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

December 18, 2019

Jared Szajkowski
Western Utility Contractors
2565 Palmer Ave.
University Park, IL 60484

RE: 225 N. Field Blvd. Thorium Monitoring
CDOT Permit: 1185546

Dear Mr. Szajkowski:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for installation of a telecommunications conduit at 225 N. Field Blvd. in Chicago, Illinois. The monitoring was performed by Mark Dewald and DJ Shaw, SAHCI Health Physics Technicians, on December 9 and 10, 2019.

Instrumentation

Surface gamma scans were performed using Ludlum Model 2221 Scaler / Ratemeters (serial nos. 127242 and 126497) with attached Ludlum Model 44-10 2”x2” NaI Detectors (w/ 6” collimated lead shield).

Ludlum Model 2221 (serial no. 127242) was calibrated on August 6, 2019. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,673 counts per minute (cpm).

Ludlum Model 2221 (serial no. 126497) was calibrated on October 18, 2019. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,179 counts per minute (cpm).

The average background count rate for this location was measured as 1,245 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeters described above. Survey data was collected by entering the excavation and recording the highest count rate for the floor and walls of the trench to a maximum excavation depth of 3 feet 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 excavation ranged from 1,200 cpm to 3,300 cpm. No count rates were found at any time that exceeded the instrument specific count rate threshold limits of 6,673 cpm and 6,179 cpm, respectively.

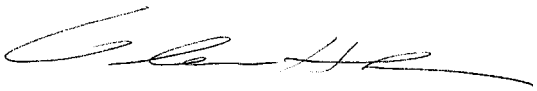
Additional Monitoring

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

sahci
Stan A. Huber Consultants, Inc.

Radiation Survey Form

Location/ Project ID: 225-251 N. Field Blvd

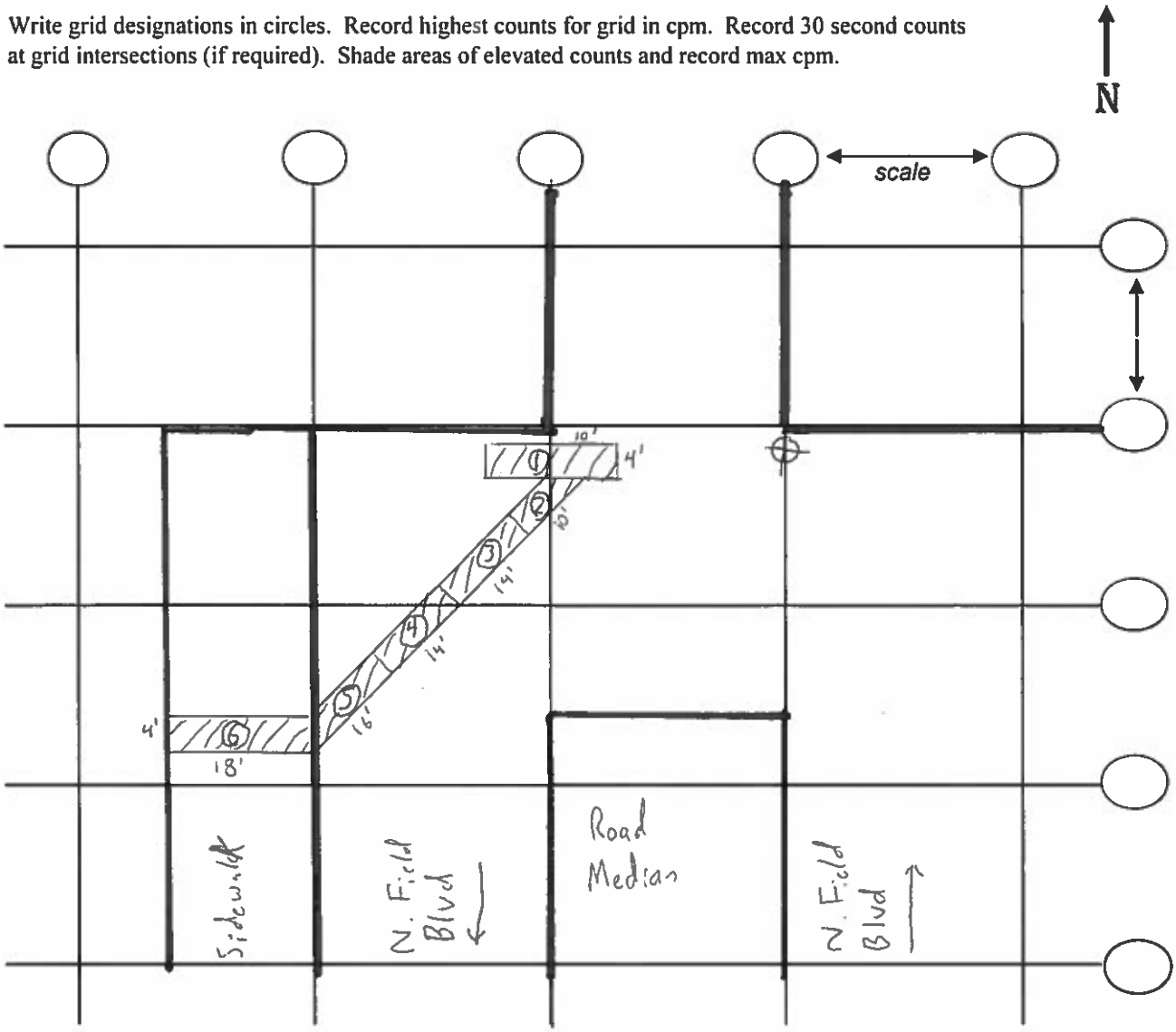
Date: 12/9/2019, 12/10/2019 **Technician:** Mark Oswald, DJ Shaw

Inst Model: Ludlum 2221 **Serial No. :** 126242, 126497

Probe Type: 1"x1" NaI (2"x2" NaI) (Shielded) / Not Shielded **Lift Elevation:** 0-3'

Background 1245 **cpm** **Action Level:** 6179 **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.



⊕ → Background location

▨ → excavated area

Radiation Survey Form Data

Stan A. Huber Consultants, Inc.

Location: Western Utility Contractors
Name: Mark Dewald / DJ Shaw
Date: 12/9/19 and 12/10/19
Instrument ID: Ludlum Model 2221 Scaler/Ratemeter w/ Model 44-10 NaI Detector (w/ 6" Lead Shield)

	# 126497	#127242
7.1 pCi/g CPM:	6,319 CPM	6,673 CPM

Area 1

	Trench Segment ID (CPM)					
Depth	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Surface	1200	1700	1300	1200	2300	2200
-1.5'	1300	1500	1300	1200	2000	2100
-3.0'	1500	2000	1800	1600	1900	2100