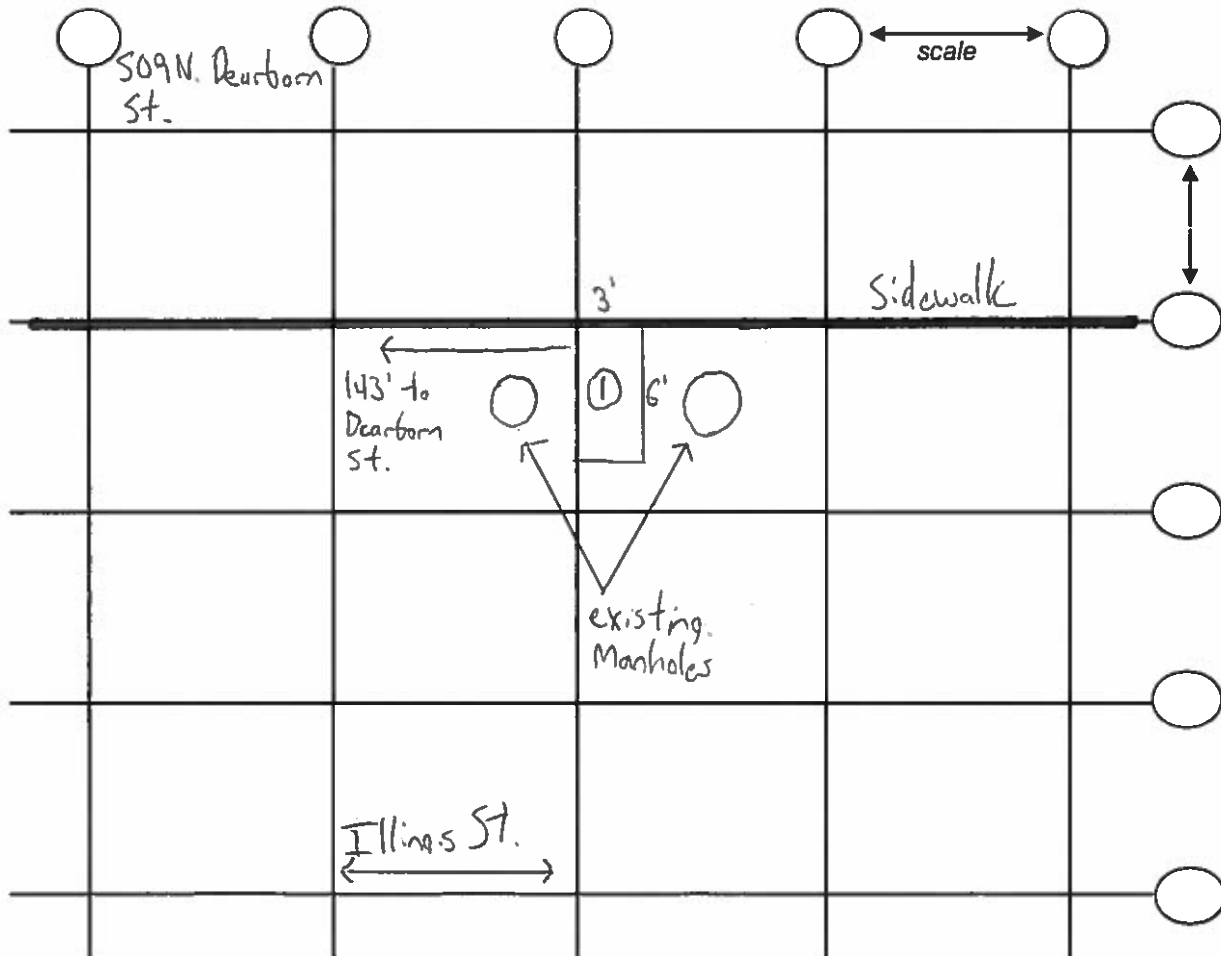
**Probe Type:** 1"x1" NaI 2"x2" NaI  
Shielded / Not Shielded

**Lift Elevation:** Surface to -42" BGS

**Background** 2,211 **cpm**

**Action Level:** 6,995 **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.



	0-12"	12-30"	30-48"	42-60"
Area 1	2200	1700	2700	2400